AMP Association for Molecular Pathology

AMP2017 ANNUAL MEETING

NOVEMBER 16-18, 2017

Calvin L. Rampton Salt Palace
Convention Center
Salt Lake City, UT

#AMP2017

invivoscribe®

Technology that defines tomorrow, in your lab today.

FAST FORWARD CLONALITY:NGS

T-cell receptor & immunoglobulin clonality
Clinically-actionable gene targets
Minimal residual disease (MRD) testing
Assess or track CAR-T cells & immunotherapies

For similar cost - vastly increase the breadth of information

Includes best-in-class bioinformatics software

The Invivoscribe family of NGS-based sequencing kits, LymphoTrack® Dx (CE-IVD) and LymphoTrack® (Research Use Only)*, are developed and manufactured under global harmonization with accompanying bioinformatics for clonality, somatic hypermutation, and MRD assessment - to identify DNA sequences required to track B- and T-cell malignancies. These kits are developed for use with the leading NGS platforms. They include optimized multiplex PCR master mixes with primers incorporating platform specific adapters, and specimen tracking identification tags for a single-step library generation.

Benefits of Next-Generation Sequencing with LymphoTrack Dx & LymphoTrack Assays

Single run sequencing of multiple gene targets reduces costs & decreases turnaround time

Eliminates need for Sanger Sequencing to determine somatic hypermutation status

MRD tracking of clonal populations use identical reagents and workflow

Identifies/tracks the entire range of clonal populations, including CAR-T and engineered T-cells

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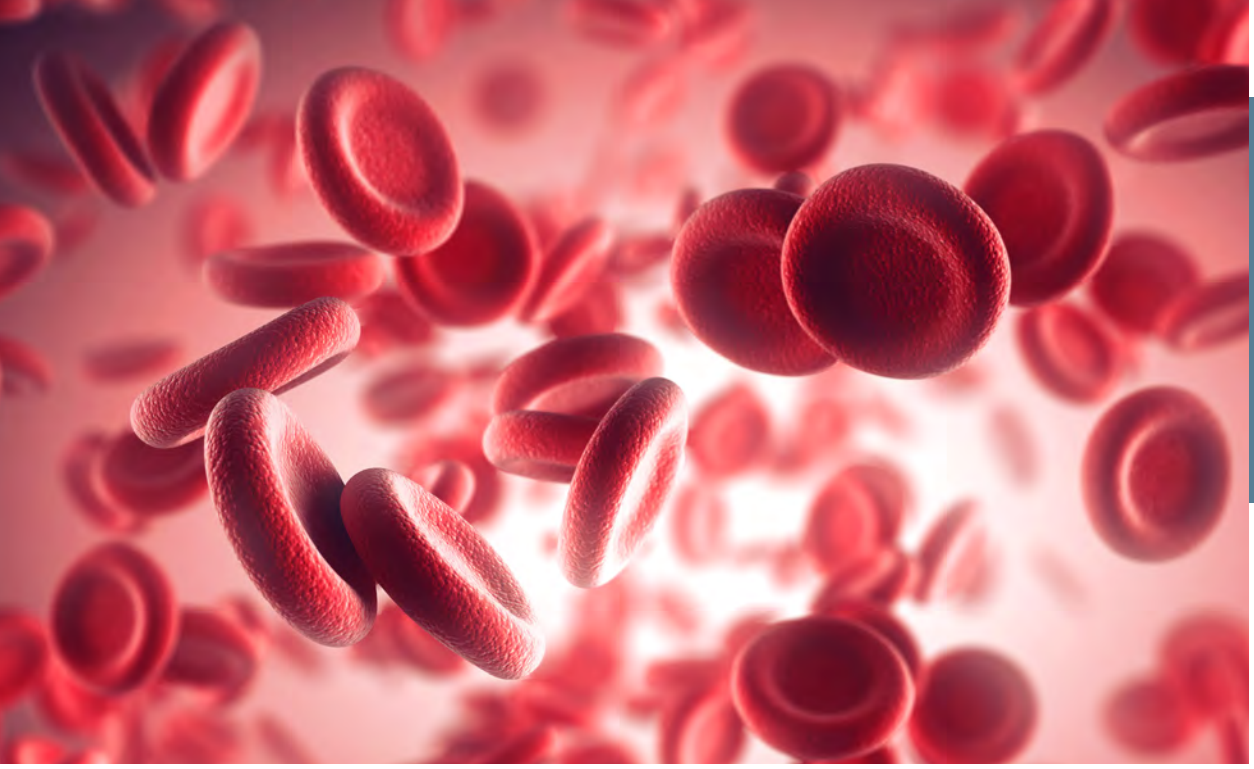
* LymphoTrack Dx: These are *in vitro* diagnostic products, and are not available for sale or use within North America.
LymphoTrack: These products are sold for Research Use Only; not for use in diagnostic procedures.

Table of Contents

Notes



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Lysing red blood cells (RBCs) to obtain leukocytes from blood samples can be time consuming, requires washing steps, and can leave residual cell debris that may alter cellular function or interfere with downstream assays.

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- **GENTLE.** Deplete RBCs immunomagnetically without the need of lysis buffer, centrifugation or additional washing steps.
- **FAST.** With no additional washing steps required to remove residual RBCs or other debris, the cell isolation is fast and simple.
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CELL ISOLATION BY STEMCELL™ TECHNOLOGIES

GENERAL INFORMATION

Molecular Genetic Pathology Online Review Course

Prepping for an exam, need a refresher, or looking for an introduction to Molecular Genetic Pathology? AMP's Molecular Genetic Pathology Online Review Course can help!

This course is a recorded version of the 3.5 day Molecular Genetic Pathology Review Course held in June 2017. It provides a review of molecular diagnostics that is primarily focused on preparation for the Molecular Genetic Pathology (MGP) Subspecialty Certification Exam, as well as other certification exams, but can also be used as a broad overview for those looking to refresh or enhance their understanding of the topic.

Participants have the opportunity to learn directly from recognized experts in the field. The course includes a pre-test that will allow you to evaluate your current level of knowledge. Take the course in the order provided, or tailor your learning to focus on the areas where you would like to improve your understanding. The online course format allows you to set the best pace for your learning style and a post-test will help you to assess your understanding of the material presented.

We offer the institutional purchase of the MGP online course as a way to serve trainees in a single institution at a deep discount. Please contact us at *ampeduation@amp.org* for more information.

Course Director:

Gregory J. Tsongalis, PhD
Geisel School of Medicine, Dartmouth University

educate.amp.org

Welcome to the 2017 Association for Molecular Pathology (AMP) Annual Meeting!

It has been my honor and pleasure to have chaired the Program Committee for the past year. The committee has worked diligently to prepare what I hope will be yet another fantastic series of sessions covering all aspects of molecular diagnostics.

The theme for this year's meeting is **"Where Molecular Leads Medicine to Best Patient Care."** The idea behind this theme is that molecular diagnostics have matured to the extent that what we are doing are now more than "ancillary studies." It was my hope to get some content for this meeting that would demonstrate true clinical utility for molecular diagnostics, *i.e.*, where the work that we do leads to improved outcomes and ideally public health. Every area covered in this meeting—infectious diseases, solid tumors, hematopathology, genetics, informatics, and technical topics—can show contributions to improving patient care and clinical results.

We have also tried to include content that does not fit strictly into subdivision silos, looking for topics and speakers that would appeal to a broad group of AMP members and attendees. For example, we have plenary sessions on the impact of molecular diagnostics in cancer and inherited diseases, the interaction of the electronic medical record with mobile apps and data collection, and genome editing. The program features smaller-scale sessions exploring biomarker-driven clinical trials, data visualization, and biorepositories. We also have what I hope to be excellent discipline-focused sessions in all our topic areas, and I am especially pleased that we have expanded our offerings in infectious disease diagnostics.

I would like to take this opportunity to thank the members of the 2017 Program Committee, who attended twice-monthly conference calls for the past year and considerable additional time pursuing topics and speakers for this year's sessions. I would first like to thank the chair-elect and 2018 Program Committee chair, Lynne Abruzzo, for her help with all aspects of planning, and especially for a significant amount of tying up of loose ends. I would also like to recognize the committee members representing the various AMP subdivisions: Amy Leber, Belinda Yen-Lieberman, and David Hillyard (Infectious Diseases), Bryan Betz and Eric Duncavage (Hematopathology), Alex Mackinnon and Lynette Sholl (Solid Tumors), Ed Highsmith and Linda Jeng (Genetics), Chris Coldren and Somak Roy (Informatics) and Cindy Meadows and Lynne Whetsell (Technical Topics). All the members were great at both coming up with topics and speakers as well as "thinking outside the box" to come up with ideas that might not fit neatly into their areas of specialization. The AMP staff were an amazing source of support, keeping us on track with our mission. Sara Hamilton was the prime mover from the AMP office, and I am personally deeply indebted to her for making this program come together. I also want to acknowledge the contributions from a cast of AMP stars Oluwateniola Ayeni, Lucia Barker, Tara Burke, Elisabeth Campbell, Kathleen Carmody, Eriko Clements, Rhonda Jenkins, Laurie Menser, Mrdula Pullambhatla, TaNika Switzer, Robyn Temple-Smolkin, Michelle Weston, Mary Steele Williams, and Michele Zink. Finally, I want to thank Mel Limson, who has supported this committee over many years, and unfortunately moved on to new adventures part way through the year.

I would also like to thank our corporate sponsors and exhibitors, who have helped to support the 2017 annual meeting. I would encourage you to attend corporate workshops that are of interest to you on Wednesday 15 November. Also, please take time to visit the exhibits during meeting breaks to learn of the latest product offerings from our sponsors.

Thank you for being part of this vibrant and enthusiastic organization and helping us to continue our mission of translating discoveries in biomedical sciences into applications that improve our ability to detect, characterize and manage human diseases with the ultimate goal of improving the population's health and quality of life. Have a great time here in Salt Lake City!

For the 2017 Program Committee,

Best regards,

Daniel E. Sabath, MD, PhD

2017 Program Committee Chair

AMP 2017 Annual Meeting Code of Conduct

The Association for Molecular Pathology (AMP) is committed to providing a friendly, safe, and welcoming environment for all, regardless of gender, sexual orientation, disability, race, ethnicity, religion, national origin, age, gender identity, or any other demographic group. We expect all attendees, media, speakers, AMP staff and volunteers, venue staff, contractors, guests, and exhibitors to help us ensure a safe and positive annual meeting experience for everyone.

While we cannot influence behavior outside of the official AMP annual meeting hours, we expect all participants at the AMP 2017 Annual Meeting to abide by this Code of Conduct in all venues, including ancillary events and all social gatherings. All participants are responsible for their own conduct. Anyone who is the recipient of unacceptable behavior should feel free to speak up without any fear of recrimination.

- AMP holds its collegial community in high value. Do your part to give everyone you encounter an enjoyable experience so they remember you and the meeting favorably.
- Exercise consideration and respect in your speech and actions.
- Abstain from all demeaning, discriminatory, or harassing behavior and speech.
- Respect the fact that slides and posters may include unpublished work so do not photograph them without the presenter's express permission.
- Be mindful of your surroundings and of your fellow participants. Alert Security Personnel or call 911 if you notice a dangerous situation or someone in distress.
- Notify AMP Staff of any violation of this Code of Conduct that you experience or observe.

Unacceptable Behaviors

Unacceptable Behaviors Include:

- Photographing slides of oral presentations and posters without the express permission of the presenter/author.
- Recording of scientific and other sessions without the express permission of the presenter(s).
- Undue disruption of scientific sessions or other events.
- Intimidating, harassing, abusive, discriminatory, derogatory or demeaning speech or actions.
- Harmful or prejudicial verbal or written comments, jokes, or visual images related to gender, sexual orientation, disability, race, ethnicity, religion, national origin, age, gender identity, or any other demographic group.
- Use of provocative and/or sexual images, including in presentation slides and exhibit booths.
- Deliberate intimidation, stalking, or following.

Code of Conduct

- Harassing photography.
- Unwelcome and uninvited attention or contact.
- Physical assault, including unwelcome touch or groping.
- Real or implied threat of physical harm.
- Real or implied threat of professional or financial damage or harm.

What To Do If You Observe or Experience Conduct That Violates this Code:

Please contact the nearest AMP or Security Staff. All reports will be kept confidential to the extent possible. If you believe the situation is an emergency, call 911.

AMP Staff will help participants contact convention center/hotel/venue security or local law enforcement authorities, and otherwise assist those experiencing conduct that violates this Code. We value your attendance, and want your experience to be professionally rewarding and personally enjoyable.

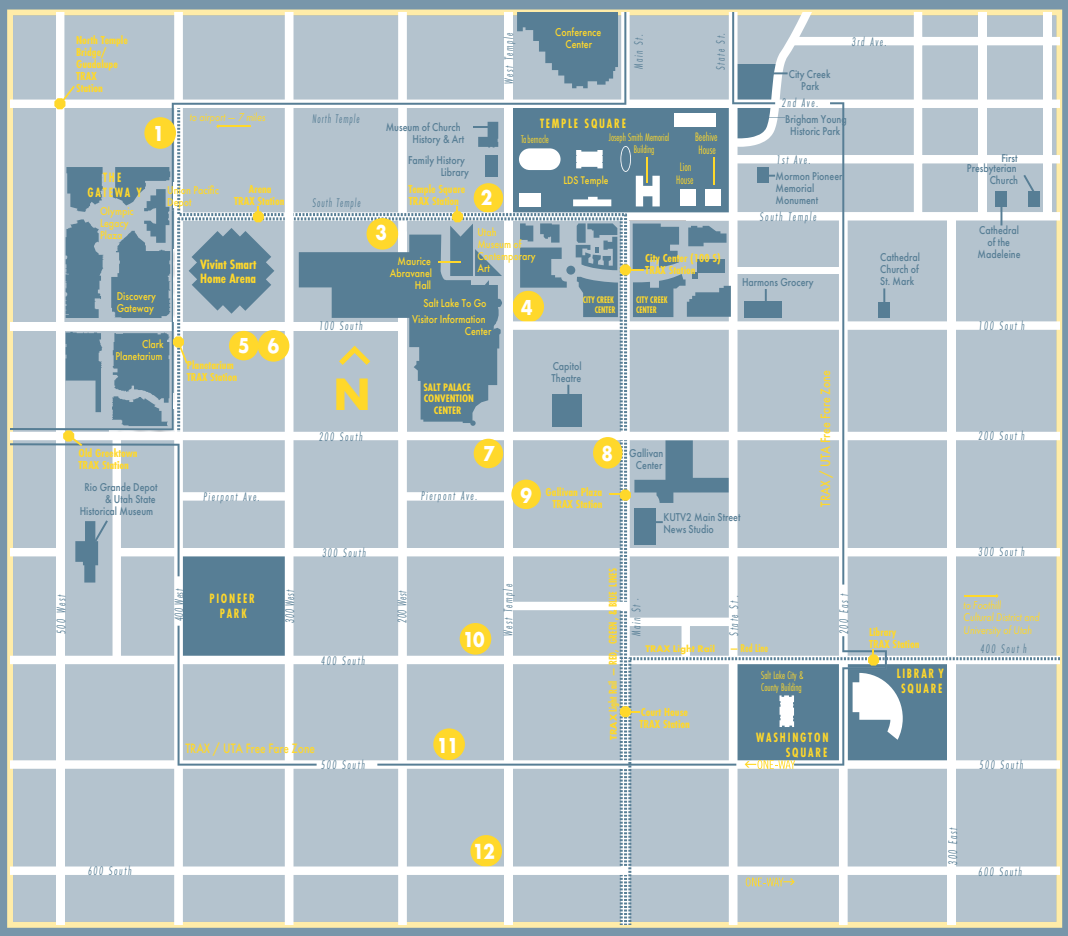
Consequences of Unacceptable Behavior

Unacceptable behavior from any participant at the AMP 2017 Annual Meeting, including attendees, media, presenters, AMP staff and volunteers, venue staff, guests, and exhibitors, will not be tolerated. Anyone asked to stop unacceptable behavior is expected to comply immediately.

If a participant engages in unacceptable behavior, the AMP Executive Director will determine appropriate action to be taken immediately, if any, which may include expulsion from the AMP 2017 Annual Meeting, without refund, and/or contacting local law enforcement authorities. The Board of Directors may consider the matter for additional action.

See also the *AMP Scientific Integrity Policy for Submission of Abstracts* available in the Abstracts/Posters section of the AMP 2017 Annual Meeting website.

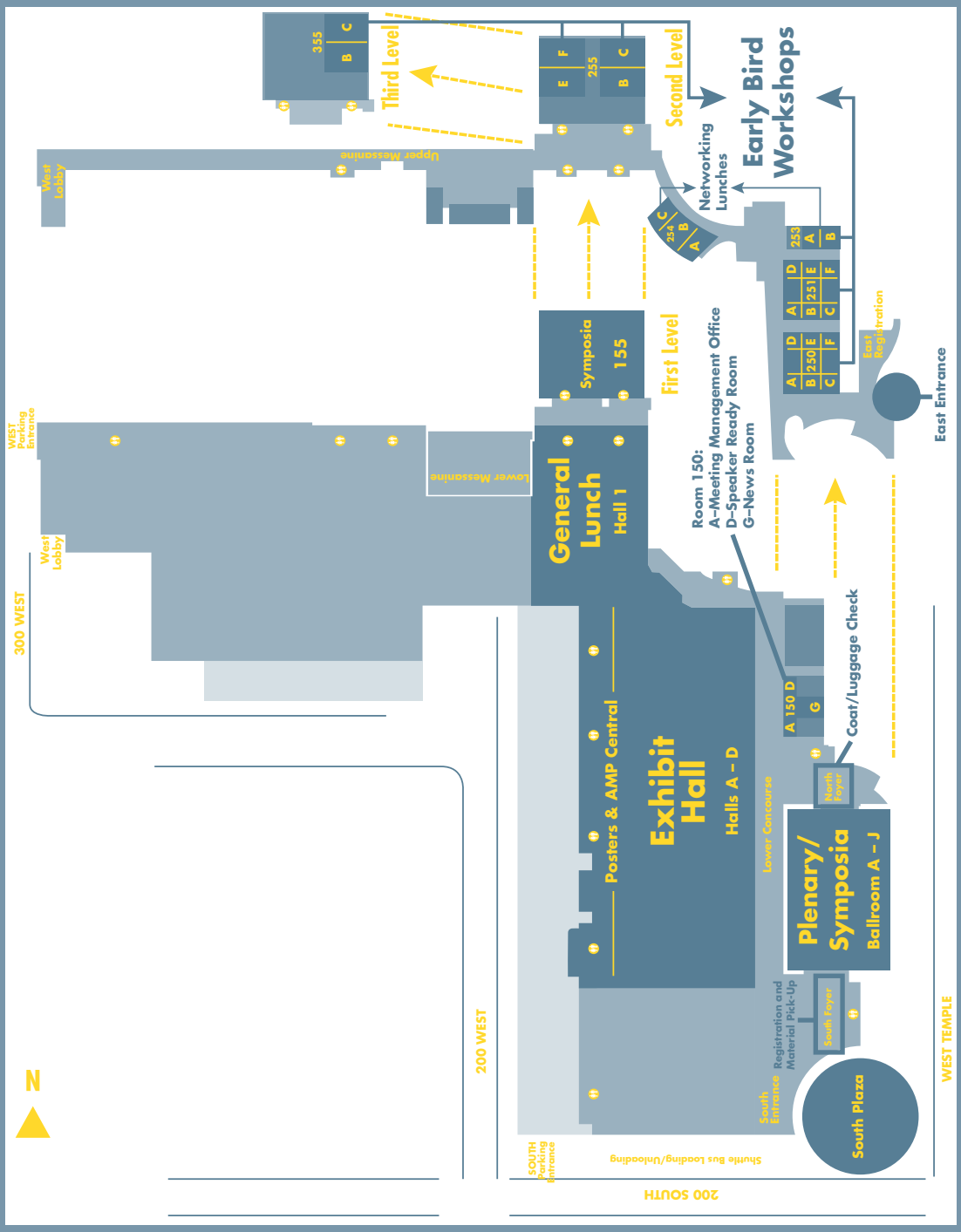
DOWNTOWN SALT LAKE



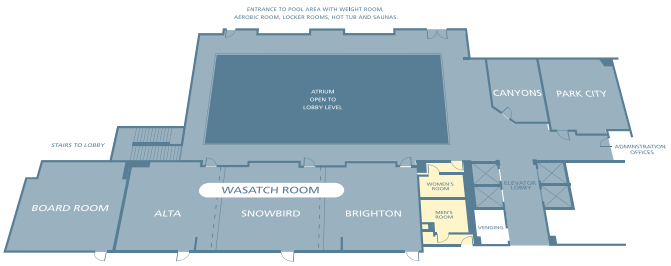
Association for Molecular Pathology Hotel Block

1. Hyatt Place Salt Lake City / Downtown
2. The Salt Lake Plaza at Temple Square
3. Radisson Hotel Salt Lake City Downtown
4. Salt Lake Marriott Downtown at City Creek
5. Courtyard by Marriott Downtown
6. Hyatt House Salt Lake City Downtown
7. Holiday Inn Express Salt Lake City Downtown
8. Hotel Monaco
9. Hilton Salt Lake City Center
10. Fairfield Inn & Suites Salt Lake City Downtown
11. Sheraton Salt Lake City Hotel
12. DoubleTree Suites by Hilton Salt Lake City

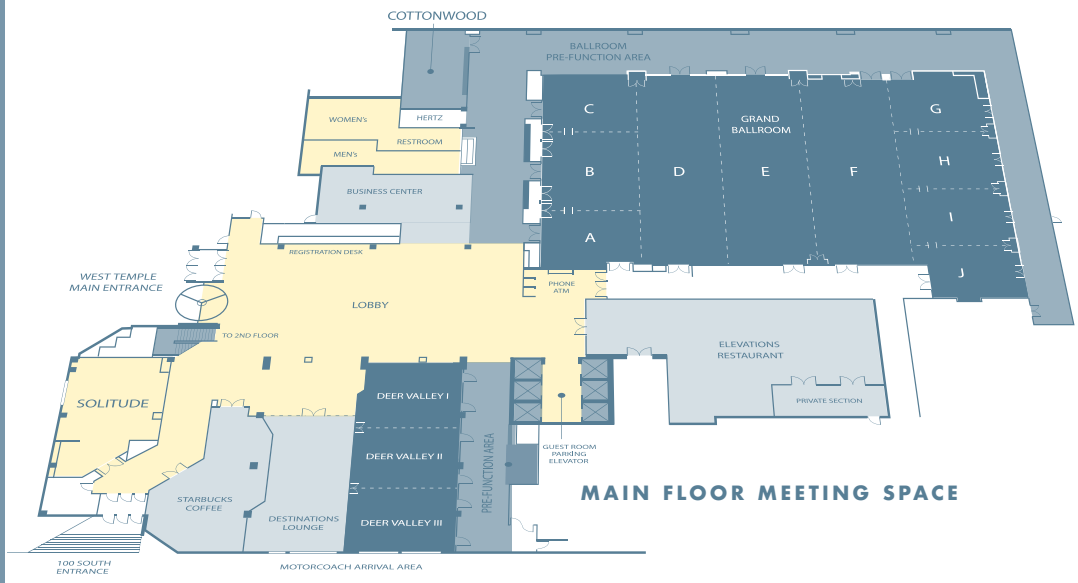
Salt Palace Convention Center



Marriott (Co-Headquarter Hotel)

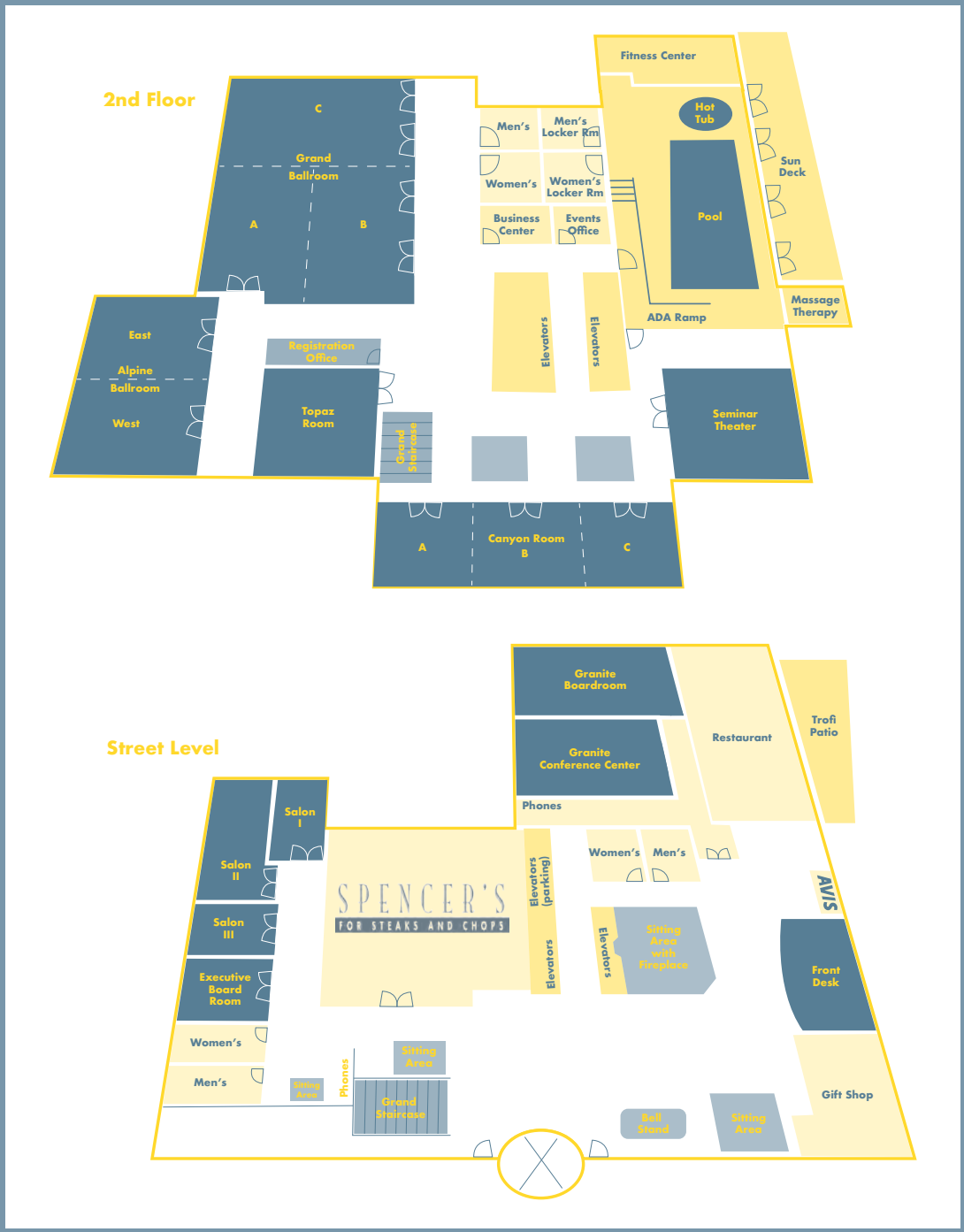


SECOND FLOOR MEETING SPACE



MAIN FLOOR MEETING SPACE

Hilton (Co-Headquarter Hotel)



Highlights & General Information

Attendee/Exhibitor Registration Desk Hours

(Convention Center, South Foyer, Lower Concourse)

Tuesday, November 14	2:00pm – 6:00pm*
Wednesday, November 15	7:00am – 5:00pm*
Thursday, November 16	6:45am – 5:00pm*
Friday, November 17	6:45am – 5:00pm
Saturday, November 18	6:45am – 2:00pm

**Satellite Registration will be available at the AMP Co-Headquarter Hotels.*

Exhibit Hall Hours

(Convention Center, Exhibit Hall, Lower Concourse)

Thursday, November 16	11:30am – 4:30pm;
(Welcome Reception in the Exhibit Hall)	5:45pm – 7:00pm
Friday, November 17	9:00am – 4:00pm
(Appointment only demos 4:00pm – 5:00pm)*	
Saturday, November 18	9:00am – 1:30pm
(Appointment only demos 8:00am – 9:00am)*	

**Appointment only demo times are specifically for exhibitors and their invited guests (Registered Attendees or Official Guests of Exhibitors) to conduct demos in a quieter atmosphere than during regular Exhibit Hall hours.*

NEW! Introducing AMP Meeting Paths

Want to create your own Path? We are excited to announce a new and exciting way to explore the scientific program at the AMP 2017 Annual Meeting! AMP Meeting Paths are a convenient way to tailor your meeting experience around the content you most want to see. The 2017 Program Committee has carefully examined the scientific program and identified six paths that will direct you to sessions based on your favored area of interest.

2017 Meeting Paths Key:

A = Advocacy/Lab Management Path
T = General Molecular Technologies Path
ID = Infectious Diseases Path
IF = Informatics Path
IC = Inherited Conditions Path
O = Oncology/Cancer Path

You can search the Program Listing on the Mobile App to find sessions included on your preferred Path.

Highlights

Welcome Reception

Supported by Roche

Please join us for the Welcome Reception in the Exhibit Hall, immediately following the scientific Program on Thursday, November 16th from 5:45pm – 7:00pm in the Exhibit Hall. Help us kick-off another successful Annual Meeting while networking with your friends and colleagues. This event is open to all registered Meeting Attendees.

AMP Trainee Networking Hour

Sponsored by the AMP Jeffrey A. Kant Leadership Award

Join us in the first ever AMP Trainee Networking Hour immediately following the Welcome Reception on Thursday from 7:00pm – 8:00pm! This is your chance to connect with other AMP trainees over great food and drinks at a local Salt Lake City bar. All registered trainees are welcome and will receive a ticket that they may use at Gracie's Bar (326 S West Temple, Salt Lake City, UT 84101), in exchange for a free drink! Your drink ticket will be included on your badge sheet when you check-in for the Annual Meeting.

AMP Central

Visit AMP's booth in the Exhibit Hall, centrally located at the back/center of the hall by the posters. AMP Central features unique programming including career networking opportunities, job listings, test directory assistance and the chance to meet current committee members. AMP Central is the best place to learn about all that AMP does and find out how you can get involved! For details on AMP Central events, see event listings throughout this program.

Infectious Diseases Subdivision Town Hall

The AMP Infectious Diseases Subdivision and multiple AMP volunteers have spearheaded substantial contributions to the field of molecular diagnostics. As we continue to look to the future, AMP leadership would like to invite ID subdivision members and meeting attendees with an interest in ID to attend an open format town hall session. This session is a follow up to discussions initiated at the ID town hall session held during the AMP 2016 Annual Meeting. Please bring your ideas, energy, and enthusiasm to the conversation as we discuss new initiatives and the future of infectious disease molecular diagnostics within AMP. The ID Town Hall will be held on Friday, November 17th from 4:15pm – 5:00pm. Please see the Program Schedule for additional information.

NEW! Infectious Diseases Special Sessions

The AMP Infectious Diseases Subdivision has worked to develop several exciting new sessions as part of this year's Annual Meeting program. These sessions will be held on Friday and Saturday at the Salt Lake Marriott Downtown at City Creek. Please check the Program Listing and Daily Descriptions for more information. If you are interested in Infectious Disease topics, we also recommend that you explore the Infectious Diseases Path. Information on Paths is available in the Program Book and Mobile App.

Highlights & General Information

Innovation Spotlight Stage

The Innovation Spotlight Stage (previously known as the Product Showcase) is a unique opportunity for exhibiting companies to promote a new product or service in the Exhibit Hall at the AMP 2017 Annual Meeting. The Innovation Spotlight Stage is located in the back left corner of the Exhibit Hall. Innovation Spotlight Stages are open to all Meeting Registrants and seating will be on a first come, first served basis.

Please see complete schedule and descriptions in the "Exhibits" section of the Program Book, Page 159.

Business & Awards Session

AMP invites all Meeting Attendees to attend the AMP Business & Awards Session on Friday, November 17 at 5:15pm. Come hear how AMP is working hard to help you advance patient care. A number of awards, including the Young Investigator, Technologist and the Jeffrey A. Kant Leadership Award are presented at this session.

AMP 2017 Social Event

The AMP Social Event will take place on Friday, November 17 at 7:00pm at the Salt Lake Marriott Downtown at City Creek. The Social Event is intended to facilitate networking opportunities between trainees, new, and long-standing AMP attendees. There will be mingling, dancing, amateur acts and great food! Attendees who purchased tickets when registering for the meeting will receive their ticket when they check-in at the registration desk for their name badge. If any tickets are still available for sale, they may be purchased at the Registration Desk.

Mobile App

The AMP 2017 Mobile App is available for your Android, iPhone and other mobile devices. The AMP Mobile App is a robust tool allowing you to plan your meeting experience in advance and allows you to get instant updates onsite! AMP thanks NanoString Technologies, Swift BioSciences, Inc., Thermo Fisher Scientific, and Vela Diagnostics for its generous support of the AMP Mobile App. Please go to **http://amp17.amp.org/program/mobile-app/** for more information or just scan the QR code to download it now!

Special Event: Diagnostic Strategies in Advanced NSCLC: Guiding Treatment Decisions Through Pathology

(Separate Registration Required)

Developed through a strategic collaboration between AMP and Medscape Education Oncology

Wednesday, November 15

Location: Salt Lake Marriott Downtown at City Creek, Grand Ballroom

Reception: 5:30 PM – 6:15 PM - offering hors d'oeuvres and beverages

Symposium: 6:15 PM – 7:30 PM

Join your colleagues at a unique and free educational event highlighting clinical trial data and practice guidelines supporting the use of ALK, EGFR, ROS1, and PD-L1 status in the treatment selection for patients with advanced NSCLC.

Note: Pre-Registration recommended. If you did not pre-register, please visit the AMP Registration Desk for more information.

General Information

Abstracts

A record number of abstracts were submitted this year! Please refer to the Poster section of the Program for more information on the Poster Map, Poster Listings and Author Index. The abstracts have been published in the November 2017 issue of *The Journal of Molecular Diagnostics (JMD)*. This issue is in your meetings bags. They are also available online at **http://amp17.amp.org/abstracts-posters/poster-list/.**

Attendee Badges

Name badges are required for admittance to all scientific sessions, exhibit hall, meals and other official meeting events. Badges contain a bar code that holds the attendee's name, address, email. Exhibitors will scan badges to send information after the meeting.

Attire

Attire is business casual for the meeting sessions and receptions, and casual for the Social Event. Remember to dress in layers and wear comfortable walking shoes.

Business Center

The Business Center is located in the North-East corner of the convention center on the upper level, near Room 254. Some of their services include but are not limited to copy & print services, shipping & receiving, and computer access. Their standard hours of operation are Monday - Friday from 9-5 but can vary based on events occurring at the Convention Center. Please contact them for more information **businesscenter@saltpalace.com** or 385-468-2228. There is also a FedEx Office located two blocks away at 19 East 200 South, Salt Lake City, UT 84111. They are open 24hrs and can be reached at **usa2401@fedex.com** or 801-533-9444.

Charging Station

Supported by NanoString Technologies

Stop by and re-charge your electronics at the AMP Charging Station in the back left corner of the Exhibit Hall (see floorplan in the "Exhibits" section).

City Information – Salt Lake City

Salt Lake City, Utah's capital, is a vibrant and growing city. From the range of arts and culture, music and movie festivals to the beautiful scenery, SLC has become an ideal location for vacations and meetings. We hope that AMP Annual Meeting attendees and exhibitors will be able to explore and take in all that the city has to offer. Find more information on local dining, hotels, shopping and other amenities online at: **https://www.visitsaltlake.com/.**

Consent to Use of Photographic Images/Contact Information

Registration for and attendance at the AMP 2017 Annual Meeting constitutes the registrant's agreement with the AMP's use and distribution (both now and in the future) of the registrant or attendee's image or voice in photographs, videotapes, electronic reproductions, audiotapes of such events and activities, and inclusion of their address in the registrant mail list (email addresses are not distributed).

Continuing Education

The AMP 2017 Annual Meeting has been planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education through the joint providership of the American Society for Clinical

Pathology (ASCP) and the Association for Molecular Pathology. ASCP is accredited by the ACCME to provide continuing medical education (CME) for physicians and continuing medical laboratory education (CMLE) for non-physicians. Refer to the "Continuing Education" section for more information.

Dining Options

Salt Lake City has a wide range of food options available for meeting attendees near the Convention Center. Find more information on local dining online at **https://www.visitsaltlake.com/restaurants/.** *Please see next page for meals included in attendee registration.*

First Aid & Medical Emergencies

Before dialing "911," please dial 385-468-2220 from any house phone in the Convention Center to be instantly connected to the Security Department. Security will be able to dispatch the appropriate responder to the nearest entrance. There are always EMTs on-site during the day and there are multiple medical centers in close proximity from the property.

Guest of Presenter Badges

If a registered attendee would like a family member or friend to see his/her invited talk or poster presentation, the registered attendee may request a session guest badge at the AMP Registration Desk. The session guest badge must be returned to the Registration Desk after the session requested. Guests should be accompanied at all times and are not permitted at breaks/meals.

Guest of Exhibitor Badges

Each exhibiting company receives non-personalized guest badges for use during the event. Exhibitors are responsible for coordinating, issuing, and providing badges to their guests. All guests of exhibitors must be accompanied by a registered member of the exhibit staff and are permitted access to the Exhibit Hall, only. Badges must be worn at all times.

International Exhibitors

AMP is Global! With members from more than 47 countries and meeting attendees from around the world. The AMP Annual Meeting is the gathering place for molecular diagnostic professionals from around the globe. AMP exhibitors are no exception, representing more than 8 countries, many of our exhibitors have traveled far to share their products and services with us. Look for the globe icon in the program listing to identify these exhibitors and stop by to say hello.

Internet

Complimentary Wireless Internet is available in public spaces of the Convention Center and all meeting rooms. Please search for the "SP Guest" network and follow the instructions to connect your mobile device. You will be provided complimentary access in 30-minute increments.

Lost & Found

The Lost & Found is located at the AMP Registration Desk. Please speak to an AMP Staff member regarding a lost item or to turn in a found item.

Lost Name Badges

If you lose your Name badge, you can have a replacement badge printed for $50. Please visit the Registration Desk at the Convention Center for assistance.

Highlights & General Information

Luggage & Coat Check

A luggage and coat check area will be made available for all attendees. Attendees utilizing this service do so at their own risk. AMP will not be responsible for any missing or stolen personal items from this area or for items that are not retrieved after the luggage & coat check closes.

North Foyer, Lower Concourse Level of the Convention Center	
Hours:	
Wednesday, November 15	7:30am – 5:30pm
Thursday, November 16	6:30am – 7:30pm
Friday, November 17	6:30am – 6:30pm
Saturday, November 18	6:30am – 5:30pm

Meals (Continental Breakfast and Lunch)

Continental Breakfast and Lunch are provided for registered meeting attendees, only, and are included in the price of meeting registration. Exhibitors are encouraged to grab lunch onsite in the concession stands in the Exhibit Hall or at one of the variety of local venues just outside the convention center.

	Continental Breakfast Times	Lunch Times*
Thursday, November 16	7:00am – 8:00am	11:45am – 1:00pm
Friday, November 17	7:00am – 8:00am	11:45am – 1:00pm
Saturday, November 18	7:00am – 8:00am	12:15pm – 1:30pm

** Please go to the end of the "Highlights & General Information" section for full descriptions of lunch options.*

News Room

The News Room is available for all qualified print, online, and broadcast news media outlets. Visit **http://amp17.amp.org/media1/media-information/** for more information or contact Andy Noble (ANoble@amp.org) or 415-722-2129. Location and hours of operation for the News Room are as follows:

AMP News Room: Convention Center, Room 150 G, Lower Concourse

Thursday, November 16	8:00am – 4:30pm
Friday, November 17	8:00am – 4:30pm
Saturday, November 18	8:00am – 12:00pm

Parking

Parking is available for $12/day in the South and West parking lots surrounding the Convention Center. Please ask at the AMP Registration Desk (South Foyer, Lower Concourse) for more information.

Photography/Recording

Please be respectful of your colleagues. Do not record presentations without the speaker's permission. Do not take photographs of posters without authorization/ permission of the author. Meeting attendees may be asked to leave if this causes disruption to a session.

Poster Tube Storage

Bins for poster tubes will be available throughout the poster sections. Poster Tube Storage will NOT be staffed and is not secured. If you would like to leave your poster tube, please clearly mark it with your name and place it in one of the bins. AMP is not responsible for any lost, stolen or damaged posters or poster tubes.

Highlights & General Information

Ribbon Bar

Back by popular demand! Stop by the RIBBON BAR located in the Registration Area to pick-up applicable ribbon(s) for your meeting badge, *i.e.*, Committee, Speaker, Awardee, Trainee, First Time Attendee and others.

Social Media Guidelines

We encourage the use of social media for professional networking purposes before, during and after AMP 2017. To ensure that everyone has a positive social media experience, please adhere to these guidelines:

Do:

- Follow AMP on Twitter **@AMPath** like us on Facebook **facebook.com/AMPathology**, and/or join our LinkedIn group **linkedin.com/groups/2681654**
- Use the #AMP2017 hashtag to join the conversation and get the latest annual meeting updates
- Post about what you discover at the meeting, but be mindful of requests for confidentiality or attribution
- Share your knowledge and insights
- Be respectful and courteous to your colleagues
- Have fun!

Don't:

- Post inflammatory, disrespectful or otherwise inappropriate comments
- Take/share photos of slides or posters without permission
- Post copyrighted/trademarked/embargoed materials

Speaker Presentations

All available AMP 2017 speaker presentation slides can be found on the AMP*ED* online learning management system at educate.amp.org (**educate.amp.org/store/provider/provider09.php**). All Registered Meeting Attendees and AMP Members can access these presentations free of charge through March, 2018. Detailed instructions will be sent to all registered meeting attendees in December.

Speaker Ready Room

If you are speaking at a scientific session and did not upload your presentation in advance of the meeting, you will need to visit the speaker ready room before your session to provide a copy of your presentation. The speaker ready room is located at the Convention Center, Room 150 DE, Lower Concourse. All presentations will be collected in the speaker ready room, and your presentation will be preloaded onto the computer in your session room. Please visit the speaker ready room at least one hour prior to the start of your session. Technicians will be available to receive your presentation during the hours listed below. Presentations will not be loaded directly onto the computers in the session room, so it is essential that you stop by the speaker ready room. You will be able to review and/or make changes to your presentation before providing it to the technicians.

Speaker Ready Room Hours

Wednesday, November 15	12:00pm – 5:00pm
Thursday, November 16	6:30am – 5:00pm
Friday, November 17	6:30am – 5:00pm
Saturday, November 18	6:30am – 5:00pm

Notes

Lunch Options

General Lunches are open to all AMP 2017 Annual Meeting registered attendees. The General Lunches will be held in the Exhibit Hall (Convention Center, Lower Concourse) and can be accessed through the cross aisles to the right of the main Exhibit Hall entrance.

Networking Lunches are open to all AMP 2017 Annual Meeting registered attendees.* They do not require payment or pre-registration. Simply show up at the appropriate networking lunch as noted below. Please note that seating is limited and available on a first come, first served basis. Networking lunches close when room capacity is filled. Please have your badge scanned as you enter the networking luncheons. This helps AMP measure outcomes and facilitate future planning.

**Some lunches are for specific groups of members, only – see descriptions below…*

Thursday, November 16

New to AMP? First Time at the Annual Meeting? – New Member and First Timers Lunch

(Hosted by the Membership Affairs Committee)

Time: 11:45am – 1:00pm
Location: Room 253, Upper Concourse
Speaker: Federico A. Monzon, MD, AMP President

Description: New to AMP? First Time at the Annual Meeting? Join us for lunch! This event is an opportunity to network with other first time attendees and new AMP Members. Current members of the Membership Affairs Committee will be on hand to answer questions and help you kick off a great experience at this year's AMP meeting!

Annual Trainee Luncheon

(Hosted by the Training & Education Committee)

Time: 11:45am – 1:00pm
Location: Room 254, Upper Concourse
Speaker: Karen L. Kaul, MD, PhD
Moderators: Jeffrey Gagan, MD, PhD and Jason N. Rosenbaum, MD; T&E Committee members

Description: This free luncheon features an opportunity for trainees at all levels to interact and network with faculty members in molecular pathology. The informal setting permits discussion of any number of topics including: career development, academia vs. private practice vs. industry, securing a fellowship and/or a job, additional subspecialty certification, among many others. You will also learn about the benefits of AMP trainee membership. Seize the opportunity to speak to and network with some of the best and most prominent players in the field! Win valuable textbooks in the annual textbook give-away! Eat free food! Join us for this unique and valuable event!

Lunch Options

Friday, November 17

Going Global with AMP
(Hosted by the International Affairs Committee)

Time: 11:45am – 1:00pm
Location: Room 253, Upper Concourse
Speaker: Dr. Zandra (Sandi) Deans, UK National External Quality Assessment Service (UK NEQAS) for Molecular Genetics
Moderator: Rami Mahfouz, MD, MPH, Chair, International Affairs Committee
Description: Hosted by the International Affairs Committee, this luncheon is an opportunity for meeting attendees who reside and work outside of North America to gather, network, and discuss topics of mutual concern and interest. The International Affairs Committee (IAC) works to advance molecular pathology in other countries by providing educational programs, test development assistance, and validation through sample exchanges. Please join your fellow international colleagues at this special luncheon.

Molecular and Medical Laboratory Technologists Lunch
(Hosted by the Training & Education Committee)

Time: 11:45am – 1:00pm
Location: Room 254, Upper Concourse
Speakers: Barbara Anderson, BS, MS; Tessara Baldi, BS; and Annette Kim, MD, PhD, T&E Committee Members
Moderators: Barbara Anderson, BS, MS and Tessara Baldi, BS, T&E Committee Technologist Members

Description: Lab Technologists and Technicians gather for a networking lunch, which includes a presentation of tech-specific initiatives and developments from the Training and Education Committee.

Saturday, November 18

Tips and Tools for Successful Advocacy at the Local Level
(Hosted by the Professional Relations and Economic Affairs Committees)

Time: 12:15pm – 1:30pm
Location: Room 254, Upper Concourse
Speakers: Selected members of the Professional Relations and Economic Affairs Committees
Moderator: Jordan Laser, MD, 2018 Chair Professional Relations Committee

Description: The AMP advocacy program informs and influences public policy affecting molecular pathology. AMP represents its membership to the federal agencies and members of Congress who shape regulation and legislation of all areas of policy impacting our field, from reimbursement to oversight. However, true advocacy begins in your own professional communities and institutions. During this lunch, representatives from AMP's Professional Relations and Economic Affairs Committees will provide first-hand accounts of successful advocacy at the workplace as well as tips and tools for advocating within your institution. With your help, AMP can influence the future of our field and steer the course for outcomes that impact you professionally. Plan now to join us for this interactive event!

ASSOCIATION FOR MOLECULAR PATHOLOGY

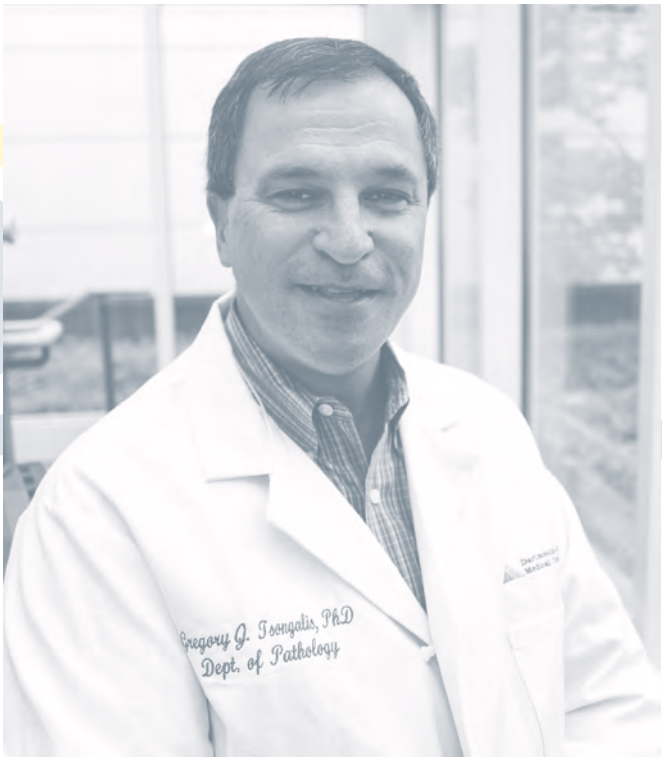
AMP Award for Excellence in Molecular Diagnostics 2017

Andrew P. Feinberg, MD, MPH
Johns Hopkins University School of Medicine,
Whiting School of Engineering, and
Bloomberg School of Public Health
Baltimore, MD, USA

ASSOCIATION FOR MOLECULAR PATHOLOGY

Jeffrey A. Kant Leadership Award 2017

For Exceptional Leadership in Advancing the Mission and Goals of the Association for Molecular Pathology



Gregory J. Tsongalis, PhD, HCLD
Dartmouth Hitchcock Medical Center
Lebanon, NH, USA

ASSOCIATION FOR MOLECULAR PATHOLOGY

AMP Meritorious Service Award 2017

Alexis B. Carter, MD
Children's Healthcare of Atlanta
Atlanta, GA, USA

ASSOCIATION FOR MOLECULAR PATHOLOGY

Travel Awards 2017

Diversity Travel Assistance Grant Awardees

Veronica Ortega, BA, CG(ASCP)
University of Texas Health Sciences Center, San Antonio, TX, USA

Kumari V. Vadlamudi, MT(ASCP)
University of Texas Health Sciences Center, San Antonio, TX, USA

AMP Technologist Travel Awards

Charles DiRienzo, MA
Brigham & Women's Hospital, Boston, MA, USA

Todd S. Laughlin, BS
University of Rochester Medical Center, Rochester, NY, USA

Elizabeth Lindsey, BA, MB(ASCP)
Children's Hospital Colorado, Aurora, CO, USA

Intersociety Council for Pathology Information (ICPI) Trainee Travel Award

Paige M. Kulling, PhD
University of Virginia School of Medicine, Charlottesville, VA, USA

International Trainee Travel Awards

Ketevani Kankava, MD, MBA
Tbilisi State Medical University, Tbilisi, Georgia

Sushant Vinarkar, MD
Tata Medical Centre, Kolkata, India

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Informatics Subdivision Representative	Mark Boguski, MD, PhD
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Solid Tumors Subdivision Representative	Kandelaria Rumilla, MD
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Avni B. Santani, PhD

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Eric J. Duncavage, MD
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Sophie S. Arbefeville, MD
Susan Butler-Wu, PhD
James J. Dunn, PhD
Amy L. Leber, PhD
Susan M. Novak-Weekley, PhD
Benjamin Pinsky, MD, PhD
Belinda Yen-Lieberman, PhD

Informatics Subdivision Leadership

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Christopher D. Coldren, PhD
Roy E. Lee, MD
Mark J. Routbort, MD, PhD
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Jeremy P. Segal, MD, PhD
Jorge L. Sepulveda, MD, PhD
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Meera R. Hameed, MD
Loren Joseph, MD
Alexander C. McKinnon Jr, MD, PhD
Kandelaria Rumilla, MD
Lynette M. Sholl, MD
Anthony N. Snow, MD
John A. Thorson, MD, PhD
Anna Yemelyanova, MD

Working Groups and Task Forces

Appropriate Collection and Handling of Thoracic Specimens for Laboratory Testing: CAP in collaboration with the American College of Chest Physicians (CHEST), AMP, American Society for Cytopathology (ASC), American Thoracic Society (ATS), Pulmonary Pathology Society (PPS), Papanicolaou Society of Cytopathology (PSC), Society of Interventional Radiology (SIR), and Society for Thoracic Radiology (STR)

Jan A. Nowak, MD, PhD, AMP Expert Panelist and Steering Committee

Sanja Dacic, MD, PhD, AMP Expert Panelist

ASCP/CAP/AMP/ASCO Guideline for Molecular Markers for Evaluation of Colorectal Cancer Workgroup

Antonia Sepulveda, MD, PhD, AMP Co-chair

William K. Funkhouser, MD, PhD, AMP Expert Panelist

Noralane Lindor, MD, AMP Expert Panelist

Federico Monzon, MD, AMP Expert Panelist

CAP/IASLC/AMP Molecular Testing Guideline for Selection of Lung Cancer Patients – Guideline Revision/Update Workgroup

Neal Lindeman, MD, AMP Co-chair and Steering Committee

Dara L. Aisner, MD, PhD, AMP Expert Panelist

Maria E. Arcila, MD, AMP Expert Panelist

David J. Kwiatkowski, MD, PhD, AMP Expert Panelist

Lynette Sholl, MD, AMP Expert Panelist

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Robert Klees, PhD

Eric Konnick, MD

Jordan Laser, MD

Roberta Madej, PhD

Federico Monzon, MD

Victoria Pratt, PhD

Barbara Zehnbauer, PhD

Copy Number Variants (CNV) Working Group

Madhuri R. Hegde, PhD, Chair

Birgit Funke, PhD

Elaine Lyon, PhD

Carolyn Sue Richards, PhD

EAC 101 Working Group

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Anthony N. Sireci, MD, Chair

Samuel K. Caughron, MD

Mathew Hiemenz, MD

Loren Joseph, MD

Jay L. Patel, MD

Oana C. Rafael, MD

FDA Oversight of NGS Working Group

Roger D. Klein, MD, JD, Chair
Dara Aisner, MD, PhD
Andrea Ferreira-Gonzalez, PhD
Birgit Funke, PhD
Jill Hagenkord, MD
Madhuri Hegde, PhD
Lawrence Jennings, MD, PhD
Marilyn M. Li, MD
Stephen E. Lincoln
Federico Monzon, MD
Marina Nikiforova, MD
Patrik Vitazka, MD, PhD
Karl Voelkerding, MD

Genomics Education for Primary Care Residents Working Group

Laura J. Tafe, MD, Chair
Maria E. Arcila, MD
Devon Chabot-Richards, MD
Anthony Snow, MD (T&E Committee Liaison)

Interpretation of Sequence Variants in Somatic Conditions Working Group

Marilyn M. Li, MD, Chair
Eric J. Duncavage, MD, Co-Chair
Shashikant Kulkarni, PhD, FACMG
Neal Lindeman, MD
Marina N. Nikiforova, MD
Somak Roy, MD
Apostolia Tsimberidou, MD, PhD
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Daynna Wolff, PhD
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Ron M. Przygodzki, MD

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Laetitia Borsu, MD
Milena Cankovic, PhD
Christopher Gocke, MD
Meera Hameed, MD
Kandelaria Rumilla, MD
Antonia Sepulveda, MD, PhD

MGP Fellow Training in Genomics Task Force

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Jason N. Rosenbaum, MD, Co-Lead
Kristy R. Crooks, PhD
Jeffrey R. Gagan, MD, PhD
David Wu, MD, PhD

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Rachel L. Sargent, MD

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Kevin Alby, PhD
Susan Butler-Wu, PhD
Linda Cook, PhD
Jennifer Dien Bard, PhD

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Karl V. Voelkerding, MD
Chen Wang, PhD

NGS Germline Variant Confirmation Working Group

Kristy Crooks, PhD, Chair
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Stephen E. Lincoln
Diana Mandelker, MD, PhD
Jess F. Peterson, MD
Avni Santani, PhD
Ryan Schmidt, MD, PhD

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David Viswanatha, MD, Chair
Maria Arcila, MD
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Keyur Patel, MD, PhD

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Lawrence J. Jennings, MD, PhD, Chair
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Suzanne Kamel-Reid, PhD
Ira M. Lubin, PhD
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John D. Pfeifer, MD, PhD
Karl V. Voelkerding, MD

Standardization of Pharmacogenetic Alleles (PGx) Working Group

Victoria M. Pratt, PhD, Chair
Houda Hachad, PharmD
Yuan Ji, PhD
Lisa Kalman, PhD
Stuart A. Scott, PhD
Karen Weck, MD

Variant Interpretation Test Across Labs (VITAL) Working Group

Elaine Lyon, PhD, Chair
Sherri Bale, PhD
Julie Gastier-Foster, PhD
Madhuri Hegde, PhD
Glenn E. Palomaki, PhD
Carolyn Sue Richards, PhD

AMP EUROPE 2018

AMP Association for Molecular Pathology

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CONTINUING EDUCATION

AMP **2017 Annual Meeting**
CREDIT TRACKER

Rate each speaker on the following criteria on a scale of 1-5.
1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree

					The Presenter		The presenter had good teaching skills, and				
Date	Session Time	# of Hours Attended	Speaker Name	Presentation Title	Presented the content well	Was knowledgeable	Maintained proper pace	An engaging approach to learners	Promoted interaction with & among learners	Facilitated the question & answer session well	Additional Comments, if any

Visit www.amp.org/CE to complete the online application form.

Continuing Education Information

CONTINUING MEDICAL EDUCATION (CME)

This activity ("Association for Molecular Pathology 2017 Annual Meeting") was planned and implemented in accordance with the Essential Areas and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American Society for Clinical Pathology (ASCP) and the Association for Molecular Pathology (AMP). ASCP is accredited by the ACCME to provide continuing medical education for physicians.

The CME and CMLE online application form will be available online (**http://amp17.amp.org/ce-credits/continuing-education/**) beginning on November 18, 2017 and must be submitted no later than December 31, 2017. You may keep track of credit by completing the Credit Tracker found on the tab divider for this section. Complete only for the sessions which you attended, then transfer your ratings per speaker on the online application form and complete the other evaluation questions to claim credit. If you did not purchase CE credit at the time of your conference registration, you will have an opportunity to request it after the meeting. See the information posted on the website listed below. Please claim CE credit by following the instructions at **http://amp17.amp.org/ce-credits/continuing-education/**. Should you have questions, contact AMP by email at **AMPEducation@amp.org**.

Meeting Objective/Target Audience

The objective of the AMP 2017 Annual Meeting is to (1) increase basic and applied pathology knowledge, focusing on the molecular diagnosis of disease, (2) provide a forum for the exchange of new research by scientists and investigators, and (3) facilitate knowledge acquisition regarding issues and challenges related to patient care, early detection and disease prevention. The AMP 2017 Annual Meeting is designed to meet the participants' educational needs in the physician competency area of Medical Knowledge, as defined by the Accreditation Council for Graduate Medical Education (ACGME) and the American Board of Medical Specialties (ABMS), and to support participants' lifelong learning towards a goal of promoting patient safety and improving patient care.

The AMP 2017 Annual Meeting is especially targeted to clinical practitioners, research scientists, medical education professionals, and students and postdoctoral fellows with an interest in gaining a basic and/or advanced understanding of diagnostic, prognostic, and therapeutic approaches in the areas of hematopathology (leukemias, lymphomas, lymphoproliferative disorders), solid tumors and soft tissue tumors, infectious diseases (viral, bacterial, fungal, parasitic), inherited diseases, and informatics with the goal of improving patient care, improving clinical practice, and enabling constructive interactions with pathologists, other health care practitioners, and laboratory directors and technologists.

Disclosure of Financial Relationships and Resolution of Conflicts of Interest

ASCP and AMP require that audiences at CME-approved educational programs be informed of the organizers' and presenters' (speaker, faculty, author, or contributor) academic and professional affiliations, and the existence of any relevant financial relationship a presenter has with any proprietary entity producing health care goods or services consumed by, or used on patients, with the exemption of non-profit or government organizations and non-health care related companies. The intent of this disclosure is not to prevent a speaker from making a presentation. This policy allows the listener/attendee to be fully knowledgeable in evaluating the information being presented. All CME activities are evaluated by the participants for the presence of any commercial bias and this input is used for subsequent CME planning decisions. The primary purpose of this activity is educational and the comments, opinions, and/or recommendations expressed by the faculty or authors are their own and not those of ASCP or AMP.

Continuing Education Information

Disclosure includes any relationship that may bias one's presentation or which, if known, could give the perception of bias. These situations may include, but are not limited to: 1) stock options or bond holdings in a for-profit corporation or self-directed pension plan; 2) research grants; 3) employment (full or part-time); 4) ownership or partnership; 5) consulting fees or other remuneration; 6) non-remunerative positions of influence such as officer, board member, trustee, or public spokesperson; 7) receipt of royalties; 8) speaker's bureau; 9) other. For full-time employees of industry or government, the affiliation listed in the Program will constitute full disclosure.

Several of the organizers of this educational activity disclosed a relevant financial relationship that, in the context of their presentation could be perceived by some as a real or apparent conflict of interest. The disclosures have been reviewed and conflicts of interest resolved or managed. Organizers that disclosed no relevant financial relationship are also listed.

Organizers – Program Committee Disclosures:

- Christopher D. Coldren, PathGroup
  Employment at PathGroup, a commercial reference lab
- Eric J. Duncavage, Washington University at St. Louis
  Employment as Medical Director, Cofactor Genomics
- Amy Leber, Nationwide Children's Hospital
  Clinical trial research funding from BioFire Diagnostics. Honorarium from BioFire Diagnostics.
- Belinda Yen-Lieberman, Cleveland Clinic
  Member, Roche Diagnostics Advisory Board

The remaining AMP 2017 Program Committee members have no relevant financial relationships to disclose:

- Lynne V. Abruzzo, The Ohio State University
- Bryan Betz, University of Michigan
- William Edward Highsmith, Mayo Clinic
- Linda Jeng, University of Maryland School of Medicine
- Alexander Craig Mackinnon, Medical College of Wisconsin
- Cindy A. Meadows, ARUP Laboratories
- Somak Roy, University of Pittsburgh Medical Center
- Daniel E. Sabath, University of Washington
- Lynette M. Sholl, Brigham and Women's Hospital
- Lynne H. Whetsell, Saint Francis Hospital

Organizers – Awards Committee Disclosures (AMP Award for Excellence in Molecular Diagnostics)

The 2015 Awards Committee recommended the AMP 2017 Award for Excellence in Molecular Diagnostics recipient who presents the keynote lecture of the AMP 2017 Annual Meeting. Members who disclosed a financial relationship are:

- Kenneth Bahk, Stock options from Geneweave as a Board of Directors member.
- Angela M. Caliendo, Honorarium from Biofire Diagnostics, Cepheid, IBIS Biosciences, IncellDX, Nanosphere, Quidel, Roche Molecular as a Scientific Advisory Board member. Research funding from Hologic and T2 Biosystems as an investigator.
- Tadd S. Lazarus, Salary and stock options from QIAGEN, Inc. as an employee.

Members of the 2015 Awards Committee who disclosed no relevant financial relationships are:

- Charles E. Hill, (Chair of Awards Committee), Emory University School of Medicine
- Karen L. Kaul, NorthShore University Health System

Disclosures of Invited Speakers of CME Scientific Sessions

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The following speakers disclosed no relevant financial relationships:

Nazneen Aziz
Jesse S. Boehm
Joseph A. Califano
Alexis B. Carter
Scott L. Carter
Maria Casadellà
Larissa H. Cavallari
Mine Cicek
Robert M. Cook-Deegan
Vivekananda Datta
Olivier Elemento
Andrew P. Feinberg
Obi L. Griffith
Wayne W. Grody
Marian H. Harris
Nicole L. Hoppman
Lawrence J. Jennings
Hanlee P. Ji
Vaidehi Jobanputra
Melissa R. Johnson
Jennifer A. Kanakry
Alexander Lex
Marilyn M. Li
Joseph J. Maleszewski
Jonna AK Mazet
Jamie McDonald
Ann M. Moyer
Charles G. Mullighan
Deborah W. Neklason
Marina N. Nikiforova
Laura Pasqualucci
Richard Press
Thomas W. Prior
Colin Pritchard
Heidi L. Rehm
Mark Routbort
Somak Roy
Steven A. Schichman
Nikolaus Schultz
Aatur Singhi
Jeff Stevenson
Doug Turnbull
John S. Welch
P. Mickey Williams

Disclosures of Invited Speakers of CME Scientific Sessions

Ash A. Alizadeh
Scientific Co-founder of CIBERMed Inc. Consultant to CIBERMed Inc. and Roche.

Mike Angelo
Founder of Ionpath, Inc. Stock options/shareholder in Ionpath, Inc

Robert A. Bonomo
Research funding from Achaogen, Allecra, Entasis, GlaxoSmithKline, Merck, Roche, Shionogi, and Wockhardt.

Aaron D. Bossler
Consultant fees from Novartis, Inc., and Roche Diagnostics. Research funding from Roche Diagnostics. Speaker fees from Roche Diagnostics.

Maria G. Dominguez-Bello
Intellectual Property Rights from Commense. Stock options/shareholder in Commense. Scientific Advisory Board Member to Commense.

Todd E. Druley
Consultant to Bien-Willner Physicians Group.

Marni J. Falk
Consulting fees from Fortress Biotech, Mitobridge, and Neurovive. Research funding from Stealth Biotherapeutics, Neurovive, and Ribonova. Former Scientific Advisory Board member to Perlstein Labs. Stock options/shareholder in Perlstein Labs.

Ferric C. Fang
Advisory Board member to BioFire and Cepheid. Speaker fees from BioFire, Cepheid and Roche.

Birgit Funke
Scientific Advisor to SeraCare LifeSceinces. Salary from Veritas Genetics and Laboratory for Molecular Medicine as an employee.

Continuing Education Information

Kimberly Hanson
Funded research grant with BioFire Diagnostics.

A. John Iafrate
Consultant fees from DebioPharm and Roche. Stock options/shareholder in ArcherDx.

J. Keith Joung
Consulting fees from Editas Medicine and Horizon Discovery. Stock options/shareholder in Beacon Genomics, Editas Medicine, Hera Biolabs, Poseida Therapeutics, and Transposagen Biopharmaceuticals. Scientific Advisory Board member to Horizon Discovery and Transposagen Biopharmaceuticals. Scientific Co-founder of Beacon Genomics. Honorarium from Eli Lilly as a speaker. Travel expenses from Eli Lilly and Dupont Pioneer as a speaker.

Daniel C. Koboldt
Royalty income from Appistry, Bina Technologies, Fera Science, Human Longevity, Janssen, Philips Electronics, Regeneron, and WuXi NextCODE.

Michael A. Lewinski
Salary from Roche Molecular Systems, Inc.as an employee.

Elaine Lyon
Consulting Fee from Complete Genomics as an Advisory Board member.

Lindsay Meyers
Salary from BioFire Diagnostics as an employee.

Frederick Nolte
Honoraria from Roche and MedScape as a speaker. Research support from Alere and Roche.

John D. Pfeifer
Co-founder of PierianDX. Royalties from PierianDX. Stock options/shareholder in PierianDX.

Christopher Polage
Consulting fees from BioFire Diagnostics, GenePOC, Seres, Meridian Bioscience, Singulex, and SlipChip. Research funding from BioFire Diagnostics and Cepheid. Research materials from Alere, Cepheid, and TechLab.

Anthony N. Sireci
Consultant to Molecular Match.

Gregory Storch
Honorarium from BioFire Diagnostics as a speaker.

David H. Spencer
Consultant to Cofactor Genomics.

Vivianna M. Van Deerlin
Consultant fee from Asuragen. Research collaboration with Asuragen.

David Wu
Research collaboration with Adaptive Biotechnologies Corporation.

The following disclosures by speakers are not relevant financial relationships:

Aaron D. Bossler
Research funding from Iowa Department of Public Health. Since the Iowa Department of Public Health is a state government agency, it is not considered a commercial interest as defined by the ACCME.

Jeffrey Chumley
Salary from ARUP Laboratories. Since the ARUP Laboratories are clinical laboratories providing services, it is not considered a commercial interest as defined by the ACCME.

Marni J. Falk

Consulting fees from March of Dimes. Since the March of Dimes is a nonprofit organization, it is not considered a commercial interest as defined by the ACCME. Research funding from NIH. Since the National Institutes of Health is a government institution, it is not considered a commercial interest as defined by the ACCME.

Victoria M. Pratt

Honorarium from University of Florida as a speaker. Since the University of Florida is a state institution, it is not considered a commercial interest as defined by the ACCME. Salary from Indiana University School of Medicine Genetics Laboratory. Since the Indiana University School of Medicine Genetics Laboratory is a clinical laboratory providing services, it is not considered a commercial interest as defined by the ACCME.

Abstract Author Disclosures

Only the abstracts listed below are included as CME content of the AMP 2017 Annual Meeting and will be defended in oral platform presentations. The other abstracts submitted to the AMP 2017 Annual Meeting that are published in *The Journal of Molecular Diagnostics* are not included as a CME activity.

GENETICS: G24; G28; G30; G44

HEMATOPATHOLOGY: H28; H34; H60; H68

INFECTIOUS DISEASES: ID02; ID34; ID60; ID74

INFORMATICS: I06, I16; I20; I28

SOLID TUMORS: ST52; ST56; ST62; ST114

TECHNICAL TOPICS: TT24; TT76; TT82; TT92

The following abstract/poster presenting authors disclosed no relevant financial relationships:

Elizabeth M. Azzato
Noah A. Brown
Marja Debeljak
Wei Gu
Jessica Houskeeper
Susan J. Hsiao
Melissa J. Landrum
Stephen Lincoln
Diana Mandelker
Nathan D. Montgomery
Andrea L. Penton
Jonas Pettersson
Tamara Restrepo
Bekim Sadikovic
Keith E. Simmon
Megan Stonebraker
Aijazuddin Syed
Szabolcs Szelinger
Amogha Tadimety
Christina Wood-Bouwens
Xuemei Wu

Disclosures of abstract/poster presenting authors:

Andrew Hilmer – Employment at Applied StemCell, Inc.

Ryan J. Schmidt – Other compensation from Genomenon, Inc.

Trainee/Technologist Early Bird Case Study Presenter Disclosures

The following Early Bird Case Study presenting authors disclosed no relevant financial relationships

Michael Alberti
Deepu Alex
Aaron Atkinson
Elizabeth Barrie
Patrick R. Blackburn
Alex Greninger
Navin Mahadevan
Patrick Mann
Damon Olson
Andres Quesada
Maryam Shirazi
Adam Wilberger

Continuing Education Information

PLEASE NOTE: Sessions that are not eligible for Continuing Medical Education (CME):

The meeting program states those events which are not a Continuing Medical Education activity with the designation "NOT CME."

The following events/sessions are not eligible for CME:

- Social events and meals listed in the meeting program.
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- Viewing posters in the Exhibit Hall because the posters are in the line of sight of commercial exhibits.

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SAM credit will be available during the 2017 AMP Annual Meeting for select talks. The talks/sessions that include SAM will be listed on http://amp17.amp.org/ce-credits/continuing-education/
This activity ("Association for Molecular Pathology 2017 Annual Meeting") is approved by the American Board of Pathology. Physicians should only claim credit commensurate with the extent of their participation in the activity. Participants must successfully complete the online exam (answering at least 80% of the questions correctly).
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— Betsy A. Bove, PhD
Vice President of Laboratory Regulation Compliance, Genomind, Inc.

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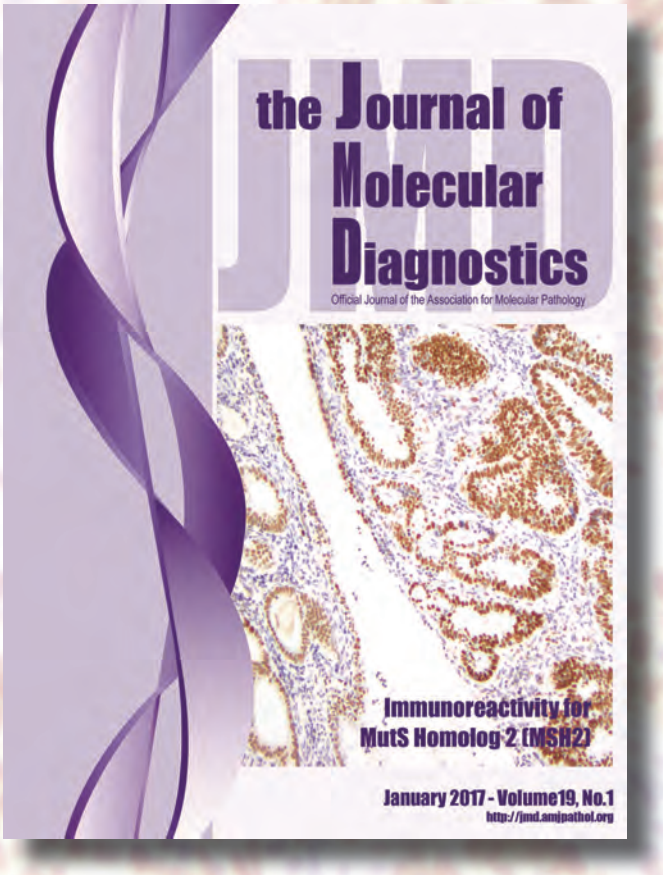

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Meeting At A Glance

		Thursday, 11/16/17	Friday, 11/17/17	Saturday, 11/18/17
MORNING	07:00-08:00	Breakfast	Breakfast	Breakfast
	07:00-07:30	Early Birds	Early Birds	Early Birds
	07:30-08:00			
	08:00-08:30	Break Opening Remarks	Break	Break
	08:30-09:00	Award for Excellence Lecture	Informatics Plenary*	Inherited Conditions Plenary*
	09:00-09:30			
	09:30-10:00	Break	Visit the Exhibits, AMP Central & Posters	Visit the Exhibits, AMP Central & Posters (Odd Numbered Posters)
	10:00-10:30	Oncology/Cancer Plenary		
	10:30-11:00		Workshops	Workshops
	11:00-11:30			
	11:30-12:00	Lunches	Lunches	Lunches
AFTERNOON	12:00-12:30			
	12:30-01:00			
	01:00-01:30	Workshops	Oncology/Cancer Plenary*	Infectious Diseases Symposium / General Molecular Technologies Symposium
	01:30-02:00			
	02:00-02:30			
	02:30-03:00	Visit the Exhibits, AMP Central & Posters (Award Judging & General Viewing)	Visit the Exhibits, AMP Central & Posters (Even Numbered Posters)	
	03:00-03:30			Break
	03:30-04:00		Oncology/Cancer Symposium* / Inherited Conditions Symposium*	General Molecular Technologies Plenary
	04:00-04:30			
	04:30-05:00	Infectious Diseases Plenary	Break	Closing Remarks
EVENING	05:00-05:30		Business Meeting & Awards Session	
	05:30-06:00			
	06:00-06:30	Welcome Reception (Supported by Roche)		
	06:30-07:00			
	07:00-07:30		AMP 2017 Social Event	
	07:30-08:00			
	08:00-08:30			
	08:30-09:00			

***ID Special Sessions will be held:**
Friday, November 17 from 8:00am - 9:00am, 1:00pm - 2:30pm and 4:15pm - 5:00pm;
Saturday, November 18 from 8:00am - 9:00am

Notes

AMP 2017 Annual Meeting

Salt Lake City, UT • November 16 – 18, 2017

Note: All sessions are scheduled at the Convention Center unless otherwise noted.

AMP 2017: Program Key for "Paths" (Tracks)

A = Advocacy/Lab Management Path
T = General Molecular Technologies Path
ID = Infectious Diseases Path
IF = Informatics Path
IC = Inherited Conditions Path
O = Oncology/Cancer Path

Tuesday, November 14, 2017		
8:00am – 5:30pm	**AMP Reference Material Forum** *(Separate Registration)*	*Marriott, Grand Ballroom ABC, Main Floor*
9:45am – 11:15am	**Executive Committee Meeting** *(Invitation Only)*	*Marriott, Deer Valley Room, Main Floor*
11:30am – 6:00pm	**Board of Directors Meeting** *(Invitation Only)*	*Marriott, Deer Valley Room, Main Floor*
2:00pm – 6:00pm	**Attendee, Speaker, and Exhibitor Registration & Express Check-In**	*South Foyer, Lower Concourse*
6:30pm	**Board of Directors Dinner** *(Invitation Only)*	*TBD*
Wednesday, November 15, 2017		
7:00am – 5:00pm	**Attendee, Speaker, and Exhibitor Registration & Express Check-In**	*South Foyer, Lower Concourse*
7:30am – 5:00pm	**Committee Meetings** *(Invitation Only)*	*Marriott, Various Rooms (Second Floor)*
7:30am – 8:30am	**Registration, Continental Breakfast for Outreach Course**	*Marriott, Grand Ballroom Foyer, Main Floor*
8:30am – 3:45pm	**Molecular Pathology Outreach Course (MPOC)** *(Separate Registration)*	*Marriott, Grand Ballroom, Main Floor*
8:30am – 3:45pm	**Scientific Educator Workshop (SEW)** *(Separate Registration)*	*Marriott, Grand Ballroom, Main Floor*
4:45pm – 5:45pm	**Volunteer Appreciation Reception** *(Invitation Only)*	*Marriott, Deer Valley Room, Main Floor*
5:30pm – 7:30pm	**Reception & Special Event: Diagnostic Strategies in Advanced NSCLC: Guiding Treatment Decisions Through Pathology** *(Developed through a strategic collaboration between AMP and Medscape Education Oncology)*	*Marriott, Grand Ballroom, Main Floor*
6:00pm – 7:00pm	**MGP Program Directors Meeting** *(Invitation Only)*	*Marriott, Grand Ballroom, Main Floor*
Thursday, November 16, 2017		
GENERAL INFORMATION:		
6:30am – 8:00am	**Poster Set-Up**	*Exhibit Hall, Lower Concourse*
6:45am – 5:00pm	**Attendee, Speaker, and Exhibitor Registration & Express Check-In**	*South Foyer, Lower Concourse*
11:30am – 4:30pm 5:45pm – 7:00pm	**Exhibit Hall Open** *(Note: The Exhibit Hall will be closed from 4:30pm - 5:45pm)*	*Exhibit Hall, Lower Concourse*

Thursday, November 16, 2017 continued

7:00am – 8:00am **Continental Breakfast** — *Early Bird Session Room Foyers*

7:00am – 8:00am **EARLY BIRD SESSIONS**

Standardization of Projects in Pharmacogenetics — T, IF — CME — *Room 250, Upper Concourse*

Moderators: Daniel E. Sabath MD, PhD, University of Washington, Seattle, WA, USA, 2017 Program Chair and Andria Del Tredici, PhD, Millennium Health, San Diego, CA, USA

AMP CYP2C19 PGx Variant Standardization Project
Victoria M. Pratt, PhD, Indiana University, Indianapolis, IN, USA

PGx Standardization Project
Steven A. Schichman, MD, PhD, Central Arkansas Veterans Healthcare System, Little Rock, AR, USA

The Utah Genome Project — IF, IC — CME — *Room 255BC, Second Level*

Moderators: William E. Highsmith, Jr, PhD, Mayo Clinic and Foundation, Rochester, MN, USA and Jennifer Sanmann, PhD, University of Nebraska Medical Center, Omaha, NE, USA

Utah Genome Project: Genetic Discovery Powered by Utah's Large Families and Population Database
Deborah Neklason, PhD, University of Utah, Salt Lake City, UT, USA

Molecular Diagnostics for Biomarker-Driven Clinical Trials — O, IF — CME — *Room 251, Upper Concourse*

Moderators: A. Craig Mackinnon, MD, PhD, Medical College of Wisconsin, Milwaukee, WI, USA and Zenta Walther, MD, PhD, Yale University School of Medicine, New Haven, CT, USA

The Challenges of Development and Application of the NCI-MATCH NGS Assay
P. Mickey Williams, PhD, National Cancer Institute, Frederick, MD, USA

Pediatric Clinical Trial Networks, Pathologist's Perspective
Marian H. Harris, MD, PhD, Boston Children's Hospital, Boston, MA, USA

Applications of Multiplex Molecular Imaging in Cancer — O, T — CME — *Room 255EF, Second Level*

Moderators: Lynette M. Sholl, MD, Brigham & Women's Hospital, Boston, MA, USA and Hussam Al-Kateb, PhD, University of Arizona School of Medicine, Tucson, AZ, USA

High Dimensional Imaging of Tumor Immune Infiltrates Using MIBI
Michael Angelo, MD, PhD, Stanford University, Palo Alto, CA, USA

Thursday, November 16, 2017 continued

7:00am – 8:00am	**EARLY BIRD SESSIONS**			
	Case Studies in Infectious Diseases and Genetics *Moderators: Amy L. Leber, PhD, Nationwide Children's Hospital, Columbus, OH, USA and Avni Santani, PhD, Children's Hospital of Philadelphia, Philadelphia, PA, USA*	ID IC	CME	*Room 355BC, Third Level*
	Hypertetraploid Partial Molar Pregnancy Identified by Microarray and STR Analysis, with Subsequent Choriocarcinoma Diagnosis *Elizabeth Barrie, PhD, Nationwide Children's Hospital, Columbus, OH, USA*			
	Research Whole Exome Sequencing Identifies a Novel SH2D1A Variant in a 51-Year-Old Patient with CNS Lymphocytic Vasculitis *Patrick Blackburn, PhD, Mayo Clinic, Rochester, MN, USA*			
	Acute Liver Failure Due to Echovirus 9 Associated with Persistent B Cell Depletion from Rituximab *Alex Greninger, MD, PhD, University of Washington, Seattle, WA, USA*			
	Pyrosequencing Solves the Case of the Conflicting Bacterial Isolates *Damon R. Olson, MD, Baylor College of Medicine, Houston, TX, USA*			
8:00am – 8:15am	**Break**			
8:15am – 8:30am	**Opening Remarks** *Daniel Sabath, MD, PhD, University of Washington Medical Center, Seattle, WA, USA and 2017 Program Chair*			*Ballroom, Lower Concourse*
8:30am – 9:45am	**Award for Excellence in Molecular Diagnostics: Presentation and Lecture** *Moderators: Federico A. Monzon, MD, Castle Biosciences, Houston, TX, USA and Daniel E. Sabath MD, PhD, University of Washington, Seattle, WA, USA*	O T IC	CME	*Ballroom, Lower Concourse*
	The Epigenetic Basis of Common Human Disease *Andrew P. Feinberg, MD, MPH, Johns Hopkins University School of Medicine, Whiting School of Engineering, and Bloomberg School of Public Health, Baltimore, MD, USA*			
9:45am – 10:15am	**Break**			*Ballroom, Lower Concourse*
10:15am – 11:15am	**ONCOLOGY/CANCER PLENARY SESSION**			
	Molecular Genetics and Biomarkers of B-cell Leukemias and Lymphomas *Moderators: Bryan L. Betz, PhD, University of Michigan, Ann Arbor, MI, USA and Eric J. Duncavage, MD, Washington University, Saint Louis, MO*	O	CME	*Ballroom, Lower Concourse*
	Precursor B-cell Neoplasms (ALL) *Charles G. Mullighan, MBBS (Hons), MSc, MD, St. Jude Children's Research Hospital, Memphis, TN, USA*			
	Genetic and Epicgentic Drivers of Diffuse Large B-cell Lymphoma *Laura Pasqualucci, MD, Columbia University Medical Center, New York, NY, USA*			

Thursday, November 16, 2017 continued

11:45am – 1:00pm	**General Lunch, Exhibit Hall, Exhibit Level** *(entrance through Exhibit Hall)* *Networking Lunches: Please see lunch descriptions in the "Highlights & General Information" section of the Program Book, Page 17.* **AMP Central Activities:** *Meet & Greet: Publications & Communication Committee* *Meet & Greet: Nominating Committee* *Test Directory assistance and demonstrations*			*Various locations, see program*
1:00pm – 2:30pm	**WORKSHOP SESSIONS**			
	MRD Assessment in Acute Leukemias *Moderators: Eric J. Duncavage, MD, Washington University, Saint Louis, MO and Linsheng Zhang, MD, PhD, Emory University School of Medicine, Atlanta, GA, USA* **A Clinical Trial to Improve Risk Assessment in Acute Myeloid Leukemia that Uses Enhanced Exome Sequencing to Detect Leukemia Clearance Following Therapy** *David H. Spencer, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA* **Next-generation Sequencing for Detecting MRD in Acute Lymphoblastic Leukemia** *David Wu, MD, PhD, University of Washington, Seattle, WA, USA*	O IF	CME	*Room 355BC, Third Level*
	Discovering the Links: Infectious Agents and Cancer *Moderators: Belinda Yen-Lieberman, PhD, The Cleveland Clinic Foundation, Cleveland, OH, USA and Deepu Alex, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA* **HPV and Head and Neck Cancer** *Joseph A. Califano, MD, University of California, San Diego, CA, USA* **Blood-based Assessment of EBV DNA as a Tumor Marker** *Jennifer A. Kanakry, MD, National Cancer Institute, National Institutes of Health, Bethesda, MD, USA*	O ID	CME	*Room 251, Upper Concourse*
	Pharmacogenomics Implementation *Moderators: Linda Jo Bone Jeng, MD, PhD, University of Maryland at Baltimore, Baltimore, MD, USA and Joel Lefferts, PhD, Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA* **Clinical Implementation of Pharmacogenomics: From Reactive Testing to Preemptive Testing** *Ann M. Moyer, MD, PhD, Mayo Clinic, Rochester, MN, USA* **Implementing and Assessing Outcomes with Genotype-Guided Therapy** *Larisa H. Cavallari, PharmD, University of Florida, College of Pharmacy, Gainesville, FL, USA*	IF IC	CME	*Room 255BC, Second Level*

Thursday, November 16, 2017 continued

Bioinformatic Frontiers: Dissecting the Genetics of Cancer
Moderators: Somak Roy, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA and Lynette M. Sholl, MD, Brigham & Women's Hospital, Boston, MA, USA

O IF CME — *Room 250, Upper Concourse*

Computational Dissection of Intra-tumor Genetic Heterogeneity and Applications to the Study of Cancer Treatment, Evolution, and Metastasis
Scott L. Carter, PhD, Dana-Farber Cancer Institute, Boston, MA, USA

Strategies and Challenges for Somatic Mutation Detection by Next-gen Sequencing
Daniel C. Koboldt, MSc, Institute for Genomic Medicine at Nationwide Children's Hospital, Columbus, OH, USA

Genetics of Spinal Muscular Atrophy and Amyotrophic Lateral Sclerosis: A Timely Review
Moderators: Lynne V. Abruzzo, MD, PhD, Ohio State University Medical Center, Columbus, OH, USA and Jianling Ji, MD, Children's Hospital Los Angeles, Los Angeles, CA, USA

IC CME — *Room 255EF, Second Level*

Perspectives and Diagnostic Considerations in Spinal Muscular Atrophy
Thomas W. Prior, PhD, Ohio State University, Columbus, OH, USA

Genetics of ALS
Vivianna M. Van Deerlin, MD, PhD, University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, USA

2:30pm – 4:15pm **Coffee Break – Visit Exhibit Hall, AMP Central and Posters**
(Award Applicant Posters Attended)

Exhibit Hall, Lower Concourse

AMP Central Activities:
Career Networking Mixer – Technologists
Meet & Greet: Subdivision Leadership

4:15pm – 5:45pm **INFECTIOUS DISEASES PLENARY SESSION**

The Hunt for Microbes: The Beginning of the End of the Pandemic Era
Moderators: Amy L. Leber, PhD, Nationwide Children's Hospital, Columbus, OH, USA and Belinda Yen-Lieberman, PhD, The Cleveland Clinic Foundation, Cleveland, OH, USA

ID CME — *Ballroom, Lower Concourse*

Microbial Anthropology
Maria G. Dominguez-Bello, PhD, BSc, MSc, New York University School of Medicine, New York, NY, USA

A Collaborative Effort to End the Pandemic Era: The Global Virome Project
Jonna Mazet, DVM, MPVM, PhD, One Health Institute, University of California, Davis, CA, USA

Thursday, November 16, 2017 continued				
5:45pm – 7:00pm	**Welcome Reception** *Supported by Roche* **AMP Central Activities:** *Tweet up! Meet the other #AMPlifiers you have gotten to know online as you prepared for AMP 2017!*			*Exhibit Hall, Lower Concourse*
7:00pm - 8:00pm	**Trainee Networking Hour**			*Offsite, see Page 10 for details*
7:00pm - 8:30pm	**International Showcase** *(Separate Registration)*			*Marriott, Grand Ballroom ABC*
7:00pm - 9:30pm	**Canadian Member Dinner**			*Marriott Alta/ Snowbird Room*
7:30pm – 9:00pm	**JMD Editorial Board Dinner** *(Invitation Only)*			*Marriott, Deer Valley Room, Main Floor*
Friday, November 17, 2017				
6:45am – 5:00pm	**Attendee, Speaker, and Exhibitor Registration & Express Check-In**			*South Foyer, Lower Concourse*
9:00am – 4:30pm	**Exhibit Hall Open**			*Exhibit Hall, Lower Concourse*
7:00am – 8:00am	**Continental Breakfast**			*Early Bird Session Room Foyers*
7:00am – 8:00am	**EARLY BIRD SESSIONS**			
	Novel Technologies: Cool Toys for You Now and in the Future *Moderators: Amy L. Leber, PhD, Nationwide Children's Hospital, Columbus, OH, USA and Samia Naccache, PhD, Children's Hospital Los Angeles, Los Angeles CA, USA* **Gene Expression Profiling During Infection Using Digital Barcoded Probe Technology** *Wenjie Xu, PhD, NanoString Technologies, Inc., Seattle, WA, USA* **Implementation of a Diagnostic Device Syndromic Disease Network** *Lindsay Meyers, BSc, BioFire Diagnostics, LLC, Salt Lake City, UT, USA* **Introduction to Smarticles™ Technology: Potential Applications in Antimicrobial Stewardship** *Michael A. Lewinski, PhD, Roche Molecular Systems, Inc., Pleasanton, CA , USA*	T ID	CME	*Room 250, Upper Concourse*
	Data Visualization *Moderators: Somak Roy, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA and Vernell Williamson, PhD, University of Washington, Seattle, WA, USA* **Enabling Scientific Discovery Through Interactive Visual Data Analysis** *Alexander Lex, PhD, University of Utah, Salt Lake City, UT, USA*	IF	CME	*Room 251, Upper Concourse*
	New Tools for Detecting Low Frequency Variants Applications in Hematopoietic Neoplasms *Moderators: Bryan L. Betz, PhD, University of Michigan, Ann Arbor, MI, USA and Bevan Tandon, MPLN, Inc., Maryville, TN, USA* **Single Molecule Quantification of Rare DNA and RNA Variants in Heterogeneous Samples** *Todd E. Druley, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA*	IF	CME	*Room 255BC, Second Level*

Friday, November 17, 2017 continued

	Coding (and Other) Conundrums *(Sponsored by the Economic Affairs Committee)* *Moderator: Samuel K. Caughron, MD, MAWD Pathology Group, North Kansas City, MO, (EAC Chair)* **Panelists:** *Aaron D. Bossler, MD, PhD, University of Iowa, Iowa City, IA, USA* *(EAC Vice-Chair New Codes Subcommittee)* *Richard D. Press, MD, PhD, Oregon Health & Sciences University, Portland, OR, USA* *(EAC Vice-Chair Coverage Subcommittee)* *Anthony N. Sireci, MD, Columbia University Medical Center, New York, NY, USA* *(EAC Vice-Chair Pricing Subcommittee)*	A	CME	*Room 255EF, Second Level*
	Case Studies in Solid Tumors *Moderators: A. Craig Mackinnon, MD, PhD, Medical College of Wisconsin, Milwaukee, WI, USA and Anthony Snow, MD, University of Iowa Hospitals and Clinics, Iowa City, IA, USA* **A Case of MSI-high Colorectal Cancer Responsive to Checkpoint Blockade Immunotherapy after Progression to Metastatic Disease** *Maryam Shirazi, MD, Columbia University Medical Center, New York, NY, USA* **RBM10-TFE3: A Potential Diagnostic Pitfall Due to Cryptic Intrachromosomal Xp11.2 Inversion Resulting in False-negative TFE3 FISH Renal Cell Carcinoma** *Deepu Alex, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA* **Not So Ancillary: A Case of Correction of Primary Diagnosis with Molecular Studies** *Adam Wilberger, MD, University of Colorado Hospital, Aurora, CO, USA* **Mutation Signature as a Diagnostic Clue in Lung Carcinoma** *Navin Mahadevan, MD, PhD, Brigham and Women's Hospital, Boston, MA, USA*	O	CME	*Room 355BC, Third Level*
8:00am – 8:15am	**Break**			
8:00am – 9:00am	**ID Special Session: Molecular Infectious Disease Testing: Point of Care Challenges** *Moderators: Belinda Yen-Lieberman, PhD, The Cleveland Clinic Foundation, Cleveland, OH, USA and David R. Hillyard, MD, ARUP Laboratories, Inc, Salt Lake City, UT, USA* **Molecular Point-of-Care Tests for Infectious Diseases: Opportunities and Challenges** *Frederick S. Nolte, PhD, Medical University of South Carolina, Charleston, SC, USA*	ID	CME	*Marriott, Deer Valley Room, Main Floor*

Friday, November 17, 2017 continued

8:15am – 9:45am INFORMATICS PLENARY SESSION

Molecular Informatics at Scale for Genomics-based Personalized Cancer Care IF CME *Ballroom, Lower Concourse*
Moderators: Christopher D. Coldren, PhD PathGroup, LLC, Nashville, TN, USA and Somak Roy, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Molecular Pathology Informatics – Toolsets and Infrastructures for Supporting Clinical Trials
Mark Routbort, MD, PhD, University of Texas MD Anderson Cancer Center, Houston, TX, USA

Interpreting the Cancer Genome: Identifying Driver Alterations and Therapeutic Options
Nikolaus Schultz, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA

9:45am – 10:45am Coffee Break – Visit Exhibit Hall, AMP Central and Posters *Exhibit Hall, Lower Concourse*

AMP Central Activities:
Meet & Greet: Economic Affairs Committee
Meet & Greet: Professional Relations Committee

10:45am – 11:45am WORKSHOP SESSIONS

Platform Presentations of Selected Genetics Abstracts IC CME *Room 255BC, Second Level*
Moderators: Linda Jo Bone Jeng, MD, PhD, University of Maryland at Baltimore, Baltimore, MD, USA and Catherine Cottrell, PhD, Nationwide Children's Hospital, Columbus, OH, USA

G24 – Discovery of Unique Disease- and Gene-specific Peripheral Blood DNA Methylation Signatures Allows Molecular Diagnosis and VUS Classification in Hereditary Genetic Syndromes
Bekim Sadikovic, PhD, London Health Sciences Centre, Western University, Ontario, Canada

G44 – Runs of Homozygosity (ROH) Reveal that Segmental-UPD Occurs as a Result of Recombination Mediated Repair of Genomic Imbalance
Andrea L. Penton, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

G30 – Improved Screening for Cancer Predisposition Mutations in Patients with Advanced Solid Tumors Enabled by Tumor-normal Sequencing
Diana Mandelker, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA

G28 – Short Tandem Repeat Analysis Reveals a High Rate of Partial Hydatidiform Moles in Triploid Conceptions Identified by Prenatal Chromosome Microarray
Xuemei Wu, MD, PhD, Oregon Health & Science University, Portland, OR, USA

Friday, November 17, 2017 continued

Platform Presentations of Selected Hematopathology Abstracts
Moderators: Bryan L. Betz, PhD, University of Michigan, Ann Arbor, MI, USA and Jacqueline Payton, MD, PhD, Washington University School of Medicine, St Louis, MO, USA

O CME *Room 251, Upper Concourse*

H28 – Haplotype Counting for Sensitive AML Relapse Detection
Marija Debeljak, BSc, Johns Hopkins University, Baltimore, MD, USA

H60 – Comparison of Clinical Digital Karyotyping by Comprehensive Next Generation Sequencing with Standard Cytogenetic Analysis in Pediatric Leukemia
Elizabeth M. Azzato, MD, PhD, MPH, St. Jude Children's Research Hospital, Memphis, TN, USA

H68 – Diagnostic Yield of Somatic Mutation Detection in Hematologic Malignancies Does Not Increase with Additional Mutation Analysis, and Supports More Focused Disease-specific Testing Models
Szabolcs Szelinger, PhD, University of California, Los Angeles, CA, USA

H34 – Implementation Considerations: Designing and Medically Vetting a Targeted Gene Panel for Hematologic Malignancies
Michelle Grant, DO, University of Vermont Medical Center, Burlington, VT, USA

Platform Presentations of Selected Infectious Diseases Abstracts
Moderators: Amy L. Leber, PhD, Nationwide Children's Hospital, Columbus, OH, USA and Shelby Melton, MD, VA North Texas Health Care System, Dallas, TX, USA

ID CME *Room 355BC, Third Level*

ID74 – Detection of Resistance-Associated Substitutions in the Hepatitis C Viral Genome using the Sentosa SQ Hepatitis C Virus Genotyping Next-Generation Sequencing Assay
Jonas Pettersson, PhD, University of Southern California, Los Angeles, CA, USA

ID02 – Pathogen Detection by Metagenomic Next Generation Sequencing of Purulent Body Fluids
Wei Gu, MD, PhD, University of California, San Francisco, CA, USA

ID34 – Challenges Associated with Developing Rapid Molecular Diagnostics for Detection of Antibiotic Resistance
Megan Stonebraker, BSc, Diatherix Laboratories, Huntsville, AL, USA

ID60 – Extreme One-Step RT-PCR: Potential for Point-of-Care Viral Detection
Jessica A. Houskeeper, MRes, University of Utah, Salt Lake City, UT, USA

Friday, November 17, 2017 continued

Platform Presentations of Selected Informatics Abstracts
Moderators: Christopher D. Coldren, PhD, PathGroup, LLC, Nashville, TN, USA and Nefize Sertec Kip, Icahn School of Medicine at Mount Sinai, New York, NY, USA

IF CME *Room 255EF, Second Level*

I06 – A New Allele-centric VCF File for Variants in ClinVar
Melissa J. Landrum, PhD, National Center for Biotechnology, National Library of Medicine, National Institutes of Health, Bethesda, MD, USA

I16 – Homopolymer Compression Improves Reference-Free, Kmer Based Whole Genome Strain Comparison for IonTorrent Data
Keith E. Simmon, PhD, ARUP Laboratories, Salt Lake City, UT, USA

I20 – Redesigning the Molecular Pathology Clinical Report for the Next-generation Genomic Era: The MSKCC Experience with the MSK-IMPACT Assay
Aijazuddin Syed, MSc, Memorial Sloan Kettering Cancer Center, New York, NY, USA

I28 – An Interlaboratory Assessment of Complex Variant Detection Using Multiplexed Positive Controls
Stephen Lincoln, Invitae, San Francisco, CA, USA

Platform Presentations of Selected Solid Tumors Abstracts
Moderators: Lynette M. Sholl, MD, Brigham & Women's Hospital, Boston, MA, USA and Jacquelyn Reuther, PhD, Baylor College of Medicine, Houston, TX, USA

O CME *Room 250, Upper Concourse*

ST52 – Clinical Cancer Whole Exome and Transcriptome Sequencing of Pediatric Tumors at Columbia University Medical Center: Laboratory Perspective at Three Years
Susan J. Hsiao, MD, PhD, Columbia University Medical Center, New York City, NY, USA

ST56 – Clinical Utility of Large Scale Genomic Sequencing of Solid Tumors at a Large Academic Medical Center
Noah A. Brown, MD, University of Michigan, Ann Arbor, MI, USA

ST114 – Identification of Germline Variants in Tumor Genomic Sequencing Assays: Usefulness of Variant Allele Fraction and Population Variant Databases
Nathan D. Montgomery, MD, PhD, University of North Carolina, Chapel Hill, NC, USA

ST62 – Integrated Molecular Diagnostic Call Criteria for MET Exon 14 Skipping in Lung Cancer
Ryan J. Schmidt, MD, PhD, Harvard Medical School, Boston, MA, USA

Friday, November 17, 2017 continued

11:45am – 1:00pm	**General Lunch, Exhibit Hall, Exhibit Level** *(entrance through Exhibit Hall)* *Networking Lunches: Please see lunch descriptions in the "Highlights & General Information" section of the Program Book, Page 17.* **AMP Central Activities:** *Career Networking Mixer – Trainee/ Early Career* *Meet & Greet: Training & Education Committee* *Meet & Greet: Awards Committee*			*Various locations, see program*
1:00pm – 2:30pm	**ONCOLOGY/CANCER PLENARY SESSION**			
	High Impact Molecular Diagnostics for Cancer and Inherited Diseases *Moderators: Christopher D. Coldren, PhD, PathGroup, LLC, Nashville, TN, USA and Lynette M. Sholl, MD, Brigham & Women's Hospital, Boston, MA, USA* **Solid Tumor Genotyping: Technical and Clinical Validation with a Focus on Fusions** *A. John Iafrate, MD, PhD, Massachusetts General Hospital, Boston, MA, USA* **Intersection of Germline and Somatic Cancer Variants and New Areas of Clinical Utility** *Colin C. Pritchard, MD, PhD, University of Washington, Seattle, WA, USA*	O IC	CME	*Ballroom, Lower Concourse*
	ID Special Session: Unmet Needs in Infectious Disease Diagnostics *Moderators: Belinda Yen-Lieberman, PhD, The Cleveland Clinic Foundation, Cleveland, OH, USA and David R. Hillyard, MD, ARUP Laboratories, Inc, Salt Lake City, UT, USA* **Panelists** *Gregory A. Storch, MD, Washington University School of Medicine, St. Louis, MO, USA* *Kimberly Hanson, MD, MHS, University of Utah, Salt Lake City, UT, USA*	ID	CME	*Marriott, Deer Valley Room, Main Floor*
2:30pm – 3:30pm	**Coffee Break – Visit Exhibit Hall, AMP Central and Posters** *(Even-numbered posters attended)* **AMP Central Activities:** *Career Networking Mixer – Mid-Career* *Meet & Greet: Membership Affairs Committee*			*Exhibit Hall, Lower Concourse*
3:30pm – 5:00pm	**SYMPOSIUM SESSIONS**			
	Genome Evolution and Therapy Resistance in Lymphoid and Myeloid Neoplasms *Moderators: Bryan L. Betz, PhD, University of Michigan, Ann Arbor, MI, USA and Eric J. Duncavage, MD, Washington University, Saint Louis, MO* **Correlation of AML and MDS Mutation Burdens and Response to Decitabine in the Peripheral Blood and Bone Marrow** *John S. Welch, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA* **Dynamic Monitoring of Lymphoma Genome Evolution** *Ash A. Alizadeh, MD, PhD, Stanford University School of Medicine, Stanford, CA, USA*	O	CME	*Room 155, First Level*

Friday, November 17, 2017 continued				
	Molecular Testing in the Practice of Cardiology *Moderators: William E. Highsmith, Jr, PhD, Mayo Clinic and Foundation, Rochester, MN, USA and Linda Jo Bone Jeng, MD, PhD, University of Maryland at Baltimore, Baltimore, MD, USA* **Phenotype to Genotype: How Traditional Techniques Pave the Way to Targeted Testing and Individualized Medicine** *Joseph J. Maleszewski, MD, Mayo Clinic, Rochester, MN, USA* **From Genes to Genomes: Evolution of Molecular Testing for Inherited Cardiomyopathies** *Birgit Funke, PhD, Veritas Genetics, Danvers, MA, USA, Harvard Medical School, Boston, MA, USA*	IC	CME	*Ballroom, Lower Concourse*
4:15pm – 5:00pm	**ID Town Hall Meeting** *Moderator: David R. Hillyard, MD, ARUP Laboratories, Inc, Salt Lake City, UT, USA*	ID	CME	*Marriott, Deer Valley Room, Main Floor*
5:00pm – 5:15pm	**Break**			
5:15pm – 6:30pm	**Business & Awards Session**			*Room 251, Upper Concourse*
7:00pm – 10:30pm	**AMP 2017 Social Event** *(Separate Registration)*			*Marriott, Grand Ballroom A-F, Main Floor*
Saturday, November 18, 2017				
6:45am - 2:00pm	**Attendee, Speaker, and Exhibitor Registration & Express Check-In**			*South Foyer, Lower Concourse*
9:00am - 1:30pm	**Exhibit Hall Open**			*Exhibit Hall, Lower Concourse*
12:30pm - 1:30pm	**Poster Removal**			*Exhibit Hall, Lower Concourse*
7:00am - 8:00am	**Continental Breakfast** *Supported by Myriad Genetics Laboratories, Inc.*			*Early Bird Session Room Foyers*
7:00am – 8:00am	**EARLY BIRD SESSIONS**			
	Biorepositories in Precision Medicine *Moderators: Lynne V. Abruzzo, MD, PhD, Ohio State University Medical Center, Columbus, OH, USA and Kristy Crooks, PhD, University of Colorado, Aurora, CO, USA* **The Role of Biobanks in Precision Medicine Research and Care** *Nazneen Aziz, PhD, Kaiser Permanente Research Bank, Oakland, CA, USA* **The "All of Us" Research Program- Precision Medicine Initiative: 1 Million Cohort** *Mine S. Cicek, PhD, Mayo Clinic, Rochester, MN, USA*	T	CME	*Room 255BC, Second Level*
	AMP Bioinformatics Pipeline Validation Working Group *(Sponsored by the Clinical Practice Committee)* *Moderator: Antonia R. Sepulveda, MD, PhD, Columbia University Medical Center, New York, NY, USA* **AMP Bioinformatics Pipeline Validation Working Group: Development of Guidelines** *Somak Roy, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA* **New AMP Guidelines on Validating Next Generation Sequencing Bioinformatics Pipelines** *Alexis B. Carter, MD, Children's Healthcare of Atlanta, Atlanta, GA, USA*	IF	CME	*Room 251, Upper Concourse*

Saturday, November 18, 2017 continued

Molecular Pathology of Pancreatic Neoplasms — O — CME — *Room 250, Upper Concourse*

Moderators: Lynette M. Sholl, MD, Brigham & Women's Hospital, Boston, MA, USA and Sinchita Roy Chowdhuri, MD, PhD, MD Anderson Cancer Center, Houston, TX, USA

Molecular Diagnostic Testing for the Detection of Early Pancreatobiliary Neoplasms
Aatur Singhi, MD, PhD, University of Pittsburgh Medical Center Presbyterian, Pittsburgh, PA, USA

Platform Presentations of Selected Technical Topics Abstracts — T — CME — *Room 255EF, Second Level*

Moderators: Cindy A. Meadows, ARUP Laboratories, Salt Lake City, UT, USA and Lynne Whetsell, Saint Francis Hospital, Tulsa, OK, USA

TT92 - Successful Extraction of RNA from Archived Bone Marrow Aspirate Smears for Use in Targeted RNA Sequencing
Tamara Restrepo, BSc, Boston Children's Hospital, Boston, MA, USA

TT82 - High Performance Detection of Cancer Mutations from Circulating DNA Using Single Color Digital PCR
Christina Wood-Bouwens, Stanford School of Medicine, Stanford, CA, USA

TT24 - Screening Circulating Nucleic Acids of Pancreatic Ductal Adenocarcinoma Using a Plasmonic Nanosensor
Amogha Tadimety, Dartmouth College, Hanover, NH, USA

TT76 - Engineering of Isogenic Cell Lines Using the CRISPR/Cas9 Technology and Precise Characterization of Low Allelic Frequency FFPE Cell Line Blocks for Use as Molecular Reference Standards
Andrew Hilmer, PhD, Applied Stem Cell, Milpitas, CA, USA

Case Studies in Hemepath and Informatics — O — IF — CME — *Room 355BC, Third Level*

Moderators: Eric J. Duncavage, MD, Washington University, Saint Louis, MO and Jennifer Dunlap, MD, Oregon Health & Science University, Portland, OR, USA

Inv(16) Incidentally Detected by Leukemia Translocation Panel Screen in a Patient with Therapy-related Acute Myeloid Leukemia
Andres E. Quesada, MD, The University of Texas M.D. Anderson Cancer Center, Houston, TX, USA

A Confounding Case of Polycythemia Vera
Aaron Atkinson, PhD, Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA

Identifying Patients at Risk for Myelodysplastic Syndrome through Next Generation Sequencing of Cytopenias with Equivocal or Absent Morphologic Dysplasia
Patrick Mann, MD, Washington University, St. Louis, MO, USA

Detection of the Controversial ASXL1 c.1934dupG (p.G646Wfs*12) Insertion Variant From Targeted Next-generation Sequencing (NGS) Data
Michael Alberti, MD, PhD, Washington University, St. Louis, MO, USA

Saturday, November 18, 2017 continued

8:00am – 8:15am	**Break**			
8:00am – 9:00am	**ID Special Session: Technologist Round Table: Troubleshooting in Molecular ID Lab** *Moderator: David R. Hillyard, MD, ARUP Laboratories, Inc, Salt Lake City, UT, USA* **Passing the Baton: Keys to Successful Implementation of Laboratory Developed Tests (LDTs) and FDA-cleared Tests** *Melissa R. Johnson, BSc, ARUP Laboratories, Salt Lake City, UT, USA* **Passing the Baton: Keys to Successful Implementation of Laboratory Developed Tests (LDTs) and FDA-cleared Tests** *Jeff Stevenson, PhD, ARUP Laboratories, Salt Lake City, UT, USA* **Passing the Baton: Keys to Successful Implementation of Laboratory Developed Tests (LDTs) and FDA-cleared Tests** *Jeffrey Chumley, MSc, MLS(ASCP)CM, ARUP Laboratories, Salt Lake City, UT, USA*	ID	CME	*Marriott, Deer Valley Room, Main Floor*
8:15am – 9:45am	**INHERITED CONDITIONS PLENARY SESSION**			
	Mitochondrial Disease: Diagnosis, Treatment and Prevention *Moderators: William E. Highsmith, Jr, PhD, Mayo Clinic and Foundation, Rochester, MN, USA and Linda Jo Bone Jeng, MD, PhD, University of Maryland at Baltimore, Baltimore, MD, USA* **Overview of Mitochondrial Disease and Nuclear Genetic Causes** *Marni J. Falk, MD, Children's Hospital of Philadelphia, Philadelphia, PA, USA, University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, USA* **Mitochondrial DNA Disease: Etiology, Diagnosis, and Prevention** *Sir Doug Turnbull, MBBS, MD, PhD, Newcastle University, Newcastle, UK*	IC	CME	*Ballroom, Lower Concourse*
9:45am – 10:45am	**Coffee Break – Visit Exhibits, AMP Central and Posters** *(Odd-numbered posters attended)* **AMP Central Activities:** *Meet & Greet: Clinical Practice Committee*			
10:45am – 12:15pm	**WORKSHOP SESSIONS**			
	Whole Exome Sequencing in Clinical Practice *Moderators: Somak Roy, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA and Brian Shirts, MD, PhD, University of Washington, Seattle, WA, USA* **Development and Validation of a Whole-exome Sequencing Test for Simultaneous Detection of Point Mutations, Indels and Copy-number Alterations for Precision Cancer Care** *Oliver Elemento, PhD, Institute for Precision Medicine, Weill Cornell Medicine, New York, NY, USA* **Integrated Genomic Profiling Using Clinical Whole Genome and Transcriptome Sequencing to Enable Precision Oncology** *Vaidehi Jobanputra, PhD, New York Genome Center, New York, NY, USA*	O	CME	*Room 250, Upper Concourse*

Saturday, November 18, 2017 continued

Crowd-sourcing the Expert Curation of Germline and Somatic Variants: CIViC, ClinGen and ClinVar
IF IC CME
Room 255EF, Second Level
Moderators: Christopher D. Coldren, PhD, PathGroup, LLC, Nashville, TN, USA and Hyunseok Kang, MD, Counsyl, Inc., San Francisco, CA, USA

ClinGen and ClinVar: Building Resources to Support Gene and Variant Interpretation
Heidi L. Rehm, PhD, Harvard Medical School, Boston, MA, USA

CIViC: A Curation Portal and Knowledgebase for Cancer Variant Interpretation
Obi L. Griffith, PhD, Washington University School of Medicine, St. Louis, MO, USA

Molecular Detection of Resistance: Ready for Prime Time?
ID CME
Room 251, Upper Concourse
Moderators: Belinda Yen-Lieberman, PhD, The Cleveland Clinic Foundation, Cleveland, OH, USA and Alex Greninger, MD, PhD, University of Washington, Seattle, WA, USA

Bacterial Resistance: Detection with Molecular Methods
Robert A. Bonomo, MD, Louis Stokes VA Medical Center, Cleveland, OH, USA

Deep Sequencing for HIV-1 Clinical Management
Maria Casadellà, PhD, IrsiCaixa AIDS Research Institute, Barcelona, Spain

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Review and Implementation of New AMP Guidelines on NGS Somatic Variant Test Validation, Interpretation, and Reporting
O CME
Room 255BC, Second Level
(Sponsored by the Clinical Practice Committee)
Moderator: Antonia R. Sepulveda, MD, PhD, Columbia University Medical Center, New York, NY, USA

AMP/CAP Guidelines for Validation of Next-Generation Sequencing–Based Oncology Panels
Lawrence J. Jennings, MD, PhD, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, USA

AMP/ASCO/CAP Standards and Guidelines of Somatic Variant Interpretation and Reporting
Marilyn M. Li, MD, Department of Pathology and Laboratory Medicine, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, USA

Implementation of NGS Somatic Variant Guidelines into Clinical Practice
Marina N. Nikiforova, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Saturday, November 18, 2017 continued

What is the Legal Risk for Interpreting and Classifying Sequencing Variants in the Laboratory? A CME *Room 355BC, Third Level*
(Sponsored by the Professional Relations Committee)
Moderators: Roger D. Klein, MD, JD, FACP, Roger D. Klein Consulting, Beachwood, OH, USA

Panelists
John D. Pfeifer, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA

Robert M. Cook-Deegan, Arizona State University, Washington, DC, USA

Wayne W. Grody, MD, PhD, UCLA School of Medicine, Los Angeles, CA, USA

Jamie McDonald, MSc, University of Utah, Salt Lake City, UT, USA

Elaine Lyon, PhD, ARUP Laboratories, Salt Lake City, UT, USA

12:15pm – 1:30 pm **General Lunch, Exhibit Hall, Exhibit Level** *Various locations, see program*
(entrance through Exhibit Hall)

Networking Lunches: Please see lunch descriptions in the "Highlights & General Information" section of the Program Book, Page 17.

AMP Central Activities:
Meet & Greet: International Affairs Committee

1:30pm – 3:00pm **SYMPOSIUM SESSIONS**

C. *difficile* Testing: Pros and Cons of Testing Algorithms ID CME *Room 250, Upper Concourse*
Moderators: Amy L. Leber, PhD, Nationwide Children's Hospital, Columbus, OH, USA and Belinda Yen-Lieberman, PhD, The Cleveland Clinic Foundation, Cleveland, OH, USA

Diagnosis of Clostridium difficile Infections–The Benefits of Molecular Testing
Ferric C. Fang, MD, University of Washington, School of Medicine, Seattle, WA, USA

Diagnosis of Clostridium difficile Infections–Why Toxin Tests Still Matter
Christopher R. Polage, MD, MAS, University of California, Davis School of Medicine, Sacramento, CA, USA

Saturday, November 18, 2017 continued

	Emerging Technology for Structural Variant Detection *Moderators: William E. Highsmith, Jr, PhD, Mayo Clinic and Foundation, Rochester, MN, USA and Linda Jo Bone Jeng, MD, PhD, University of Maryland at Baltimore, Baltimore, MD, USA* **Mate–Pair Sequencing in Cytogenetics** *Nicole L. Hoppman, PhD, Mayo Clinic, Rochester, MN, USA* **Digital Karyotyping and Complex Rearrangement Analysis with Sequencing at Single Molecule Resolution** *Hanlee P. Ji, MD, Stanford University School of Medicine, Stanford, CA, USA*	T IC	CME	*Room 155, First Level*
3:00PM – 3:15PM	**BREAK**			
3:15pm – 4:45pm	**GENERAL MOLECULAR TECHNOLOGIES PLENARY SESSION**			
	Role of Genome Editing in Research and Therapy *Moderators: Alexander Craig MacKinnon, Jr, MD, PhD, Medical College of Wisconsin, Milwaukee, WI, USA and Daniel E. Sabath MD, PhD, University of Washington, Seattle, WA, USA, 2017 Program Chair* **Genome Editing with CRISPR-Cas Nucleases** *J. Keith Joung, MD, PhD, Massachusetts General Hospital, Charlestown, MA, USA* **Accelerating Prediction of Tumor Vulnerabilities Using Next-generation Cancer Models** *Jesse S. Boehm, PhD, Broad Institute, Cambridge, MA, USA*	T O IC	CME	*Room 155, First Level*
4:45pm – 5:00pm	**Closing Remarks** *Daniel Sabath, MD, PhD, University of Washington Medical Center, Seattle, WA, USA and 2017 Program Chair* *Lynne V. Abruzzo, MD, PhD, Ohio State University Medical Center, Columbus, OH, USA and 2018 Program Chair*			*Room 155, First Level*

Notes

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THURSDAY

"AMP is the best organization for anyone who wants to stay on the ***cutting edge*** of the future of molecular pathology."

— **Matthew Hiemenz, MD**
Molecular Pathologist
Assistant Director of Clinical Genomics, Center for Personalized Medicine,
Children's Hospital Los Angeles

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Thursday, November 16, 2017

7:00am - 8:00am

Continental Breakfast

Location: Early Bird Session Room Foyers

7:00am - 8:00am

Early Bird Sessions

Standardization of Projects in Pharmacogenetics

Location: Room 250, Upper Concourse
CE Credit: 1 Hour
Path: General Molecular Technologies, Informatics

AMP CYP2C19 PGx Variant Standardization Project
Victoria M. Pratt, PhD, Indiana University, Indianapolis, IN, USA

PGx Standardization Project
Steven A. Schichman, MD, PhD, Central Arkansas Veterans Healthcare System, Little Rock, AR, USA

Session Description: This session will be an overview of laboratory and clinical initiatives in implementing pharmacogenetics. For laboratories, The AMP Pharmacogenetics Workgroup is developing a series of gene-specific minimum standard recommendations for a "must-test" variant list. The session will describe the criteria used for evaluation of the "must-test" variants. For clinical implementation of pharmacogenetics in the Veterans Administration (VA), this session will describe the rationale for determining the "must-test' gene-drug pairs in the VA system.

Session Objectives:

- Characterize the criteria used to determine the Tier 1 "must-test" variants for pharmacogenetic genotyping.
- Discriminate between the Tier 1 and Tier 2 recommendations for the "must-test" variants for pharmacogenetics genotyping.
- Summarize the process used to determine what gene-drug pairs should be tested in the VA population.

The Utah Genome Project

Location: Room 255BC, Second Level
CE Credit: 1 Hour
Path: Informatics, Inherited Conditions

Utah Genome Project: Genetic Discovery Powered by Utah's Large Families and Population Database
Deborah Neklason, PhD, University of Utah, Salt Lake City, UT, USA

Session Description: The Utah Genome Project (UGP) is a University of Utah strategic initiative to unravel the genetic basis of human disease through genomic sequencing of Utah families to discover, understand, prevent, and treat challenging medical conditions. UGP builds upon a rich history of genetic discovery enabled by the Utah Population database, a resource of 24 million records representing 8 million individuals and links family genealogies with medical records. UGP is enabled by the affordable technologies for sequencing and management of large data sets. The goals of UGP are to build infrastructure and best practice standards, discover novel disease-causing genes and develop precision diagnostics and therapies based on genomic variation.

Session Objectives:

- Discuss the scope of the data content, data linkage, and data access in the Utah Population database.
- Cite an example where genetic discovery leads to disease prevention in a family of thousands of descendants.
- Describe bioinformatic approaches being applied to genomic discovery in families.

Molecular Diagnostics for Biomarker-Driven Clinical Trials

Location: Room 251, Upper Concourse
CE Credit: 1 Hour
Path: Oncology/Cancer, Informatics

The Challenges of Development and Application of the NCI-MATCH NGS Assay
P. Mickey Williams, PhD, National Cancer Institute, Frederick, MD, USA

Pediatric Clinical Trial Networks, Pathologist's Perspective
Marian H. Harris, MD, PhD, Boston Children's Hospital, Boston, MA, USA

Session Description: NCI-MATCH is a precision medicine cancer treatment clinical trial seeking to determine whether treating cancer based on specific genetic changes found in the patient's tumor is an effective strategy. Genetic changes are identified through targeted sequencing of cancer DNA using standardized methods. When the genetic changes identified in a patient's tumors "match" one of the treatments in the trial, the patient may receive that treatment provided they meet other eligibility criteria. The pediatric cancer population poses unique challenges for biomarker-driven therapy trials. Pediatric tumors are rare and have fewer genetic alterations than most adult tumors. Patient access to targeted therapies may also be limited. Multi-institutional protocol designs incorporating comprehensive tumor sequencing technologies are feasible and may help to overcome the challenges of clinical investigation in this population. This session will discuss the design and outcomes of a large multi-institutional study (iCAT) identifying actionable tumor alterations in pediatric patients.

Session Objectives:

- Describe the process used to identify, develop, and validate NGS assays for clinical trials.
- Illustrate the challenges during the development of the molecular guided clinical trials.
- Assess the current status of the NCI MATCH trial.
- Discuss how molecular profiling of pediatric tumors is feasible in the context of a multi-institutional studies.
- Cite data that indicate that actionable alterations are found in a substantial portion of patients.
- Analyze ways in which pediatrics can serve as a model for multi-institutional cooperation in other rare tumor types.

Applications of Multiplex Molecular Imaging in Cancer

Location: Room 255EF, Second Level
CE Credit: 1 Hour
Path: Oncology/Cancer, General Molecular Technologies

High Dimensional Imaging of Tumor Immune Infiltrates Using MIBI
Michael Angelo, MD, PhD, Stanford University, Palo Alto, CA, USA

Session Description: Assessment of protein expression on neoplastic cells and surrounding stroma is fundamental to the modern classification of tumors. In clinical practice, standard immunohistochemistry using chromogen-labeled antibodies permits visualization of only one to two antigen targets on each slide; immunofluorescence-based approaches allow for simultaneous visualization of up to ten targets, but only with significant technical optimization efforts. Mass spectroscopy-based approaches, including mass spectroscopic immunohistochemistry and multiplexed ion beam imaging, in which metal chelator tags replace chromagens and fluorophores, permit simultaneous detection of 40 or more targets with subcellular resolution. This technology has a significant potential role in the advancement of our understanding of complex cellular relationships in human cancers, including tumor-immune cell interactions and intratumoral heterogeneity.

Session Objectives:

- Explain the limitations of current antibody-based diagnostics and imaging modalities.
- Describe evolving methodologies that permit high level multiplexing for molecular imaging in tissue sections.
- Identify applications for multiplex molecular imaging and its complementarity with genomics-based diagnostics.

Case Studies in Infectious Diseases and Genetics

Location: Room 355BC, Third Level
CE Credit: 1 Hour
Path: Infectious Diseases, Inherited Conditions

Hypertetraploid Partial Molar Pregnancy Identified by Microarray and STR Analysis, with Subsequent Choriocarcinoma Diagnosis
Elizabeth Barrie, PhD, Nationwide Children's Hospital, Columbus, OH, USA

Research Whole Exome Sequencing Identifies a Novel SH2D1A Variant in a 51-Year-Old Patient with CNS Lymphocytic Vasculitis
Patrick Blackburn, PhD, Mayo Clinic, Rochester, MN, USA

Acute Liver Failure Due to Echovirus 9 Associated with Persistent B Cell Depletion from Rituximab
Alex Greninger, MD, PhD, University of Washington, Seattle, WA, USA

Pyrosequencing Solves the Case of the Conflicting Bacterial Isolates
Damon R. Olson, MD, Baylor College of Medicine, Houston, TX, USA

Session Description: Challenging Case Studies are presented by trainees or technologists. They will discuss the case's clinical history, molecular analysis, interesting features, and the proposed diagnosis. Other molecular testing methods, if applicable, will be included in the presentation, including

biopsies, gross/microscopic pathology, immunohistochemistry/flow cytometry, and cytogenetic findings.

Session Objectives:

- Describe the context of a challenging clinical case.
- Discuss the molecular pathology techniques used in the diagnosis of the case.
- Propose a final diagnosis based upon findings and diagnostic evidence.

8:00am - 8:15am

Break

8:15am - 8:30am

Opening Remarks

Location: Ballroom, Lower Concourse
CE Credit: No CME/CMLE
Path: Opening Remarks

Opening Remarks
Daniel Sabath, MD, PhD, University of Washington Medical Center, Seattle, WA, USA and 2017 Program Chair

8:30am - 9:45am

Award Lecture

Award for Excellence in Molecular Diagnostics: Presentation and Lecture

Location: Ballroom, Lower Concourse
CE Credit: 1.25 Hours
Path: Oncology/Cancer, General Molecular Technologies, Inherited Conditions

The Epigenetic Basis of Common Human Disease
Andrew P. Feinberg, MD, MPH, Johns Hopkins University School of Medicine, Whiting School of Engineering, and Bloomberg School of Public Health, Baltimore, MD, USA

Session Description: Introduction to epigenetics and its relevance to common human disease.

Session Objectives:

- Define epigenetics.
- Discuss the role of epigenetics in common human disease.
- Explain how epigenetics can be combined with genetics for precision medicine.

9:45am - 10:15am

Break

Location: Ballroom Foyer, Lower Concourse

10:15am - 11:45am

Plenary Session

Molecular Genetics and Biomarkers of B-cell Leukemias and Lymphomas

Location: Ballroom, Lower Concourse
CE Credit: 1.50 Hours
Path: Oncology/Cancer

Precursor B-cell Neoplasms (ALL)
Charles G. Mullighan, MBBS (Hons), MSc, MD, St. Jude Children's Research Hospital, Memphis, TN, USA

Genetic and Epigentic Drivers of Diffuse Large B-cell Lymphoma
Laura Pasqualucci, MD, Columbia University Medical Center, New York, NY, USA

Session Description: The second presentation will provide an overview of recent advances in the understanding of the molecular pathogenesis of diffuse large B-cell lymphoma, the most common mature B-cell malignancy. The speaker will illustrate the most common genes/programs targeted by genetic lesions in this disease, with emphasis on epigenetic modifiers; discuss the role of these genes in normal and malignant B-cells; and highlight how these molecular insights have unveiled novel therapeutic opportunities.

Session Objectives:

- Define the most common structural alterations associated with major DLBCL subtypes and their prognostic significance.
- Explain how these lesions may favor malignant transformation.
- Identify ways to utilize this information for diagnostic and therapeutic purposes.

11:45am - 1:00pm

Lunch

General Lunch, Exhibit Hall, Exhibit Level

(entrance through Exhibit Hall)

Networking Lunches: Please see lunch descriptions in the "Highlights & General Information" section of the Program Book, Page 17.

AMP Central Activities:
Meet & Greet: Publications & Communication Committee
Meet & Greet: Nominating Committee
Test Directory assistance and demonstrations

1:00pm - 2:30pm

Workshop Sessions

MRD Assessment in Acute Leukemias

Location: Room 355BC, Third Level
CE Credit: 1.50 Hours
Path: Oncology/Cancer, Informatics

A Clinical Trial to Improve Risk Assessment in Acute Myeloid Leukemia that Uses Enhanced Exome Sequencing to Detect Leukemia Clearance Following Therapy
David H. Spencer, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA

Next-generation Sequencing for Detecting MRD in Acute Lymphoblastic Leukemia
David Wu, MD, PhD, University of Washington, Seattle, WA, USA

Session Description: Current approaches for determining risk of relapse in acute myeloid leukemia (AML) patients are imperfect, especially for patients lacking cytogenetic markers that are associated with established risk categories. Recent genomic studies suggest that monitoring of patient-specific somatic mutations has prognostic benefit, and could therefore be used to identify patients who would benefit from intensified therapy. To test this hypothesis, we are performing a prospective clinical trial using a validated a custom exome sequencing assay to stratify intermediate risk AML patients into treatment groups. In this presentation, I will describe the validation of this test, and our experience applying it to patients enrolled in this study over the past year. This talk/session will also review the opportunities and challenges for detecting minimal residual disease (MRD) by next-generation sequencing of IGH and T-cell receptor genes in acute lymphoblastic leukemias.

Session Objectives:

- Discuss the current evidence for molecular testing of AML patients following induction chemotherapy for risk stratification.
- Summarize the use of 'enhanced exome' sequencing as a technical strategy for detecting and tracking patient-specific somatic mutations in tumor samples.
- Discuss the advantages and limitations of tumor/normal sequencing compared to tumor-only sequencing for disease monitoring.
- Describe the opportunity for assessing MRD by next-generation sequencing in ALL.
- Analyze potential challenges and strategies.
- Discuss the recent literature in this area.

Discovering the Links: Infectious Agents and Cancer

Location: Room 251, Upper Concourse
CE Credit: 1.50 Hours
Path: Oncology/Cancer, Infectious Diseases

HPV and Head and Neck Cancer
Joseph A. Califano, MD, University of California, San Diego, CA, USA

Blood-based Assessment of EBV DNA as a Tumor Marker
Jennifer A. Kanakry, MD, National Cancer Institute, National Institutes of Health, Bethesda, MD, USA

Session Description: Prior infection with a virus or bacteria can set the stage for development of malignancy. In this session the links between two viruses, human papilloma virus (HPV) and Epstein Barr virus (EBV), and the development of cancer will be explored. The role of molecular testing in the diagnosis and monitoring of disease will be discussed.

Session Objectives:

- Review the epidemiology of viral infections and the development of malignancy.
- Discuss the risks and available treatment for HPV and EBV related cancers.
- Explore the types of testing and their role in the diagnosis and monitoring of affected patients.

Pharmacogenomics Implementation

Location: Room 255BC, Second Level
CE Credit: 1.50 Hours
Path: Informatics, Inherited Conditions

Clinical Implementation of Pharmacogenomics: From Reactive Testing to Preemptive Testing
Ann M. Moyer, MD, PhD, Mayo Clinic, Rochester, MN, USA

Implementing and Assessing Outcomes with Genotype-Guided Therapy
Larisa H. Cavallari, PharmD, University of Florida, College of Pharmacy, Gainesville, FL, USA

Session Description: This session will describe examples of genotype-guided drug therapy in clinical practice and efforts to build evidence with pharmacogenomic implementation. These presentations will highlight the various approaches to implementation of pharmacogenomics testing, namely reactive and preemptive testing.

Session Objectives:

- Describe challenges faced by providers in ordering and interpreting pharmacogenomic test results.
- Discuss how variability among pharmacogenomic tests/reports among laboratories impacts clinical practice.
- Describe efforts to examine outcomes with pharmacogenomic implementation.

Bioinformatic Frontiers: Dissecting the Genetics of Cancer

Location: Room 250, Upper Concourse
CE Credit: 1.50 Hours
Path: Oncology/Cancer, Informatics

Computational Dissection of Intra-tumor Genetic Heterogeneity and Applications to the Study of Cancer Treatment, Evolution, and Metastasis
Scott L. Carter, PhD, Dana-Farber Cancer Institute, Boston, MA, USA

Strategies and Challenges for Somatic Mutation Detection by Next-gen Sequencing
Daniel C. Koboldt, MSc, Institute for Genomic Medicine at Nationwide Children's Hospital, Columbus, OH, USA

Session Description: An array of computational approaches can be used to identify somatic variants from massively parallel sequencing data from tumors with or without a paired normal tissue. However, there are significant challenges to achieving clinically appropriate balance between sensitivity and specificity of the called variants, particularly insertion/deletions and structural variants. In addition, tumor purity, ploidy and subclonal evolution further complicate the assessment of the identified variants. Using bioinformatics methods to approximate the tumor phylogeny, investigators can infer driver alterations, observe clonal evolutionary divergence, and dissect the underpinnings of tumor relapse. Computational approaches to understanding the strategies with somatic variant detection (VarScan) and novel methods to assess tumoral heterogeneity, such as ABSOLUTE, will be discussed.

Session Objectives:

- Discuss bioinformatics methods to optimize somatic variant detection.
- Examine computational methods to infer tumor purity and intratumoral heterogeneity.

Genetics of Spinal Muscular Atrophy and Amyotrophic Lateral Sclerosis: A Timely Review

Location: Room 255EF, Second Level
CE Credit: 1.50 Hours
Path: Inherited Conditions

Perspectives and Diagnostic Considerations in Spinal Muscular Atrophy
Thomas W. Prior, PhD, Ohio State University, Columbus, OH, USA

Genetics of ALS
Vivianna M. Van Deerlin, MD, PhD, University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, USA

Session Description: Spinal Muscular Atrophy (SMA) and Amyotrophic Lateral Sclerosis (ALS) are devastating degenerative diseases of motor neurons. SMA is primarily a disease of infants and children and is the most common genetic cause of infant death. ALS is a disease of adults and is now recognized as part of a spectrum of disease phenotypes.

Session Objectives:

- Describe the genetic causes of SMA and ALS and related conditions.
- Recognize the approaches and complexities associated with molecular diagnostic testing for SMA and ALS.
- Discuss the ongoing efforts to apply genetic information to genotype/phenotype correlations and the implications for precision medicine approaches.

Thursday, November 16, 2017

2:30pm - 4:15pm

Break

Coffee Break - Visit Exhibit Hall, AMP Central and Posters

(Award Applicant Posters Attended)

Location: Exhibit Hall, Lower Concourse

AMP Central Activities:
Career Networking Mixer – Technologists
Meet & Greet: Subdivision Leadership

4:15pm - 5:45pm

Plenary Session

The Hunt for Microbes: The Beginning of the End of the Pandemic Era

Location: Ballroom, Lower Concourse
CE Credit: 1.50 Hours
Path: Infectious Diseases

Microbial Anthropology
Maria G. Dominguez-Bello, PhD, BSc, MSc, New York University School of Medicine, New York, NY, USA

A Collaborative Effort to End the Pandemic Era: The Global Virome Project
Jonna Mazet, DVM, MPVM, PhD, One Health Institute, University of California, Davis, CA, USA

Session Description: The ability to understand the world through the use of molecular tools has led to fascinating discoveries. In this session, the concept of microbial anthropology will be examined, exploring the human microbiome in peoples with different levels of integration to Western lifestyles in the Amazon region and Southern Africa. The Global Virome project is a ten-year project to pre-empt emerging pandemic threats by identifying the majority of unknown viruses throughout the world that are likely to infect humans.

Session Objectives:

- Describe the technologies used to make pathogen discovery possible.
- Explore the differences in microbiota of different groups of humans and the impact of Western lifestyles on the makeup of the human microbiome.
- Review efforts to combat the emergence and re-emergence of high impact viral epidemics and pandemics compromising global health security and well-being of the peoples of the world.

5:45pm - 7:00pm

Welcome Reception

Welcome Reception

(Supported by Roche)

Location: Exhibit Hall, Lower Concourse
CE Credit: Not CME/CMLE
Path: Reception

Session Description: Please join us for the Welcome Reception and help to kick-off another successful Annual Meeting while networking with your friends and colleagues in the Exhibit Hall. This event is open to all Registered Meeting Attendees. Supported by Roche.

AMP Central Activities:
Tweet up! Meet the other #AMPlifiers you have gotten to know online as you prepared for AMP 2017!

AMP

Advocates

FOR YOU, YOUR PRACTICE & THE PATIENTS YOU SERVE

The **AMP ADVOCACY PROGRAM** endeavors to inform and influence public policy affecting molecular pathology. AMP communicates regularly with federal agencies and members of Congress regarding professional and reimbursement issues and continues to confront numerous regulatory and reimbursement forces adversely affecting molecular diagnostic testing including:

- **Oversight of Laboratory Developed Procedures (LDPs)**
- **Coverage and Reimbursement of Molecular Procedures**
- **Implementation of the new Medicare Clinical Diagnostic Laboratory Test Payment System (PAMA)**
- **Regulatory Oversight of NGS Diagnostic Tests**
- **Limitations of Rx-Dx Pairs in Companion Diagnostics**

WWW.AMP.ORG/ADVOCATES

"As a Molecular Pathologist, I am responsible for performing high quality and accurate testing for my patients. Legislators have comparable obligations to their constituents. So, I feel obliged to advocate for my patients, and my specialty. It's my duty and privilege to educate officials on the critical role of molecular diagnostics in health care, and to ensure ***AMP Advocacy*** continues to be impactful."

Shelby D. Melton, MD
VA North Texas Health Care System

FRIDAY

FRIDAY

Friday, November 17, 2017

7:00am - 8:00am

Continental Breakfast

Location: Early Bird Session Room Foyers

7:00am - 8:00am

Early Bird Sessions

Novel Technologies: Cool Toys for You Now and in the Future

Location: Room 250, Upper Concourse
CE Credit: 1 Hour
Path: General Molecular Technologies, Infectious Diseases

Gene Expression Profiling During Infection Using Digital Barcoded Probe Technology
Wenjie Xu, PhD, NanoString Technologies, Inc., Seattle, WA, USA

Implementation of a Diagnostic Device Syndromic Disease Network
Lindsay Meyers, BSc, BioFire Diagnostics, LLC, Salt Lake City, UT, USA

Introduction to Smarticles™ Technology: Potential Applications in Antimicrobial Stewardship
Michael A. Lewinski, PhD, Roche Molecular Systems, Inc., Pleasanton, CA , USA

Session Description: Three novel next generation technologies for use as tools for pathogen detection and characterization will be described and preliminary performance data will be presented.

Session Objectives:

- Describe important operational features of the three platforms.
- Identify potential clinical utility.
- Explain key performance characteristics.

Data Visualization

Location: Room 251, Upper Concourse
CE Credit: 1 Hour
Path: Informatics

Enabling Scientific Discovery Through Interactive Visual Data Analysis
Alexander Lex, PhD, University of Utah, Salt Lake City, UT, USA

Session Description: The molecular lab is ground zero for the growing volume and complexity of biomedical data. Interactive visual data analysis methods can leverage both the power of computation and the unique abilites of humans to interpret large and complex data sets. This session will briefly introduce basic visualization concepts and then describe recent efforts from the University of Utah Visualization Design Lab to facilitate data-driven discovery and communication.

Session Objectives:

- Describe basic visualization concepts and guidelines for good visualization design.
- Discuss two data visualization challenges in the molecular laboratory.

New Tools for Detecting Low Frequency Variants Applications in Hematopoietic Neoplasms

Location: Room 255BC, Second Level
CE Credit: 1 Hour
Path: Informatics

Single Molecule Quantification of Rare DNA and RNA Variants in Heterogeneous Samples
Todd E. Druley, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA

Session Description: The ability to precisely quantify rare DNA and RNA variants from next-generation sequencing (NGS) is limited due to the relatively high error rate (0.005-0.01) of NGS platforms. In contrast, flow cytometry for residual leukemia following therapy has proven predictive for therapeutic escalation and outcomes at levels as low as 0.0001. Flow cytometry, however, can only provide a binary positive or negative result. To improve the limit of detection of NGS to match that of flow cytometry as well as to provide gene-specific information that may inform precision therapies, we developed error-corrected sequencing (ECS) for DNA or RNA using unique molecular indexing (UMIs). We are sensitive to point mutations, indels, fusions and aberrant splice forms as rare as 0.0001. Using ECS on serial pre-leukemic DNA, we have identified signatures of point mutations as rare as 0.0002 that are predictive of AML up to 15 years in advance.

Session Objectives:

- Illustrate how UMIs overcome the errors introduced by NGS.
- Describe how different alignment strategies are necessary to identify different types of variants (e.g. point mutations vs internal tandem duplications).
- Assess how to apply ECS for individualized cancer prediction or surveillance after therapy.

Coding (and Other) Conundrums

(Sponsored by the Economic Affairs Committee)

Location: Room 255EF, Second Level
CE Credit: 1 Hour
Path: Advocacy/Lab Management

Panel Discussion
Aaron D. Bossler, MD, PhD, University of Iowa, Iowa City, IA, USA
(EAC Vice-Chair New Codes Subcommittee)

Richard D. Press, MD, PhD, Oregon Health & Sciences University, Portland, OR, USA
(EAC Vice-Chair Coverage Subcommittee)

Anthony N. Sireci, MD, Columbia University Medical Center, New York, NY, USA
(EAC Vice-Chair Pricing Subcommittee)

Session Description: In today's healthcare landscape, clinical laboratories face a milieu of coding, coverage, and reimbursement challenges for molecular diagnostic procedures. To assist with deciphering laboratory economic issues, the Economic Affairs Committee invites you an early morning discussion where EAC leaders will provide answers to selected questions, answer questions submitted by AMP members prior to the meeting, and provide ample time for discussion with the session attendees.

Session Objectives:

- Examine and clarify selected coding, coverage, and reimbursement conundrums.
- Identify useful resources for laboratories navigating these issues.
- Assess key gaps in understanding of knowledge for EAC to address in future AMP educational programs.

Case Studies in Solid Tumors

Location: Room 355BC, Third Level
CE Credit: 1 Hour
Path: Oncology/Cancer

A Case of MSI-high Colorectal Cancer Responsive to Checkpoint Blockade Immunotherapy after Progression to Metastatic Disease
Maryam Shirazi, MD, Columbia University Medical Center, New York, NY, USA

RBM10-TFE3: A Potential Diagnostic Pitfall Due to Cryptic Intrachromosomal Xp11.2 Inversion Resulting in False-negative TFE3 FISH Renal Cell Carcinoma
Deepu Alex, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA

Not So Ancillary: A Case of Correction of Primary Diagnosis with Molecular Studies
Adam Wilberger, MD, University of Colorado Hospital, Aurora, CO, USA

Mutation Signature as a Diagnostic Clue in Lung Carcinoma
Navin Mahadevan, MD, PhD, Brigham and Women's Hospital, Boston, MA, USA

Session Description: Challenging Case Studies are presented by trainees or technologists. They will discuss the case's clinical history, molecular analysis, interesting features, and the proposed diagnosis. Other molecular testing methods, if applicable, will be included in the presentation, including biopsies, gross/microscopic pathology, immunohistochemistry/flow cytometry, and cytogenetic findings.

Session Objectives:

- Describe the context of a challenging clinical case.
- Discuss the molecular pathology techniques used in the diagnosis of the case.
- Propose a final diagnosis based upon findings and diagnostic evidence.

8:00am - 8:15am

Break

Friday, November 17, 2017

8:00am - 9:00am

ID Special Session

Molecular Infectious Disease Testing: Point of Care Challenges

Location: Marriott, Deer Valley Room, Main Floor
CE Credit: 1 Hour
Path: Infectious Diseases

Molecular Point-of-Care Tests for Infectious Diseases: Opportunities and Challenges
Frederick S. Nolte, PhD, Medical University of South Carolina, Charleston, SC, USA

Session Description: Point-of-care-tests (POCTs) provide rapid actionable results at the time and site of patient encounter. Traditionally, lateral flow immunoassays have been used for this purpose. Recently, emerging molecular methods have been developed to meet the needs for speed, low cost, and ease of use of POCTs for a wide variety of infectious diseases.

Session Objectives:

- Describe current and emerging technologies for molecular infectious disease testing at the point of care.
- Explain the major drivers for development of these tests in resource limited and rich countries.
- Discuss the unique challenges associated with deployment of molecular tests in near patient settings.

8:15am - 9:45am

Plenary Session

Molecular Informatics at Scale for Genomics-based Personalized Cancer Care

Location: Ballroom, Lower Concourse
CE Credit: 1.50 Hours
Path: Informatics

Molecular Pathology Informatics – Toolsets and Infrastructures for Supporting Clinical Trials
Mark Routbort, MD, PhD, University of Texas MD Anderson Cancer Center, Houston, TX, USA

Interpreting the Cancer Genome: Identifying Driver Alterations and Therapeutic Options
Nikolaus Schultz, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA

Session Description: The fields of Cancer Genomics and Molecular Pathology are each complex and rapidly changing, and their intersection makes our practice challenging. Supporting clinical care and clinical research in an efficient manner requires an infrastructure to provide access to relevant information and an array of tools to prioritize and present this information in a form that helps advances team goals. This plenary session will describe informatics approaches that support the Precision Oncology goals of cancer genomic variant effect interpretation based on prior knowledge and statistical recurrence, and on the support of clinical trial activity.

Session Objectives:

- Discuss two informatics challenges in Precision Oncology.
- Discuss an infrastructure element that addresses one challenge.
- Discuss an analytical tool that addresses one challenge.

9:45am - 10:45am

Break

Coffee Break – Visit Exhibit Hall, AMP Central and Posters

Location: Exhibit Hall, Lower Concourse

AMP Central Activities:
Meet & Greet: Economic Affairs Committee
Meet & Greet: Professional Relations Committee

10:45am - 11:45am

Workshop Sessions

Platform Presentations of Selected Genetics Abstracts

Location: Room 255BC, Second Level
CE Credit: 1 Hour
Path: Inherited Conditions

G24 – Discovery of Unique Disease- and Gene-specific Peripheral Blood DNA Methylation Signatures Allows Molecular Diagnosis and VUS Classification in Hereditary Genetic Syndromes
Bekim Sadikovic, PhD, London Health Sciences Centre, Western University, Ontario, Canada

G44 – Runs of Homozygosity (ROH) Reveal that Segmental-UPD Occurs as a Result of Recombination Mediated Repair of Genomic Imbalance
Andrea L. Penton, PhD, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

G30 – Improved Screening for Cancer Predisposition Mutations in Patients with Advanced Solid Tumors Enabled by Tumor-normal Sequencing
Diana Mandelker, MD, PhD, Memorial Sloan Kettering Cancer Center, New York, NY, USA

G28 – Short Tandem Repeat Analysis Reveals a High Rate of Partial Hydatidiform Moles in Triploid Conceptions Identified by Prenatal Chromosome Microarray
Xuemei Wu, MD, PhD, Oregon Health & Science University, Portland, OR, USA

Session Description: Platform presentations of selected Genetics abstracts.

Session Objectives:

- Analyze platform presentations of abstracts highlighted by the Genetics Subdivision leadership as particularly significant.
- Evaluate the scientific merit and significance of these selected studies through further discussion with the authors.

Platform Presentations of Selected Hematopathology Abstracts

Location: Room 251, Upper Concourse
CE Credit: 1 Hour
Path: Oncology/Cancer

H28 – Haplotype Counting for Sensitive AML Relapse Detection
Marija Debeljak, BSc, Johns Hopkins University, Baltimore, MD, USA

H60 – Comparison of Clinical Digital Karyotyping by Comprehensive Next Generation Sequencing with Standard Cytogenetic Analysis in Pediatric Leukemia
Elizabeth M. Azzato, MD, PhD, MPH, St. Jude Children's Research Hospital, Memphis, TN, USA

H68 – Diagnostic Yield of Somatic Mutation Detection in Hematologic Malignancies Does Not Increase with Additional Mutation Analysis, and Supports More Focused Disease-specific Testing Models
Szabolcs Szelinger, PhD, University of California, Los Angeles, CA, USA

H34 – Implementation Considerations: Designing and Medically Vetting a Targeted Gene Panel for Hematologic Malignancies
Michelle Grant, DO, University of Vermont Medical Center, Burlington, VT, USA

Session Description: Platform presentations of selected Hematopathology abstracts.

Session Objectives:

- Analyze platform presentations of abstracts highlighted by the Hematopathology Subdivision leadership as particularly significant.
- Evaluate the scientific merit and significance of these selected studies through further discussion with the authors.

Platform Presentations of Selected Infectious Diseases Abstracts

Location: Room 355BC, Third Level
CE Credit: 1 Hour
Path: Infectious Diseases

ID74 – Detection of Resistance-Associated Substitutions in the Hepatitis C Viral Genome using the Sentosa SQ Hepatitis C Virus Genotyping Next-Generation Sequencing Assay
Jonas Pettersson, PhD, University of Southern California, Los Angeles, CA, USA

ID02 – Pathogen Detection by Metagenomic Next Generation Sequencing of Purulent Body Fluids
Wei Gu, MD, PhD, University of California, San Francisco, CA, USA

ID34 – Challenges Associated with Developing Rapid Molecular Diagnostics for Detection of Antibiotic Resistance
Megan Stonebraker, BSc, Diatherix Laboratories, Huntsville, AL, USA

ID60 – Extreme One-Step RT-PCR: Potential for Point-of-Care Viral Detection
Jessica A. Houskeeper, University of Utah, Salt Lake City, UT, USA

Session Description: Platform presentations of selected Infectious Diseases abstracts.

Session Objectives:

- Analyze platform presentations of abstracts highlighted by the Infectious Diseases Subdivision leadership as particularly significant.
- Evaluate the scientific merit and significance of these selected studies through further discussion with the authors.

Platform Presentations of Selected Informatics Abstracts

Location: Room 255EF, Second Level
CE Credit: 1 Hour
Path: Informatics

I06 – A New Allele-centric VCF File for Variants in ClinVar
Melissa J. Landrum, PhD, National Center for Biotechnology, National Library of Medicine, National Institutes of Health, Bethesda, MD, USA

I16 – Homopolymer Compression Improves Reference-Free, Kmer Based Whole Genome Strain Comparison for IonTorrent Data
Keith E. Simmon, PhD, ARUP Laboratories, Salt Lake City, UT, USA

I20 – Redesigning the Molecular Pathology Clinical Report for the Next-generation Genomic Era: The MSKCC Experience with the MSK-IMPACT Assay
Aijazuddin Syed, MSc, Memorial Sloan Kettering Cancer Center, New York, NY, USA

I28 – An Interlaboratory Assessment of Complex Variant Detection Using Multiplexed Positive Controls
Stephen Lincoln, Invitae, San Francisco, CA, USA

Session Description: Platform presentations of selected Informatics abstracts.

Session Objectives:

- Analyze platform presentations of abstracts highlighted by the Informatics Subdivision leadership as particularly significant.
- Evaluate the scientific merit and significance of these selected studies through further discussion with the authors.

Platform Presentations of Selected Solid Tumors Abstracts

Location: Room 250, Upper Concourse
CE Credit: 1 Hour
Path: Oncology/Cancer

ST52 – Clinical Cancer Whole Exome and Transcriptome Sequencing of Pediatric Tumors at Columbia University Medical Center: Laboratory Perspective at Three Years
Susan J. Hsiao, MD, PhD, Columbia University Medical Center, New York City, NY, USA

ST56 – Clinical Utility of Large Scale Genomic Sequencing of Solid Tumors at a Large Academic Medical Center
Noah A. Brown, MD, University of Michigan, Ann Arbor, MI, USA

ST114 – Identification of Germline Variants in Tumor Genomic Sequencing Assays: Usefulness of Variant Allele Fraction and Population Variant Databases
Nathan D. Montgomery, MD, PhD, University of North Carolina, Chapel Hill, NC, USA

ST62 – Integrated Molecular Diagnostic Call Criteria for MET Exon 14 Skipping in Lung Cancer
Ryan J. Schmidt, MD, PhD, Harvard Medical School, Boston, MA, USA

Session Description: Platform presentations of selected Solid Tumors abstracts.

Session Objectives:

- Analyze presentations of abstracts highlighted by the Solid Tumors Subdivision leadership as particularly significant.
- Evaluate the scientific merit and significance of these selected studies through further discussion with the authors.

11:45am - 1:00pm

Lunch

General Lunch, Exhibit Hall, Exhibit Level

(entrance through Exhibit Hall)

Networking Lunches: Please see lunch descriptions in the "Highlights & General Information" section of the Program Book, Page 17.

AMP Central Activities:
Career Networking Mixer – Trainee/ Early Career
Meet & Greet: Training & Education Committee
Meet & Greet: Awards Committee

1:00pm - 2:30pm

Plenary Session

High Impact Molecular Diagnostics for Cancer and Inherited Diseases

Location: Ballroom, Lower Concourse
CE Credit: 1.50 Hours
Path: Oncology/Cancer, Inherited Conditions

Solid Tumor Genotyping: Technical and Clinical Validation with a Focus on Fusions
A. John Iafrate, MD, PhD, Massachusetts General Hospital, Boston, MA, USA

Intersection of Germline and Somatic Cancer Variants and New Areas of Clinical Utility
Colin C. Pritchard, MD, PhD, University of Washington, Seattle, WA, USA

Session Description: The first presentation will discuss the work done in the lab of Dr. Iafrate that focuses on bringing new genetic technologies to cancer diagnostics and the application of these in clinical molecular diagnostic testing. The work has led to the development of a novel next generation sequencing technique termed "Anchored Multiplex PCR (AMP)" that is especially powerful at the detection of gene fusion events from clinical specimens. We have shown that AMP is as sensitive as FISH in diagnosing ALK, ROS1 and RET fusions in lung cancer, and does not require knowing both fusion partners. In addition, AMP can be used for genomic DNA target enrichment and is scalable and cost effective. Current work focuses on ultrasensitive detection of mutations in blood and urine.

Genomic sequencing technologies have enabled increasing use of cancer genetic testing for both germline cancer predisposition and somatic mutation profiling in tumors. The second presentation will review the interplay between germline and somatic findings in cancer genetic testing, with particular emphasis on new areas of clinical utility. These new areas include germline testing of cancer predisposition genes to guide cancer treatment decisions, tumor DNA sequencing to rule out Lynch syndrome, and tumor DNA sequencing used to inform germline variant classification.

Session Objectives:

- Describe sequencing strategies to identify gene fusions in cancer.
- Discuss key elements required for the validation of gene fusions detected.
- Discuss the clinical utility of NGS-based detection of gene fusions in clinical practice.
- Review when and how testing for inherited mutations in BRCA1, BRCA2, and other homologous recombination DNA repair genes is used to guide cancer treatment.
- Describe the clinical scenario and utility of tumor sequencing of mismatch DNA repair genes as part of a Lynch syndrome workup.
- List at least two types of tumor findings that increase the probability that a germline variant in a cancer predisposition gene is pathogenic.

ID Special Session

Unmet Needs in Infectious Disease Diagnostics

Location: Marriott, Deer Valley, Main Floor
CE Credit: 1.50 Hours
Path: Infectious Diseases

Panel Discussion
Gregory A. Storch, MD, Washington University School of Medicine, St. Louis, MO, USA

Kimberly Hanson, MD, MHS, University of Utah, Salt Lake City, UT, USA

Session Description: Molecular diagnostics have significantly advanced the practice clinical Infectious Diseases (ID), but many challenges remain. This session is a panel discussion focused on the unmet diagnostic needs in ID and will evaluate a variety of different patient settings.

Session Objectives:

- Highlight common clinical scenarios where available diagnostics fall short.
- Review selected outcomes studies and comment on future diagnostic priories.
- Assess the current regulatory environment and discuss barriers to new test development.

2:30pm - 3:30pm

Break

Coffee Break – Visit Exhibit Hall, AMP Central and Posters

(Even-numbered posters attended)

Location: Exhibit Hall, Lower Concourse

AMP Central Activities:
Career Networking Mixer – Mid-Career
Meet & Greet: Membership Affairs Committee

3:30pm - 5:00pm

Symposium Sessions

Genome Evolution and Therapy Resistance in Lymphoid and Myeloid Neoplasms

Location: Room 155, First Level
CE Credit: 1.50 Hours
Path: Oncology/Cancer

Correlation of AML and MDS Mutation Burdens and Response to Decitabine in the Peripheral Blood and Bone Marrow
John S. Welch, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA

Dynamic Monitoring of Lymphoma Genome Evolution
Ash A. Alizadeh, MD, PhD, Stanford University School of Medicine, Stanford, CA, USA

Session Description: Modern molecular technologies have provided unprecedented insight into the clonal architecture and evolution of neoplastic processes. Detection of mutations relevant to these processes have emerging clinical applications for detection of disease and response to therapy. The speakers will present their work in studying genomic complexity and evolution in myeloid and lymphoid neoplasms with an emphasis on the biology, technologies, and emerging clinical applications.

Session Objectives:

- Discuss the concept of genome evolution in cancer.
- List which technologies are utilized to monitor genome evolution in hematopoietic cancers.
- Identify emerging clinical applications to detecting genomic changes in myeloid and lymphoid neoplasms such as detection of disease and monitoring response to therapy.

Molecular Testing in the Practice of Cardiology

Location: Ballroom, Lower Concourse
CE Credit: 1.50 Hours
Path: Inherited Conditions

Phenotype to Genotype: How Traditional Techniques Pave the Way to Targeted Testing and Individualized Medicine
Joseph J. Maleszewski, MD, Mayo Clinic, Rochester, MN, USA

From Genes to Genomes: Evolution of Molecular Testing for Inherited Cardiomyopathies
Birgit Funke, PhD, Veritas Genetics, Danvers, MA, USA, Harvard Medical School, Boston, MA, USA

Session Description: Genetic testing for inherited cardiomyopathies has evolved significantly over the last decade. This session will describe the genotypic and phenotypic aspects of cardiomyopathies, including how specific features of the disease can narrow the genetic differential diagnosis. The availability of large sequencing panels for focused diagnostic panels and predictive screening tests, the side effect of variants of uncertain significance, and the need for standardization of variant interpretation will be highlighted.

Session Objectives:

- Examine the basic pathological and genetic aspects of cardiomyopathies.
- Recognize the impact of clinical and genetic heterogeneity on genetic tests.
- Assess the pros and cons of disease focused gene panels versus whole exome sequencing.

4:15pm - 5:00pm

ID Special Session

ID Town Hall Meeting

Location: Marriott, Deer Valley Room, Main Floor
CE Credit: 0.75 Hour
Path: Infectious Diseases

Session Description: The AMP Infectious Diseases Subdivision and multiple AMP volunteers have spearheaded substantial contributions to the field of molecular diagnostics. As we continue to look to the future, AMP leadership would like to invite ID subdivision members and meeting attendees with an interest in ID to attend an open format town hall session. This session is a follow up to discussions initiated at the ID town hall session held during the AMP 2016 Annual Meeting. Please bring your ideas, energy, and enthusiasm to the conversation as we discuss new initiatives and the future of infectious disease molecular diagnostics within AMP.

Session Objectives:

- Discuss recent actions to engage the Infectious Diseases subdivision, including 2017 Annual Meeting changes.
- Discuss emerging trends in molecular ID testing and impacts to AMP members.
- Provide AMP ID leadership feedback on ID subdivision membership needs.

5:00pm - 5:15pm

Break

Friday, November 17, 2017

5:15pm - 6:30pm

Business Session

Business & Awards Session

Location: Room 251, Upper Concourse
CE Credit: 0.75 Hour
Path: Special Session

Session Description: This session open to all meeting attendees provides both AMP members and those interested in molecular pathology an overview of the projects and accomplishments of the many AMP committees and working groups. The work of AMP committees have a significant impact on molecular pathology, including practice guidelines, molecular curricula for residents and technologists, and policy advocacy. The session opens with a very brief business meeting and closes with the presentation of awards, including the Technologist, Young Investigator, and Jeffrey A. Kant Leadership Awards.

Session Objectives:

- Identify the relationship between selected projects of the Clinical Practice Committee and their own clinical practice.
- List the regulatory and reimbursement policies in the midst of discussion or implementation that impact molecular pathology.
- Summarize the contributions of the Leadership Award recipient to advance the field of molecular pathology.

7:00pm - 10:30pm

Social Event

AMP 2017 Social Event

(Separate Registration)

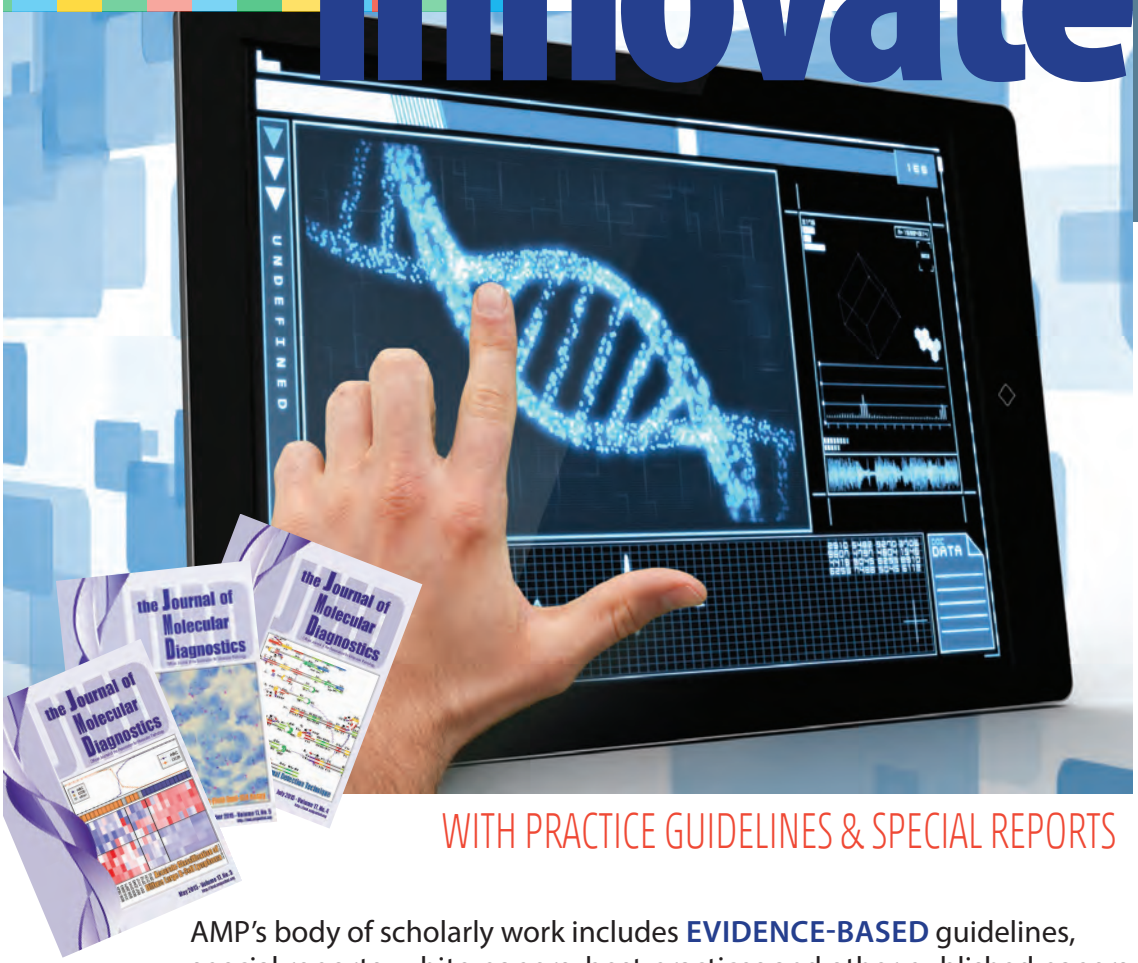
Location: Marriott, Grand Ballroom A-F, Main Floor

The AMP Social Event is intended to facilitate networking opportunities between trainees, new, and long-standing AMP attendees. There will be mingling, dancing, amateur acts and great food! Attendees who purchased tickets when registering for the meeting will receive their ticket when they check-in at the registration desk for their name badge. If any tickets are still available for sale, they may be purchased at the Registration Desk.

AMP

Innovate

SATURDAY



WITH PRACTICE GUIDELINES & SPECIAL REPORTS

AMP's body of scholarly work includes **EVIDENCE-BASED** guidelines, special reports, white papers, best practices and other published papers. Recent reports include:

- AMP/ASCO/CAP Interpretation and Reporting of Sequence Variants in Cance
- AMP/CAP Guidelines for NGS Validation of Oncology Panels
- ASCP/CAP/AMP/ASCO Molecular Markers for Colorectal Cancer
- Spectrum of Clinical Utilities in Molecular Pathology Testing Procedures
- NGS for Infectious Disease Diagnosis and Management
- Emerging ID Applications for MALDI TOF MS
- Clinical Utility of Circulating Tumor Cells, Exosomes and Circulating Nucleic Acids

WWW.AMP.ORG/INNOVATES

"I rely on AMP to ***research***, ***document***, and ***deliver*** the standards on which many of our molecular processes are based. AMP's reports and guidelines help us to define our internal best practices."

— **Kojo S. J. Elenitoba-Johnson, MD**
Director, Center for Personalized Diagnostics, University of Pennsylvania

SATURDAY

Saturday, November 18, 2017

7:00am - 8:00am

Continental Breakfast

Location: Early Bird Session Room Foyers

(Supported by Myriad Genetics Laboratories, Inc.)

7:00am - 8:00am

Early Bird Sessions

Biorepositories in Precision Medicine

Location: Room 255BC, Second Level
CE Credit: 1 Hour
Path: General Molecular Technologies

The Role of Biobanks in Precision Medicine Research and Care
Nazneen Aziz, PhD, Kaiser Permanente Research Bank, Oakland, CA, USA

The "All of Us" Research Program- Precision Medicine Initiative: 1 Million Cohort
Mine S. Cicek, PhD, Mayo Clinic, Rochester, MN, USA

Session Description: Biobanks are a critical resource to advance precision medicine research and medical knowledge to improve health. Large biorepositories are being created across the country by healthcare organizations to provide specimens and associated health information from large numbers of consented participants. The speakers in this session will discuss the components of their respective institutions' biorepositories, including patient recruitment, infrastructure, data security, access to the collection, and future vision.

Session Objectives:

- Describe the infrastructure required for biospecimen collection, processing, storage, management, and distribution.
- Describe policies and procedures to recruit patients and ensure data security.
- Discuss approaches used by biobanks to facilitate innovative research to improve health and healthcare.

AMP Bioinformatics Pipeline Validation Working

(Sponsored by the Clinical Practice Committee)

Location: Room 251, Upper Concourse
CE Credit: 1 Hour
Path: Informatics

AMP Bioinformatics Pipeline Validation Working Group: Development of Guidelines
Somak Roy, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

New AMP Guidelines on Validating Next Generation Sequencing Bioinformatics Pipelines
Alexis B. Carter, MD, Children's Healthcare of Atlanta, Atlanta, GA, USA

Session Description: Recognizing the challenges in developing, validating, and implementing NGS bioinformatics pipelines, AMP has convened a multistakeholder working group with representatives from the College of American Pathologists and the American Medical Informatics Association to develop a best practices guideline for validation of these pipelines. This session will discuss the development of the consensus guideline document and implementation of the recommendations during validation of a clinical NGS bioinformatics pipeline.

Session Objectives:

- Discuss the AMP-led guideline initiative regarding validation of NGS bioinformatics pipelines.
- Discuss NGS data analysis pipeline implementation.
- Develop validation plans according to recommendations.
- Describe methods for variant identification optimization and accuracy.
- Implement methods to continue improvement and quality control of the NGS pipeline.

Molecular Pathology of Pancreatic Neoplasms

Location: Room 250, Upper Concourse
CE Credit: 1 Hour
Path: Oncology/Cancer

Molecular Diagnostic Testing for the Detection of Early Pancreatobiliary Neoplasms
Aatur Singhi, MD, PhD, University of Pittsburgh Medical Center Presbyterian, Pittsburgh, PA, USA

Session Description: Malignant neoplasms of the pancreatobiliary tract represent the third leading cause of cancer deaths in the United States. Despite aggressive combined modality treatment approaches, the 5-year survival rate of these cancers is a dismal 8%. Currently, surgical resection offers the only possibility for a cure, but pancreatobiliary malignancies are often diagnosed at an advanced stage, and, therefore, early detection is imperative. This session will discuss past and current methods as well as emerging clinical molecular diagnostic testing to improve the screening and diagnosis of pancreatobiliary neoplasms.

Session Objectives:

- Review the genetic basis of pancreatobiliary neoplasms.
- Discuss the development of currently available molecular tests to assess the pancreatobiliary tract.
- Summarize information on emerging molecular technologies with the potential to improve the early detection of pancreatobiliary cancers.

Platform Presentations of Selected Technical Topics Abstracts

Location: Room 255EF, Second Level
CE Credit: 1 Hour
Path: General Molecular Technologies

TT92 – Successful Extraction of RNA from Archived Bone Marrow Aspirate Smears for Use in Targeted RNA Sequencing
Tamara Restrepo, BSc, Boston Children's Hospital, Boston, MA, USA

TT82 – High Performance Detection of Cancer Mutations from Circulating DNA Using Single Color Digital PCR
Christina Wood-Bouwens, Stanford School of Medicine, Stanford, CA, USA

TT24 - Screening Circulating Nucleic Acids of Pancreatic Ductal Adenocarcinoma Using a Plasmonic Nanosensor
Amogha Tadimety, Dartmouth College, Hanover, NH, USA

TT76 - Engineering of Isogenic Cell Lines Using the CRISPR/Cas9 Technology and Precise Characterization of Low Allelic Frequency FFPE Cell Line Blocks for Use as Molecular Reference Standards
Andrew Hilmer, PhD, Applied Stem Cell, Milpitas, CA, USA

Session Description: Platform presentations of selected Technical Topics abstracts.

Session Objectives:

- Analyze platform presentations of abstracts highlighted by the Technical Topics leadership as particularly significant.
- Evaluate the scientific merit and significance of these selected studies through further discussion with the authors.

Case Studies in Hemepath and Informatics

Location: Room 355BC, Third Level
CE Credit: 1 Hour
Path: Oncology/Cancer, Informatics

Inv(16) Incidentally Detected by Leukemia Translocation Panel Screen in a Patient with Therapy-related Acute Myeloid Leukemia
Andres E. Quesada, MD, The University of Texas M.D. Anderson Cancer Center, Houston, TX, USA

A Confounding Case of Polycythemia Vera
Aaron Atkinson, PhD, Dartmouth-Hitchcock Medical Center, Lebanon, NH, USA

Identifying Patients at Risk for Myelodysplastic Syndrome through Next Generation Sequencing of Cytopenias with Equivocal or Absent Morphologic Dysplasia
Patrick Mann, MD, Washington University, St. Louis, MO, USA

Detection of the Controversial ASXL1 c.1934dupG (p.G646Wfs*12) Insertion Variant From Targeted Next-generation Sequencing (NGS) Data
Michael Alberti, MD, PhD, Washington University, St. Louis, MO, USA

Session Description: Challenging Case Studies are presented by trainees or technologists. They will discuss the case's clinical history, molecular analysis, interesting features, and the proposed diagnosis. Other molecular testing methods, if applicable, will be included in the presentation, including biopsies, gross/microscopic pathology, immunohistochemistry/flow cytometry, and cytogenetic findings.

Session Objectives:

- Describe the context of a challenging clinical case.
- Discuss the molecular pathology techniques used in the diagnosis of the case.
- Propose a final diagnosis based upon findings and diagnostic evidence.

8:00am - 8:15am

Break

8:00am - 9:00am

ID Special Session

Technologist Round Table: Troubleshooting in Molecular ID Lab

Location: Marriott, Deer Valley Room, Main Floor
CE Credit: 1 Hour
Path: Infectious Diseases

Passing the Baton: Keys to Successful Implementation of Laboratory Developed Tests (LDTs) and FDA-cleared Tests
Melissa R. Johnson, BSc, ARUP Laboratories, Salt Lake City, UT, USA

Jeff Stevenson, PhD, ARUP Laboratories, Salt Lake City, UT, USA

Jeffrey Chumley, MSc, MLS(ASCP)CM, ARUP Laboratories, Salt Lake City, UT, USA

Session Description: Laboratory developed tests that perform well in an R&D environment may not function optimally in the clinical laboratory. Early collaboration between R&D and the clinical laboratory can identify and prevent issues that may not otherwise appear until after transition has occurred. This session will present general validation methods and our troubleshooting experience with implementing new tests.

Session Objectives:

- Explain R&D processes for validation of LDTs and verification of FDA-cleared tests.
- Identify additional resources and requirements of the clinical laboratory that may fall outside the scope of R&D.
- Describe tools and documentation practices that help identify potential issues early in the validation process.

8:15am - 9:45am

Plenary Session

Mitochondrial Disease: Diagnosis, Treatment and Prevention

Location: Ballroom, Lower Concourse
CE Credit: 1.50 Hour
Path: Inherited Conditions

Overview of Mitochondrial Disease and Nuclear Genetic Causes
Marni J. Falk, MD, Children's Hospital of Philadelphia, Philadelphia, PA, USA and University of Pennsylvania, Perelman School of Medicine, Philadelphia, PA, USA

Mitochondrial DNA Disease: Etiology, Diagnosis, and Prevention
Sir Doug Turnbull, MBBS, MD, PhD, Newcastle University, Newcastle, UK

Session Description: In this session, we will provide an overview of genetic-based mitochondrial disease. This will include a discussion of the dual-genome etiology, substantial clinical heterogeneity across all ages, and emerging therapeutic options. Recent genomic sequencing technologies have greatly enabled diagnostic success for these more than 300 distinct genetic diseases. We will also provide a state-of-the art update on prevention of mitochondrial DNA diseases using new in vitro fertilization techniques.

Session Objectives:

- Recognize that mitochondrial diseases are collectively common genetic conditions due to either nuclear or mtDNA mutations.
- Acknowledge that the diagnosis of mitochondrial disease can be challenging due to marked clinical and genetic heterogeneity.
- Discuss how NGS diagnostic techniques have transformed the diagnosis.
- Recognize that current treatment of mitochondrial disease is largely symptomatic, but new therapies are emerging and IVF technologies allow potential to prevent disease transmission.

9:45am - 10:45am

Break

Coffee Break - Visit Exhibit Hall, AMP Central and Posters

(Odd-numbered posters attended)

Location: Exhibit Hall, Lower Concourse

AMP Central Activities:
Meet & Greet: Clinical Practice Committee

10:45am - 12:15pm

Workshop Sessions

Whole Exome Sequencing in Clinical Practice

Location: Room 250, Upper Concourse
CE Credit: 1.50 Hour
Path: Oncology/Cancer

Development and Validation of a Whole-exome Sequencing Test for Simultaneous Detection of Point Mutations, Indels and Copy-number Alterations for Precision Cancer Care
Oliver Elemento, PhD, Institute for Precision Medicine, Weill Cornell Medicine, New York, NY, USA

Integrated Genomic Profiling Using Clinical Whole Genome and Transcriptome Sequencing to Enable Precision Oncology
Vaidehi Jobanputra, PhD, New York Genome Center, New York, NY, USA

Session Description: Exome Cancer Test v1.0 (EXaCT-1) is the first New York State-Department of Health-approved whole-exome sequencing (WES)-based test for precision cancer care. EXaCT-1 uses HaloPlex (Agilent) target enrichment followed by next-generation sequencing (Illumina) of tumor and matched constitutional control DNA. A detailed clinical development and validation pipeline suitable for simultaneous detection of somatic point/indel mutations and copy-number alterations (CNAs) will be described, along with the computational framework for data analysis, reporting, and sign-out. EXaCT-1 was validated with 57 tumors covering five distinct clinically relevant mutations. Results demonstrated elevated and uniform coverage compatible with clinical testing and complete concordance in variant quality metrics between formalin-fixed paraffin embedded and fresh-frozen tumors. Extensive sensitivity studies identified limit of detection thresholds for point/indel mutations and CNAs. Prospective analysis of 337 cancer cases revealed mutations in clinically relevant genes in 82% of tumors demonstrating that EXaCT-1 is an accurate and sensitive method for identifying actionable mutations, with reasonable costs and time, greatly expanding its utility for advanced cancer care. The current utilization and benefits of large scale NGS clinical assays will be addressed.

Session Objectives:

- Describe the process that was used to develop and validate a large scale NGS assay for clinical testing.
- Illustrate the challenges faced during the development and implementation of a whole-exome/whole-genome sequencing test.
- Assess the current utilization and benefits of large scale NGS clinical assays.
- Describe the assay validation of the Whole Genome and Transcriptome Sequencing.
- Discuss variant identification and concordance with orthogonal sequencing panels.
- Describe how WGTS data and precision medicine can assist treating oncologists.

Crowd-sourcing the Expert Curation of Germline and Somatic Variants: CIViC, ClinGen and ClinVar

Location: Room 255EF, Second Level
CE Credit: 1.50 Hour
Path: Informatics

ClinGen and ClinVar: Building Resources to Support Gene and Variant Interpretation
Heidi L. Rehm, PhD, Harvard Medical School, Boston, MA, USA

CIViC: A Curation Portal and Knowledgebase for Cancer Variant Interpretation
Obi L. Griffith, PhD, Washington University School of Medicine, St. Louis, MO, USA

Session Description: The clinical interpretation of human genomic variation, in either the germline or somatic context, relies in part on the accumulated scientific knowledge about genes and the variants present in the clinical specimen. Community resources for the curation of this knowledge and the evolution of a dynamic consensus interpretation will be presented in this session.

Session Objectives:

- Describe the resources that exist to support the interpretation of germline and somatic variation.
- Discuss which medical contexts are appropriate and which are inappropriate for "crowd-sourcing" strategies.
- Summarize ways to employ and prioritize limited expert review capabilities.
- Describe the paradox of a "consensus opinion" about a rapidly changing subject.

Molecular Detection of Resistance: Ready for Prime Time?

Location: Room 251, Upper Concourse
CE Credit: 1.50 Hour
Path: Infectious Diseases

Bacterial Resistance: Detection with Molecular Methods
Robert A. Bonomo, MD, Louis Stokes VA Medical Center, Cleveland, OH, USA

Deep Sequencing for HIV-1 Clinical Management
Maria Casadellà, PhD, IrsiCaixa AIDS Research Institute, Barcelona, Spain

Session Description: Phenotypic testing has been the cornerstone of assessing the resistance of bacterial and to a lesser extent viral isolates. With the advent of molecular testing for detection of pathogens, this session will explore the current opportunities and challenges of using molecular methods to look at the resistance mechanisms from a genotypic standpoint. The ability of these tests to impact therapy and clinical outcomes will be explored.

Session Objectives:

- List resistance mechanisms used by bacteria and the molecular bases of their detection.
- Discuss the methodology and clinical utility of HIV Deep Sequencing and how it impacts patient care.
- Discuss the future of molecular detection of resistance for routine clinical testing.

Review and Implementation of New AMP Guidelines on NGS Somatic Variant Test Validation, Interpretation, and Reporting

(Sponsored by the Clinical Practice Committee)

Location: Room 255BC, Second Level
CE Credit: 1.50 Hour
Path: Oncology/Cancer

AMP/CAP Guidelines for Validation of Next-Generation Sequencing–Based Oncology Panels
Lawrence J. Jennings, MD, PhD, Ann & Robert H. Lurie Children's Hospital of Chicago, Chicago, IL, USA

AMP/ASCO/CAP Standards and Guidelines of Somatic Variant Interpretation and Reporting
Marilyn M. Li, MD, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, USA

Implementation of NGS Somatic Variant Guidelines into Clinical Practice
Marina N. Nikiforova, MD, University of Pittsburgh Medical Center, Pittsburgh, PA, USA

Session Description: In 2017, AMP partnered with various stakeholders to develop and publish two related published guideline manuscripts in The Journal for Molecular Diagnostics: 1) Standards and Guidelines for the Interpretation and Reporting of Sequence Variants in Cancer: A Joint Consensus Recommendation of the Association for Molecular Pathology, American Society of Clinical Oncology, and College of American Pathologists and 2) Guidelines for Validation of Next Generation Sequencing (NGS)-based Oncology Panels: A Joint Consensus Recommendation of the Association for Molecular Pathology and College of American Pathologists. This session will be a discussion of how the guidelines were developed and will provide practical case-based implementation advice for laboratories both currently performing somatic NGS and those considering bringing these technologies into their laboratories.

Session Objectives:

- Evaluate current guidelines regarding the validation of NGS-based oncology panels.
- Recognize the advantages of an error-based approach to test validation.
- Evaluate current status of interpretation and reporting of sequence variants in cancer and recognize the urgent needs of standardization.
- Discuss AMP-led guidelines developed to address the validation of NGS-based oncology panels and the classification, interpretation, and reporting of somatic sequence variants.
- Describe different levels of evidence used for variant classification.
- Discuss the AMP/ASCO/CAP tier-based reporting system centered on clinical and experimental evidence, the nomenclature of sequence variants and essential components of reports for cancer sequencing tests.

What is the Legal Risk for Interpreting and Classifying Sequencing Variants in the Laboratory?

(Sponsored by the Professional Relations Committee)

Location: Room 355BC, Third Level
CE Credit: 1.50 Hour
Path: Advocacy/Lab Management

Panel Discussion
John D. Pfeifer, MD, PhD, Washington University School of Medicine, St. Louis, MO, USA

Robert M. Cook-Deegan, Arizona State University, Washington, DC, USA

Wayne W. Grody, MD, PhD, UCLA School of Medicine, Los Angeles, CA, USA

Jamie McDonald, MSc, University of Utah, Salt Lake City, UT, USA

Elaine Lyon, PhD, ARUP Laboratories, Salt Lake City, UT, USA

Session Description: We are in an era where patients have easy access to their entire medical record, including laboratory data and results. Therefore, patients are empowered to educate themselves on their health status, and are proactively engaging in their care plans. Communicating how sequencing variants are classified, interpreted and reported is now just as important to the patients as it is to the ordering provider. This session will explore some of the questions, challenges, and risks associated with variant sequence classification that are affecting laboratories, molecular professionals, and patients. As more people are tested and technologies evolve to better detect genetic variants, the possible risk to laboratories of misclassification have been raised by the recent Williams v. Quest/Athena lawsuit. The discussion will cover a broad spectrum of viewpoints; including experts in germline and somatic sequencing, as well as a patient and legal perspective.

Session Objectives:

- Examine what constitutes as misclassification of a variant.
- Examine what constitutes negligence in the reporting of variants.
- Examine what is the responsibility for investigating germline mutations in somatic testing.
- Evaluate current practices for re-classification of variants.

12:15pm - 1:30pm

Lunch

General Lunch, Exhibit Hall, Exhibit Level

(entrance through Exhibit Hall)

Networking Lunches: Please see lunch descriptions in the "Highlights & General Information" section of the Program Book, Page 17.

AMP Central Activities:
Meet & Greet: International Affairs Committee

1:30pm - 3:00pm

Symposium Sessions

C. difficile Testing: Pros and Cons of Testing Algorithms

Location: Room 250, Upper Concourse
CE Credit: 1.50 Hour
Path: Infectious Diseases

Diagnosis of Clostridium difficile Infections-The Benefits of Molecular Testing
Ferric C. Fang, MD, University of Washington, School of Medicine, Seattle, WA, USA

Diagnosis of Clostridium difficile Infections-Why Toxin Tests Still Matter
Christopher R. Polage, MD, MAS, University of California, Davis School of Medicine, Sacramento, CA, USA

Session Description: Clostridium difficile is associated with a range of clinical presentations ranging from asymptomatic carriage to diarrhea and life-threatening pseudomembranous colitis. The diagnosis of C. difficile infections has become controversial, with some advocating nucleic acid amplification tests to optimize sensitivity and others advocating toxin immunoassays to prevent overdiagnosis. The speakers will present both sides of this ongoing debate.

Session Objectives:

- Describe the pathogenesis and epidemiology of Clostridium difficile.
- Review diagnostic methods used to diagnose C. difficile infections.
- Discuss the pros and cons of different testing algorithms.

Emerging Technology for Structural Variant Detection

Location: Room 155, First Level
CE Credit: 1.50 Hour
Path: General Molecular Technologies, Inherited Conditions

Mate-Pair Sequencing in Cytogenetics
Nicole L. Hoppman, PhD, Mayo Clinic, Rochester, MN, USA

Digital Karyotyping and Complex Rearrangement Analysis with Sequencing at Single Molecule Resolution
Hanlee P. Ji, MD, Stanford University School of Medicine, Stanford, CA, USA

Session Description: Chromosome rearrangements occur in a variety of clinical situations; for example, in patients with abnormal features such as intellectual disability or malformations, and they can also occur somatically in a wide variety of cancers. Traditional cytogenetic methods such as G-banded karyotyping have been used for several decades to detect chromosomal rearrangements. However, this technique cannot identify what genes are at/near the breakpoints and, therefore, often cannot determine pathogenicity of these rearrangements. Novel next-generation sequencing methodologies, such as mate pair sequencing and digital karyotyping, are now available and can characterize almost any chromosome rearrangement. In a neoplastic setting, these methodologies may aid in identifying the diagnosis, prognosis, and therapeutic options for the patient.

Session Objectives:

- Compare the methodologies for carrying out mate-pair and barcode-linked sequencing used for the identification and characterization of germline and somatic structural rearrangements.
- Differentiate the types of next generation sequencing used to elucidate structural rearrangements.
- Propose clinical scenarios for which these techniques can be useful.

3:00pm - 3:15pm

Break

3:15pm - 4:45pm

Plenary Session

Role of Genome Editing in Research and Therapy

Location: Room 155, First Level
CE Credit: 1.50 Hour
Path: General Molecular Technologies, Inherited Conditions, Oncology/Cancer

Genome Editing with CRISPR-Cas Nucleases
J. Keith Joung, MD, PhD, Massachusetts General Hospital, Charlestown, MA, USA

Accelerating Prediction of Tumor Vulnerabilities Using Next-generation Cancer Models
Jesse S. Boehm, PhD, Broad Institute, Cambridge, MA, USA

Session Description: In an era of routine high throughput medical and tumor exome sequencing, putative drivers may be readily identified but functional annotation is often lacking and ultimately the genetic underpinnings of many diseases left uncertain. Forward genetic screens evaluate a large number of genomic targets for their relevance to a specific phenotype and recent technological advances permit total gene knockdown that can be applied across many thousands of genes. Sequence-specific programmable nucleases such as CRISPR-Cas9 enable targeted modification of the DNA itself; CRISPR technologies employed with guide RNA libraries can permit genome-scale screening to identify novel mechanisms of phenotypic abnormalities in constitutional and somatic contexts. Directed applications, including in-patient derived cell models, allow for exploration of mechanisms of drug resistance and identification of novel functional elements in the noncoding genome and epigenome.

Session Objectives:

- Explore the activities and specificities of CRISPR nucleases and the implications for clinical applications.
- Describe how CRISPR screens can identify novel regulatory sites in the genome and epigenome relevant to cancer evolution and chemotherapy resistance.
- Identify applications of genome editing in human cancers using patient-derived cell models for exploration of signaling networks and novel therapeutic targets.

4:45pm - 5:00pm

Closing Remarks

Location: Room 155, First Level
CE Credit: No CME/CMLE
Path: Closing Remarks

Closing Remarks
Daniel Sabath, MD, PhD, University of Washington Medical Center, Seattle, WA, USA and 2017 Program Chair

Lynne V. Abruzzo, MD, PhD, Ohio State University Medical Center, Columbus, OH, USA and 2018 Program Chair

AMP AROUND THE GLOBE

SERVING THE INTERNATIONAL COMMUNITY OF MOLECULAR PROFESSIONALS

International Affiliates

German Society for Pathology
Hong Kong Society for Molecular Diagnostic Sciences
Korean Society for Laboratory Medicine
Molecular Pathology Association of India
Sociedade Brasileira de Patologia Clínica/Medicina Laboratorial

An AMP International Affiliate is a non-U.S. based organization focused on molecular pathology or diagnostics that wishes to establish a formal relationship with AMP. In turn, AMP supports molecular diagnostic professionals around the world through its Affiliates.

International Conference Grants

AMP members who are on organizing committees of conferences outside of North America are invited to apply for AMP co-sponsorship of the event and support for speaker travel.

International Membership Grants

Thanks to generous donations to the AMP Strategic Initiatives Fund, each year non-U.S. laboratory professionals who would not otherwise have access to AMP services and activities due to limited financial resources in the applicant's local environment may apply to receive one year of AMP membership at no charge. Depending on fund availability, selected recipients may be invited to apply for a second year grant.

AMP International Events

AMP 2018 EUROPE
Achieving Dramatic Insights Into Molecular Oncology & Precision Medicine
Rotterdam, The Netherlands
April 30 - May 2, 2018

AMP 2019 GLOBAL CONGRESS
Location TBD
April/May 2019

SPEAKER INFORMATION

Speaker Bios

A

Michael Alberti, MD, PhD, is a fellow in the ABP Physician-Scientist Research Pathway at Washington University in St. Louis. He received his MD and PhD from the University of Alabama at Birmingham (UAB), completing his thesis work in the laboratory of David T. Curiel, MD, PhD studying adenovirus gene therapy targeting approaches in addition to cellular therapy applications. He completed residency training in Clinical Pathology at UCLA, where he was the recipient of an Eli and Edythe Broad Center of Regenerative Medicine and Stem Cell Research at UCLA Clinical Fellowship Award to investigate the role of long noncoding RNAs in early B-cell development in the laboratory of Dinesh S. Rao, MD, PhD. He then moved to Washington University in St. Louis to complete Molecular Genetic Pathology Fellowship training and has subsequently began his postdoctoral research in the laboratory of Matthew J. Walter, MD. His research is focused on studying the molecular regulation of normal and dysregulated hematopoiesis in the context of myelodysplastic syndrome (MDS) and development of secondary acute myeloid leukemia (s-AML).

Deepu Alex, MD, PhD, is a board certified Molecular Genetic Pathologist and currently a Cytopathology fellow at Memorial Sloan Kettering Cancer Center in New York. Prior to this, he has completed fellowships in Molecular Genetic Pathology and Oncologic Surgical Pathology at the same institution. He completed his Pathology residency training from Medstar-Georgetown University Hospital, Washington DC in 2015. He received his Ph.D. training in Microbiology and Immunology at Georgetown University. His thesis work dealt with drug discovery and new treatment strategies for invasive fungal infections. In 2008, he was awarded the Gertrude Maegwyn Davies Scholarship for best graduate research. In 2010, he was appointed one of 15 international advisors for The Lancet Student, a subsidiary of the Lancet journal. His areas of academic and research interest include advances in molecular testing in solid tumors and cytopathology. He has authored case reports, research publications and book chapters with an emphasis on molecular diagnostic methods. He has served as Chief Resident for his residency program and has represented his program as a delegate to international professional societies in Pathology.

Ash A. Alizadeh, MD, PhD, completed his PhD in Biophysics and MD at Stanford in 2003, under mentorship of Pat Brown (Stanford Biochemistry) and Lou Staudt (NCI/NIH). Supported by the Howard Hughes Medical Institute (HHMI) and NIH Medical Scientist Training Program (MSTP), he built the Lymphochip DNA microarray platform. He and his colleagues used this platform to profile gene expression in diffuse large B cell lymphoma (DLBCL), and many other tumors. This work led to the discovery of DLBCL subtypes, and a framework for their cell of origin. Following his clinical subspecialty Hematology and Medical Oncolgy training at Stanford, he completed his postdoctoral studies with Ron Levy and Irv Weissman. During this time he worked on molecular outcome prediction in DLBCL, developing a statistical framework for identification of small numbers of genes for robust risk stratification and prognosis. Working with Irv Weissman, he identified CD47 expression as an adverse prognostic factor in non-Hodgkin lymphomas, and a therapeutic target of novel monoclonal antibodies that synergize to eradicate tumors. The Alizadeh lab studies genomic biomarkers of tumors, whether detected through biopsy of primary tissues, or non-invasively through monitoring blood using circulating tumor DNA (ctDNA). His group developed Cancer Personalized Profiling by deep Sequencing (CAPP-Seq) as a novel method for ctDNA detection, and developed a novel cell deconvolution framework (CIBERSORT). His group applies such genomic tools for early detection, diagnosis, and monitoring of diverse tumors. In this effort, his group builds and employ tools from functional genomics, computational biology, molecular genetics, and mouse models.

Michael Angelo, MD, PhD, is an assistant professor in the Department of Pathology. Mike received a BS in Physics from the University of Mississippi in 2002 and subsequently enrolled at Duke University, where he received an MD and PhD in Electrical and Computer Engineering in 2010. He trained in clinical pathology at UCSF and completed a postdoctoral research fellowship in the lab of Garry Nolan prior to starting his own lab at Stanford in 2014. He is board certified in clinical pathology and a recipient of the NIH Director's Early Independence Award. Mike's main research focus is creating and applying next generation instrumentation and methods for nanometer scale, multiplexed, quantitative imaging of of genes and proteins in clinical tissue biopsies. To this end, his lab has recently developed new instrumentation for multiplexed ion beam imaging (MIBI), which uses secondary ion mass spectrometry to measure antibodies tagged with mass reporters. Highly multiplexed IHC panels for assessing immune cell populations in solid tissue are currently being used in the Angelo lab to study tumor-immune interactions and autoimmunity.

Speaker Bios

Aaron Atkinson, PhD, is an Instructor in Clinical Genomics and Advanced Technologies at the Geisel School of Medicine at Dartmouth. He earned his bachelor's in Biology at the University of Utah, and doctorate from Dartmouth College in molecular evolution and protein engineering. His postdoctoral training was with both Dr. Dennis Winge at the University of Utah in the Hematology Division of Internal Medicine concentrating on mitochondrial disorders, and then Dr. Gregory Tsongalis where he began his clinical training in molecular diagnostics and clinical genomics.

Nazneen Aziz, PhD, is the Executive Director of the Kaiser Permanente Research Bank. Nazneen's interest and expertise is in the implementation of genomics in clinical practice. In her previous roles, Nazneen was the Senior Vice President and Chief Research Officer at Phoenix Children's Hospital (PCH) where she directed the strategic direction and growth of research at PCH. Before joining PCH, Nazneen was the Director of Molecular Medicine at the College of American Pathologists (CAP). During her tenure at CAP, she led the development of the first set of standards and proficiency tests for clinical laboratories using next-generation sequencing and non-invasive prenatal screening techniques. Nazneen has held executive leadership positions in the biotech/biopharma industry. In her industry career, she focused on personalized medicine, biomarkers, genetic tests, and development of drugs for cancer and diabetes. Prior to joining the biotechnology industry, Nazneen was an Assistant Professor at Harvard Medical School and Boston Children's Hospital where she discovered new genes and their role in polycystic kidney disease. Nazneen received her Ph.D. in molecular genetics and MS in biochemistry at the Massachusetts Institute of Technology (MIT) and her BA (Honors) in Biological Sciences from Wellesley College. She has several issued and pending patents. Her publications have been cited extensively in the medical and scientific literature and she has been invited to speak at numerous national and international conferences. She is on the National Academies Roundtable of Genomics and Precision Medicine, Genomics and Population Health Action Collaborative Population Screening Working Group, the US Government Accountability Office's expert panel on multiplex technologies for point of care and a member of IGNITE. Nazneen was named by the Arizona Republic as one of 15 People Worth Watching in 2015 and by the Arizona Business Magazine as 2014 Most Influential Women in Arizona Business. Nazneen holds a Research Professorship in the School of Life Sciences at Arizona State University and in the Department of Child Health at University of Arizona College of Medicine.

Elizabeth M. Azzato, MD, PhD, MPH, is an assistant member in the Department of Pathology at St. Jude Children's Research Hospital. She earned her medical degree through Duke University, her Master of Public Health through the University of North Carolina Chapel Hill and her Ph.D. through a joint partnership between the National Institutes of Health and Cambridge University (UK), where she studied genetic variation and cancer survival. She completed her clinical pathology residency and molecular genetic pathology fellowship training through the Hospital of the University of Pennsylvania and is board certified in Clinical Pathology and Molecular Genetic Pathology. She currently serves as Director of the Molecular Pathology and Clinical Genomics at St. Jude, which focuses on high complexity clinical pediatric oncologic testing, including comprehensive tumor whole-genome, whole-exome and transcriptome testing and cancer predisposition syndrome genetic testing. Her interests include the translation of new technologies and identification of new biomarkers for pediatric oncology testing, by developing and optimizing novel methodologies, protocols and informatics.

B

Elizabeth Barrie, PhD, is an ABMGG Clinical Laboratory Fellow training in both Clinical Cytogenetics and Clinical Molecular Genetics. She received a BS in Biology from Case Western Reserve University in 2008. Supported by a Distinguished University Fellowship and a Delta Gamma Foundation Fellowship, she completed her PhD in Biomedical Science at the Ohio State University. She identified genetic polymorphisms in the DBH gene (dopamine beta-hydroxylase) demonstrating tissue-specific effects on mRNA and cardiovascular phenotypes. During her post-doctoral work at the OSU Center for Pharmacogenomics, Dr. Barrie analyzed candidate genes and cognitive phenotypes in the context of autism and Parkinson's disease. Currently at the Institute for Genomic Medicine (IGM) at Nationwide Children's Hospital, she is involved in analyzing clinical cases, teaching and research.

Patrick Blackburn, PhD, is a Clinical Laboratory Genetics and Genomics Fellow in the Department of Laboratory Medicine and Pathology at the Mayo Clinic. He received his Ph.D. in Clinical and Translational Sciences from the Mayo Graduate School in 2015. Dr. Blackburn's graduate work focused on developing new tools and strategies for genome engineering to speed rare disease

research and to study the functional consequences of variants of unknown significance in families with suspected genetic disorders. He is particularly interested in using TALENs and CRISPR-Cas systems in model organisms and human cell lines to create patient specific models of disease. Dr. Blackburn was a postdoctoral fellow in the Mayo Clinic Center for Individualized Medicine and part of the Investigative and Functional Genomics Program within the clinical diagnostic odyssey service line. During his postdoctoral work, Dr. Blackburn was involved in whole exome sequencing analysis and the application of –omics profiling and advanced analytics in unsolved cases. In 2017, Dr. Blackburn became a Clinical Laboratory Genetics and Genomics Fellow and is receiving training in clinical molecular genetics and cytogenetics. He has interest in next generation sequencing technologies and their application in both the constitutional genetic and oncology settings.

Jesse S. Boehm, PhD, is an Institute Scientist at the Broad Institute and the Associate Director of the Broad's Cancer Program. He is the director of the institute's Cancer Cell Line Factory (CCLF) initiative, and a principal investigator in the Broad's Cancer Model Development Center (as part of the International Human Cancer Models Initiative). In these roles, he works closely with Cancer Program director Todd Golub in the scientific planning and strategic execution of program projects, collaborations, and activities, with particular focus on senior strategic leadership of the Broad's Dependency Map initiative, together with Golub and William Hahn. Boehm also leads a research laboratory focused on developing methods and tools to accelerate the translation of cancer genomics into cancer therapeutics. Active projects include developing pipelines for personalized testing of tumor vulnerabilities and assessing the tumorigenic potential and functional impact of new cancer mutations. The research group has an ultimate goal of making "precision functional genomics" a reality. Over the last decade, Boehm has helped create and deploy large-scale functional genomics tools for the community, aiming to determine the function of elements in the cancer genome. Boehm received his B.S. in biology from MIT and his Ph.D. from Harvard University, Division of Medical Sciences.

Robert A. Bonomo, MD, is the Professor of Medicine in the Molecular Biology and Microbiology department at Case Western Reserve University. He also serves as Chief of Medical Service at the Louis Stokes Cleveland Department of Veteran Affairs Medical Center and Vice Chair for Veteran Affairs, Department of Medicine, for the University Hospitals Cleveland Medical Center. Dr. Bonomo received his Medical Degree at Case Western Reserve University and continued on to complete his Residency and Fellowship at the University Hospitals of Cleveland. The primary focus of his laboratory is to understand the genetic and amino acid sequence determinants of the enzymes that inactivate ß-lactams, the ß-lactamases.

Aaron D. Bossler, MD, PhD, is a clinical professor in Pathology at the University of Iowa. He directs the molecular pathology laboratory and the molecular genetic pathology fellowship program with 12 years of experience in molecular genetic pathology. His research interest is in understanding the molecular mechanisms of cancer and using the genetic information to develop rational clinical assays. His laboratory has developed multiple next generation sequencing assays for cancer mutation profiling using the Ion Torrent and Illumina platforms and has considerable experience with optimizing specimen preparation for enhancing sensitivity for mutation detection from tissue or blood specimens. He has a longstanding research interest on the role of HPV infection in the development of squamous cell carcinoma. He currently serves as vice-chair for new codes on the AMP Economic Affairs Committee, as the AMP representative to the Pathology Coding Caucus (PCC), as a member of both AMP and College of American Pathologists Economic Affairs Committees, as a member of the American Medical Association Molecular Pathology Advisory Group (MPAG) and the Proprietary Laboratory Assay Technical Advisory Group (PLATAG). He is a member of the editorial board for The Journal of Molecular Diagnostics.

Noah A. Brown, MD, received a B.S. in Biological Sciences from Stanford University and an M.D. from the University of Michigan School of Medicine. He completed residency training in Anatomic and Clinical Pathology at the University of Michigan Health System. He also completed fellowship training in Hematopathology and in Molecular Genetic Pathology at the University of Michigan. He joined the faculty at the University of Michigan, Department of Pathology in 2014 as the Associate Medical Director. He is now an Assistant Professor of Pathology, Director of the University of Michigan Molecular Diagnostics Laboratory as well as Director of the Molecular Genetic Pathology Fellowship. His research interests include emerging molecular diagnostic technology and investigation of novel molecular alterations in hematolymphoid and head and neck neoplasms. He serves on editorial boards of Human Pathology and Head and Neck Pathology. Recent awards include the Association for Molecular Pathology Young Investigator Award.

C

Joseph A. Califano, MD, is a board-certified otolaryngologist. He is an internationally recognized head and neck surgeon who specializes in tumors of the oral cavity (mouth), salivary glands, pharynx (throat), larynx (voice box), sinuses, thyroid, and skull base. Dr. Califano has expertise in minimally invasive surgical techniques, including endoscopic laser and robotic surgery, to help best preserve function and appearance in his patients. He has an interest in HPV-related cancers of the throat, as well as premalignant conditions of the upper aero digestive tract. His other areas of investigation include integrative network-based molecular analysis of head and neck tumors; detection of recurrent and occult primary cancer within blood and saliva using molecular biologic techniques; and defining the underlying biology of head and neck cancers. A frequent speaker at national and international meetings, Dr. Califano has coauthored numerous textbooks and book chapters and over 230 peer-reviewed articles related to both clinical and scientific aspects of cancer. His work has appeared in Nature, Oral Oncology and Clinical Cancer Research, among others. He reviews and serves on the editorial board for a variety of medical journals, including Oral Oncology, the most respected specialty journal in head and neck cancer. In his free time, Dr. Califano enjoys rock climbing, and is learning how to surf. He and his wife, Beth, have two children.

Scott L. Carter, PhD, is an Assistant Professor in the Department of Biostatistics and Computational Biology, Dana-Farber Cancer Institute at the Harvard Chan School of Public Health. He is also an Associate Member at the Broad Institute. He works closely with Boston area physicians to design and execute studies of cancer initiation, drug resistance, and metastasis using genomics technology applied to cancer-tissue specimens collected at various stages of disease progression. Dr. Carter has developed several novel computational methods in order to analyze these datasets and make inferences about clonal evolution underlying cancer progression. He has also developed software tools that are significantly increasing the impact of his work by making those methods available to the broader research community. These tools include HAPSEG, ABSOLUTE, CapSeg, Allelic CapSeg, and Phylogic.

Alexis B. Carter, MD, FCAP, FASCP, is the Director of Pathology Informatics for Children's Healthcare of Atlanta. She is the first chair of the new Informatics Subdivision in the Association of Molecular Pathology and also serves as a member of the AMP Governing Board, as the Test Directory Editor and as a member of the Publications Committee. She is a past-president of the Association of Pathology Informatics and is a member of the Informatics Committee and Clinical Informatics Steering Committee of the College of American Pathologists. She is the immediate past-chair of the International Pathology and Laboratory Medicine Special Interest Group (IPaLM SIG) of SNOMED CT International which is the governing body for SNOMED CT Terminology. She is the secretary for the working group on two-dimensional barcoding for the Clinical and Laboratory Standards Institute, is a section editor for informatics for Archives of Pathology and Laboratory Medicine and is on the editorial board of the Journal of Pathology Informatics. She is board-certified in Anatomic Pathology, Clinical Pathology, Molecular Genetic Pathology and Clinical Informatics, and her clinical practice is in both clinical informatics and molecular genetic pathology.

Maria Casadellà, PhD, obtained a degree in Biology from the University of Barcelona (UB) in 2010, which she followed up with an MSc in Biomedical Research awarded by Barcelona's Pompeu Fabra University (UPF) in 2011. While still a master's student she joined IrsiCaixa and, in her first year there, completed a second MSc in AIDS Pathogenesis and Treatment, awarded by the Autonomous University of Barcelona (UAB) in 2012. On 2016, she obtained her PhD in Molecular Biology and Biomedicine from Autonomous University of Barcelona, in the area of HIV drug resistance mutations and viral tropism analysed by next-generation sequencing techniques. She is currently continuing her research in HIV resistance epidemiology.

Larisa H. Cavallari, PharmD, is an Associate Professor in the Department of Pharmacotherapy and Translational Research and Director of Center for Pharmacogenomics at the University of Florida. She is also an Associate Director of University of Florida Health Personalized Medicine Program. Her research involves discovery of genetic associations with drug response and their translation into clinical practice, especially in underrepresented populations. Her research is currently funded by the NIH, FDA, and Canon Biomedical.

Jeffrey Chumley, MSc, MLS(ASCP)CM, is a Medical Technologist Specialist in the Infectious Disease Division of ARUP Laboratories. He received a MS in Laboratory Medicine from the University of Utah with his thesis on the molecular detection of Tropheryma whipplei. His background is in molecular biology research focusing on HIV latency and HIV accessory proteins. His professional interests include clinical applications of digital PCR, medical laboratory science education, and the development and implementation of laboratory developed procedures.

Mine S. Cicek, PhD, received her Ph.D. in Genetics from Virginia Tech, Blacksburg, VA in 2001. Following a Postdoctoral Research Fellowship at the Cleveland Clinic, Lerner Research Institute, she came to Mayo Clinic, Rochester, Minnesota in 2005 as a R25 Cancer Genetic Molecular Epidemiology Fellow. After completion of her training, she then worked in the capacity as a Research Associate in the Division of Experimental Pathology and Laboratory Medicine from 2006-2010, then the Division of Epidemiology, Department of Health Sciences Research from 2010-2013. She is trained as a lab-based researcher in the cancer genetic epidemiology field and has worked on multiple tumor types. She has led and published multiple studies with similar research goals on prostate, colon and ovarian cancer genetics. In 2013, she accepted the position as the Laboratory Director of the Biospecimens Accessioning and Processing (BAP) core laboratory, Biorepository Program, and Center for Individualized Medicine at Mayo Clinic in Rochester, Minnesota. Dr. Cicek presently is an Assistant Professor of Laboratory Medicine and Pathology in the Mayo Clinic College of Medicine and is a Senior Associate Consultant at the Mayo Clinic, Rochester, Minnesota. Her main focus is to contribute her expertise in research studies and clinical trials overseeing biospecimen collections, processing and storage. Dr. Cicek continuously tries to bring new knowledge and technology to her lab to improve on quality and best practices for biospecimens usage in biobanking. She is Mayo Clinic PI of The Alliance NCTN Biorepository and Biospecimen Resource. She is Co-PI of the Precision Medicine Initiative (PMI) All of Us (AoU) Research Program Biobank.

Robert M. Cook-Deegan, is a professor in the School for the Future of Innovation in Society, and Consortium for Science, Policy & Outcomes at Arizona State University. He founded and directed Duke's Center for Genome Ethics, Law & Policy 2002-2012, and Duke-in-Washington through June 2016. Before Duke: National Academies of Science, Engineering and Medicine 1991-2002; National Center for Human Genome Research (NIH) 1989-1990; and congressional Office of Technology Assessment 1982-1988. MD, University of Colorado,1979; and BA in chemistry (magna cum laude), Harvard, 1975. Author of The Gene Wars: Science, Politics, and the Human Genome and over 250 other publications.

D

Marija Debeljak, BSc, is a molecular diagnostics technologist at Johns Hopkins University School of Medicine. She received her BS from Millersville University of Pennsylvania. She joined Johns Hopkins University's School of Medicine in 2010 to work in the laboratory of Dr. James Eshleman. She unboxed and set up the -then- just released Ion Torrent PGM Next Generation Sequencer, implementing and optimizing protocols. She developed an assay that permits ultrasensitive detection of human DNA mixes, and in collaboration with Drs. Wheelan and Pevsner, identified 4,349 loci in the human genome that could be used for this purpose (Debeljak et al, JMD, 16: 495-503, 2014). Marija then applied this tool for early detection of leukemic relapse and was able to define a baseline level of host DNA in bone marrow of patients successfully transplanted. She was able to demonstrate, in a proof-of-principle study, that she could detect patients who subsequently relapsed earlier than the standard of care microsatellite/STR based assay (Debeljak et al, JMD, 19: 427-436, 2017). As the primary researcher on this project, she designed the primers, optimized the reactions, and developed the bioinformatic pipeline for analysis. Developing this technology has led to multiple collaborations with other investigators.

Maria G. Dominguez-Bello, PhD, BSc, MSc, is a microbiologist researching the microbiome functions and impacts. She received her undergraduate degree in 1983 from Simon Bolivar University in Venezuela, her Masters in 1987 and her PhD in 1990 (Microbiology) from University of Aberdeen, Scotland. She was an EU Marie Curie Postdoctoral fellow in the UK and in France. She was a professor at the Venezuelan Institute of Scientific Research (IVIC) until 2002, was a Professor at University of Puerto Rico for 11 years, and is now an Associate Professor of Medicine at NYU. She is a fellow of the American Academy of Microbiology (AAM), and of the Infectious Disease Society of America (IDSA). She has served as a Board member of several scientific journals, including Microbial Ecology, Frontiers in Microbiology, Microbes and Infection, mBio and Scientific Reports. Her lab

integrates data from genomics/metagenomics, microbiology, ecology, physiology and anthropology to address broad questions about microbe-hosts interaction, including development of the infant microbiota, the impacts exerted by Western lifestyle and restoration.

Todd E. Druley, MD, PhD, is a board-certified pediatric hematologist/oncologist and Assistant Professor of Pediatrics, Developmental Biology and Genetics at Washington University School of Medicine. He obtained a Bachelor's in Cell and Structural Biology and a minor in Chemistry from the University of Illinois in 1994. He then completed the MD/PhD program at the University of Illinois where he studied mechanisms of chemotherapy resistance. In 2002, Dr. Druley joined Washington University as a pediatric resident and has remained; completing his fellowship in Pediatric Hematology and Oncology and joining the faculty in 2008. He is a member of the Children's Oncology Group (COG) Myeloid Disease Committee and Epidemiology Committee. Research in the Druley Lab is based on characterizing the link between abnormal human development and early childhood cancer, particularly infant leukemia. The lab has a track record for genomic methodology development and is currently applying that technology to improve molecular diagnostics in pediatric AML. Clinically, Dr. Druley is focused on pediatric cancer predisposition and serves as the co-director of the Pediatric Cancer Predisposition Program at St. Louis Children's Hospital.

E

Oliver Elemento, PhD, is currently an Associate Professor, Acting Director of Englander Institute for Precision Medicine, Associate Director of the Institute for Computational Medicine, Director of the Laboratory of Cancer Systems Biology and Co-Leader of the Genetics, Epigenetics and Systems Biology Program in the Meyer Cancer Center at Weill Cornell Medicine. His group combines Big Data with experimentation and genomic profiling to accelerate the discovery of cancer cures and has published over 150 scientific papers in the area of genomics and drug discovery. Dr. Elemento oversaw the development of assays and analytic pipelines for clinical sequencing at Weill Cornell's Institute for Precision Medicine. He and his group developed computational methods for assessing the immune landscape of tumors, predicting which cancer patients will respond to immunotherapy using the Immuno-score, an integrative score that combines neoepitope discovery, immune gene expression and T cell receptor usage. His group routinely uses single cell genomics to analyze and link tumor and microenvironment heterogeneity to clinical outcomes. Dr. Elemento is also Co-Assistant Dean for Scientific Computing at Weill Cornell and the recipient of several awards including the NSF CAREER Award, the Hirschl Trust Career Scientist Award and the Walter B Wriston Award. He is the co-founder of two startup companies, OneThree Biotech (Artificial Intelligence-guided drug discovery) and ThucyDX (genomic profiling for immunotherapy patient selection) and on the Scientific Advisory Board of several genomics companies.

F

Marni J. Falk, MD, is an Associate Professor in the Division of Human Genetics within the Department of Pediatrics at The Children's Hospital of Philadelphia (CHOP) and University of Pennsylvania Perelman School of Medicine. She received her B.S. degree in Biology graduating Summa cum Laude and Phi Beta Kappa, and M.D. degree in the Alpha Omega Alpha Medical Honor Society in a combined 7-year program at the George Washington University School of Medicine, after which she completed a 5-year Pediatrics and Clinical Genetics dual residency program at Case Western Reserve University. Dr. Falk directs the CHOP Mitochondrial Medicine Center to evaluate and manage individuals of all ages with suspected mitochondrial disease, and leads a translational research group that investigates the causes and global metabolic consequences of mitochondrial disease, and targeted therapies, in C. elegans, zebrafish, mouse, and human cell models of respiratory chain dysfunction, with increasing transition to clinical treatment trials in mitochondrial disease human subjects. She leads the global Mitochondrial Disease Sequence Data Resource (MSeqDR) consortium aimed at improving diagnostic approaches and genomics resources for mitochondrial disease. She also directs the CHOP/UPENN Mitochondria Research Affinity Group. Dr. Falk has authored over 85 publications in human genetics and mitochondrial disease.

Ferric C. Fang, MD, is an infectious diseases specialist and medical microbiologist with thirty years' experience as a clinician, educator and researcher. He obtained his undergraduate and medical training at Harvard University and his residency and fellowship training at UCSD. He is currently a Professor of Laboratory Medicine, Microbiology and Medicine at the University of Washington School of Medicine and the Director of Clinical Microbiology at Harborview Medical Center. He is also Deputy Editor of Clinical Infectious Diseases, past Editor-in-Chief of Infection and Immunity, and an elected fellow of the American Association for the Advancement of Science, the Association of American Physicians, the American Academy of Microbiology and the American Society of Clinical Investigation.

Andrew P. Feinberg, MD, MPH, studied mathematics and humanities at Yale in the Directed Studies program, and he received his B.A. (1973) and M.D. (1976) from the accelerated medical program at Johns Hopkins University, as well as an M.P.H. from Johns Hopkins (1981). As a postdoctoral fellow with Sam Barondes at UCSD, he identified epigenetic memory of cell fate in Dictyostelium, which was followed by clinical training in medicine at University of Pennsylvania and medical genetics with Victor McKusick at Johns Hopkins, and was a fellow and Assistant Professor with Bert Vogelstein from 1983-1986, where he developed the random priming method which is ranked in the top 100 papers of all time in citations. He was a Howard Hughes investigator at University of Michigan from 1986-1994, when he returned to Johns Hopkins as King Fahd Professor of Medicine, Molecular Biology & Genetics, and Oncology. He holds an Adjunct Professorship at the Karolinska Institute in Sweden and is a Presidential Scholar at Harvard's Dana Farber Cancer Institute. Dr. Feinberg is Director of the Center for Epigenetics in the Institute for Basic Biomedical Sciences at Johns Hopkins.

Dr. Feinberg made the first discoveries of altered DNA methylation in human cancer, he discovered human imprinted genes and loss of imprinting (LOI) in cancer, and he proved the epigenetic hypothesis of cancer through his work on Beckwith-Wiedemann syndrome. He also identified the first common variant (genetic or epigenetic) for cancer risk, LOI of IGF2 in colorectal cancer. His discovery of epigenetically altered progenitor cells has led to a paradigm shift in our understanding of carcinogenesis. Most recently, he pioneered genome-scale epigenetics (epigenomics), with the first NIH funded Epigenome Center, pioneering methods including the first comprehensive genome-scale methylation discovering the major target for epigenetic variation in humans, CpG island shores. He led the first whole genome bisulfite sequencing analysis of human cancer, discovering large hypomethylated blocks that correspond to nuclear lamina-associated heterochromatin, as well as a mechanism for disruption of these blocks in epithelial-mesenchymal transition. His protean interests include developing the field of epigenetic epidemiology, first focusing on autoimmune disease, discovering the first example of epigenetic mediation of genetic variants in disease. His NIH Director's Pioneer Award followed from his idea in 2009 that genetic variants, in evolution or in cancer, could lead to increased epigenetic plasticity, enhancing survival in a changing environment. Direct evidence for this idea comes from his studies of metastasis driven by stochastic epigenetic change rather than metastasis-specific mutations.

He is the recipient of a MERIT Award of the National Cancer Institute and the NIH Director's Pioneer Award. His honors include election to the American Society for Clinical Investigation, the Association of American Physicians, the National Academy of Medicine, and the American Academy of Arts and Sciences. He was awarded the Feodor Lynen Medal for pioneering the field of cancer epigenetics, the Baruch Spinoza Chair of the University of Amsterdam, and is an inaugural Daniel Coit Gilman Scholar of Johns Hopkins University. He has received honorary doctorates from the University of Uppsala and the Karolinska Institute, and ISI ranks him among science's most cited authors.

Birgit Funke, PhD, received her Ph.D. in molecular genetics from the University of Würzburg, Germany and trained as a postdoctoral fellow at the Albert Einstein College of Medicine in New York where she identified the gene for 22q11 deletion syndrome. She subsequently completed a fellowship in Clinical Molecular Genetics at Harvard Medical School and has dedicated her career to personalized genetic medicine since then. She served as the director of Clinical Research and Development at the Laboratory for Molecular Medicine (LMM) and was among the first worldwide to implement clinical next generation sequencing (NGS). She also has a extensive experience in clinical diagnostic testing for inherited cardiovascular disorders and is co-chairing the cardiovascular domain working group of the Clinical Genome Resource (ClinGen) whose mission is to harmonize and centralize knowledge resources for genomic medicine. Today, Dr. Funke is Vice President of Clinical Affairs at Veritas Genetics and Part time Associate Professor of Pathology at Harvard Medical School. Her long term goal is to use genomic testing for disease prevention.

G

Michelle Grant, DO, is an Associate Pathologist in the Department of Pathology at Geisinger Medical Center. She received her DO from the Philadelphia College of Osteopathic Medicine and completed her Anatomic and Clinical Pathology residency at Temple University Hospital in Philadelphia, Pennsylvania. She subsequently completed two fellowships in Transfusion Medicine at Thomas Jefferson University Hospital, Philadelphia, and in Hematopathology at University of Vermont Medical Center, Burlington, Vermont. While at the University of Vermont Medical Center, she trained in the Genomic Medicine Program in the Department of Pathology and Laboratory Medicine. She had a leadership role in the transdisciplinary development of a targeted genomic panel for hematologic malignancies. In her current role, she practices hematopathology and transfusion medicine and she has professional interest in the clinical utility and implementation science of Genomic Medicine.

Obi L. Griffith, PhD, is Assistant Professor of Medicine and Assistant Director at the McDonnell Genome Institute at Washington University School of Medicine. Dr. Griffith completed bioinformatics post-doctoral fellowships at Lawrence Berkeley National Laboratory in Berkeley, California and at the BC Cancer Agency Genome Sciences Centre in Vancouver, Canada. He received his Ph.D. (Medical Genetics, 2008) from the University of British Columbia and B.S. (Biochemistry and Biology with Honors, 2002) from the University of Winnipeg. He is supported by an NCI Transition Career Development Award (K22) and NCI Early-Stage Development of Informatics Technologies for Cancer Research and Management (U01). He has received numerous other awards from Atomic Energy of Canada Ltd., Natural Sciences and Engineering Research Council, University of Winnipeg, University of British Columbia, Canadian Institutes of Health Research (CIHR), British Columbia Cancer Agency and Michael Smith Foundation for Health Research. He is a regular instructor of bioinformatics workshops for Cold Spring Harbor Laboratories and the Canadian Bioinformatics Workshops series. Dr. Griffith's research is focused on precision medicine approaches for cancer using genomic technologies. He develops and uses bioinformatics and statistical methods for the analysis of high throughput sequence data and identification of biomarkers for diagnostic, prognostic and drug response prediction.

Wayne W. Grody, MD, PhD, is a Professor in the Departments of Pathology & Laboratory Medicine, Pediatrics, and Human Genetics at the UCLA School of Medicine. He is the director of the Molecular Diagnostic Molecular Laboratories and the Clinical Genomics Center within the UCLA Medical Center. He is also an attending physician in the Department of Pediatrics, specializing in the care of patients with or at risk for genetic disorders. He has been one of the primary developers of quality assurance and ethical guidelines for DNA-based genetic testing for a number of governmental and professional agencies including the FDA, VA, AMA, CAP, ACMG, ASHG, NCCLS, CDC, NIH-DOE Human Genome Project (ELSI program), and PSRGN. He served as a member of the NIH-DOE Task Force on Genetic Testing, and was the working group chair for development of national guidelines for cystic fibrosis and factor V-Leiden mutation screening. More recently, he served as founding chair of an Advisory Committee on Genomic Medicine for the entire VA healthcare system and as president of the American College of Medical Genetics. He did his undergraduate work at Johns Hopkins University, received his M.D. and Ph.D. at Baylor College of Medicine, and completed residency and fellowship training at UCLA. He is double board-certified by the American Board of Pathology (Anatomic and Clinical Pathology, Molecular Genetic Pathology) and the American Board of Medical Genetics (Clinical Genetics, Molecular Genetics, and Biochemical Genetics).

Wei Gu, MD, PhD, is a board-certified pathologist and Molecular Genetic Pathology Fellow at UCSF. His research focuses on minimally invasive diagnostics using cell-free DNA/RNA with an emphasis on infectious disease, oncology, and prenatal diagnostics. He received his Bioengineering MD/PhD from Stanford University and worked on Non-Invasive Prenatal Diagnostics (NIPD) with Dr. Stephen Quake. Dr. Gu completed his clinical pathology residency at UCSF and is a post-doctoral scholar in Dr. Joseph DeRisi's laboratory. As a clinical fellow, he works with Dr. Steve Miller and Dr. Charles Chiu in the UCSF Clinical Microbiology Laboratory. He has co-developed and co-patented several technologies for molecular diagnostics, including a microfluidics platform as an undergraduate student, NIPD as a graduate student, and Depletion of Abundant Sequences by Hybridization (DASH) using CRISPR nucleases during residency.

H

Kimberly Hanson, MD, MHS, is the Head of Immunocompromised Host Infectious Diseases Services at the University Hospital and Huntsman Cancer Center as well as Director of Clinical Microbiology within ARUP Laboratories. She is an Associate Professor of Medicine and Pathology, splitting her time between patient care, laboratory administration, research and teaching. Dr. Hanson was recruited to the University of Utah in 2008 from Duke University, where she obtained specialty training in Adult Infectious Diseases, Medical Microbiology and Health Sciences Research. She maintains an active research program that is focused on the development and validation of novel, cost-effective diagnostic tests for Infectious Diseases. Dr. Hanson has authored over 60 scientific papers, book chapters and review articles with a focus on transplant-related infectious diseases and clinical diagnostics. As the Medical Microbiology Fellowship Program Director, she is also actively involved in the training of medical students, residents and fellows within the University's School of Medicine.

Marian H. Harris, MD, PhD, is the Director of the Laboratory for Molecular Pediatric Pathology (LaMPP) at Boston Children's Hospital where she is a practicing hematopathologist and molecular pathologist. She received her MD and PhD from the University of Pennsylvania, completed her residency in AP and fellowship in Hematopathology at Brigham and Women's Hospital, and

completed her fellowship in Molecular Genetic Pathology at Harvard Medical School. Dr. Harris's clinical and translational research focuses on molecular diagnostics in the context of pediatric malignancy and hematologic disease. She is particularly interested in using molecular diagnostics to refine pathologic diagnoses, as well as to provide prognostic and therapeutic guidance in clinical care, and is a co-investigator on a number of multi-institutional clinical trials using molecular diagnostics for these purposes.

Andrew Hilmer, PhD, is a Senior Account Manager at Applied StemCell, where he works directly with key accounts to develop technical strategies for advancing their research programs. At Applied StemCell, Dr. Hilmer has also served as Product Manager for the ONCOREF™ series of isogenic cell lines, which consists of over 150 off-the-shelf cell lines that have been engineered to possess diverse oncogenic mutations using the CRISPR/Cas9 platform. Prior to joining Applied StemCell, Andrew was an NIH Postdoctoral Fellow at Stanford University, and he completed his Ph.D. training in Chemical Engineering at MIT. He has authored or co-authored more than 20 scientific manuscripts, and is listed as an inventor on three granted or pending patents.

Nicole L. Hoppman, PhD, is an Assistant Professor of Laboratory Medicine and Pathology and a Co-Director of both the Clinical Genomics and Clinical Genome Sequencing Laboratories at Mayo Clinic. She earned her BS in Biology from the University of Illinois at Urbana-Champaign and her PhD in Human Genetics from the University of Maryland School of Medicine. Dr. Hoppman then completed fellowships, and is board certified by the American Board of Medical Genetics and Genomics, in both Clinical Molecular Genetics and Clinical Cytogenetics. Her main area of interest and expertise is in the application of molecular technologies to answer classical cytogenetics questions. Dr. Hoppman recently helped launched the world's first ever clinical Mate-Pair sequencing assay for the detection and characterization of balanced chromosome rearrangements in both constitutional and oncology specimens.

Jessica A. Houskeeper, MRes, is a Senior Laboratory Specialist in the Pathology Department at the University of Utah. Jessica received a BS in Biology from Brigham Young University in 2012. She then went on to earn a Masters of Research in Biomedical Sciences from the University of Glasgow in Scotland and specialized in Cellular Engineering. As a member of the Carl Wittwer Lab, her current research is focused on extreme-speed diagnostics where detection of viral RNA by real-time PCR occurs in two minutes or less.

Susan J. Hsiao, MD, PhD, is an Assistant Professor in the Department of Pathology and Cell Biology at Columbia University Medical Center. She serves as Director of Bioinformatics in the Laboratory of Personalized Genomic Medicine. Her interests include translational research in cancer genomics and improvements in storage and reporting of clinical genomics data. She received her MD and PhD degrees from New York University School of Medicine. She completed residency training in anatomic pathology at New York Presbyterian Hospital/Columbia University Medical Center and completed fellowship training in molecular genetic pathology at University of Pittsburgh Medical Center.

I

A. John Iafrate, MD, PhD, is a Professor of Pathology at Harvard Medical School, and is director of the Director of the Center for Integrated Diagnostics (CID), a clinical laboratory for molecular diagnostics at the Massachusetts General Hospital (MGH). Dr. Iafrate received his MD/PhD dual degree from the State University of New York at Stony Brook in 2000 and was trained in anatomic and molecular genetic pathology at Brigham and Women's Hospital. Dr. Iafrate is a board-certified Pathologist, and has been on staff at MGH since 2005. The CID provides rapid personalized genomic testing to help inform cancer treatment decisions for patients. His research is focused on lung and brain tumors, where he has been closely involved in the clinical development of crizotinib and companion diagnostics in ALK- and ROS1 positive lung cancers. His lab has developed several technologies for sequencing tumors, including SNaPshot and the next-generation sequencing-based Anchored Multiplex PCR, both techniques have been widely used in the molecular diagnostics community.

J

Lawrence J. Jennings, MD, PhD, is an Associate Professor in the Department of Pathology and Laboratory Medicine, Northwestern University's Feinberg School of Medicine. He is board-certificated in anatomic and clinical pathology, molecular genetic pathology, histocompatibility and immunogenetics. He is director of HLA and molecular diagnostic laboratories at Ann and Robert

H. Lurie Children's Hospital of Chicago. He has served as chair of the Molecular Oncology Resource Committee for CAP, the Solid Tumor Representative to the Clinical Practice Committee for AMP and chaired the NGS Analytical Validation Working Group of the Clinical Practice Committee.

Hanlee P. Ji, MD, is a medical oncologist, clinical geneticist and physician scientist whose research program focuses on the development, application and research of genomic determinants of cancer. He is current an Associate Professor of Medicine at Stanford University and Senior Associate Director of the Stanford Genome Technology Center. In addition to his genomics program, he specializes in the treatment of patients with metastatic gastrointestinal cancers and genetic evaluation of hereditary cancer disorders. Having trained at the University of Washington in medical genetics fellowship and Stanford University for medical oncology, he uses his background in both areas to better understand the biological and clinical implications of genomic alterations. One of the major objectives of his research is the development of new genomic technologies and genetic assays that inform critical clinical questions encountered by oncologists and physicians. Among the various technologies his group has developed include the use of molecular barcodes, in vitro Crispr assays and linked reads approaches to improve the analysis of structural variation and aneuploidy in gastrointestinal cancers. He is applying these approaches on primary clinical specimens to better inform our understanding of the genomic structural complexities seen in gastric and colorectal cancer.

Vaidehi Jobanputra, PhD, is the Director of Molecular Diagnostics at the New York Genome Center (NYGC). She holds a joint appointment as an Associate Professor of Pathology and Cell Biology at Columbia University Medical Center, where she serves as a co-director of the Laboratory of Personalized Genomic Medicine at Columbia University Medical Center and Clinical Cytogenetics at the New York Presbyterian Hospital. Dr. Jobanputra received her PhD from the All India Institute of Medical Sciences, New Delhi and a MS in Biostatics in the clinical research track from Columbia University. She is a board certified (American Board of Medical Genetics and Genomics) clinical molecular geneticist and cytogeneticist. She is interested in clinical and translational research in genetic diseases and cancer. She is a member of the Dosage Sensitivity Curation task team of the ClinGen Genomic Variant Working Group. Dr. Jobanputra is responsible for the creation and build-out of NYGC's clinical diagnostics laboratory. She has developed next-generation sequencing molecular diagnostic assays for Oncology and Genetic Testing. Recently, her lab participated in two clinical studies to investigate efficiency and feasibility of whole genome sequencing to inform therapeutic options based on the individual's genomic profile.

Melissa R. Johnson, BSc, is a Technical Supervisor over the Molecular Infectious Disease Laboratory at ARUP Laboratories in Salt Lake City, Utah. She received a BS in Biological Sciences from Utah Valley University. She brings over 14 years of molecular laboratory experience with seven of those years being directly involved in transitioning new laboratory developed tests and instrumentation into the clinical lab.

J. Keith Joung, MD, PhD, is a leading innovator in the field of genome editing. He is currently Desmond and Ann Heathwood Research Scholar, Pathologist, and Associate Chief of Pathology for Research at Massachusetts General Hospital (MGH) and is Professor of Pathology at Harvard Medical School. He is also a member of the Center for Cancer Research and the Center for Computational and Integrative Biology at MGH. Dr. Joung has been a pioneer in the development of important technologies for targeted genome editing and epigenome editing of human cells. He has received numerous awards including an NIH Director's Pioneer Award, an NIH Director's Transformative Research Project R01 Award, the MGH Research Scholar Award, an NIH R35 MIRA (Maximizing Investigators Research Award), and election into the American Association of University Pathologists. He serves on the Board of Directors for the American Society of Gene and Cell Therapy and the editorial boards of Genome Biology, Human Gene Therapy, and Trends in Biotechnology. He is also a scientific co-founder of and advisor to Editas Medicine, a company dedicated to the translation of genome editing technologies for therapy of human diseases. Dr. Joung holds a Ph.D. in genetics from Harvard University, an M.D. from Harvard Medical School and an A.B. in biochemical sciences from Harvard College.

K

Jennifer A. Kanakry, MD, is the Clinical Head of Transplant for the Experimental Transplantation and Immunology Branch at the National Cancer Institute within the National Institutes of Health. Dr. Kanakry received her B.A. from Pomona College in Claremont, California, where she studied cognitive neuropsychology and biology. She then went on to receive her medical degree from a joint program

between Dartmouth College and Brown University. She completed both her residency training in Internal Medicine and fellowship training in Hematology at Johns Hopkins Hospital. Her clinical research focuses on virus-associated cancers, EBV-related blood based tumor markers, and allogeneic bone marrow transplantation. In 2013, she joined the Hematology faculty at Johns Hopkins, where she primarily focused on treating patients with diseases that more commonly occur in the setting of immunodeficiency, including lymphoma, disorders of immune dysregulation, and virus-associated lymphoproliferative disorders. She continued her research on Epstein-Barr virus and Kaposi sarcoma-associated herpesvirus related cancers, investigating biomarkers for these diseases and carrying out clinical trials for patients with these cancers. In 2015, she joined the National Cancer Institute, where she continues to focus on diseases related to immunodeficiency, virus-associated malignancies, blood-based markers of virus-associated cancers, and the role of allogeneic bone marrow transplantation and other adoptive immunotherapies in curing inherited immunodeficiency diseases.

Daniel C. Koboldt, MSc, is a Principal Investigator for the Institute of Genomic Medicine (IGM) at Nationwide Children's Hospital, and Research Assistant Professor of Pediatrics at The Ohio State University. His group at IGM applies next-generation sequencing (NGS) technologies to understand the genetic basis of rare disorders and pediatric cancers. He is also the developer of VarScan, a widely-used tool for detecting somatic mutations and copy number alterations using NGS data; and MendelScan, a variant prioritization and disease gene mapping tool for rare inherited diseases.

L

Melissa J. Landrum, PhD, is the team lead for the ClinVar database, a publicly available archive of variants and their relationship to disease at the National Center for Biotechnology Information (NCBI) at the NIH. She received her PhD in human genetics from Johns Hopkins University in 1999. Prior to working on ClinVar, she spent 12 years working on the RefSeq project at NCBI, where she provided manual gene annotation for human and other mammalian genomes.

Michael A. Lewinski, PhD, D(ABMM), is currently the Sr. Director of Medical Affairs for Microbiology at Roche Molecular Systems, Inc. in Pleasanton, California. He completed his Doctor of Philosophy degree in Microbiology and Immunology and a clinical postdoctoral Fellowship in Medical and Public Health Laboratory Microbiology at UCLA. He is a Diplomate of the American Board of Medical Microbiology, a licensed Laboratory Director and a certified Molecular Biologist. Prior to joining Roche, he was the Chief of Clinical Microbiology and Professor of Pathology and Laboratory Medicine, David Geffen School of Medicine at UCLA. Prior to UCLA he was the Senior Scientific Director of Infectious Diseases and Clinical R&D at Quest Diagnostics Nichols Institute and Focus Diagnostics, Inc. He has served as the President of the Southern California Branch of the American Society for Microbiology, served on the Council of the Pan American Society of Clinical Virology and as Chair of the Infectious Disease Subdivision of the Association for Molecular Pathology and currently serves on the Editorial Board for the Journal of Clinical Virology. His research interests have focused on the development and the automation of rapid molecular tests for the detection, quantification, and characterization of microorganisms for the diagnosis of disease and for monitoring disease progression and response to therapy. He holds several patents and has published in various disciplines within infectious diseases and laboratory medicine.

Alexander Lex, PhD, is an Assistant Professor of Computer Science at the Scientific Computing and Imaging Institute and the School of Computing at the University of Utah. Before joining Utah he was a lecturer and a post-doctoral visualization researcher in Hanspeter Pfister's group at the Harvard School of Engineering and Applied Sciences. He received his PhD from the Graz University of Technology in 2012. In 2011 he was a visiting researcher at the Computational Genomics Research Group at Harvard Medical School. His primary research interests are data visualization, especially applied to molecular biology, and human computer interaction. He is one of the principal investigators of the Caleydo project, an open-source framework for the visualization of biological data. Alexander is the recipient of an Erwin Schroedinger Fellowship, granted by the Austrian Science Fund, and has won numerous awards, including multiple best paper awards or honorable mentions at visualization conferences and a best dissertation award from his alma mater. http://alexander-lex.net

Marilyn M. Li, MD, is a Professor of Pathology and Laboratory Medicine, Professor of Pediatrics, Vice Chief of the Division of Genomic Diagnostics, Director of Cancer Genomic Diagnostics at Children's Hospital of Philadelphia, University of Pennsylvania, Perelman School of Medicine. Dr. Li holds a American Board of Medical Genetics certification in Clinical Cytogenetics and Clinical Molecular Genetics. Prior to her

appointment at CHOP, she served as the director of Cancer Genetics Laboratory, Baylor College of Medicine, the director of the Tulane Clinical Cytogenetics Laboratory, Clinical Molecular Genetics Laboratory, Tulane Matrix DNA Diagnostic Laboratory, and the director of the Genomics Core Laboratory of Louisiana Cancer Research Consortium. She is a fellow of ACMGG, ASHG, SWOG, AMP, ASH, and ASCO. Dr. Li's primary research interest is clinical application of microarray and next generation sequencing technologies in cancer research and clinical diagnosis. Her group has studied thousands of cancer genomes using custom-designed cancer-specific arrays, cancer-specific next generation sequencing panels and cancer exomes. Their experience demonstrated that these state of the art technologies detect genomic alterations that can be used for cancer diagnosis, risk stratification, disease follow-up, and therapeutic selection. She initiated, organized and is the first president of the Cancer Genomics Consortium, an international consortium whose mission is to facilitate the development and utilization of microarray-based technology and NGS technology for high quality, reliable cancer genetic testing in diagnostic laboratories. She is the recipient of the 2010-2011 Luminex/ACMGF Award for the promotion of safe and effective genetic testing and services. Other research projects in her lab include studies of common leukemia- and lymphoma-associated genetic aberrations in healthy individuals and mosaic overgrowth syndromes and chromosome microdeletion syndromes. She is an active member of the medical school and is involved in teaching medical students and Ph.D. students, and training residents and fellows.

Stephen Lincoln, is responsible for scientific collaborations and clinical studies at Invitae. He has over 25 years of experience in bioinformatics, specifically as it is applied in the fields of genetics and genomics. His most recent research include studies of the clinical validity and utility of expanded genetic testing in hereditary cancers (PMIDs 26270727 and 26207792). He also works on rigorous methods to assess analytic validity of new assays and algorithms. Previously he held senior positions at Complete Genomics, Affymetrix and Incyte Genomics. Steve's academic background includes 7 years with Eric Lander at the Whitehead Institute and MIT during the initial phases of the human genome project.

Elaine Lyon, PhD, is professor of pathology at the University of Utah School of Medicine and a Medical Director of Molecular Genetics/Genomics at ARUP Laboratories. She received her Ph.D. in Medical Genetics and is certified by the American Board of Medical Genetics in Clinical Molecular Genetics. Dr. Lyon's clinical laboratory responsibilities include quality assurance, review of technical assays, and interpretation of results in the context of the clinical indications. In addition to her clinical service, she is involved with research and development in human genetics, validating methods under CLIA requirements, and transferring them to the clinical laboratory. Dr. Lyon's national participation has promoted appropriate molecular genetic clinical testing. As President of AMP in 2014, she was senior author on a manuscript entitled *The Spectrum of Clinical Utilities in Molecular Pathology Testing Procedures for Inherited Conditions and Cancer: A Report of the Association for Molecular Pathology*. She continues her involvement with AMP's Professional Relations and Economic Affairs committees and is chair of the working group for Variant Interpretation Across Laboratories (VITAL). She is a member of the American Medical Association's Molecular Pathology Advisory Group, reviewing proposals for molecular pathology coding. She recently was elected a molecular director for the American College of Medical Genetics and Genomics (ACMG) Board of Directors.

M

Navin Mahadevan, MD, PhD, has completed a Molecular and Genetic Pathology Fellowship at Harvard Medical School, and is currently completing Anatomic Pathology residency training at the Brigham and Women's Hospital in Boston, Massachusetts. He received his undergraduate training in Biology at Washington University in St. Louis. After a Fulbright Scholarship in Melbourne, Australia, he attended the University of California, San Diego for MD/PhD training. He did his thesis work in the lab of Dr. Maurizio Zanetti, where he investigated the cell-extrinsic effects of tumor endoplasmic reticulum stress on myeloid antigen presenting cells, and the tumor microenvironment. As part of his current training in pathology, he is interested in further molecular and immunopathologic profiling of the tumor microenvironment, including in the setting of immunotherapy.

Joseph J. Maleszewski, MD, is a Associate Professor of Pathology and Medicine at Mayo Clinic College of Medicine, USA, where he is also a consultant with joint appointments in Laboratory Medicine & Pathology, Cardiovascular Medicine and Medical Genomics. He serves as section head of cardiovascular pathology and program director of the cardiovascular pathology training fellowship. He received his MD at Michigan State University's College of Human Medicine, and then took his residency in anatomic and clinical pathology at The Johns Hopkins Hospital. He completed

fellowships in cardiovascular pathology and molecular genetic pathology at Mayo Clinic. His main areas of research interest are cardiac tumours, cardiovascular diagnostics in congenital and acquired cardiovascular disease, and genomics/proteomics of cardiomyopathies. He has authored more than 110 manuscripts and 60 book chapters as well as edited 2 major texts.

Diana Mandelker, MD, PhD, is an assistant attending pathologist on the molecular diagnostics service at Memorial Sloan Kettering Cancer Center (MSKCC) and specializes in germline genetic analysis. She is also the associate director of the molecular genetic pathology training program at MSKCC. Dr. Mandelker received her BS and MS degrees from Yale University in Molecular Biophysics and Biochemistry. She then completed her MD and PhD degrees at the Johns Hopkins School of Medicine, followed by a clinical pathology residency at Brigham and Women's Hospital and pathology informatics and molecular genetic pathology fellowships at Harvard Medical School.

Patrick Mann, MD, is a molecular genetic pathology fellow in the Department of Pathology & Immunology at Washington University. He received his M.D. from the University of Chicago and completed a residency in Anatomic and Clinical Pathology at University of Colorado. Since coming to Washington University, he has been active in the Genomics & Pathology Services, presenting at bimonthly departmental molecular didactics, and assisting in several projects including development of a RNA-Seq panel and evaluation of prospective proficiency testing samples for next generation sequencing. Today he will be talking about identifying patients at risk for myelodysplastic syndrome through Next Generation Sequencing of cytopenias with equivocal or absent morphologic dysplasia.

Jonna Mazet, DVM, MPVM, PhD, is a Professor of Epidemiology and Disease Ecology and Executive Director of the One Health Institute in the UC Davis School of Veterinary Medicine, where she focuses on global health problem solving, especially for emerging infectious disease and conservation challenges. Dr. Mazet is active in international One Health research programs, most notably in relation to disease transmission among wildlife, domestic animals, and people and the ecological drivers of disease emergence. Currently, she is the Global Director of a $175 million viral emergence early warning project, named PREDICT, that has been developed with the US Agency for International Development's (USAID) Emerging Pandemic Threats Program. She was elected to the US National Academy of Medicine in 2013 in recognition of her successful and innovative approach to emerging environmental and global health threats and serves on the National Academies' Forum on Microbial Threats, as well as chairs the One Health Work Group.

Jamie McDonald, MSc, is a Licensed Genetic Counselor and Assistant Professor, Department of Pathology. She received an undergraduate degree from Carleton College in Biology and a master's degree in Genetic Counseling at the University of California at Berkeley. She is certified as a Genetic Counselor by the American Board of Medical Genetics and American Board of Genetic Counseling. Jamie began work at the University of Utah Medical Center in 1988 and worked in the Departments of Pediatrics, Obstetrics and Gynecology and the Huntsman Cancer Institute's Hereditary Cancer Clinics as a managing genetic counselor before focusing on hereditary hemorrhage telangiectasia (HHT). In 1995 she helped establish the University of Utah HHT Center of Excellence and has been a core member of its multidisciplinary team since. She has been the Center Co-Director for many years. Jamie has many publications focused on molecular diagnostics for HHT. She has served on the HHT Foundation International Medical and Scientific Advisory Board for many years. She co-chaired the Clinical and Molecular Diagnosis Group at the International Management Guidelines Conference, which lead to publication of consensus guidelines for the diagnosis and management of this vascular dysplasia.

Lindsay Meyers, BSc, is the Director of the Medical Data Systems Program at BioFire Diagnostics and has lead the creation of FilmArray Trend, BioFire's cloud based epidemiology research system. She began her career on the FilmArray invention team, as one of the lead biochemistry Scientists. Since FilmArray launch her areas of expertise have expanded to health information privacy and data science. She created and directed the Post Market Surveillance and Data Science teams at BioFire Diagnostics. More recently, her groups have developed data research products for clinical labs and BioFire scientific teams, in coordination with public health agencies and patient privacy experts. Her research objective is to inform health care professionals regarding syndromic-related pathogen circulation, primarily those responsible for respiratory and gastrointestinal diseases. She aims to extend the utility of FilmArray through data exploration and study of metrics available only in the Trend cloud system, containing over 350 thousand exported patient tests results.

Nathan D. Montgomery, MD, PhD, is an assistant professor in the Department of Pathology and Laboratory Medicine at the University of North Carolina School of Medicine. His primary clinical and research interests center on the underlying biology, including molecular features, of hematolymphoid neoplasms. Much of his research has been based in sub-Saharan Africa, where Dr. Montgomery has worked to expand laboratory capacity, including access to molecular diagnostics. In his clinical work at UNC, Dr. Montgomery has been actively involved in efforts to incorporate next-generation sequencing technologies into the diagnostic work-up of hematologic malignancies, with particular interest in efforts to evaluate performance and quality measures in the clinical setting. Dr. Montgomery completed both his MD and PhD degrees at UNC, where he remained for residency and fellowship training. He is board certified in Anatomic and Clinical Pathology and Hematopathology, and is also boards eligible in Molecular Genetic Pathology.

Ann M. Moyer, MD, PhD, is a co-Director of the Personalized Genomics Laboratory at Mayo Clinic. The Personalized Genomics Laboratory specializes in genetic testing for pharmacogenomics, cardiovascular diseases, and primary immunodeficiencies. Dr. Moyer is a consultant in the Department of Laboratory Medicine and Pathology where she holds the academic rank of Assistant Professor. She earned her medical and graduate degrees as part of the Mayo Clinic Medical Scientist Training Program. Her thesis work focused on pharmacogenomics of phase II drug metabolizing enzymes. She completed residency training in Anatomic and Clinical Pathology, with an additional year devoted to research, followed by a fellowship in Molecular Genetic Pathology, also at the Mayo Clinic. Dr. Moyer serves as a member of the College of American Pathologists/American College of Medical Genetics Molecular Genetics Committee and Pharmacogenetics Workgroup.

Charles G. Mullighan, MBBS (Hons), MSc, MD, earned his Bachelor and Doctor of Medicine degrees from the University of Adelaide, Australia, and his Master of Science degree from the University of London. He trained in hematology and hematopathology in Adelaide. He trained as a postdoctoral fellow at St Jude. He joined the faculty in 2008 and is currently Member in the Department of Pathology and co-leader of the Hematologic Malignancies Program. His research uses genomic profiling and experimental modeling to investigate the genetic basis of leukemia, most notably high risk acute lymphoblastic leukemia. This work has identified several new genetic alterations that contribute to the development of leukemia, and have entered the clinic as diagnostic tests and new therapeutic targets. He has earned several honors including being named a Pew Scholar in the Biomedical Sciences (2009), being awarded the American Society for Hematology Merit Award (2007), Joanne Levy Memorial Award for Outstanding Achievement (2008) and William Dameshek Prize (2016), election to the American Society of Clinical Investigation (2012) and American Association of Physicians (2016), and the Meyenburg Prize for Cancer Research (2012).

N

Deborah Neklason, PhD, is the Program Director of Utah Genome Project, Associate Professor of Genetic Epidemiology in the Department of Internal Medicine and a Huntsman Cancer Institute Investigator at the University of Utah. As Program Director of Utah Genome Project, she works closely with colleagues to apply the latest sequencing technologies, bioinformatics tools, and human subject research ethics to solve the genetic basis of many important medical conditions. Dr. Neklason's current research projects involve identification of inherited genetic variants that are important in cancer risk by engaging large families identified in Utah Population database, developing diagnostics to identify individuals at risk of developing colon cancer, and clinical trials to prevent cancer. One of her exciting new projects uses geocoding data across time for individuals in Utah Population database to evaluate environmental modifiers of cancer risk. Prior to joining the faculty at University of Utah, Dr. Neklason was manager for biochemical assay products at Echelon Biosciences in Salt Lake City. She received her PhD in Human Genetics from the University of Utah in 1999.

Marina N. Nikiforova, MD, is Professor of Pathology and Director of the Molecular & Genomic Pathology Laboratory at the University of Pittsburgh Medical Center (UPMC). Dr. Nikiforova has a longstanding clinical and research interests in genomics of thyroid cancer and brain tumors and she has led the development of a novel NGS-based tests for preoperative diagnosis of thyroid cancer in FNA samples (ThyroSeq) and for diagnosis, prognostication and treatment of adult and pediatric brain tumors (GlioSeq). Dr. Nikiforova is a member of the Association for Molecular Pathology (AMP) where she served on Nominating committee, Program Committee, and as a Chair of Solid Tumors subdivision. During past two years, Dr. Nikiforova served as a Chair of the Clinical Practice Committee and on the Board of Directors at AMP. Under her leadership, the committee has developed analytical and clinical guidelines for NGS analysis and variant interpretation in cancer. She is also a member of the Laboratory Practice Committee at the American Thyroid Association (ATA). Dr. Nikiforova has published over 150 peer-reviewed scientific articles and five book chapters, most of which in the area of molecular diagnostics of cancer.

Frederick S. Nolte, PhD, D(ABMM), F(AAM), is currently Professor and Vice Chair for Laboratory Medicine in the Department of Pathology and Laboratory Medicine, and Medical Director of Clinical Laboratories, Molecular Pathology and Point-Care-Testing at the Medical University of South Carolina. He is a Diplomate of the American Board of Medical Microbiology and a Fellow of the American Academy of Microbiology. Dr. Nolte completed his B.S. degree in biology at the University of Cincinnati and his Ph.D. in medical microbiology at the Ohio State University. Dr. Nolte completed a postdoctoral fellowship in public health and medical laboratory microbiology at the University of Rochester. He is active in and held positions of responsibility in the American Society for Microbiology, Association for Molecular Pathology, Clinical and Laboratory Standards Institute, Infectious Diseases Society of America, American Society for Clinical Pathology, American Association for Clinical Chemistry, and College of American Pathologists. He has authored numerous book chapters, practice guidelines, and more than 100 peer-reviewed publications in the areas of clinical microbiology and molecular diagnostics. He has served of the scientific advisory boards and provided consulting services to many start-up and established diagnostic companies. In addition, he has experience with FDA clinical trial work and served as a member and consultant to the CDRH FDA Microbiology Devices Panel.

O

Damon Olson, MD, is currently a molecular genetic pathology fellow at Baylor College of Medicine in Houston, Texas. He recently completed a pediatric pathology fellowship at the University of Colorado Denver (2016-2017) and is board-certified in Anatomic and Clinical Pathology. He was chief resident at the University of Colorado Denver where he finished training in 2016. His previous education includes medical training at the University of Minnesota - Twin Cities and a bachelor of science in French and pre-medical studies at the University of Nebraska Lincoln. He has previously presented at the Association for Molecular Pathology and the United States and Canadian Academy of Pathology annual conferences. He has upcoming presentations at the Society for Pediatric Pathology meeting and is an active fellow of the College of American Pathologists. Additional works include peer-reviewed articles and book contributions. Next year, he is seeking new opportunities to employ his interests in pediatric pathology and associated molecular techniques for diagnostic, prognostic, and therapeutic management of pediatric diseases.

P

Laura Pasqualucci, MD, is a Professor of Pathology and Cell Biology at the Institute for Cancer Genetics, Columbia University. She received her medical degree from the University of Perugia Medical School in Italy, where she completed a residency in OncoHematology before moving to the United States for a post-doctoral fellowship with Dr. Riccardo Dalla-Favera. She joined the faculty of Columbia University as an Assistant Professor in 2001. Dr. Pasqualucci's research interests focus on the molecular pathogenesis of B cell malignancies, with emphasis on its most common type, diffuse large B cell lymphoma (DLBCL). Her work has significantly contributed to the understanding of the genetic basis of this aggressive cancer by identifying and functionally characterizing several genetic aberrations that disrupt critical processes/signaling pathways implicated in normal B cell development, leading to malignant transformation. More recently, her group uncovered highly recurrent mutations in genes that encode for epigenetic modifiers, including the methyltransfersase KMT2D and the acetyltransferases CREBBP/p300, which have emerged as central players in many different cancers. This information is currently being exploited for the development of more effective targeted therapeutic approaches. Dr. Pasqualucci has authored more than 100 peer-reviewed scientific articles and book chapters. She serves on the editorial board of Blood and the Journal of Experimental Medicine, as well as on numerous national and international grant review panels, including the NIH, the Leukemia and Lymphoma Society and the AACR. She is also a member of the Lymphoma Research Foundation Scientific Advisory Board and the American Society of Hematology Committee on Scientific Affairs.

Andrea L. Penton, PhD, is Associate Director of the UNC Hospitals cytogenetics laboratory. She is also Clinical Assistant Professor in Pathology and Laboratory Medicine. Prior to this she was an Assistant Technical Director of Clinical Cytogenetics at LabCorp and completed her fellowship at the Children's Hospital of Philadelphia, (CHOP). She is board certified in Clinical Cytogenetics by the American Board of Medical Genetics and Genomics, and uses cytogenetic and microarray technologies to diagnose constitutional, prenatal and oncology patient samples. She has extensive experience in molecular genetics and research. In addition, she is involved in teaching, laboratory quality control and literature review. Her interests are in genetic mechanisms and aneuploidy correction during human development.

Speaker Bios

Jonas Pettersson, PhD, is the Molecular Pathology Supervisor at Keck Medical Center of USC in Los Angeles, CA. He completed his PhD in Molecular Biology at the University of Umea, Sweden in 2001. His graduate work focused on the pathogenesis of Yersinia pseudotuberculosis. As a visiting fellow at the Rocky Mountain Laboratories (NIAID/NIH) in Hamilton, MT his research focused on Yersinia pestis, the causative agent of plague and Borrelia spirochetes causing Lyme disease and relapsing fever. At the Baylor College of Medicine in Houston, TX Jonas worked on understanding virulence factors of Treponema pallidum, the spirochete causing syphilis. He worked for one year at a small biotech company before deciding to venture into the field of Clinical and Public Health Microbiology. He trained to become a Public Health Microbiologist and has also trained and received licensure for Clinical Microbiology and Molecular Biology.

John D. Pfeifer, MD, PhD, is Vice Chair for Clinical Affairs in the Department of Pathology at Washington University School of Medicine. He is a Professor of Pathology and is board certified in Anatomic Pathology and also Molecular Genetic Pathology. Over the last several years Dr. Pfeifer has helped lead the development of Genomics and Pathology Services at Washington University in St. Louis (GPS@WUSTL). GPS@WUSTL is a CAP accredited/CLIA licensed environment designed around next generation sequencing (NGS) analysis to support patient care, clinical trials, and translational research studies, and Dr. Pfeifer manages the development of the wet bench analytics, bioinformatics, and faculty staffing models required to support NGS for clinical applications. He is also involved in NGS clinical test design (including gene-panel based testing versus exome- or genome-based sequencing) for inherited diseases and cancer, and in the evaluation of different sequencing platforms. Dr. Pfeifer's academic interests are primarily focused on investigation of the role of molecular genetic testing in the analysis of tissue specimens, specifically on the methods and clinical settings in which molecular testing provides independent information that increases diagnostic accuracy, provides more accurate prognostic estimates, or can be used to guide therapy. In line with his role in the development of GPS@WUSTL, several of his recent projects have focused on the role of NGS in patient care.

Christopher R. Polage, MD, MAS, is an Associate Professor of Pathology and Infectious Diseases at the University of California Davis (UC Davis), School of Medicine and Medical Director of the Clinical Microbiology Laboratory for the UC Davis Health System. He conducts outcomes and healthcare services research related to infectious disease diagnostics and healthcare-associated infections. He is on the Editorial Board for the Journal of Clinical Microbiology and received a Distinguished Clinical Research Achievement Award from the Clinical Research Forum in 2016 for his studies of clinical outcomes in hospitalized patients with discrepant test results for Clostridium difficile infection.

Victoria M. Pratt, PhD, FACMG, is a Medical and Clinical Molecular Geneticist board-certified by the American College of Medical Genetics. She is the Director of the Pharmacogenomics Laboratory and Molecular Genetics Laboratory at Indiana University School of Medicine. Prior to joining Indiana University, she was Chief Director, Molecular Genetics, for Quest Diagnostics Nichols Institute. In addition to her work, Dr. Pratt is currently serving on the Centers for Medicare and Medicaid Services Clinical Diagnostic Laboratory Tests Advisory Panel. Dr. Pratt continues to serve on the CDC's GeT-RM program for reference materials for Molecular Genetics. She is currently serving on the National Academies (formerly Institute of Medicine)'s Roundtable on Genomics and Precision Health. She also served on the U.S. Secretary of Health and Human Services Advisory Committee on Genetics, Health and Society for the Oversight of Genetic Testing and the Advisory Committee on Hereditary Disorders in Newborns and Children. She also participated in the preparation of the Morbidity and Mortality Weekly Report for Best Practices in Molecular Genetic Testing for the Centers for Disease Control and Prevention (CDC) and the Institute of Medicine/National Academy of Medicine's Committee on Policy Issues in the Clinical Development and Use of Biomarkers for Molecularly Targeted Therapies. Dr. Pratt is Past Chair of the Genetics, Clinical Practice and the Program committees and is currently a member of the Economic Affairs Professional Relations committees for the Association of Molecular Pathology. She is a former advisor of EurogenTest for genetic test validation. Dr. Pratt serves on the American Medical Association's (AMA's) Molecular Pathology Current Procedural Terminology (CPT) Advisory committee. Dr. Pratt has authored over 50 peer-reviewed manuscripts and book chapters. She is also an Associate Editor for the Journal of Molecular Pathology. Dr. Pratt graduated with a Ph.D. in Medical and Molecular Genetics from Indiana University School of Medicine, Indianapolis, IN in 1994. Her fellowship training was in Ph.D. Medical and Clinical Molecular Genetics at Henry Ford Hospital, Detroit MI.

Richard D. Press, MD, PhD, received his undergraduate degree from Northwestern University and followed with his MD and PhD from Case Western Reserve University. He was a Resident Physician at the University of Pennsylvania as well as a Research Associate with the Wistar Institute. He is currently serving as the Director of the Clinical Molecular Diagnostics and Molecular Pathology Laboratories at the Oregon Health & Sciences University as well as a Professor for the Pathology &

Genetics Departments at OSHU. His lab has been an integral part of numerous projects over the past two decades whereby assays for promising molecular biomarkers (primarily for hematologic malignancies) have undergone technical enhancement, and analytical and clinical validation. Outside of the management of his labs, Dr. Press is a member of several committees for the College of American pathologists, Association for Molecular Pathology, Center for Disease Control, and the Molecular & Clinical Genetics Panel.

Thomas W. Prior, PhD, is a Professor of Pathology and Neurology, and a Director in the Division of Molecular Pathology at The Ohio State University Medical Center. He joined The Ohio State University faculty as a tenure assistant professor in 1990, after completing post-doctoral training at the University of North Carolina. He has a longstanding research interest in the genetics of neuromuscular disorders, specifically in clinical applications and mutation analysis. He has been most recently involved in the genetic disorder, spinal muscular atrophy (SMA). His laboratory developed the first SMA carrier test and he has been involved in both population carrier and newborn screening projects for SMA. He has been active in determining the role of the SMN2 gene and other gene modifiers in effecting the disease phenotype and the identification of new types of mutations in the spinal muscular atrophy gene and their effect on the disease severity. Over the years the Molecular Pathology Laboratory has also been involved in several research projects and clinical trials including: Muscular Dystrophy Cooperative Research Center (funded by the NIH), several projects funded by the Muscular Dystrophy Association, Clinical Trials for Pediatric Spinal Muscular Atrophy Project (funded by the NIH), Project Cure: SMN2 Copy Number Assay (funded by the Families of SMA), Population Carrier Screening for Spinal Muscular Atrophy (funded by the Claire Altman Heine Foundation) and Incidence and Molecular Screening for Hereditary Cancer (funded by the NIH).

Colin C. Pritchard, MD, PhD, is an Associate Professor of Laboratory Medicine, as well as the Associate Director of the Genetics and Solid Tumors Laboratory at the University of Washington Medical Center that services the Seattle Cancer Care Alliance (SCCA). Dr. Pritchard undertook his graduate training at the University of Washington in Seattle and completed his medical training at the University of Washington School of Medicine. The Pritchard laboratory focuses on oncology molecular diagnostics, particularly the source and utility of cell-free nucleic acid biomarkers in blood, and the development of innovative molecular diagnostics for the identification of mutations that can guide therapeutic decision-making. His clinical work focuses on applications of next-generation sequencing gene panels for cancer risk assessment and precision treatment. He has led the development and implementation of the ColoSeq™ Lynch and Polyposis Syndrome Panel and UW-OncoPlex™ Cancer Gene Panel in current clinical use for cancer patients and their families.

Q

Andres E. Quesada, MD, is a molecular genetics fellow at the University of Texas MD Anderson Cancer Center. Dr. Quesada did his undergraduate studies at Rice University, and he received his MD and completed residency training in anatomic and clinical pathology at the University of Texas McGovern medical school at Houston. He completed his hematopathology fellowship training at the University of Texas MD Anderson Cancer Center. Dr. Quesada is board certified in anatomic and clinical pathology and hematology. His interests and research have been predominantly focused on acute myeloid leukemia and the manifestations of specific mutations.

R

Heidi L. Rehm, PhD, is a board-certified clinical laboratory geneticist and genomic medicine researcher. She is the Chief Laboratory Director at the Partners Laboratory for Molecular Medicine (LMM), the Medical Director of the Broad Institute Clinical Research Sequencing Platform and Associate Professor of Pathology at Brigham & Women's Hospital and Harvard Medical School. She is a leader in defining standards for the interpretation of sequence variants and a principal investigator of ClinGen, providing free and publicly accessible resources to support the interpretation of genes and variants. Dr. Rehm also co-leads the Broad Center for Mendelian Genomics with Daniel MacArthur focused on discovering novel rare disease genes and co-leads the Matchmaker Exchange to also aid in rare disease gene discovery. She is a strong advocate and pioneer of open science and data sharing, working to extend these approaches through her role as a member of the steering committee of the Global Alliance for Genomics and Health. Dr. Rehm is also a co-investigator of the BabySeq Project exploring the clinical use of genome sequencing as an adjunct to newborn screening, principal investigator in the eMERGE consortium supporting genomic discovery and genomic medicine implementation research, and a principal investigator on a project to develop i2b2 into a Health Innovation Platform for clinical decision support.

Tamara Restrepo, BSc, (ASCP)CM, is the technical supervisor of the Laboratory for Molecular Pediatric Pathology (LaMPP) at Boston Children's Hospital. She received her B.S. degree in Biochemistry and Molecular Biology from the University of California at Santa Cruz. She has broad expertise in molecular diagnostics, including expertise in multiple next-generation sequencing platforms. Prior to working at Boston Children's Hospital, she contributed to the Million Veteran Program at Claritas Genomics and helped to establish their NGS clinical testing workflow. She continues to further her education in Healthcare Management through the Healthcare MBA program at Simmons College.

Mark Routbort, MD, PhD, is a practicing molecular pathologist and bioinformatician at the University of Texas MD Anderson Cancer Center, where he develops and supports the computational pipelines for next generation sequencing in the clinical Molecular Diagnostics Laboratory. He is board certified in Anatomatic & Clinical Pathology, Hematology, and Clinical Informatics. Receiving a Master's degree in Biochemistry and Molecular Biology from the University of Chicago, and later his MD and PhD degrees at Duke University, he joined the faculty at MD Anderson in 2004, where he has focused his informatics efforts on initiatives directed at improving pathologist and lab workflow, and on improving the generation, storage, reporting, and retrieval of pathology and laboratory data. He currently serves as Director of Computational and Integrational Pathology for the Division of Pathology and Laboratory Medicine, facilitating the transactional and integrational use of genomic data both internally and with large scale multi-institutional collaborations like NCI-MATCH and AACR Project GENIE.

Somak Roy, MD, is Assistant Professor of Pathology at the University of Pittsburgh Medical Center (UPMC). He serves as the Director of Molecular Informatics and genetics Services at the Division of Molecular and Genomic Pathology at UPMC. Dr. Roy is a board-certified molecular and anatomic pathologist. His clinical and translational work focuses on the following; 1) Use of modern computational infrastructure and innovative software technology for high-throughput sequence analysis, genomic data visualization, and optimizing molecular laboratory workflow. 2) molecular characterization of urothelial carcinoma to identify clinically relevant, theranostic biomarkers. Since 2014, he has been a member of Informatics Subdivision in the Association of Molecular Pathology (AMP). He served as a representative to the Clinical Practice Committee from 2014-2016 and currently to the Program Committee. Dr. Roy is currently chairing the AMP workgroup that is developing guidelines for validation of clinical NGS bioinformatics pipeline. Dr. Roy completed his medical school training at Seth G.S Medical College, Mumbai followed by pathology residency training at Maulana Azad Medical College, New Delhi. Upon arrival to the United States, he completed anatomic pathology residency from the University of Pittsburgh Medical Center and fellowships in Molecular and Genitourinary Pathology from the same institution.

S

Bekim Sadikovic, PhD, DABMG, FACMG, is a Associate Professor of Pathology and Laboratory Medicine at the Western University, and Head of Molecular Genetics at the London Health Sciences and St Joseph's Healthcare in Ontario Canada. Dr Sadikovic is a diplomate of the American Board of Medical Genetics from Baylor College of Medicine and holds American Board of Medical Genetics certifications in Clinical Molecular Genetics and Clinical Cytogenetics. Prior to his appointment at the Western University, Dr. Sadikovic served as the Head of Advanced Molecular Diagnostics at the McMaster University. Dr. Sadikovic's research interests revolve around application of genomics technologies to clinical diagnostics with particular focus on development of genomic and epigenomic technologies for diagnosis of both germ-line and somatic epi/genetic conditions. His current research specifically focuses on identification of epi/genetic signatures of constitutional genetic and epigenetic syndromes, and development of analytical and bioinformatic approaches for parallel detection of copy number and sequence variations from NGS data. In chis clinical role Dr Sadikovic oversees the provincial reference Molecular Genetics laboratory performing constitutional, prenatal, and somatic genomic testing across wide range of genomic disorders in Ontario, Canada.

Steven A. Schichman, MD, PhD, is an Associate Professor in the Department of Pathology at the University of Arkansas for Medical Sciences who serves as Assistant Chief for Clinical Pathology, Pathology and Laboratory Medicine Service, at the Central Arkansas Veterans Healthcare System in Little Rock, Arkansas. Dr. Schichman received his medical education at the University of Chicago and completed his PhD thesis work at the California Institute of Technology. He is certified in Hematopathology and Molecular Diagnostics by the American Board of Pathology. Dr. Schichman directs a clinical molecular diagnostics laboratory and a genomics research laboratory at the VA hospital. Active in clinical correlative research, Dr. Schichman has published over 60 research articles and book chapters in areas of molecular genetics including acute leukemia and chronic lymphocytic leukemia. He currently chairs the Pharmacogenetics Subcommittee of the Molecular Genetics Workgroup for the VA National Pathology and Laboratory Medicine program.

Speaker Bios

Ryan J. Schmidt, MD, PhD, is a third-year clinical pathology resident at Brigham and Women's Hospital in Boston, MA and former fellow in the Harvard Molecular Genetic Pathology training program. He received MD and PhD degrees from the University of California, Los Angeles and graduated from the University of Pennsylvania with BA and MS degrees in molecular biology and biochemistry. His long-term interests surround the clinical application of molecular diagnostic and informatic techniques.

Nikolaus Schultz, PhD, is an Associate Attending in the Computational Oncology Service in the Department of Epidemiology and Biostatistics at Memorial Sloan Kettering Cancer Center (MSKCC). His research focuses on identifying the genomic alterations that underlie different types of cancer. He is involved in several projects of The Cancer Genome Atlas (TCGA) and is an investigator in the Stand Up To Cancer (SU2C) Prostate Cancer Dream Team. He is also the Head of Knowledge Systems in the Marie-Josée and Henry R. Kravis Center for Molecular Oncology (CMO). Here, he leads the development of the cBioPortal for Cancer Genomics, a popular resource for the visualization and analysis of large-scale cancer genomics data sets, as well as OncoKB, a knowledge base for precision oncology.

Maryam Shirazi, MD, is currently a GI/liver pathology fellow at Columbia University Medical Center. She received her MD degree from Tehran University of Medical Sciences and completed her residency in Clinical and Anatomical Pathology at the Department of Pathology and Cell Biology, Columbia University Medical Center.

Keith E. Simmon, PhD, obtained a MSc in Cellular and Molecular Biology from the University of West Florida. After graduating Keith join ARUP laboratories as a scientist performing clinical microbiology research and test development. He then joined Isentio and developed software to aide clinical laboratories in interpreting sequence information for microorganism identification. After Isentio, Keith pursed a PhD in Biomedical informatics where he helped to developed a metagenomics analysis platform called Taxonomer. Currently Keith is at ARUP laboratories as Bioinformatics Scientist. His research focuses on to develop developing simple informatics solutions for diagnostics testing.

Aatur Singhi, MD, PhD, is an assistant professor of pathology at the University of Pittsburgh Medical Center (UPMC) and within the Division of Gastrointestinal Pathology Center of Excellence. Dr. Singhi graduated from Northwestern University with a BS degree in chemistry and then earned his PhD in molecular genetics from the University of Illinois at Chicago. He received his MD from Case Western Reserve University School of Medicine, followed by residency and fellowship in pathology at Johns Hopkins Hospital. There, he received subspecialty training in pancreatobiliary and gastrointestinal tract pathology. Dr. Singhi's research interests revolve around the pathology and molecular genetics of pancreatic cancer and precancerous abnormalities, with an emphasis on creating diagnostic tests to aid in classification, prognostication and therapeutics. In collaboration with his colleagues at UPMC, his team has developed a diagnostic platform for the evaluation of fluid and cellular specimens from pancreatic cysts and bile duct fluid for the early detection of pancreatobiliary cancers.

Anthony N. Sireci, MD, is a board certified clinical pathologist and the Physician Manager of the Laboratory of Personalized Genomic Medicine in the Department of Pathology and Cell Biology at Columbia University Medical Center. He received his MD from Johns Hopkins University School of Medicine in Baltimore, Maryland and completed Clinical Pathology Residency training at New York Presbyterian Hospital-Columbia University Medicinal Center. He has been on the faculty at Columbia since 2011.

David H. Spencer, MD, PhD, is an Assistant Professor of Medicine in the Division of Oncology at Washington University School of Medicine, and the Medical Director of the CLIA-Licensed Environment at the McDonnell Genome Institute. Dr. Spencer received his MD and PhD in Genome Sciences from the University of Washington in Seattle, and completed residency training in Clinical Pathology and a Molecular Pathology Fellowship at Washington University in St. Louis. Following his clinical training, Dr. Spencer did post-doctoral research on the genomics and epigenomics of acute myeloid leukemia (AML) in the laboratory of Timothy Ley, MD. Dr. Spencer's research if focused on investigating the epigenetic mechanisms involved in leukemia development, and the use of clinical sequencing for risk stratification and disease monitoring in AML.

Jeff Stevenson, PhD, is currently the R&D Senior Scientist for Infectious Disease at ARUP Laboratories in Salt Lake City, Utah. He received bachelor's degrees from the University of Washington in Microbiology and in Medical Technology, and a PhD in Molecular Genetics and Cell Biology from the University of Chicago. He continued his studies as a postdoctoral fellow at the Huntsman Cancer Institute in the field of developmental biology. A current focus of the ID R&D group is applying NGS technology to microbial identification and viral resistance testing.

Megan Stonebraker, BSc, is a Staff Scientist at Diatherix Eurofins Clinical Diagnostics. She earned her BS in Biology at the University of Alabama and began her career with Thermo Fisher Scientific designing and developing lentivirus-based ORF expression libraries. Prior to Diatherix, she worked at the Medical Genomics Laboratory at the University of Alabama at Birmingham School of Medicine, a CAP-certified nonprofit clinical laboratory offering comprehensive testing for common and rare genetic disorders. Over the last three years, Megan was the technical lead on a collaborative project with Thermo Fisher Scientific resulting in the successful launch of the ABRx™ Antibiotic Resistance Panel at Diatherix in 2016. Currently, she is working on the expansion of ABRx™ panel content to include additional gene targets. Diatherix is a Frost and Sullivan award winner for Technology Innovation and Leadership of the Year in Molecular Diagnostics in the European Union, as well as a Technology Innovation Award winner for the first commercially available H1N1-09 test performed in a CLIA laboratory.

Gregory A. Storch, MD, is the Ruth L. Siteman Professor of Pediatrics and Professor of Medicine and of Molecular Microbiology at Washington University School of Medicine and past chief of the Divisions of Pediatric Infectious Diseases and Pediatric Laboratory Medicine. He received his AB degree from Harvard College and his MD from NYU School of Medicine. He completed internship and residency in internal medicine at the Jewish Hospital of St. Louis, was an Epidemic Intelligence Service Officer for the Centers for Disease Control in the Louisiana Department of Health in New Orleans, and an infectious disease fellow at Washington University. He joined the Washington University faculty in 1981. He is the co-Medical Director of Project ARK, a pediatric HIV service organization affiliated with the Washington University Department of Pediatrics. Storch is past president of the Pan-American Society for Clinical Virology. He currently serves as Chair of the Finance Committee of the Pediatric Infectious Diseases Society, and a member of the Diagnostics Task Force of the Infectious Diseases Society of America. He is also an Associate Editor of the Journal of the Pediatric Infectious Diseases Society. Dr. Storch's research interests are in molecular diagnosis of infectious diseases and infectious disease genomics. He is co-leader of the Microbial Genomics Unit of the Washington University Department of Pediatrics.

Aijazuddin Syed, MSc, is currently the lead bioinformatics software engineer at Memorial Sloan Kettering Cancer Center's (MSKCC) clinical bioinformatics group. At MSKCC, he has worked to establish a production scale informatics infrastructure to support large scale clinical grade NGS based molecular assays. He has coauthored original journal publications, and book chapters with emphasis on bioinformatics, informatics, and biomedical informatics. He is profoundly interested in integrating medical, health, and clinical informatics systems. He is currently pursuing a PhD (biomedical informatics) at Rutgers University with a humble desire to bridge the gap between biomedical data and informatics systems and to help better the patient care. His prior work includes, establishing petabyte scale data management and large scale automated analysis workflows at US DOE Lawrence Berkeley National Laboratory. He also is actively a contributing reviewer for various international journals in biomedical and medical informatics.

Szabolcs Szelinger, PhD, is currently an American Board of Medical Genetics and Genomics fellow in Clinical Molecular Genetics in the Department of Pathology at the University of California Los Angeles. He obtained his undergraduate and graduate degrees in Molecular and Cellular Biology at Arizona State University. During his studies, Dr Szelinger worked as a Research Associate, and later, as a Staff Scientist in the laboratory of David W. Craig at the Translational Genomics Research Institute (TGEN). In the Craig lab, Dr Szelinger received dual wet-lab/bioinformatics training. His main research projects included the development of multiplexed sequencing approach for next generation sequencing platform, the identification of rare variants' contributions to genetic risk in psychiatric disorders, and the development of integrative analytical approaches for genomic and functional genomic data for the diagnosis of rare, undiagnosed pediatric disorders. His interest is in the improvement of clinical diagnosis by developing methods that integrate high-dimensional data from genomic, expression, and epigenetic assays to guide diagnosis and individualized treatment course in cancer and rare, inherited diseases.

T

Amogha Tadimety, completed her B.S.E at Princeton University in 2014, with a major in Chemical and Biological Engineering and certificates in Engineering Biology and Values & Public Life. During that time she completed research internships at the Weatherall Institute of Molecular Medicine at Oxford University and the Wyss Institute at Harvard. Amogha's undergraduate research work spanned molecular hematology and microfluidics, and she did her senior thesis on organelle assembly and biophysics in the Soft Living Matter Group at Princeton. Amogha is currently pursuing her Ph.D. at Dartmouth College's Thayer School of Engineering in the Zhang Research Group. She is a PhD Innovation Fellow with an interest in technology development and entrepreneurship.

Her research focuses on the development of nanoplasmonic sensors for capture, enrichment, and detection of circulating biomarkers. Amogha's key contribution is in the area of nanoparticle surface assembly and chemical conjugation, with a focus on low-cost nanosensor fabrication integrated with microfluidics. She is currently working on a plasmonic sensor for rapid, label-free detection of circulating tumor DNA from blood samples in pancreatic cancer patients.

Sir Doug Turnbull, MBBS, MD, PhD, is a clinical academic who leads a basic science research programme in conjunction with developing clinical services. He has three main roles. Director Wellcome Centre for Mitochondrial Research. The Wellcome Centre is focused on research to improve the lives of patients with mitochondrial disease. Professor Turnbull plays a crucial role in research to identify the genetic defect in patients with mitochondrial disease and his work also focuses understanding the molecular mechanisms underlying the neurological features in patients. With colleagues he is searching for new therapies for patients and actively involved in clinical studies evaluating potential therapies. He has been actively involved in work to prevent the transmission of mitochondrial DNA disease using an IVF technique called mitochondrial donation. Lead for the NHS Highly Specialised Services for Rare Mitochondrial Services for Adults and Children. Professor Turnbull developed this service provides optimum care for patients with mitochondrial disease throughout the UK with Centres in Newcastle, London and Oxford. This service was built on the back of clinical and basic research which Professor Turnbull has pioneered and the service reviews in excess of 800 patients per year. The service has developed care pathways and patient guidance that are used worldwide of the benefit of patients. Director MRC/BBSRC Centre for Ageing and Vitality. Professor Turnbull has a major interest in understanding the basic mechanisms involved in human ageing with particular emphasis on the role of mitochondria. The MRC Centre is focused on understanding how these mechanisms are influenced by lifestyle interventions and studies aimed at promoting healthy ageing.

V

Vivianna M. Van Deerlin, MD, PhD, is a Professor of Pathology and Laboratory Medicine in the Division of Precision and Computational Diagnostics in the Perelman School of Medicine at the University of Pennsylvania (Penn) in Philadelphia, PA where she directs the Molecular Pathology Laboratory and the ACGME-accredited Molecular Genetic Pathology Fellowship program. She received her MD and PhD degrees from Washington University School of Medicine in St. Louis and completed both her residency training in Clinical Pathology and fellowship training in Molecular Pathology at Penn. Dr. Van Deerlin is board-certified in both Clinical Pathology and Molecular Genetic Pathology. Dr. Van Deerlin's research lab in the Penn Center for Neurodegenerative Disease Research is focused on identifying and studying the underlying genetic mechanisms of neurodegenerative disorders, including amyotrophic lateral sclerosis (ALS). She and her research team are actively collecting patient and family member DNA samples to study the genetics of frontotemporal degeneration, Alzheimer disease, Parkinson disease, and ALS. She and her colleagues have identified and characterized both disease-causing mutations and novel risk factors for ALS and FTD. She has used her clinical expertise to facilitate the translation of genetic tests from a research environment into CLIA-certified clinical tests for patient care. Among her accomplishments, Dr. Van Deerlin coordinated a genome-wide association study on a pathologically-defined subset of FTLD which identified a novel risk genetic risk factor for this subtype of FTLD involving 45 centers and 11 countries. In addition, she is an active participant of numerous professional organizations, including the Association for Molecular Pathology, College of American Pathologists, and the American Board of Pathology. Professor of Pathology and Laboratory Medicine and Director of the Clinical Molecular Pathology Laboratory at the Hospital of the University of Pennsylvania (HUP) and Director of the ACGME-accredited Molecular Genetic Pathology fellowship program.

W

John S. Welch, MD, PhD, received his MD/PhD from the University of California at San Diego. He completed his Oncology Fellowship at Washington University in St. Louis, where he is currently an assistant professor of medicine in the Division of Oncology. His clinical focus has been on the care of patients with acute Leukemias. His research has focused on improving patient care through translational and basic science, which includes clinical trials that integrate modern genomics, and bench-top research to understand the leukemogenic function of identified mutations. His genomic work in AML outlined the landscape of mutations and determined that the majority of mutations arise in hematopoietic cells as a normal part of aging. On-going projects are now focused on integrating genomics into clinical trials, identifying mutations associated with clinical response to specific chemotherapies, and determining why AML-associated mutations transform bone marrow cells into leukemia.

Speaker Bios

Adam Wilberger, MD, is an Anatomic and Clinical Pathology resident in the ABP Physician-Scientist Research Pathway at the University of Colorado. After completing a year as chief resident, he is now spending the year in the Colorado Molecular Correlates Laboratory engaging in clinical research and developing assays, especially within molecular hematopathology. His research interests include exploring the use of next-generation sequencing in lymphoid neoplasms. Originally from Pittsburgh, PA, Dr. Wilberger received his B.A. in Psychology from the University of Virginia and his M.D. at Drexel University College of Medicine. He completed his first two years of pathology residency at the Cleveland Clinic before moving to the University of Colorado for the remainder. Next year he will be joining the University of Pittsburgh Medical Center as a fellow in hematopathology.

P. Mickey Williams, PhD, is currently serving as a Director of the Molecular Characterization Laboratory at the Frederick National Laboratory for Cancer Research. He received his doctorate from the University of Virginia, and did postdoctoral work at Stanford University. He spent thirteen years at Genentech, where he developed novel assays to support clinical studies and discover new therapeutic targets and contributed to the development of "real-time" PCR technology. Prior to joining CDP in 2010, he was a senior research group leader at Roche Molecular Diagnostics, managing two large multi-national clinical assay studies: The MILE Study (microarray innovations in leukemia) and a collaboration with the LLMPP (leukemia and lymphoma molecular profiling project) and also led projects that led to two FDA approved companion diagnostic tests. In his current position he continues to make contributions to the use of molecular technologies for use as clinical assays.

Christina Wood-Bouwens, is a research staff member in the Ji Research Group at Stanford University. She received a B.S. in Cellular and Molecular Biology with a minor in Biotechnology from Santa Clara University, and is an expert in digital PCR and next generation sequencing technologies with applications to cancer biology and precision medicine. She is a co-author on many peer reviewed articles in prestigious journals including Nature Biotechnology, Genome Medicine, Nucleic Acids Research, and the Journal of Molecular Diagnostics.

David Wu, MD, PhD, is trained in Anatomic Pathology, Hematopathology and Molecular Genetic Pathology at Brigham and Women's Hospital and Harvard Medical School, Boston, MA and currently serve as an Associate Director of the Hematopathology Laboratory at the University of Washington, Seattle. My colleagues and I have been involved with applying and developing novel approaches for molecular diagnostics with an interest and focus in minimal residual disease detection in acute leukemias. Specifically, our group has recently explored the potential for next-generation sequencing of immunoglobulin and T-cell receptor genes to contribute to leukemia detection.

Xuemei Wu, MD, PhD, is currently a molecular genetic pathology fellow at Oregon Health & Science University (OHSU), Portland, Oregon. She just completed her residency in anatomic pathology and fellowship in surgical pathology at Mayo Clinic in Rochester, Minnesota, in the summer of 2017. Prior to her residency training, Dr. Wu had studied molecular mechanisms underlying female gametogenesis and early embryo development at Baylor College of Medicine and OHSU. She has published many research articles in major journals, and presented her research in several national and international conferences. Dr. Wu is interested in the development of diagnostic markers and therapeutic targets for solid tumors, with an emphasis on women's health.

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Poster Information

- All posters are on display in the Salt Palace Convention Center, Exhibit Hall, Lower Concourse.
- Poster set-up is Thursday, November 16, 6:30am – 8:00am. All posters must remain on display through 12:30pm, Saturday, November 18.
- Posters are listed in sequence by category and number in the following format:

  Poster Number **Abstract Title**
  First Author's Name

- Key to poster categories:
- **G** = Genetics **I = Informatics**
  H = Hematopathology **OTH** = Other
  ID = Infectious Diseases **S** = Solid Tumors
  TT = Technical Topics
- All Award Applicant posters display in Poster Number order in the areas of their subject category. They are identified as Award Applicant posters by a card mounted on the poster board.
- All Award Applicants must attend their posters on Thursday, November 16, 2:30pm – 4:15pm for interviews with members of the poster reviewing committees.
- All First/Presenting Authors, including Award Applicants, must attend their posters either Friday afternoon (even-numbered posters) or Saturday morning (odd-numbered posters):
  - Even-numbered posters must be attended on Friday, November 17, 2:30pm – 3:30pm.
  - Odd-numbered posters will be attended on Saturday, November 18, 9:45am – 10:45am.
  - Authors who have more than one even- or odd-numbered poster may either ask another author to attend their additional poster or attend it themselves during the other session. In the latter case, the author should place a note on the poster board alerting attendees that they will attend the poster in the alternate session.
- Poster removal is Saturday, November 18, 12:30pm – 1:30pm. Posters must remain in place until at least 12:30pm. Posters remaining past 1:30pm will be removed and discarded.
- Please note that poster-viewing is not eligible for Continuing Education credit.

Poster Map

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HALLS A - D
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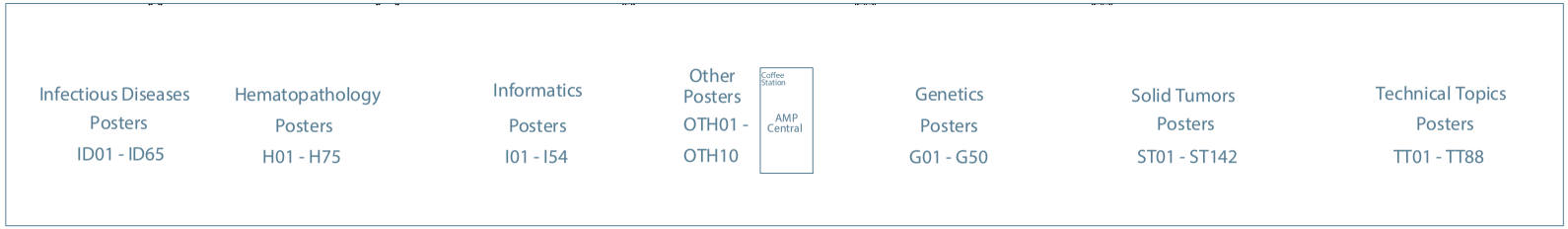

Poster Listing

Even numbered posters will be attended by their authors on Friday, November 17, 2:30pm – 3:30pm.

Odd numbered posters will be attended by their authors on Saturday, November 18, 9:45am – 10:45am.

GENETICS

G01. Validation of the Ion S5 and Ion Chef for Cystic Fibrosis Mutation Analysis
T.R. Sundin

G02. Reinterpreting Previously Reported Genetic Variants is Clinically Significant
J.A. SoRelle

G03. Hypertrophic Epicardial Adipose Tissue is a Source of EPAC Proteins Directly Associated to ST2 Production and Heart Dilation and may be a Potential Index of Heart Remodeling in CVDs Patients
M.M. Corsi Romanelli

G04. Discovery of a Novel, Accurate Tagging SNP for HLA-B*15:02 Screening Before Carbamazepine Therapy in the Multiethnic United States Population
H. Fang

G05. Spectrum of Mutations in Hbb Gene among Thalassemia Major Patients in a Cohort of Nepalese Population
S. Thapa

G06. Custom NGS Panels from Optimized Gene Sets for Inherited Disease Research
M. Andersen

G07. WITHDRAWN

G08. Comprehensive Carrier Testing of 9,785 Chinese Couples for Common Severe Recessive Disorders
S. Zhao

G09. Exome Re-Analysis and Complementary Testing Identify Novel Mutations for Rare Mendelian Disorders
C. Wei

G10. Validation of A Cystic Fibrosis 55 Mutation Screening Assay on the QuantStudio 12K Flex Open Array System
M.M. Moradian

G11. Linked-Read Sequencing for Molecular Cytogenetics
S. Garcia

G12. High Throughput Linked-Read Sequencing for Improved Variant Detection
A.N. Fehr

G13. GALC Deletion/Duplication Detection by Droplet Digital PCR for Krabbe Disease Confirmation in a Single Dried Blood Spot Punch
R. Majumdar

G14. Pericentromeric Regions of Homozygosity on the X Chromosome are Likely Benign Population Variation
E.S. Barrie

G15. Clinical Utility of Next Generation Sequencing (NGS) studies in Neurological Disease – Our Experience at Kokilaben Dhirubhai Ambani Hospital, India
J.C. Vyas

G16. Clinical Impact of Characterizing Genomic Alterations Using Whole-Genome Mate Pair Sequencing
J. Blommel

G17. Comparison of Specimen Collection Methods for Pharmacogenetic Testing
H. Katzov-Eckert

G18. Using the GeneReader NGS System to Identify Mutations in BRCA 1/2, PTEN and TP53
N. Dennison

Poster Listing

G19. Detecting Pharmacogenomic Variants Using Long- and Short-Read Next Generation Sequencing Platforms
C.A. Schumacher

G20. Microdeletion in SNRPN May Lead to False Positive Results for Angelman Syndrome Using Methylation Analysis
B.M. Zhang

G21. BRCA1 Mutation Detection Using QIAGEN GeneReader NGS System in a Case with RET Codon 634 Mutation
B. Sarkadi

G22. Colorectal Cancer Predisposition and its Genetic Characterization of Korean Patients
K. Park

G23. Tumor Mutations Can Help Classify Germline Variants: Learning from Mismatch Repair Deficiency
B.H. Shirts

G24. Discovery of Unique Disease- and Gene-Specific Peripheral Blood DNA Methylation Signatures Allows Molecular Diagnosis and VUS Classification in Hereditary Genetic Syndromes"
B. Sadikovic

G25. Analytical Validation of the Advanta Immuno-Oncology Gene Expression Assay for Profiling of Immunobiology and the Development of Predictive Gene Signatures for Response to Immunotherapies
P. Chen

G26. Genome Sequencing Reveals Variants in Non-Coding Regions Cause Hereditary Hemorrhagic Telangiectasia
G. Akay Tayfun

G27. Genetic Testing of Noonan Syndrome Using Targeted Next-Generation Sequencing Panel
C. Seol

G28. Short Tandem Repeat Analysis Reveals a High Rate of Partial Hydatidiform Moles in Triploid Conceptions Identified by Prenatal Chromosome Microarray
X. Wu

G29. Comparison of EUROArray HLA-DQ2/DQ8-h Direct and Olerup SSP for the Determination of Celiac Disease Associated Risk Factors HLA-DQ2.2, -DQ2.5 and -DQ8
N. Miron

G30. Improved Screening for Cancer Predisposition Mutations in Patients with Advanced Solid Tumors Enabled by Tumor-Normal Sequencing
D. Mandelker

G31. Importance of Whole Exome Sequencing in Solving Complex Phenotypes: A Case Report
R.M. Minillo

G32. Automated Reanalysis of Genomic Data: Challenges and the Promise of Novel Diagnoses
J. Murrell

G33. Chromosome Anomalies Involving the *APC* Gene Lead to an Increased Risk for FAP and Developmental Delays
B.A. Hilton

G34. Analysis of Cell Pellets Using the Cytoscan Dx Chromosomal Microarray
C.J. Broehm

G35. Interindividual Variability of Delta-9-Tetrahydrocannabinol Metabolism by CYP2C9 Polymorphism and Possible CYP3A Inhibitors
M. Nakano

G36. An Atypical Presentation of a Homozygous Delta-F508 Mutation
O. Rouhi

G37. Expert Review of NGS Results Removes Need for Routine Sanger Sequencing Confirmation
D. Muzzey

G38. High Prevalence of Alpha-1 Antitrypsin Z Alleles in Formalin-Fixed Paraffin-Embedded Liver Explant Tissue with PAS-D Globules
L. Pac

G39. Clinically Relevant Findings from Pharmacogenomic Testing in >36k Patients Across Multiple Diagnoses
J.P. Jarvis

G40. Analytical and Clinical Validation of Variants Identified by Exome Sequencing through Secondary Review and Sanger Confirmation in a CLIA-Certified Molecular Laboratory
N.T. Strande

G41. The Mother of all Confounders: Strategies to Avoid False Positives Caused by Maternal Copy Number Variants in Noninvasive Prenatal Screening
K.E. Kaseniit

G42. The Analysis of Oral Microbiome in CytoScan Assay Performance
D. Lizarraga

G43. Second Specimen Testing for TP53 Variants
J. Bissonnette

G44. Runs of Homozygosity (ROH) Reveal that Segmental-UPD Occurs as a Result of Recombination Mediated Repair of Genomic Imbalance
A.L. Penton

G45. Comparison between Different Activity Score Models for CYP2D6 Phenotype and Frequencies of Actionable Combined Genotypes of CYP2D6 and CYP2C19
M. Nakano

G46. Mutation Spectrum of the *KCNQ1*, *KCNH2*, and *SCN5A* Genes for the Long QT Syndrome in Korea
M. Kim

G47. Spectrum of *MNX1* Mutations in Korean Patients with Currarino Syndrome
S. Lee

G48. WITHDRAWN

G49. Genetics Insights into Hereditary Cancer Risk in the Latin American Population
A. Leon

G50. Comprehensive Detection of *CFTR* Variants Using Anchored Multiplex PCR and Next-Generation Sequencing
M.T. Hardison

HEMATOPATHOLOGY

H01. Diffuse Large B-Cell Lymphoma Gene Expression Profiling for Cell-of-Origin Determination (Lymph2Cx Testing) Using FFPE Tissue Sections in a Clinical Molecular Diagnostics Laboratory
R.S. Robetorye

H02. Performance Evaluation of a T-cell Receptor Gamma Gene Rearrangement (TRG) Next Generation Sequencing (NGS) Assay for Clinical Practice
V. Borodin

H03. Minimal Recipient Chimerism Detection by qPCR Method for the Post-Transplant Patients Who Achieved Complete Donor Chimerism by STR Method
L. Kumer

H04. Frequency and Pattern of BCR-ABL Kinase Domain Mutation in Chronic Myeloid Leukemia-An Indian Perspective
R. Katara

H05. Clinical Validation of a Highly Sensitive and Highly Reproducible BCR-ABL1 Quantification Assay for CML Monitoring
M. Alikhan

H06. Comparison of Clonality Testing on B Plus Fixed Versus Formalin Fixed Tissue
E. Castro-Echeverry

H07. Detection of Fusion Transcripts in Hematologic Malignancies by RNA-Seq
P. Szankasi

H08. Development and Validation of a Multiplex Droplet Digital PCR Assay for the Detection and Quantification of BCR/ABL1 Fusion Transcripts
R.Y. Walder

H09. Evaluation of the QIAGEN CALR RGQ PCR Kit for the Detection of CALR Mutations in Suspected Myeloproliferative Neoplasms
L.J. Doyle

Poster Listing

H10. Comparison of FLT3-ITD Allelic Ratio by PCR Analysis and Next Generation Sequencing
E. Castro-Echeverry

H11. Differential Mutation Patterns of the Calreticulin Gene in 14,064 Patients: Distribution of Deletions, and Insertions in a Clinical Population
J. Sebastian

H12. Impact of *MYC* Abnormalities, Trisomy of Chromosome 8 and Estimated Tumor Progression Values in Plasma Cell Myeloma
R. Garcia

H13. One Children's Oncology Group Cytogenetics Laboratories' Experience With Single Nucleotide Polymorphism Chromosome Microarray Analysis of Pediatric Acute Leukemia's
M. Micale

H14. Use of an NGS Based Custom Myeloid Gene Panel for Sequencing of Formalin-Fixed Paraffin Embedded Bone Marrow Clot Sections and Air-Dried Smears in Acute Myeloid Leukemia
A.N. Huho

H15. A Prolonged Low Level JAK2 V617F Is Significant In Clinically Suspicious Myeloproliferative Neoplasms (MPN)
E. Vail

H16. Clinical Validation and Implementation of a Targeted Sequencing Panel for Myeloid Neoplasms
D. Steiner

H17. Lack of Racial Differences in Primary Cytogenetic Abnormalities in Multiple Myeloma
J. Richter

H18. Distinct Patterns of PML-RARA Fusion Gene Formation in High Risk Acute Promyelocytic Leukemia Revealed by Whole Genome Sequencing
Y. Cho

H19. Genetic Heterogeneity and Stratification of AML Samples with NPM1 Mutation Detected by the MyAML NGS Test
S. Gramatikova

H20. Impact of Molecular Sequencing Information as Related to 2008 and 2016 WHO Classification of Acute Myeloid Leukemia and Myelodysplasia
L.N. Toth

H21. Validation of a Next Generation Sequencing-Based Assay to Detect Recurrent Translocations in Ph-Like Acute Lymphoblastic Leukemia
D. Duose

H22. Isocitrate Dehydrogenase 1 and 2 Mutations in Myeloid Neoplasms
L.N. Toth

H23. RNA-Based Immune Repertoire Sequencing for Characterizing B-Cell Lineage Malignancy Clonality and IGHV Mutation Status
J. Haimes

H24. Utilization of Peripheral Blood for Diagnostic Testing for MDS/MPN Patients: Efficacy and Benefits of a SNP Microarray Analysis
S. Schwartz

H25. Clinical and Genetic Characteristics of MYC Gene Aberration in Multiple Myeloma
S. Min

H26. Clinical Validation of a Molecular Barcoded Amplicon-based Next Generation Sequencing Test for Mutation Profiling of Myeloid Neoplasms
T. Yang

H27. Performance of ACL LDT CALR Exon 9 Assay
L.J. Mazur

H28. Haplotype Counting for Sensitive AML Relapse Detection
M. Debeljak

H29. Evaluation of Fragment Analysis Assay for Detection of *CALR* Exon 9 Insertion and Deletion Mutation in Myeloproliferative Neoplasms
J. Cho

Poster Listing

H30. Hematopoietic Tumor Contamination in Human Fingernail Clippings Used as a Germline Comparator in an NGS-based Myeloid Panel
D. Olson

H31. Successful Coverage of Difficult to Sequence Genes (CALR, CEBPA, and FLT3) Associated with Myeloid Disorders Using a Hybridisation-Based Enrichment Approach Prior to Next-Generation Sequencing (NGS).
L. Georgieva

H32. Commonly Mutated Genes across Myeloid Malignancies Using a Targeted NGS Panel: A Single Institution Experience
J. Yan

H33. Targeted Sequencing of Recurrently Mutated Genes in Myeloid Neoplasms Using the Raindance Thunderstorm-Illumina Miseq Platform: My Heme (Myeloid Hematologic Malignancy) Panel
S. Cheng

H34. Implementation Considerations: Designing and Medically Vetting a Targeted Gene Panel for Hematologic Malignancies
N. Sidiropoulos

H35. Development of a Targeted Next Generation Sequencing Panel for Multiple Myeloma
M. Mai

H36. Comparison of a MALDI-TOF-based SNP Panel with STR Analysis for Chimerism Testing
Y. Linnik

H37. Performance Evaluation of a Novel, Rapid, Multiplexed, One-Step RT-PCR Assay for Simultaneous Detection of Common Leukemia-Associated Translocations
S.S. Talwalkar

H38. Development of a Droplet Digital PCR Assay for Detection and Quantification of BCR-ABL1 e1a2 Fusion Transcripts in Acute B Lymphoblastic Leukemia
P. Mroz

H39. Multi-Year Review of Cytogenetic Abnormalities in Patients with Multiple Myeloma from a Single Institution and a Proposed Testing Algorithm
P. Paulraj

H40. ALL-ICP, a Simple and Comprehensive Method to Detect Chromosome Abnormalities in Acute Lymphocytic Leukemia
R. Babu

H41. Multi-Platform-Based Comprehensive Molecular Analysis of Hematological Malignancies for Somatic Mutations, Copy Number Changes, and Translocations for Routine Clinical Testing
R. Kanagal-Shamanna

H42. Correlation between Calreticulin (*CALR*) Mutations as Detected by PCR and CAL2 Antigen Expression by Immunohistochemistry
E. Wolak

H43. Validation of a Low-input, Amplicon-Based Dual-Strand Assay to Detect DNA Variants in Lymphomas by Next-Generation Sequencing (NGS)
A. Oran

H44. HDAC6 Regulates MicroRNA-27b that Suppresses Proliferation, Promotes Apoptosis and Target C-MET in Diffuse Large B-Cell Lymphoma
Y. Jia

H45. Clonality Detection Using Next-Generation Sequencing and Capillary Electrophoresis Methods in Suspect Lymphoproliferative Samples
Y. Huang

H46. NGS Based Identification of FLT3 ITD Mutations Using Unique Molecular Indexes
B.A. Parikh

H47. Clinical Utility of Semiconductor-Based Next Generation Sequencing for Evaluation of IgVH Somatic Hypermutation Status in Chronic Lymphocytic Leukemia / Small Lymphocytic Lymphoma (CLL/SLL)
B. Tandon

Poster Listing

H48. Unusual Cases of MDS/MPN-RS-T Without Overt Anemia Share Molecular Signatures Classic for MDS and MPN Overlap Syndromes
P. Li

H49. Sensitive CXCR4 Sequencing Using Bridged Nucleic Acid (BNA) PCR Clamp Technology
K.E. Halverson

H50. Del(7)(q22) Resulting From an Unbalanced der(7)t(3;7)(q26;q21) Generating a CDK6-MECOM Fusion and FLT3 Alterations in Pediatric Acute Myeloid Leukemia with Myelodysplasia-Related Changes
E.M. Azzato

H51. Going Beyond MMR to the Analysis of Deep Molecular Response
K. Drafahl

H52. Comprehensive Assessment for Structural Rearrangements Using a Customized Anchored Multiplex PCR-Based Next-Generation Sequencing Assay Targeting 199 Genes
A.K. Dupuy

H53. Validation of the LeukoStrat CDx FLT3 Mutation Assay to Detect Internal Tandem Duplication (ITD) and Tyrosine Kinase Domain (TKD) Mutations in 1058 Patients with AML and Response to Midostaurin
A. Osgood

H54. Clinical Validation of the Lymph2Cx Assay to Determine the Cell of Origin of DLBCL
D. Abdel Azim

H55. BCR-ABL1 Minor Breakpoint (e1a2) Monitoring Using an Analytically Validated Multiplex Assay
M. Dodge

H56. Droplet Digital PCR Method for Absolute BCR-ABL1 Major and Minor Transcript Quantification
C.A. Schandl

H57. Method Based Validation of 94 Genes Next Generation Sequencing (NGS)-Based Hematologic Malignancy Panel and Confirmation of Variants Using Sanger Sequencing
C.S. Sears

H58. Multiple Highly Concordant Assays Facilitate Clinical Analyses of Samples at Different Scales and Sensitivities
L.M. Chamberlain

H59. Detection of Rare Variant *NPM1* Transcripts Using an Allele Specific Real-Time qPCR Assay Targeting Mutation Types A, B, and D
J.A. Schumacher

H60. Comparison of Clinical Digital Karyotyping by Comprehensive Next Generation Sequencing with Standard Cytogenetic Analysis in Pediatric Leukemia
E.M. Azzato

H61. Sequential NGS-Based Multi-Gene Mutational Analysis in *de novo* Acute Myeloid Leukemia with *RUNX1* Mutation
R. Luthra

H62. A Case Report of Donor-Derived Clonal Hematopoiesis After Allogeneic Stem Cell Transplantation
J. Smith

H63. Acute Promyelocytic Leukemia with Atypical Karyotype and *FLT3* ITD Mutation is Associated with Inferior Clinical Outcome
A. Idrees

H64. High Frequency of *MYD88* L265P Mutation in Ocular Adnexal Marginal Zone Lymphomas and Its Clinical Correlates
A. Behdad

H65. A Balanced Formulation of Dimethyl Sulfoxide and Bovine Serum Albumin Provides Highly Uniform Coverage of CEBPA in a Droplet PCR-Based NGS Panel
S. Mallampati

H66. Next Generation Sequencing-Based Heme Panel Testing for Myeloid Neoplasms at a Tertiary Care Hospital and Cancer Center
K. Shah

H67. Subclonal *CEBPA* Mutations Identified by Deep Sequencing Using a Clinically Validated Deep Sequencing Assay in Acute Myeloid Leukemia
S. Png

H68. Diagnostic Yield of Somatic Mutation Detection in Hematologic Malignancies Does Not Increase with Additional Mutation Analysis, and Supports More Focused Disease-Specific Testing Models
S. Szelinger

H69. The Utility of SNP-Array Analysis in the Detection of 1p36 Abnormality in t(14;18)-Negative Follicular Lymphoma
L. Wang

H70. Next Generation Sequencing Targeting IGH Demonstrates Clinical Utility in Detection of B-Cell Clonality in Non-Hodgkin Lymphomas
B. Tandon

H71. *JAK2*-Negative Refractory Anemia with Ring Sideroblasts Associated with Marked Thrombocytosis (RARS-T) Occurs More Commonly in Women
M. Hussaini

H72. Next Generation Sequencing Studies in Early Myeloid Neoplasms
C. Soderquist

H73. Correlation of Mutational Burden Detected by Targeted Next-Generation Sequencing with Pathological Disease Burden in Hematological Malignancies.
S.L. Kang

H74. Unique 9q34 Rearrangements in T-ALL: Elucidation and Characterization by Microarray Analysis, RNA Sequencing and FISH
J. Tepperberg

H75. Comparative Study of the Panel Based Validation with Method Based Validation in Myeloid Panel
R. Wu

INFECTIOUS DISEASES

ID01. Evaluation of Cepheid Xpert HIV-1 Qual Assay in Whole Blood for Diagnosis of HIV-1 Infection
S. Lim

ID02. Pathogen Detection by Metagenomic Next Generation Sequencing of Purulent Body Fluids
W. Gu

ID03. Utilization of a Cost-effective High-Throughput Sequencing Approach for Comprehensive Metagenomic Surveillance of Viral Pathogens in Respiratory Specimens
S. Png

ID04. Analytical Validation of an Analyte Specific Reagent (ASR) for *Mycoplasma genitalium* Detection and Point Prevalence Assessment
S. McClellan

ID05. Evaluation of RealStar Pneumocystis Jirovecii PCR Kit 1.0 for Qualitative Detection of *Pneumocystis jirovec*ii Pneumonia (PCP) Specific DNA in Respiratory Sample Types
K. Rottengatter

ID06. Evaluation of RealStar *Bordetella pertussis* PCR Kit 1.0 for Qualitative Detection and Differentiation of *Bordetella pertussis* and *Bordetella parapertussis* Specific DNA in Respiratory Samples
K. Rottengatter

ID07. Development of a Quantitative BK Virus PCR Assay on the Luminex ARIES Molecular Diagnostics Platform
T. Her

ID08. Development of a Panfungal Next Generation Sequencing Assay
K.D. Tardif

ID09. Next Generation Nucleic Acid Extraction System: NucliSens eMAG
A.M. McClernon

ID10. HPV: The Use of Full Process Controls to Monitor Extraction Variation
A. Ricketts

ID11. Detection of *Borrelia burgdorferi* DNA by Loop Mediated Isothermal Amplification (LAMP) in Pediatric Synovial Fluids
R.V. Ponaka

Poster Listing

ID12. ITS1 (Internal Transcribed Spacer) Primer Binding Site Polymorphism in Clinical Fungal Isolates
J.F. Mele

ID13. The Film Array Global Fever Panel: Goal of Quick Diagnosis of Infectious Diseases Presenting with Acute Febrile Illness
C. Toxopeus

ID14. Evaluation of Two Molecular Diagnostic Assays for *Clostridium difficile* Infection
G.A. Capraro

ID15. Molecular-Based HPV Screening in Resource Limited Countries
A. Atkinson

ID16. Association of *Clostridium difficile* Molecular Typing with Colonization and Development of *Clostridium difficile* Infection (CDI)
T. Theparee

ID17. Detection of Gram-Negative Bacteria and Antimicrobial Resistance Markers Using the iCubate iC-GN Assay
M.S. Conover

ID18. Real-time Gastrointestinal Illness Surveillance Through Cloud Based Epidemiology Network of Clinical Laboratories
J.M. Ruzante

ID19. WITHDRAWN

ID20. Testing High-Risk Human Papillomavirus on Head and Neck Tumor Tissue Squamous Cell Carcinoma Using a Modified Commercial PCR Assay
A.N. Huho

ID21. Investigation of Differences in Gene Expression by Kanamycin Stress in Multidrug-Resistant *Mycobacterium tuberculosis* with / without *rrs* Mutation Using RNA-Seq
Y. Kim

ID22. Evaluation of a Molecular Point of Care System for the Detection of *Clostridium difficile*
I.O. Op den Buijs

ID23. Dermatomycosis – a Novel and Rapid Detection of Causative Fungal Agents with a DNA-Based Microarray (EUROArray Dermatomycosis)
S. Kosanke

ID24. Performance Comparison of the DiaSorin Simplexa *C. difficile* Direct Assay with the Illumigene *C. difficile* DNA Amplification Assay in Unformed Stool Samples
B.C. Sutton

ID25. Comparison of the Accula Influenza A/B PCR Assay and Alere i Influenza A/B Isothermal Nucleic Amplification Assay for the Detection of Influenza in Adult and Pediatric Populations
S. Young

ID26. Developing High Throughput Urinary Tract Microbiota Profiling Using TaqMan and OpenArray Technologies
K. Li

ID27. Rapid Detection of *Clostridium difficile* with the GenePOC CDiff Assay
A. Zumoberhaus

ID28. Multicenter Evaluation of Cobas HBV Real-Time PCR Assay on the Roche Cobas 4800 System in Comparison with COBAS AmpliPrep/COBAS TaqMan HBV Test: Leading Circle for Cobas 4800 Virology (LCCV) Project
H. Kim

ID29. A Model for Detection of Novel Influenza Incidence in the United States
J.D. Jones

ID30. Comparative Evaluation of ARIES Flu A/B & RSV and Xpert Flu/RSV XC for Simultaneous Detection and Identification of Influenza Viruses A, B and Respiratory Syncytial Virus in Cancer Patients
L. Ling

ID31. Rapid Diagnosis of Bloodstream Infections Through Identification of Pathogens and Resistance Markers Directly from Whole Human Blood at 1 CFU/ml
N. Casali

Poster Listing

ID32. A Clinical Performance Evaluation of QPLEX STI Detection Kit
S. Cho

ID33. Rapid Detection of Respiratory Pathogens with GenMark's ePlex RP Panel
K. Henthorn

ID34. Challenges Associated with Developing Rapid Molecular Diagnostics for Detection of Antibiotic Resistance
M. Stonebraker

ID35. Quantitative Detection of HCV and HBV on NeuMoDx Molecular System
C. Couture

ID36. Validation and Performance of Sequencing-Based Reference Assays for Biocode Gi Pathogen Panel
A. Pham

ID37. Development of a Respiratory Pathogen Panel with an Automated High-Throughput System
S. Mi

ID38. Comparison of Luminex ARIES Vaginosis Panel and BD AFFIRM VPIII for the Detection of *Candida* spp., *Gardnerella vaginalis*, and *Trichomonas vaginalis*
J. Barry

ID39. Clinical Evaluation of the xMAP MultiFLEX ZIKA RNA Assay
A. Walden

ID40. Evaluation of ELITech Group's MGB Alert HSV-1 and HSV-2 ASRs on the Abbott m2000sp/rt Platform
K. Stepaniants

ID41. Comprehensive Women's Health Diagnostic Testing Using Innovative Multiplex PCR Assays
W. Hauser

ID42. Sensitive Detection of Bacterial Targets on the NeuMoDx Molecular System
J. Zhu

ID43. Direct Detection of VZV from Cutaneous, Mucocutaneous and CSF Specimens Using the Simplexa VZV Direct Assay on the DiaSorin LIAISON MDX System
E. Eleazar

ID44. Validation of Human Papilloma Virus Detection in Anal Cytology Specimens on the Cobas 4800 System
L. Helander

ID45. Multicenter Evaluation of Cobas HCV Real-Time PCR Assay on the Roche Cobas 4800 System in Comparison with COBAS AmpliPrep/COBAS TaqMan HCV Test: Leading Circle for Cobas 4800 Virology (LCCV) Project
W. Lee

ID46. Comparison of Cobas HCV GT Against Versant HCV Genotype 2.0 Assays with Confirmation by Sequencing
T. Png

ID47. A Multi-Center Clinical Evaluation of a Sample to Answer Real-Time PCR Assay for Toxigenic *C. difficile* in Symptomatic Subjects
S. Young

ID48. Evaluation of the Focus Diagnostics Simplexa HSV 1 & 2 Direct for Detection and Differentiation of Herpes Simplex Virus 1 and 2 in Neonatal Swab Specimens
K. Gvozdjan

ID49. Performance of NxTag RPP Assay from Luminex
L. Mazur

ID50. Evaluation of the Anyplex MTB/NTM Real-Time Detection (V2.0) for Detection of Nontuberculous Mycobacteria in Respiratory Specimens
H. Kim

ID51. Direct Detection of mRNA in Whole Blood Samples for Transcriptomic Profiling
A. Khine

Poster Listing

ID52. Comparison Between BD Maxwell VP and ACL LDT SwabOne Assay
L.J. Mazur

ID53. Performance Evaluation of the Abbott RealTime CMV IUO Assay on the m2000 Platform Compared to the Roche COBAS AmpliPrep/ TaqMan CMV Assay in Transplant and Immunocompromised Individuals
P.M. Kulling

ID54. Molecular Analysis of Fungal Populations in Patients with Onychomycosis Using Next Generation Sequencing (NGS) and Real-Time PCR
E. Gustafson

ID55. Mosquito Surveillance and Testing for Local Zika Virus in New York City 2016
J. Rakeman

ID56. Monitor Vaginal Microbiota with One Swab: Copan ESwab as Convenient Collection and Transport Device for Cross Platform Molecular Tests of Women's Health
Z. Huang

ID57. Multicenter Clinical Evaluation of a Real-Time PCR Assay for *Bordetella pertussis*
T.S. Uphoff

ID58. A Novel Approach for Sensitive Detection of ZIKV RNA in Whole Blood and Urine Samples
Y. Chen

ID59. Using Independent Run Controls to Monitor Relative Amplification Efficiency of a HAI Assay
J.C. Yundt-Pacheco

ID60. Extreme One-Step RT-PCR: Potential for Point-of-Care Viral Detection.
J.A. Houskeeper

ID61. Performance Evaluation of Commercial Multianalyte Control Materials Calibrated Against the 1st WHO International Standards for Quantification of CMV, EBV and BKV in Transplant Patients
F. Sabato

ID62. Rapid and Sensitive Isothermal Molecular Amplification of Group A Streptococcus (GAS) with Alere i Molecular Platform
N. Moore

ID63. Improved Cost and Turnaround Time Using an Extraction-Free Amplification and Detection Method for Respiratory Viruses in Clinical Specimens
M. Elkan

ID64. Optimization of Metatranscriptomic Method for Rapid and Unbiased Detection of Microbial Pathogens in Bronchoalveolar Lavage Specimens
C. Yin

ID65. Development and Validation of the Alert MGB ASR for BK Virus Quantitative Viral Load Testing on the ELITEe InGenius Sample-to-Answer System
D. Banerjee

ID66. Using Independent Run Controls to Monitor Relative Amplification Efficiency in a STI Assay
J. Yundt-Pacheco

ID67. A Two-Step RT-LAMP Provides Improved Sensitivity for Point of Care Detection of Arboviruses
J. Benzine

ID68. Early Detection of Fungi and Yeast Using Species Specific Dual Amplification PCR (MycoDART) for Clinical Diagnosis.
S.S. Sutton

ID69. Detection of Group B *Streptococcus* Using the Simplexa GBS Direct Assay
R. Martin

ID70. WITHDRAWN

ID71. WITHDRAWN

ID72. Evaluation of the Abbott Real-Time RT-PCR EBV Assay for EBV Detection and Quantification
M. Yoon

ID73. Concordance of *C. difficile* Detection by Use of a Multiplex Molecular Panel with a Singleplex, Diagnostic Assay
T. Hall

ID74. Detection of Resistance-Associated Substitutions in the Hepatitis C Viral Genome Using the Sentosa SQ Hepatitis C Virus Genotyping Next-Generation Sequencing Assay
M. Campan

ID75. Comparative Evaluation of the Omniplex-HPV and RFMP HPV PapilloTyper for the Detecting of Human Papillomavirus Genotypes in Cervical Specimen
Y. Yoon, Y. Choi

ID76. A Clinical Performance Evaluation of QPLEX STI Detection Kit
S. Cho

ID77. Comparison of the Hologic Panther Fusion Respiratory Assays to BioFire FilmArray Respiratory Panel for Detection of Respiratory Viruses in Children
A. Lebe

ID78. Stability of Zika Virus and Recombinant Zika Controls
H. Greiss

ID79. Evaluation of Cross Reactivity and Inhibitory Effects of Sexually Transmitted and Mosquito Borne Pathogens on Zika Testing Using Aptima Zika Virus Assay on the Fully Automated Panther System
H. Greiss

ID80. Evaluation of the Abbott Real-Time RT-PCR EBV Assay for EBV Detection and Quantification
M. Yoon

ID81. Performance of the Hologic GBS Assay on the Fully Automated Panther Fusion System
C. Hentzen

ID82. HPV Genotypes in Precancerous Lesions and Cervical Cancer of Korean Women
E. Lee

INFORMATICS

I01. An End-to-End Bioinformatics Pipeline Optimized for Somatic Variant Analysis Returns Clinically Actionable Results with a Rapid Turnaround Time
R. Kamal

I02. Informatics to Illuminate Real-World Genetic Test Ordering Practices at a Large Academic Institution
V.A. Arboleda

I03. Real-Time Thermodynamics and Local Variant Display for Primer Selection
Z.L. Dwight

I04. Cloud-Based Somatic Pipeline Development and Validation for Clinical Somatic Variant Detection, Including Large Indels, from Targeted Panels
A. Bolia

I05. A Computational Framework for Large-Scale Analysis of TCRβ Immune Repertoire Sequencing Data on Cloud-Based Infrastructure
L. Lin

I06. A New Allele-Centric VCF File for Variants in ClinVar
M.J. Landrum

I07. Custom-Built Heuristic Approach to Variant Calling Tools Development
D. Thakral

I08. Advancing Genomic Knowledge Curation: Piloting the Use of Enhanced Literature Curation Tools
R.J. Schmidt

I09. Repository of Quality Control and Metrics: A Web-Browser Based Application for Review and Approval of Clinical NGS Quality Metrics
L.M. Peterson

I10. Improving Quality Control of Gene Amplification (GA) Detection in an Amplicon-Based Next-Generation Sequencing (NGS) Cancer Gene Panel by Implementing Gene-Level Segment Visualizations
Y. Lo

Poster Listing

I11. Establishing Seamless Electronic Connectivity, an Underestimated Exercise for Instituting a High Quality Genomic Medicine Service
N. Sidiropoulos

I12. Comparison of an Automated Approach to Mining the Genomic Literature Against COSMIC, a Manually Curated Database
M. Kiel

I13. Overlapping Variants Can Lead to Potential for Missed Calls in Custom Next Generation Sequencing Bioinformatics Pipeline
C. Vanderbilt

I14. Evaluation of Structural Variant Callers from a Clinical Perspective
C.P. Johnson

I15. Transmission of North American Association of Central Cancer Registries (NAACCR) Data Using the Lung Biomarker Template from the College of American Pathologists (CAP)
K.I. Hulkower

I16. Homopolymer Compression Improves Reference-Free, Kmer Based Whole Genome Strain Comparison for Ion Torrent Data
K.E. Simmon

I17. Bioinformatics Assay Design for Development of Multiplex PCR-Based Next Generation Sequencing Panels
D. Wang

I18. An Open Software Ecosystem for High Throughput Clinical Diagnostics
K.D. Doig

I19. NeGeSeI – An All-Purpose Decision Support Tool for the Clinical Management of Next Generation Sequencing Assays in the Clinical Laboratory
V. Williamson

I20. Redesigning the Molecular Pathology Clinical Report for the Next-Generation Genomic Era: The MSKCC Experience with the MSK-IMPACT Assay
A. Syed

I21. In-Silico Framework for Detection and Evaluation of Contamination in Clinical Diagnostic Next-Generation Sequencing
M. Sarmady

I22. HLA on FHIR in the Cloud to Facilitate Entry in Electronic Medical Records
Y.S. Wang

I23. High-Throughput, Low-Pass Whole-Genome Sequencing (LP-WGS) Method for Single-Cell Copy-Number (CN) Profiling on Ampli1 Whole-Genome Amplification (WGA) Products for Illumina Platform
N. Manaresi

I24. Breaking the Turnaround Time Barrier in Next Generation Sequencing-Based Clinical Mutation Profiling Using an Integrated Workflow and Informatics Approach
R. Ruiz-Cordero

I25. Vetting Targeted Capture Probe Design with a Computational Strategy Combining KmerSniper and BLAT
A.E. Kellogg

I26. A Novel Automated Approach to Identifying Disease-Gene-Variant Associations from the Medical Literature to Inform Gene Panel Design
M. Kiel

I27. Creating Custom Gene Panels for Next-Generation Sequencing: Optimization of 5000 Gene Assays, Selection by Disease Research Area and Integrated Analysis for Variant Prioritization
F. Hyland

I28. An Interlaboratory Assessment of Complex Variant Detection Using Multiplexed Positive Controls
S. Lincoln

I29. Estimating Mutation Load from Tumor Research Sample Using Targeted Next-Generation Sequencing Assay at ≥5% Allelic Frequency
R. Chaudhary

Poster Listing

130. Improvement of Indel Detection Power by Revising Default Parameter Settings in Vendor Supplied Next Generation Sequencing Analysis Software
W. Zhang

131. Dynamic Levels of Evidence Tiering to Support Evolving Guidelines in Variant Assessment
X.S. Li

132. Evaluation of the Open-Source Variant Caller Platypus in the Clinical Laboratory for Detecting Somatic Variants in Tumors
J. Reuther

133. Monitoring Germline SNPs to Control for Sample Cross-Contamination in the Ion AmpliSeq Cancer Hotspot Panel Next-Generation Sequencing Assay
P.A. Kenny

134. Breaking the NGS Noise Barrier to Accurately Detect Variants Below 1% Allele Frequency
S.K. Sandhu

135. Genome in a Bottle: You've Sequenced a Genome, How Well Did You Do?
J.M. Zook

136. Rapid RNASeq: Rapid and Hugely Scalable Fusion Gene Detection in the Cloud
S. Newman

137. Building the Enterprise Omics Repository for an Integrated Healthcare System
G.B. Christensen

138. Descriptive Analytics Decision Support for Clinical Genomics
E. Dominguez Meneses

139. Analysis of Therapy and Trial Recommendations Based on Gene Panel Size
O.G. Miller

140. Automated Cancer Risk Scoring Using FHIR Genomics Profiles and Secure Web Services
M. Harney

141. Engraftment Assessment by Next Generation Sequencing Using Single Nucleotide Polymorphism (SNP) Fingerprinting
A. Mohanty

142. ClonoTracker: A Computational Framework and Clinical Tool for NGS-Based Clonality and MRD Analysis
J. Nakitandwe

143. Clinical Next Generation Sequencing Leveraging Unique Molecular Barcodes in Somatic Mutation Calling Absent a Matched-Normal
A. Bigdeli

144. Evaluation of Copy Number Variation Detection Methods for Amplicon Sequencing Assays
A. Bigdeli

145. GIMP: Genomic *In-silico* Mutator Program for Bioinformatics Validation of Clinical Next Generation Sequencing Assays
I. Mujacic

146. Discrepancies between the Human Reference Genome (GRCh37) and Transcriptome (RefSeq) Complicate Variant Detection and Interpretation for Clinical Exome and Genome Sequencing
B. Yoo

147. The Quality Sequencing Metric (QSM) a Concise, Transparent Notation of NGS Data Quality for Clinical Testing
S. Yost

148. +STAR-SEQR: Accurate Detection and Quantification of RNA Fusions Using NGS Data
J.S. Jasper

149. Pediatric Gut Microbiome Characterization as a Companion Diagnostic in the Clinical Evaluation of Gastrointestinal Symptoms
R. Luna

150. Identification of Distinctive Cell Signaling Patterns in Renal Cell Carcinoma Gene Expression TCGA Data Sets
K. Volyanskyy

I51. Proficiency Testing for Next-Generation Sequencing: Multi-Institutional *in-silico* FASTQ File Exchange Ensures Robust and Reproducible Bioinformatics Workflows for Reporting Complex Mutations
T. Schneider

I52. Analysis of Individual Genes Identifies the Impact of Physiological Functions on AlloMap Gene Expression Profiling
R.N. Woodward

I53. Genotype Matching of Serially Collected Clinical Samples Using Next Generation Sequencing Can Identify Sample Handling Errors
M. Grskovic

I54. Using Replication to Break the NGS Noise Floor for Liquid Biopsy Variant Detection
C. Ionescu-Zanetti

OTHER (EDUCATION, ETC.)

OTH01. Optimizing Somatic Genomic Reporting and Physician Interpretation with Web-Based, Interactive Reports
S.W. Gray

OTH02. Good or Bad Sequencing Data? Setting a Benchmark for the Quality of Diagnostic NGS in the Lab
W. Gutowska-Ding

OTH03. Liquid Biopsy Based Monitoring of PD-L1 Expression in Non-Small Cell Lung Cancer (NSCLC) Patients for Immunotherapy
G. Singh

OTH04. Improved Polymer Enhanced Detection of Nucleic and Amino Acid Targets
J. Klonoski

OTH05. A NGS Library Preparation Training Module Facilitating Rapid Orientation and Productivity of New Employees in a Clinical NGS Core Laboratory
S. Henke

OTH06. Interactive Online Lymphoma Unknown Conference: An Instructive Platform for Ordering Flow Cytometry and Molecular Studies
S.E. Harley

OTH07. Long QT Syndrome: Integrating Genetic Testing into a Diagnostic Work Flow: A Process to Identify Opportunities and Gaps
E.R. Lockhart

OTH08. The Northern New England Genomics Consortium
N. Sidiropoulos

OTH09. Time-Resource Analysis for Right-Sizing an NGS Laboratory: Exercising Restraint, Building Responsibly
J.R. Milano

OTH10. Characterization of BCR-ABL Laboratory Ordering for Quality Improvement
W. Zheng

SOLID TUMORS

ST01. Improvement in Diagnostic Laboratory Performance by Participation in External Quality Assessment for Molecular Pathology: Lessons Learned and the Need for Continued Quality Improvement
M.H. Cheetham

ST02. *APC* and *KRAS* Genetic Variants Associated with Colorectal Cancer Histology Grade and Tumor Staging
W. Zhang

ST03. WITHDRAWN

ST04. Development and Validation of ColoScape – A New Colorectal Cancer Mutation Detection Assay
M.J. Powell

ST05. Detection of Microsatellite Instability in Circulating Cell-Free DNA of Patients with Colorectal Carcinoma
J. Pettersson

Poster Listing

ST06. Lung and Colon Adenocarcinoma Mutational Landscape in a Tertiary Academic Healthcare Center
O.C. Rafael-Rosca

ST07. A Verification Study of the GeneReader NGS System in a Routine Laboratory Setting
A. Boesl

ST08. Detection of *MLH1* Promoter Methylation by MassARRAY MALDI-TOF
A.A. Hall

ST09. Molecular and Clinicopathologic Features Associated with PD-L1 Expression in Lung Adenocarcinoma
S. Yang

ST10. Evaluation of NGS Based Methods to Detect the Recurrent Gene Arrangements in Lung Cancer
A. Tilak

ST11. Assessment of UltraSEEK Colon Cancer Panel for Detection of Low Frequency Somatic Mutations in Blood
R. Avula

ST12. Validation of a Neuro-Oncology Next Generation Sequencing 50-Gene Panel
E. Barr Fritcher

ST13. Performance Comparison of Two AR-V7 Detection Methods Confirms That Unexpected Responses to Abiraterone/Enzalutamide in AR-V7 Positive Patients are Not Due to Assay Differences
C. Bernemann

ST14. Spectrum of Mutations in Metastatic Chondrosarcomas Identified by Clinical Targeted Next-Generation Sequencing
P.J. Lee

ST15. Intratumoral Heterogeneity is the Single Source of Assay Variability During Laboratory Verification of the Prosigna Assay
A. Nelson

ST16. Relationship Between Forkhead Box M1 Gene Expression, *KRAS* Mutation Status and Standard Uptake Value (SUV) of Positron Emission Tomography (PET) in Non-Small Cell Lung Cancer (NSCLC)
W. Mahmud

ST17. Comparing Pyrosequencing and MALDI-TOF Mass Spectrometry to Methylation-Specific qPCR for Quantifying MGMT Promoter Methylation
R.L. Margraf

ST18. Implementation of Rapid Blood-Based Mutation Testing for Patients with Lung Cancer
T.A. Boyle

ST19. A Comparison of Mutation Frequencies Observed in Non-Small Cell Lung Cancer (NSCLC) Patients by Two Different Methods: SNaPshot and Polymerase Chain Reaction (PCR) Versus Next-Generation Sequencing (NGS)
M. Goudie

ST20. Comparison of the Clinical Utility of Microsatellite Instability Detection Approach between a Novel NGS Based Algorithm and Traditional PCR Method
C. Wang

ST21. Development and Evaluation of a Pan-Sarcoma Fusion Gene Detection Assay Using the NanoString nCounter Platform
K.T. Chang

ST22. Genome-Wide Copy Number Variation and Targeted Next-Generation Sequencing Studies of Merkel Cell Carcinoma
M. Carter

ST23. Study of TMPRSS2-ERG Molecular Translocation in Prostate Cancer and its Correlation with Clinical and Histopathological Parameters
S. Desai

ST24. A Rare Case of HER2 Amplified Invasive Ductal Breast Carcinoma with Pericentric Deletion of Chromosome 17
B.S. Karir

Poster Listing

ST25. Biallelic TP53 Gain of Function Mutations in Rapid Progressing Solid Tumors and Correlating Immunohistochemistry
C.M. Sande

ST26. 1p Deletion, The Most Common Subtype of Leiomyomas Encountered in NIPT?
M. Van Ness

ST27. A Novel Non-Invasive Bladder Cancer Recurrence Surveillance Test Using Urine Sample
P. Piatti

ST28. Ultra-Sensitive Tag Sequencing for Detection of Low Level Somatic Alterations in Plasma Cell Free DNA of Metastatic Colorectal Tumors on Ion S5XL Platform
M. Mehrotra

ST29. Effect of Blood Collection Tubes on Circulating Tumor DNA (ctDNA) Yield and Specificity
D. Murray

ST30. Successful Lung Cancer EGFR Sequencing from DNA Extracted from TTF-1 Immunohistochemistry Slides: A New Means to Extend Insufficient Tissue
G. Deftereos

ST31. Testing for Segmental Chromosomal Aberrations of Multiple Genes Using Multiplex Ligation-Dependent Probe Amplification (MLPA) Technique in Children with Neuroblastoma.
M. Ramadwar

ST32. Multiple Mutations in *TP53*: Tumor-Specific Patterns and Their Implications for Breast Cancer Pathogenesis and Variant Annotation
J. Coleman

ST33. Low Cost Liquid Biopsy Combining Hotspot Mutant DNA Enrichment with Cost Effective Duplex Sequencing
D. Broemeling

ST34. Anaplastic Lymphoma Kinase (*ALK*) Mutation Testing for Pediatric Neuroblastic Tumors: A Single Institution Experience
T. Qdaisat

ST35. EGFR Amplification as a Biomarker of Shorter Overall Survival in Grade III Gliomas
T. Bale

ST36. Papillary Renal Cell Carcinoma Associated with Bi-Allelic SDHA Mutations
C.R. McEvoy

ST37. Molecular Profiling with *ALK*, *ROS1* and *MET* Genes FISH Panel in Non-Small Cell Lung Cancers: Indian Tertiary Cancer Institutional Experience
O.A. Shetty

ST38. Real Time PCR Assessment of Actionable Mutations in Non-Small Cell Lung Cancer
A. Atkinson

ST39. Integrated Genomic Profiling in Pediatric Solid Tumors: An Institutional Experience
L.F. Surrey

ST40. Factors that Predict the Success of RNA Seq Analysis on Solid and Hematologic Tumor Specimens
R.N. Wehrs

ST41. HPV Genotyping of Solid Tumors Using Real-Time PCR and Multi-Color Melt Curve AnalysisHPV Genotyping of Solid Tumors Using Real-Time PCR and Multi-Color Melt Curve Analysis
A. Atkinson

ST42. Validation of a Low DNA Input Hotspot Solid Tumor Assay on the Agena Bioscience MassARRAY System Utilizing Reference Standards and FFPE-Derived Clinical Samples
T. Neuwerth

ST43. Validation of an Anchored Multiplex PCR-Based Next Generation Sequencing Assay for the Detection of *MET* Exon 14 Skipping
K.D. Davies

ST44. *TERT* Promoter Mutation Status in Morphological Variants of Urothelial Carcinoma
D. Pradhan

Poster Listing

ST45. Development of a Breast and Lung Cancer Research Panel To Target Therapeutically Relevant Copy Number and Gene Fusion Variants from Blood
J. Schageman

ST46. Targeted Mutational Analysis of Predictive and Prognostic Biomarkers in Colorectal Carcinoma
A.M. Olofson

ST47. Evaluation of Targeted Next Generation Sequencing of Circulating Cell-Free Tumor DNA for Clinical Diagnosis Using Archer Reveal ctDNA Assay
A.A. Stence

ST48. Cell Free DNA in Patients with Pancreatic Adenocarcinoma: Evaluation of a Commercial Assay and Clinicopathologic Correlations
T. Theparee

ST49. Improved Detection of Low Abundance Somatic Mutations of *KRAS*, *BRAF*, *NRAS* and *PIK3CA* in Melanoma Using iPLEX HS, a New Highly Sensitive Assay for MassARRAY
B.C. Sutton

ST50. Low Level METex14 Skipping Is Observed at Low Frequencies in Patients with Solid Tumors from the NCI-MATCH Clinical Trial
V. Datta

ST51. Assessing Sensitivity of NGS RNA Fusion Assays Using a Multiplexed and Well Characterized Linearity Panel
C. Huang

ST52. Clinical Cancer Whole Exome and Transcriptome Sequencing of Pediatric Tumors at Columbia University Medical Center: Laboratory Perspective at Three Years
S.J. Hsiao

ST53. Pre-Designed Gene Content Enables Rapid Deployment of High-Quality Customized Enrichment Panels
A.J. Barry

ST54. EGFR Gene Mutations Analysis in Non-Small Cell Lung Cancer Using Cobas Assay in FFPE and Plasma Specimen Types
L. Cai

ST55. Early Evaluation Site Experience with a Liquid Biopsy Kit Designed for Next Generation Sequencing of Circulating Tumor DNA
S. Gunn

ST56. Clinical Utility of Large Scale Genomic Sequencing of Solid Tumors at a Large Academic Medical Center
N.A. Brown

ST57. Epi proColon, Septin 9 Gene Methylation Detection Assay as a Screening Tool for Colorectal Cancer
L. Cai

ST58. Application of the GeneReader NGS System in Testing of Actionable Mutations in Tumor and Blood Samples
C. Mayo de las Casas

ST59. Rare *BRAF* Inactivating Mutation G466E and Literature Review
M. Kruzel

ST60. Ion Torrent Next Generation Sequencing: Detect 0.1% Low Frequency Somatic Variants and Copy Number Variations Simultaneously in Cell-Free DNA
Y. Li

ST61. Investigation of Mutational Burden in Urothelial Tumors Using a Targeted NGS Panel
W. Zhang

ST62. Integrated Molecular Diagnostic Call Criteria for *MET* Exon 14 Skipping in Lung Cancer
R.J. Schmidt

ST63. Gene Expression Profiling of Traditional Immunohistochemical Tumor Biomarkers Using Nuclease Protection Coupled with Targeted Next-Generation Sequencing
M. Reinholz

Poster Listing

ST64. Spectrum of Variants Detected In a Large Cohort of Lung Adenocarcinomas at New York-Presbyterian Hospital
G. Ramrattan

ST65. Development of a Targeted NGS Cancer Gene Panel Using Multiplex PCR-Based Enrichment in an Integrated Fluidic Circuit
H. Gong

ST66. Assessment of Tumor Mutational Burden and Microsatellite Instability with Illumina's TruSight Tumor 170 Panel
S. Zhang

ST67. Mutational Spectrum in a Multi-Gene Panel of Germline and Somatic Ovarian Cancer in Singapore
S. Ho

ST68. A Droplet Digital PCR Assay for Detection of Methylated BCAT1 and IKZF1 in Circulating Tumor DNA
N. Boulter

ST69. Validation of CD274/PD-L1 FISH as a Predictive Biomarker for the Use of Immune Check Point Therapies in Undifferentiated Malignancies
K. Devereaux

ST70. WITHDRAWN

ST71. Molecular Characterization of a Series of Solitary Fibrous Tumors, Tested for NATB2-STAT6 Fusion Transcripts Using Reverse Transcriptase(RT)–Polymerase Chain Reaction(PCR) Technique: an Indian Experience
B. Rekhi

ST72. Prospective Analysis of the Clinical Impact of Expanded Genomic Tumor Testing on Management and Outcomes of Adult Oncology Patients at a Large Academic Medical Center
A. Sireci

ST73. RNA Sequencing Using Non-Cell Block Cytology Slides and FFPE Specimens Augments a DNA-Based Next Generation Sequencing Panel for Non-Small Cell Lung Cancer
K.J. Hampel

ST74. The Importance of Tumor-Normal Sequencing For Accurate Somatic Variant Determination in Genomic Cancer Testing
T. McDaniel

ST75. Added Value of Non-Cell Block Cytology Slides Compared to Formalin-Fixed Paraffin-Embedded (FFPE) Specimens for Targeted Genomic Profiling of Solid Tumors
K. Hampel

ST76. The Assessment by Next-Generation Sequencing of FFPE Derived Tumor DNA Using an Ovarian Cancer and a Custom Solid Tumor Hybridisation-Based Enrichment Panel Approach
J. Chan

ST77. A Comparison of EGFR Mutation Detection between Targeted Next-Generation Sequencing and Real-Time PCR Assay in Non-Small Cell Lung Cancer
Y. Cheng

ST78. Analysis of Active Oncogenic Signal Transduction Pathways in Ovarian Cancer
P.v. Wiel

ST79. Circulating Cell Free DNA (cfDNA) Isolated and Amplified from the Plasma of Pancreatic Cancer Patients as Reference Material for ctDNA Assays
Y. Konigshofer

ST80. Performance Comparison of Commercially Available Gene Fusion Next Generation Sequencing Panels
K.E. Bartow

ST81. Tumor in Normal or Normal in Tumor: What to Do When Somatic Mutations Are Detected in "Normal" Germline Control Used for NGS-Based Targeted Somatic Mutation Testing
A. Yemelyanova

Poster Listing

ST82. Development and Validation of a Genomic Classifier to Predict Aggressive Prostate Cancer from Diagnostic Biopsy Tissue
E. Davicioni

ST83. Uncommon and Novel *BRAF* Fusions Detected by Targeted Next Generation Sequencing and Their Impact on Clinical Management
V.A. Paulson

ST84. Head to Head Comparison of Archer VariantPlex/FusionPlex Solid Tumor and the Illumina TruSight Tumor 170 Assays
O. Rouhi

ST85. Use of Synthetic Mutation Standards to Bolster Validation of DNA Based NGS Panels for Detection of Translocation and Large Indels
P.M. Rindle

ST86. Characterization of Copy Number Alterations in Circulating Tumor Cells from Metastatic Prostate Cancers Using a Novel Enrichment Platform and Genome Wide Next-Generation Sequencing
G. Morrison

ST87. Spectrum of Genetic Mutations in Colorectal Adenocarcinoma Among Hispanics and Native Americans in New Mexico
C.J. Broehm

ST88. Major Factors Affecting NGS Failure in a Tertiary Care Hospital: The Emory Experience
V. Avadhani

ST89. Performance Evaluation of the Ion Torrent S5 XL for Targeted Next-Generation Sequencing (NGS) for Clinical Oncology
F. Sabato

ST90. Analysis of Immune Response Gene Expression and Tumor Associated Macrophages in Triple Negative Breast Carcinoma
K. Walker

ST91. Specimen Identification and Tracking from DNA Extraction to NGS Results Through the Addition of Barcoded Synthetic DNA
R. Bastien

ST92. Plasma Mutation Spectrum Matches Known Tumor Mutations in Active Cancer Patients
N.D. Montgomery

ST93. WITHDRAWN

ST94. An Integrated Genomic and Proteomic Analysis of Human Tumors Enables Epitope Prediction for Cancer Immunotherapy
M. Davis

ST95. Development of Real-Time PCR Assay for Relative Expression of Total EGFR mRNA and Detection of EGFRvIII mRNA in Glioblastoma Multiforme Tumors
R. Kular

ST96. Validation of a Single-Gene Next-Generation Sequencing Assay for TP53 Mutation Detection in Solid Tumor FFPE Samples in CLIA Laboratory Using Illumina MiSeq
B.A. Barkoh

ST97. Molecular Profiling of Gallbladder Cancer Tumors of New Mexico Populations
R. Gullapalli

ST98. IDH1 and IDH2 Mutations in Gliomas, AML, and Intrahepatic Cholangiocarcinoma
M.B. Wachsmann

ST99. Integration of HER2 Overexpression/Amplification with Molecular Mutation Profile in Urothelial Carcinoma
J. Zhao

ST100. Utilizing a Comprehensive Next-Generation Sequencing Panel to Improve Clinical Outcomes in Patients with Non-Small Cell Lung Cancer
S. Springborn

ST101. MET Amplification Predicts Primary Resistance to EGFR-TKIs in Advanced Non–Small Cell Lung Cancer Patients with Sensitive EGFR Mutation
L. Fang

ST102. Validation of a Clinical Targeted CNS Next Generation Sequencing Panel for Detection of SNPs, Indels and 1p/19q Co-Deletion
S. Rosati

Poster Listing

ST103. Performance Characteristics of RNA-Seq for Fusion Detection in Cancer
J.L. Winters

ST104. Comparison of *ALK*, *RET*, and *ROS1* Gene Fusion Detection by Next-Generation Sequencing, Fluorescence in situ Hybridization, and Immunohistochemistry in Non-Small Cell Lung Cancer
A. Oran

ST105. Correlation Between PD-L1 22C3 Expression and Oncogene Driver Mutations in *EGFR*, *ALK*, *KRAS* and BRAF in Non-Small Cell Lung Cancer
C. Nicka

ST106. Development of a Comprehensive Solid Tumor Next-Generation Sequencing Assay to Support Both Clinical Diagnostics and Immunotherapy Cancer Research in a Large Healthcare System
J. Welle

ST107. Improved Detection of Low Abundance Somatic Mutations of *KRAS*, *BRAF*, *NRAS* and *PIK3CA* in Melanoma using iPLEX HS, a New Highly Sensitive Assay for MassARRAY
B.C. Sutton

ST108. Routine Use of the FusionPlex Solid Tumor Panel in Identifying Clinically Actionable Gene Rearrangements in Lung Adenocarcinomas
C. Nicka

ST109. A Modular Next-Generation Sequencing Technology that Couples the Detection of RNA Structural Variants and DNA Mutations in Lung Cancer
R. Blidner

ST110. *in silico* Long-Read Sequencing from FFPE Solid Tumor Tissue for Structural Variation Detection and Phasing in Archival Specimens
H.A. Costa

ST111. Evaluation of a Custom-Design Targeted Next-Generation Sequencing (NGS) Panel for Clinical Screening of Mutations, Copy Number Alterations, and Gene Fusions in Primary CNS Tumors
L. Xi

ST112. Overcoming Challenges in Copy Number Estimation from Whole Exome Sequencing in Tumors
S. Anderson

ST113. Splicing Site Mutation in MET Gene Potentially Associated with Exon 14 Skipping Detected by DNA-Based Next Generation Sequencing in Lung Adenocarcinoma
O. Rouhi

ST114. Identification of Germline Variants in Tumor Genomic Sequencing Assays: Usefulness of Variant Allele Fraction and Population Variant Databases
N.D. Montgomery

ST115. An Efficient and Ultrasensitive Next-Generation Sequencing Solution for Profiling Circulating Tumor DNA
B.C. Haynes

ST116. Validation of Whole Exome and Whole Transcriptome Sequencing of FFPE Derivatives on Illumina Platforms
S.A. Shurtleff

ST117. Increased Incidence of PIK3CA Variants in Triple Negative Breast Carcinomas with Apocrine Features Identified by Targeted NGS
J.E. Baum

ST118. Molecular Analysis of Lymphoepithelioma-Like carcinoma (LELCA) of the Thymus
S. Rosati

ST119. Clinical Utility of Fusion Genes in Solid Tumors - A Single Center Experience
P. Selvam

ST120. Using Liquid Biopsies for Low Frequency Variant Detection and Tissue-of-Origin Exploration
A. McUsic

ST121. Evaluation of a NanoString nCounter Custom Expression Panel for Hepatoblastoma Risk Stratification
S.F. Sarabia

ST122. Enhanced Genome-Wide Copy Number Variation Detection Using a SNP-Focused Targeted NGS Panel for Tumor Analysis
J. Wang

Poster Listing

ST123. BRCA1 and BRCA2 Somatic Mutational Spectrum of Metastatic Cancer Revealed from Prospective Clinical Sequencing of 16,000 Patients
K. Nafa

ST124. A Study of Ovarian High Grade Serous Carcinoma with IHC p53 Positive and Negative Patterns by Targeted NGS
S. Zomorrodian

ST125. Analytic Validation and Application of Comprehensive Genomic Testing for Somatic Mutations and Microsatellite Instability in Rare Cancers
M.R. Wing

ST126. Concordance of Genomic Alterations by Next Generation Sequencing (NGS) in Tumor Tissue versus Cell-Free DNA in Stage I-IV NSCLC
Y. Jiang

ST127. Digital Spatial Profiling Platform Allows for Spatially-Resolved, Multiplexed Measurement of Protein and RNA Distribution and Abundance in FFPE Tissue Sections
C. Merritt

ST128. Discordance Among Biomarkers for Anti-PD1 Therapy Response: Tumor Mutational Burden and Anti-PD-L1 Staining
P.R. Hess

ST129. Beyond PD-L1: Challenges in Implementing Tumor Mutational Burden (TMB) to Predict Patient Response to Immuno-Oncology (IO) Therapies
P.M. Krein

ST130. Evaluation of Seraseq FFPE Tumor Fusion RNA Reference Material for Use in Routine Clinical NGS Testing
F.B. De Abreu

ST131. Evaluation of the Pillar NGS SLIMamp Cancer Hotspot Panel
F.B. De Abreu

ST132. Performance of Traditional Ampliseq Based NGS Panel for Genotyping of Circulating Cell Free DNA from plasma of Metastatic Colorectal Cancer Patients
X. Shi

ST133. Evaluation of a 170 Gene NGS Panel for the Detection of RNA and DNA Based Variants in FFPE Solid Tumor Samples
F. De Abreu

ST134. Analytical Validation of a Circulating Tumor Methylated-DNA Assay for Detection of Colorectal Cancer Recurrence in a CLIA Licensed Clinical Laboratory
J.P. Alsobrook

ST135. Analytical and Clinical Validation of a Liquid Biopsy NGS Assay for the Detection of SNVs, Indels, Copy Number Variations and Gene Fusions in Patients with Non-Small Cell Lung Adenocarcinomas
C. Raymond

ST136. Genes with Clonal Mutations and Their Pathway Associations for Breast Cancer Subtypes
Y. Cheung

ST137. Detection of Tumor Mutations with Cell-Free DNA in Plasma by Targeted Next Generation Sequencing
J. Cheng

ST138. "Unburdening" Variant Review for High Tumor Mutation Burden (TMB) Cases in a Clinical Next-Generation Sequencing (NGS) Assay
C.R. Orr

ST139. Library Complexity Estimation from Amplicon-Enriched, Low Input DNA Samples using Unique Molecular Identifiers
E.J. Duncavage

ST140. SNP Chromosomal Microarray as a Diagnostic Aid in the Diagnosis of a Rare Renal Neoplasm
R.A. Henne

ST141. Validation of the TruSight Tumor 15 Gene Panel to Assess Clinically Relevant Solid Tumor Mutations
G. Riedlinger

ST142. PRKACA Amplification as Novel Genomic Driver in Fibrolamellar Carcinoma
R. Graham

ST143. Comprehensive Detection of BRCA1/2 Pathogenic Variants by Anchored Multiplex PCR and Next-Generation Sequencing
A.T. Garnett

ST144. Detection of MET Exon 14 Skipping in Non-Small Cell Lung Cancer (NSCLC) via RNA Anchored Multiplexed PCR and DNA Next-Generation Sequencing
C. Paolillo

ST145. Distinct Genome Abnormalities that Distinguish Enchondroma from Chondrosarcoma: Clinical Utility of SNP Cytogenomic Microarray Analysis
Y. Liu

ST146. Molecular Progression of Superficial Papillary Urothelial Carcinoma of the Renal Pelvis to a Metastatic Lesion
M. Pepper

ST147. Comprehensive Detection of MET Mutations, Including Novel Gene Fusions, by Anchored Multiplex PCR and Next-Generation Sequencing
J. Haimes

ST148. Clinicopathological and Molecular Characterization of FGFR3/TACC3 Gliomas
S. El Hallani

ST149. OncoKids: A Comprehensive NGS Panel for the Full Spectrum of Pediatric Malignancies
M. Hiemenz

ST150. Comparison of the APTIMA Assay and mRNA In-Situ Hybridization for Detection of Human Papilloma Virus (HPV) in Oropharyngeal Carcinomas
S.S. Talwalkar

ST151. Evaluating Computational Predictions of TP53 Variant Function by Correlating with Survival Data in Breast Cancer
J. Coleman

TECHNICAL TOPICS

TT01. Clinical Validation of a Pre-designed Amplicon-Based Solid Tumor Gene Panel by Next Generation Sequencing (NGS)
L. Johnstone

TT02. Comparison of Bone Marrow Biopsies with Marrow-Derived Cell Suspensions for Next-Generation Genomic Sequencing
R.M. Rattray

TT03. Comparison of Exome Sequencing Analytical Performance Between Cell Lines, Peripheral Blood and Buccal Swab as Tissue Types
L. Johnstone

TT04. Evaluation of Two Methods for Generating Circulating Cell-Free DNA Reference Materials
L. Liu

TT05. High Speed Melting Analysis for Microfluidic Genotyping
R.J. Pryor

TT06. Highly Multiplexed FISH for *in situ* Genomics
M.L. Onozato

TT07. A Robust and Reproducible ctDNA Assay Utilizing the Illumina TruSight Tumor 170 Panel
A.C. Jager

TT08. Next Generation Sequencing Tissue Workflow Offers a Limited ctDNA Evaluation with Minimal Modification
M.P. Greenwood

TT09. Multiplexing Method for Significantly Increasing the Bandwidth of qPCR Instrumentation
A. Rajagopal

TT10. Transition of a LDT to the Fully Automated Cobas 6800/8800 Systems Using the Cobas Omni Utility Channel
R. Hein

TT11. Clinical Validation of the Archer FusionPlex Comprehensive Thyroid Lung Panel
N.V. Guseva

Poster Listing

TT12. STR Analysis as a Quality Control Measure for Ensuring Provenance of Xenografted Tumors
S.F. Allen

TT13. Analysis of Variants Contributing to α-1 Antitrypsin Deficiency: Cost Reduction and Efficiency Improvement through Utilization of Melt Curve Technology
F. Mularo

TT14. Influence of Blood Collection Tube Types on cfDNA Yields and Quantification Comparison
S. Katz

TT15. ePlex LIS Functionality: Reduce Workload, Errors and Eliminate Non-Value Added Data Processing
S. Hall

TT16. A Cost-Effective Analysis of Somatic Mosaic *PIK3CA* Mutations in PIK3CA-Related Segmental Overgrowth Disorders Using Targeted Sanger Sequencing and a Next-Generation Sequencing Cancer Hotspot Panel
K.L. Sumner

TT17. A Comparison of DNA Extraction Methods for Formalin-Fixed, Paraffin Embedded (FFPE) Lung Tumor Specimens
M. Goudie

TT18. Performance Evaluation of Collection/Stabilization/Purification Systems for Liquid Biopsy Cancer Biomarker Applications
D. Groelz

TT19. WITHDRAWN

TT20. Defining Minimum Coverage in Next Generation Sequencing (NGS)
A. Rangan

TT21. A Simple, Rapid and Cost Effective Method to Produce Ambient Stable Reagents for Nucleic Acid Testing
B. Wu

TT22. Impact of Cell-Free DNA Input Quality from Clinical Samples on a Next-Generation Sequencing Assay
C. Christopherson

TT23. Incorporation of Digital PCR in the Development Process of Diagnostic Tests
D. Hockman

TT24. Screening Circulating Nucleic Acids of Pancreatic Ductal Adenocarcinoma Using A Plasmonic Nanosensor
A. Tadimety

TT25. Implementation of Laboratory Developed Tests on the NeuMoDx Molecular System
M. Mastronardi

TT26. DNA Repair Improves Sequencing Accuracy in FFPE DNA samples
C. Song

TT27. Development of a Rapid, Precise, and Sensitive Molecular Assay for ALK Fusion Detection
Y. Shang

TT28. Creation of a Custom Indexing Strategy and Cross-Reactivity Testing in a Clinical Next Generation Sequencing Core Laboratory
M.A. Dina

TT29. Next Generation Sequencing with HaloPlexHS Custom Panel: One Work Flow for Both Solid Tumor and Myeloid Disease
R. Guo

TT30. Validation Study of Clinically Relevant AML Variants Using Multiple Detection Methods for Next-Generation Sequencing on Illumina MiniSeq
K. Haug

TT31. Expanding the Landscape of ALK Fusion Partners in NSCLC
S. Barua

TT32. Characterization of Novel ctDNA Reference Materials Developed using the Genome in a Bottle in a True Human Plasma-EDTA Matrix
L. Liu

Poster Listing

TT33. Transcriptome Based Master-Regulator Analyses of Tumors: A New Approach to Identifying Tumor-Specific Vulnerabilities for Treatment Selection.
M.M. Mansukhani

TT34. Novel Predictive Biomarker for Monitoring Adverse Reactions to Radiation Therapy
J. Du

TT35. Reliable Interpretation of NGS Data Using Well-Established, Highly Multiplexed Reference Materials
C. Hendrickson

TT36. Discovering Novel FFPE MicroRNA Biomarkers with a Highly-controlled qPCR Workflow
H. Cheng

TT37. A Novel Non-Control Based Homologous Recombination Deficiency (HRD) Algorithm for Predicting PARP Inhibitor Response in Breast and Ovarian Cancer Patients
Z. Liu

TT38. An Improved Method for RNA Extraction from FFPE Tissue Samples Yields Less Degraded RNA for Gene Expression Analysis
P. Chen

TT39. A Suite of Information Technology Tools to Manage the Production, Interpretation, and Communication of Clinical Genomic Test Results in the Precision Oncology Era
D.L. Cooper

TT40. A Novel Circulating Tumor DNA (ctDNA) Reference Material Compared on Next Generation Sequencing (NGS) to Digital PCR (dPCR) Assays
F.L. Tomson

TT41. A Highly Efficient and Reliable Transcriptome Profiling Method for Single-Cell or Low Input RNA
Y. Bei

TT42. Comparison of Manual and Automated Surepath Pre-Analytic Preparation for Roche Cobas 4800 HPV Testing
R.D. Byrd

TT43. Automating Low Input Library Preparation for Next Generation Sequencing
J.A. Raney

TT44. Improved Methods for Next Generation Sequencing Library Cleanup and Size Selection
C. Knox

TT45. Detection of Clonal TRG and TRB Gene Rearrangements Using Next Generation Sequencing
P. Shah

TT46. Customizable All-In-One Cancer Panels and Cnv/TI Algorithms to Simultaneously Detect Mutation, Gene Copy Number Variation and DNA Rearrangement by Targeted Next-Generation Sequencing
H. Tao

TT47. Making the Most of Small Samples: Optimization of Tissue Allocation for Clinical Care and Research
A. Church

TT48. Validation of a Next-Generation Sequencing-Based Assay to Detect Extended RAS Mutations in FFPE Samples for Identification of Metastatic Colorectal Cancer Patients Eligible for Treatment with Panitumumab
N. Udar

TT49. Development and Analytic Validation of an Automated Circulating RNA Extraction System Using a Laboratory Validated ddPCR Test Process
L. Jackson

TT50. Visual Adequacy Scale: A Method to Optimize Adequacy Assessment of Non-Cell Block Cytology Samples for Successful Downstream Molecular Diagnostics
J. Armstrong

TT51. Evaluation of Intraoperative Sampling for Genomic Analysis of Central Nervous System (CNS) Tumors by Next-Generation Sequencing (NGS).
R.T. Sussman

Poster Listing

TT52. Plasma DNA Extraction Optimization for Cell Free DNA Sequencing
C.J. Trennepohl

TT53. Unique Dual-Matched Sequencing Adapters with Unique Molecular Indices (UMIs) Resolve Next Generation Sequencing (NGS) Index-Hopping and Enable Ultra Low-Frequency Variant Detection
M. Light

TT54. Accurate Detection of Ultra-Low Frequency Mutations Using a Highly Efficient Dual-Stranded Molecular Tagging Strategy
J. Wang

TT55. Lyophilization-compatible qPCR mix for low-copy number target detection
J. Davids

TT56. Enhancing Signal-to-Noise in Next Generation Sequencing Detection of Fusion Oncogenes with CRISPR-Cas9
W. Gu

TT57. New Precision Metrics for Next Generation Sequencing Assay Quality Control
Y. Konigshofer

TT58. Comparing Mutation Detection Sensitivity from Matched FFPE Tissue and Liquid Biopsy Plasma Samples Using Optimized High Throughput Sample Preparation Workflows
A. Cheng

TT59. A Fully Automated Solution for the Chromogenic Detection of RNA in Formalin-Fixed Paraffin Embedded Tissue Sections
M. Ghosh

TT60. Harmonizing Next Generation Sequencing (NGS) Copy Number Variation (CNV) Assays with Novel Reference Materials
Y. Konigshofer

TT61. Multiplexed High-Definition PCR: A Novel Chemistry and Signal Detection Approach Applied to Respiratory Virus Panel Testing as a Proof of Concept
J. Pettersson

TT62. Understanding and Preventing Non-Templated Additions in PCR.
J.A. Houskeeper

TT63. NEBNext Ultra II FS DNA: A Robust, Enzyme-based DNA Library Preparation Method
K.R. Duggan

TT64. Targeted Next Generation Sequencing: Process Improvements Resulting in Reduced Turnaround Time
E.P. Garcia

TT65. Analyzing Copy Number Variation Inheritance with dNTP Limited PCR and High-Resolution Melting Analysis
L. Zhou

TT66. Comparison of cfDNA Extraction Methods Identifies Differences in Both Yield and Overall Performance on Downstream Applications
L. Borsu

TT67. Thermal Parameters of One Step RT-PCR to Achieve Maximum Reaction Speeds.
J.F. Quackenbush

TT68. Cold Fusion: A Rapid RNAseq Paradigm Using Nanopore Sequencing
W. Jeck

TT69. Comparing FFPE DNA Extraction Systems Using a Well Characterized, Whole Process Tumor Mutation Reference Material
D. Philkana

TT70. Sample Identity Confirmation with a SNP Profiling Panel Increases the Accuracy and Efficiency of High Resolution Clinical NGS Studies
K. Giorda

TT71. Systematic Evaluation of Variant Callers Using Plasmid-Based Synthetic Controls
R. Mihani

Poster Listing

TT72. Quantitative Assessment of Clonal Antibody Populations Using Immune Repertoire Sequencing
F. Stewart

TT73. A Method to Improve NGS Library Loading Consistency
Z. Zheng

TT74. Analytical Validation of a Digital Molecular Analysis Assay to Detect an Inhibitor-Sensitive Alternative ALK Transcript (ALK-ATI) in Formalin-Fixed, Paraffin-Embedded Melanoma
R.A. Jackson

TT75. How to Evaluate the Sensitivity of a NGS RNA Fusion Gene Assay
D. Qin

TT76. Engineering of Isogenic Cell Lines Using the CRISPR/Cas9 Technology and Precise Characterization of Low Allelic Frequency FFPE Cell Line Blocks for Use as Molecular Reference Standards
S. Saddar

TT77. A Strand-Specific, Low-Bias Library Preparation Method for Transcriptome Profiling of Low Input and Low Quality RNA
D.N. Rodriguez

TT78. Application of Roche Enzymes for Improved FFPE NGS Performance
M. Loyzer

TT79. High Sensitivity Sanger Sequencing for Minor Indel Detection and Characterization
H. Leong

TT80. In-depth Assessment Reveals Powerful Performance and Flexibility of AVENIO ctDNA Analysis Kits
A.F. Lovejoy

TT81. Linear Amplification Coupled Exponential (LACE) PCR: A Novel Approach to Improve the Performance of Molecular Barcoded Next-Generation Sequencing Technology
S. Mallampati

TT82. High Performance Detection of Cancer Mutations from Circulating DNA Using Single Color Digital PCR
B.T. Lau

TT83. The Binding and Nucleotide Incorporation Kinetics of DNA Polymerase
A.M. Zuiter

TT84. An Engineered DNA Ligase for Efficient Conversion of Input DNA during NGS Library Preparation
M. Miller

TT85. Comparison of Liquid Biopsy Blood Collection Tubes
C.D. Browne

TT86. An Efficient NGS Workflow for Liquid Biopsy Research Using a Comprehensive Assay Panel to Assess Cell-Free Total Nucleic Acid
R. Chien

TT87. Evaluation of Nucleic Acids Extraction Technologies for Clinical FFPE and Pico-scale Samples
M. Yang

Poster Listing

TT88. A Comparison Study of Assays for Tissue Contamination
T.B. Walls

TT89. Comparison of Saliva DNA Collection Tubes
J. Desharnais

TT90. Clinical Validation of a Customized 79-Gene NGS Panel for Comprehensive Genomic Analysis in Solid Tumors
D. Xu

TT91. Genome-wide Copy Number Detection and Somatic Variant Calling in One Clinical Assay: Cross Comparison of a Targeted Hybrid Capture NGS Panel to SNP Arrays
S. Kadri

TT92. Successful Extraction of RNA from Archived Bone Marrow Aspirate Smears for Use in Targeted RNA Sequencing
T. Restrepo

TT93. Validation of a Molecular Barcode Amplicon Sequencing Method for Detection of Low-Level Mutations in BTK and NPM1
C. Zhen

TT94. High Speed DNA Melting Analysis in Single Nucleotide Variance Detection
M. Li

TT95. Concurrent Determination of ABO RhD Blood Types and the HIV-1 Resistance Marker CCR5 Deletion via a Rapid Multiplex PCR and Capillary Electrophoresis-Based Genotyping Research Assay.
E. Schreiber

TT96. Evaluation of Archer FusionPlex Panel in Hematologic Malignancies.
O. Sala-Torra

Notes

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Author Index

Notes

Innovation Spotlight Stage

The Innovation Spotlight Stage is a unique opportunity for exhibiting companies to promote a new product or service at the AMP 2017 Annual Meeting. The Innovation Spotlight Stage is located in the back left corner of the Exhibit Hall. Innovation Spotlights are open to all Meeting Registrants and seating will be on a first come, first serve basis.

THURSDAY, NOVEMBER 16, 2017

Diagnostic Testing in Metastatic Non-Small Cell Lung Cancer

Time: 12:00pm - 12:45pm *Hosted by: Astrazeneca*

The program focuses on the importance of quality biomarker testing practices for patients with NSCLC, highlighting the importance of proactive coordination among the multidisciplinary team to ensure appropriate therapy choices. The rationales for EGFR mutational analysis and PD-L1 testing will be explored.

FRIDAY, NOVEMBER 17, 2017

Current and Emerging Biomarkers in Immuno-Oncology

Time: 12:00pm - 12:45pm *Hosted by: Bristol-Myers Squibb Company*

Many biomarkers are being investigated to further our understanding of cancer biology and theintersection with the immune system. This research is driving exploration of the potential to predict response to cancer immunotherapy. At this symposium, we will explore the rapidly evolving field of biomarker research and the impact on testing practices. Join us to gain insight into current and emergingimmuno-oncology biomarkers in conjunction with associated technological advancements.

Exhibit Hall Floor Plan

AMP
NOVEMBER 15 - 18, 2017
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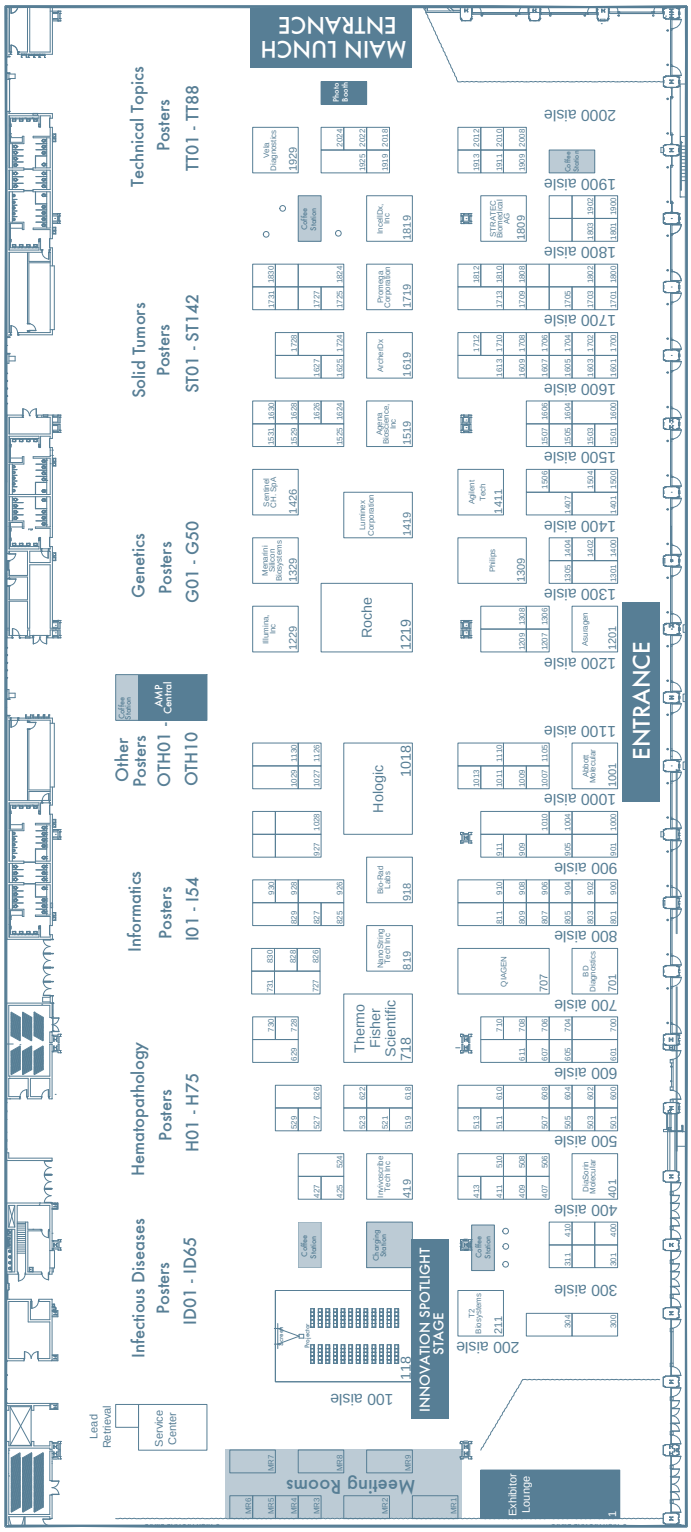

*This floor plan is subject to fire marshal approval.
AS OF 10-19-2017

AMP CENTRAL

Visit the AMP Central booth in the Exhibit Hall, located in the middle of the Poster section! Exciting opportunities at AMP Central include:

- **Career Networking Mixers**

The AMP Membership Affairs Committee is hosting individual networking events geared towards Technologists, Trainee/Early Career attendees, and Mid-Career professionals. This is an opportunity to discuss your career with peers and experienced professionals working in the field.

- **AMP Committee Meet & Greets**

Representatives from various AMP committees will be available to answer questions about the important work they do and how to get more involved in AMP!

- **Opening Reception #Tweetup!**

Meet other molecular pathologists using Twitter to advance the field and connect with other biomedical professionals both during the meeting and throughout the year. Make sure to use the hashtags #AMP2017 and #AMPlifier to get all the latest updates!

- **Job Listings**

View/Post Employment Opportunities

AMP Central is the place to be if you are an AMP Member or an attendee interested in learning more about all AMP has to offer!

Thursday, November 16
11:45am -1:00pm
Meet & Greets: Publications & Communication Committee; Nominating Committee
2:30pm – 4:15pm
Career Networking Mixer: Technologists
Meet & Greet: Subdivision Leadership
5:45pm – 7:00pm
Tweetup!

Friday, November 17
9:45am – 10:45am
Meet & Greets: Economic Affairs Committee; Professional Relations Committee
11:45am – 1:00pm
Career Networking Mixer: Trainee/Early Career
Meet & Greets: Training & Education Committee; Awards Committee
2:30pm – 3:30pm
Career Networking Mixer: Mid-Career Professionals
Meet & Greet: Membership Affairs Committee

Saturday, November 18
9:45am – 10:45am
Meet & Greet: Clinical Practice Committee
12:15pm – 1:30pm
Meet & Greet: International Affairs Committee

AMP Association for Molecular Pathology

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Exhibitor Listing

1607	4titude
2022	A2LA
1001	**Abbott Molecular ***
1007	Abbvie Inc.
904	AccuRef Diagnostics
1126	Adaptive Biotechnologies Corp.
1601	Admera Health
413	Advanced Analytical Technologies
1519	**Agena Bioscience, Inc ***
1411	Agilent Technologies
801	Alere
425	Analytik Jena (formally UVP LLC)
1600	Applied BioCode
1506	Applied Spectral Imaging
1619	ArcherDx
511	ArcticZymes AS
700	ARUP Laboratories
1505	Ascend Genomics
1305	**AstraZeneca ***
1201	**Asuragen ***
407	ATCC
1507	Aurora Biomed Inc.
503	Azer Scientific Inc
701	BD Diagnostics
1702	Benchmark Electronics
1902	Bio SB Inc.
1209	Biocartis
1703	Biocept, Inc
1605	BioDiscovery, Inc.
1704	BioFire Diagnostics
1500	Biofortuna Ltd
2010	BioGenex Laboratories
1919	Bioline USA
1308	BIOLYPH LLC
506	Biomatrica
1624	Bioneer Inc.
918	Bio-Rad Laboratories
803	BioView USA Inc.
626	BIT Group
927	Bristol-Myers Squibb
604	Bruker Daltonics
908	Cancer Genetics, Inc.
901	Canon BioMedical
909	Capitalbio Technology
826	Caris Life Sciences
731	Clearbridge BioMedics Pte Ltd
508	ClinGen
1626	Clinical Genomics
1701	Clinical Omics
1531	College of American Pathologists
708	College of American Pathologists Periodicals
1909	Congenica
622	COPAN Diagnostics, Inc.
1913	Coriell Institute for Medical Research
605	Covaris, Inc.
1801	Curetis USA
400	DenLine Uniforms, Inc
1628	Diagnomics Inc.
401	DiaSorin Molecular, LLC
1705	Dream Diagnostics Medicine
1706	DxNA LLC
519	Edge BioSystems
1802	Edico Genome
427	EGT-NA
1725	ELITechGroup Molecular Diagnostics
1603	Elsevier
730	Empire Genomics
727	EntroGen
930	Enzo Life Sciences
1407	Epigenomics, Inc.
1700	Eppendorf North America
501	Exact Diagnostics
1803	EZLife Bio Inc.
827	Fabric Genomics, Inc.
1105	Fluidigm Corporation

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1028	GenePOC
1005	Genetic Signatures
902	Genialis
1301	GenMark Diagnostics
1503	GENOMENON
1812	GenomeWeb
1110	GenomOncology
1800	Genoptix Medical Laboratory
409	Genotech Matrix
524	GenPath Diagnostics, BioReference Laboratories
1824	Hamilton Company
1712	Health Decisions
1018	**Hologic ***
1013	Horizon Discovery LTD
1130	HTG Molecular
1009	iCubate
1229	**Illumina, Inc. ***
1819	IncellDx, Inc.
1830	InteGen LLC
910	Integrated DNA Technologies
629	Intermountain Precision Genomics
419	**Invivoscribe Technologies, Inc.***
928	Isohelix
1625	Journal of Precision Medicine
600	KMC Systems
829	Lathrop Engineering, Inc.
2024	LexaGene
505	LRE Medical GmbH (Esterline Corporation)
900	Lucigen Corporation
1419	**Luminex Corporation ***
1404	Macrogen
1402	Maine Molecular Quality Controls, Inc.
1911	Market Ready Rx, Inc
300	Mayo Medical Laboratories
1900	MedicalLab Management Magazine
1329	Menarini Silicon Biosystems
610	Meridian Bioscience, Inc.
704	MetaSystems Group, Inc.
911	Microbiologics
513	Micronics, Inc.
906	Molecular Health
410	MRC-Holland
825	MRIGlobalDx
819	**NanoString Technologies Inc. ***
311	Natera, Inc.
805	National Jewish Health
830	NeoGenomics Laboratories
1029	NeuMoDx Molecular
710	New England Biolabs
706	NIH/NLM/NCBI
1504	N-of-One, Inc.
411	Norgen Biotek Corp.
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1708	Omega Bio-Tek
304	Oracle Health Sciences
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1400	Oxford Nanopore Technologies
527	**Paragon Genomics, Inc. ***
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1000	Personal Genome Diagnostics
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2008	Phosphorus
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1724	PILLAR BIOSCIENCES
809	PreAnalytiX
523	Precision System Science USA, inc.
521	PrimBio Research Institute
728	Primerdesign
1710	Pro-Lab Diagnostics
1719	Promega Corporation
1609	Psyche Systems Corporation
1606	Q^2 Solutions
707	**QIAGEN ***
1808	Qnostics Inc
1010	Quidel Corporation
926	Qvella Corporation
608	ResearchDx

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1219	**Roche ***
1501	SCC Soft Computer
828	Scienion
1426	Sentinel CH. SpA
811	SeraCare Life Sciences, Inc.
905	Siemens
1529	SmartGene
1525	SoftGenetics, LLC
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2012	Standard Molecular, Inc.
1011	STEMCELL Technologies, Inc.
1809	STRATEC Biomedical AG
1713	Streck
510	Sunquest Information Systems
1207	Swift Biosciences, Inc.
211	T2 Biosystems
1306	Tecan
807	Tempus
602	The Lab People, Inc.
718	**Thermo Fisher Scientific ***
1027	Translational Software
611	Variantyx, Inc.
1929	**Vela Diagnostics***
1810	Volpi Group
2018	XCR Diagnostics
1004	XimedicaDx
618	ZeptoMetrix Corporation

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Exhibitor Company Descriptions

4titude

Booth #: 1607

The North Barn, Damphurst Lane
Wotton, Surrey, RH5 6QT
United Kingdom
+44 (585)-445-7292
info@4ti.co.uk
www.4ti.co.uk

4titude designs, manufactures and markets consumables and bench top instrumentation for the life sciences industry. With ISO certified processes and clean room production facilities, 4titude offers an ever growing range of innovative products. 4titude provides expertise for innovation to customers with specific needs, either under our own brand or as an OEM agreement.

PRODUCT CATEGORIES

None Listed

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Booth #: 2022

5202 Presidents Court, Suite 220
Frederick, MD 21703
United States
(301) 644-3248 ext. 221
tradeshow@A2LA.org
a2la.org

A2LA is a non-profit, multi-discipline accreditation body with almost 40 years of experience providing internationally-recognized accreditation services and training. A2LA's accreditation services encompass testing and calibration laboratories, clinical testing laboratories, inspection bodies, proficiency testing providers, reference material producers and product certification bodies. Organizations are accredited to international standards and field-specific requirements. A2LA offers training programs to complement its accreditation offerings.

PRODUCT CATEGORIES

Testing Categories & Services: Reference laboratory testing services; Reference materials/standards/QC or QA products

Other: Professional Organizations/Associations

CORPORATE PARTNER

Abbott Molecular

Booth #: 1001

1300 East Touhy
Des Plaines, IL 60018
United States
customerservice@abbottmolecular.com
abbott.com

Abbott Molecular is a leader in molecular diagnostics – the analysis of DNA and RNA at the molecular level. Abbott Molecular's tests can also detect subtle but key changes in patients' genes and chromosomes and have the potential to aid with early detection or diagnosis, can influence the selection of appropriate therapies and may assist with monitoring of disease progression.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors

Technologies: FISH/ISH; DNA/RNA sample collection and/or preparation

Abbvie Inc.

Booth #: 1007

1 North Waukegan Road, ABV1-1NE
North Chicago, IL 60064
United States
xyz@abbvie.com

AbbVie is a global, research-based biopharmaceutical company formed in 2013 following separation from Abbott Laboratories. The company's mission is to use its expertise, dedicated people and unique approach to innovation to develop and market advanced therapies that address some of the world's most complex and serious diseases.

PRODUCT CATEGORIES

None listed

AccuRef Diagnostics

Booth #: 904

521 Cottonwood Drive Suite 111
Milpitas, CA 95035
United States
(408) 773-8007
maki.ogawa@appliedstemcell.com
www.appliedstemcell.com

AccuRef Diagnostics employs the most advanced genome editing technologies for the generation of molecular and cellular reference standards used by translational genomics researchers and clinical labs. Our ONCOREF™ product line, offers the largest off-the-shelf reference standard library on the market. In addition, we offer custom services and co-develop custom reference standards solutions for our diagnostic partners.

PRODUCT CATEGORIES

Testing Categories & Services: Pharmacogenetics/genomics; Reference laboratory testing services; Reference materials/standards/QC or QA products; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Microscopy; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Adaptive Biotechnologies Corp.

Booth #: 1126

1551 Eastlake Avenue East, Suite 200
Seattle, WA 98102
United States
(206) 659-0067
info@adaptivebiotech.com
www.adaptivebiotech.com

Adaptive is the leader in combining high-throughput sequencing and expert bioinformatics to profile T- and B-cell receptors. Adaptive brings its accurate and sensitive immunosequencing platform into laboratories worldwide to drive groundbreaking research in immune-mediated diseases. Adaptive also translates immunosequencing discoveries into clinical diagnostics and therapeutic development to improve patient care.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors

Technologies: Next Generation Sequencing

Admera Health

Booth #: 1601

126 Corporate Blvd.
South Plainfield, NJ 07080
United States
(908) 222-0533
jeff.mitchell@admerahealth.com
www.admerahealth.com

Admera Health is a CLIA certified CAP accredited laboratory, utilizing Next-Generation Sequencing technology to advance the field of personalized medicine. Our expertise includes pharmacogenomics, cardiovascular disease, and non-invasive cancer screening. Diagnostic test results are delivered to physicians and patients in a distilled and manageable report, giving them the relevant information to make more informed treatment decisions.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Solid Tumors; Pharmacogenetics/genomics; Gene expression profiling

Technologies: Next Generation Sequencing; Circulating tumor cell analysis (CTC)

Advanced Analytical Technologies

Booth #: 413

2450 SE Oak Tree Ct
Ankeny, IA 50021
United States
(515) 964-8500
ephipps@aati-us.com
www.aati-us.com

Advanced Analytical Technologies, Inc. is a world leader in multi-channel, capillary electrophoresis instrumentation for nucleic acid analysis. The Fragment Analyzer™ improves laboratory workflow and decreases time to NGS results, providing accurate quantification and qualification of gDNA & RNA extractions and library preparation from both small and large fragment libraries.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

CORPORATE PARTNER

Agena Bioscience, Inc.

Booth #: 1519

4755 Eastgate Mall
San Diego, CA 92121
United States
(858) 882-2800
helpdesk@agenabio.com
www.agenabioscience.com

Agena Bioscience develops, manufactures, and supplies genetic analysis systems and reagents, including the MassARRAY® System. The system is a highly sensitive, cost-effective, mass spectrometry-based platform for high-throughput genetic analysis, and is used globally in diverse research fields such as cancer profiling for solid tumors and liquid biopsies, inherited genetic disease testing, pharmacogenetics, agricultural genomics, and clinical research.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Solid Tumors; Pharmacogenetics/genomics; Reference materials/standards/QC or QA products

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mutation/variant detection; Mass Spectrometry; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Agilent Technologies

Booth #: 1411

5301 Stevens Creek Blvd
Santa Clara, CA 95051
United States
(302) 521-0316
agilent_inquiries@agilent.com
www.agilent.com/genomics

Agilent Technologies Inc., global leader in life sciences, diagnostics, and applied chemical markets, is the premier laboratory partner for a better world. Agilent provides instruments, software, services, and consumables for the entire laboratory workflow. In 2012, Agilent acquired Dako, a provider of reagents, instruments, software and expertise to make accurate diagnoses and determine the most effective treatment for cancer patients.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Proteomics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Mass Spectrometry

Alere

Booth #: 801

51 Sawyer Road, Suite 200
Waltham, MA 02453
United States
(781) 647-3900
francesca.desquesnes@alere.com
www.alere.com

About Alere

Alere believes that when diagnosing and monitoring health conditions, Knowing now matters™. Alere delivers on this vision by providing reliable and actionable information through rapid diagnostic tests, enhancing clinical and economic health outcomes globally.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

AMP

Booth #: AMP Central

9650 Rockville Pike
Bethesda, MD 20814
United States
(301) 634-7939
www.amp.org

AMP Central: AMP's "Booth" in the Exhibit Hall centrally located at the back of the exhibit hall in the middle of the Posters! Just a few of the exciting opportunities at AMP Central include: Career Consults, AMP Committee Meet & Greets, Poster Walks, View/Post Employment Opportunities, Network or just catch up with friends and colleagues! AMP Central is the place to be if you are an AMP Member or an attendee interested in learning more!

PRODUCT CATEGORIES

Other: Professional Organizations/Associations

Analytik Jena (formally UVP LLC)

Booth #: 425

2066 West 11th Street
Upland, CA 91786
United States
(909) 946-3197
jean.ottoson@us.analytik-jena.com
us.analtyik-jena.com

Analytik Jena (formerly UVP LLC), manufactures BioImaging Systems: ChemStudio PLUS); ChemiStudio SA2 Imager for gels, fluorescent westerns, chemiluminescent blots, multiplex & colorimetric samples. UVP BioDoc-It2 basic gel documentation, ColonyDoc-It Imager counts colonies. AJ US manufactures ultraviolet lamps, PCR hoods, transilluminators, crosslinkers, hybridization ovens. AJ manufactured products: UV/VIS ScanDrop2, thermal cyclers, qPCR/standard PCR systems, DNA/RNA isolation/extraction kits.

PRODUCT CATEGORIES

Technologies: Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

Applied BioCode

Booth #: 1600

10020 Pioneer Blvd, Suite 102
Santa Fe Springs, CA 90670
United States
(562) 801-0050
biz-development@apbiocode.com
apbiocode.com

Applied BioCode's Barcoded Magnetic Beads provide a breakthrough technology for multiplex molecular detection. The new automated BioCode MDx 3000 system* can produce results for up to 188 samples within an 8-hour shift. And, the new 18-plex Gastrointestinal Pathogen Panel, under development, identifies the most common pathogenic bacteria, viruses, and parasites. *Under Development.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

Applied Spectral Imaging

Booth #: 1506

5315 Avenida Encinas Suite 150
Carlsbad, CA 92008
United States
(760) 929-2840
sales-inc@spectral-imaging.com
www.spectral-imaging.com

Applied Spectral Imaging (ASI) makes patient care better through advanced biomedical microscopy imaging.

The GenASIs™ automated imaging platforms for genetic and pathology analysis provide state of the art diagnostic aids for pathologists and cytogeneticists.The GenASIs platforms can be used with any brand of brightfield or fluorescent microscope, and support manual and automatic scanning for a wide range of workflows.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors

Technologies: FISH/ISH; IHC; Mutation/variant detection; Microscopy; Circulating tumor cell analysis (CTC)

ArcherDx

Booth #: 1619

2477 55th Street, Suite 202
Boulder, CO 80301
United States
(919) 423-4144
info@archerdx.com
archerdx.com

Archer® target enrichment assays utilize Anchored Multiplexed PCR (AMP™) chemistry to generate highly enriched sequencing libraries for comprehensive mutation profiling and immune repertoire characterization by NGS.

Complemented by a powerful suite of assay design and bioinformatics analysis software, Archer FusionPlex®, VariantPlex™ and Reveal ctDNA™ assays facilitate complex mutation identification, and Immunoverse™ assays enable quantitative profiling of the expressed immune repertoire.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/genomics; Clinical informatics/ Bioinformatics; Reference materials/standards/QC or QA products; Gene expression profiling

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

ArcticZymes AS

Booth #: 511

600 W Germantown Pike, Suite 110
Plymouth Meeting, PA 19462
United States
(484) 534-3567
aw@arcticzymes.com
www.arcticzymes.com

ArcticZymes AS develops and manufactures unique enzymes utilized in the development of molecular diagnostic assays.

PRODUCT CATEGORIES

Testing Categories & Services:

Technologies: Next Generation Sequencing; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Single Cell Analysis; Circulating tumor cell analysis (CTC)

ARUP Laboratories

Booth #: 700

500 Chipeta Way
Salt Lake City, UT 84108-1221
United States
(801) 583-2787 ext2677
alyson.willerton@aruplab.com
www.aruplab.com

As a nonprofit, academic institution, ARUP believes in collaborating, sharing knowledge, and contributing to laboratory science in ways that benefit our clients and their patients. ARUP's test menu encompasses more than 3,000 tests and test combination, including highly specialized and esoteric assays. We offer comprehensive testing in the areas of genetics, molecular oncology, pediatrics, and pain management, among others.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Reference laboratory testing services; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Microscopy; Mass Spectrometry; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Other: Professional Organizations/Associations

Ascend Genomics

Booth #: 1505

320 Hatch Drive
Foster City, CA 94404
United States
(650) 780-5512
hylandt@ascendclinical.com
www.ascendgenomics.com

Ascend Genomics is a CLIA-certified, CAP-accredited full-service reference laboratory specializing in making DNA-based cancer genome testing available to pathologists across the U.S. and beyond.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Reference laboratory testing services; Clinical informatics/Bioinformatics

Technologies: FISH/ISH; Sequencing; Laboratory Information Systems; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Microscopy; Mass Spectrometry; Single Cell Analysis

CORPORATE PARTNER

AstraZeneca

Booth #: 1305

1 Medimmune Way
Gaithersburg, MD 20878
United States
(301) 398-6729
Matt.tedrow@astrazeneca.com
www.astrazeneca.com

AstraZeneca is a global, innovation-driven biopharmaceutical business that focuses on the discovery, development and commercialization of prescription medicines, primarily for the treatment of cardiovascular, metabolic, respiratory, inflammation, autoimmune, oncology, infection and neuroscience diseases.

AstraZeneca operates in over 100 countries and its innovative medicines are used by millions of patients worldwide.

PRODUCT CATEGORIES

Other: Professional Organizations/Associations

CORPORATE PARTNER

Asuragen

Booth #: 1201

2150 Woodward St., Suite 100
Austin, TX 78744
United States
asuragen@asuragen.com
asuragen.com

Asuragen is a molecular diagnostic company changing the way patients are treated in genetics and oncology. The quality, sensitivity and simplicity of our products deliver true precision medicine. The company's diagnostic systems, composed of proprietary chemistries and software, deliver answers using widely available platforms. Asuragen is a product foundry addressing significant current and emerging clinical needs with best-in-class diagnostic kits.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics; Reference materials/standards/QC or QA products; Gene expression profiling

Technologies: Next Generation Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mutation/variant detection

Exhibitor Company Descriptions

ATCC

Booth #: 407

10801 University Blvd.
Manassas, VA 20110
United States
dgaige@atcc.org
atcc.org

ATCC® is the leading global provider of biological standards and reference material used for quality controls in molecular medicine. Visit booth #407 to learn more about how ATCC can source, produce, authenticate, standardize, and deliver custom solutions that meet your unique needs for oncology and infectious disease molecular assays and tests including NGS and ddPCR. **www.atcc.org/services**

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Reference laboratory testing services; Clinical informatics/Bioinformatics; Reference materials/standards/QC or QA products; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Bioinformatics; Proteomics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Microscopy; Mass Spectrometry; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Other: Scientific Publications/Books/Journals

Aurora Biomed Inc.

Booth #: 1507

1001 East Pender Street
Vancouver, BC V6A1W2
Canada
(604) 215-8700
sophia@aurorabiomed.com
www.aurorabiomed.com

Aurora is dedicated to the design and development of laboratory automation for environmental and life sciences, food safety, chemical analyses, drug discovery/safety and ion channel screening. Automate Next Generation Sequencing Sample Preparation, Nucleic Acid Purification, PCR setup, Solid Phase and Liquid-Liquid Extractions with Aurora's VERSA Liquid Handling systems! Materialize concept to market with Aurora's solution-orientated OEM and customization.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing

Azer Scientific Inc.

Booth #: 503

701 Hemlock Road
Morgantown, PA 19543
United States
(877) 770-2937
info@azersci.com
www.azerscientific.com

Azer Scientific is a manufacturer of research and clinical laboratory supplies. Stop by our booth to see our innovative new technologies for the research market as well as our robotic pipette tip line!

PRODUCT CATEGORIES

Technologies: Sequencing; Proteomics; IHC; DNA/RNA sample collection and/or preparation; Microscopy

BD Diagnostics

Booth #: 701

7 Loveton Circle
Sparks, MD 21152
United States
(585) 766-7098
sales@bd.com
www.bd.com

BD is a leading medical technology company that partners with customers and stakeholders to address many of the world's most pressing and evolving health needs. Our innovative solutions are focused on improving drug delivery, enhancing the diagnosis of infectious diseases, supporting the management of diabetes and advancing cellular research.For more information, please visit **www.bd.com**.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Laboratory Information Systems

Benchmark Electronics

Booth #: *1702*

3535 Technology Drive
Rochester, MN 55901
United States
(507) 535-4000
dan.johns@bench.com
www.bench.com

Benchmark Electronics provides award-winning design and build services for world-leading OEMs. Offering a complete range of engineering, automation, test, manufacturing and fulfillment services our best-in-class compliance, ISO-13485 certified facilities provide stable low-risk "launching pads" for the creation and production of your advanced lab automation equipment. Global supply chain, quality program management and dedicated regulatory staff are dedicated to your success!

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing;Sequencing;Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers;DNA/RNA sample collection and/or preparation;Mass Spectrometry

Exhibitor Company Descriptions

Bio SB Inc.

Booth #: 1902

69 Santa Felicia Drive
Goleta, CA 93111
United States
(805) 692-2768
ppatterson@biosb.com
www.biosb.com

Bio SB performs R&D, production, distribution and marketing of unique products for Immunohistochemistry (IHC), Fluorescent in situ hybridization (FISH) and Chromogenic in situ hybridization (CISH) technologies that meet the highest international standards for applications in Molecular Pathology and Cancer Research. Bio SB manufactures and develops products in accordance with FDA QSR 21 CFR Part 820 cGMP and ISO 13485:2003 standards.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Reference materials/standards/QC or QA products

Technologies: Microarrays; FISH/ISH; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC

Biocartis

Booth #: 1209

2500 Plaza, 25th Floor, Suite 2547
Jersey City, NJ 07311
United States
0032 15 632 600
info@biocartis.com
www.biocartis.com

Biocartis aims to provide direct access to personalized medicine for patients worldwide by developing fully integrated, broadly applicable molecular diagnostics. Biocartis' MDx Idylla™ platform is a fully automated sample-to-result, real-time Polymerase Chain Reaction system that offers accurate, highly reliable molecular information from virtually any biological sample in virtually any setting.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors
Technologies: Cell free plasma DNA analysis (cfDNA)

Biocept, Inc.

Booth #: 1703

5810 Nancy Ridge Drive
San Diego, CA 92121
United States
(888) 332-7729
ccairns@biocept.com
www.biocept.com

Biocept, Inc. is a molecular diagnostics company with commercialized assays for lung, breast, gastric, colorectal and prostate cancers, and melanoma. The Company's patented Target Selector™ liquid biopsy technology platform captures and analyzes tumor-associated molecular markers in both CTCs and in plasma (ctDNA) to provide physicians with information for treating and monitoring patients diagnosed with cancer.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Reference laboratory testing services

Technologies: Next Generation Sequencing; FISH/ISH; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

BioDiscovery, Inc.

Booth #: 1605

715 North Douglas Street
El Segundo, CA 90245
United States
(310) 414-8100
customerservice@biodiscovery.com
www.biodiscovery.com

BioDiscovery develops advanced software solutions for the analysis of data from high-throughput microarray and next-generation sequencing (NGS) technologies and provides a full line of modular software packages built for power, versatility, and efficiency, spanning image analysis, data processing, and advanced analysis of CNV, expression, and sequence variation data.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics

Technologies: Bioinformatics

Exhibitor Company Descriptions

BioFire Diagnostics
Booth #: 1704
515 Colorow Drive
Salt Lake City, UT 84108
United States
(801) 736-6354
info@biofiredx.com
www.biofiredx.com

BioFire Diagnostics manufactures the sample-to-answer FilmArray® system, which provides syndromic infectious disease testing that may lead to improved patient outcomes and reduced costs. Respiratory (RP), Blood Culture Identification (BCID), Gastrointestinal (GI), and Meningitis/Encephalitis (ME) Panels, all FDA-Cleared and CE products, each simultaneously test for the most common targets in about an hour.

PRODUCT CATEGORIES
Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Biofortuna Ltd
Booth #: 1500
1 Hawkshead Road, Croft Business Park,
Bromborough,
Wirral, CH62 3RJ
United Kingdom
+44 (0) 151 334 0182
harry.singh@biofortuna.com
www.biofortuna.com

Biofortuna offers custom IVD assay development and manufacturing services. Our services include assay design, development, manufacturing, freeze-drying (lyophilisation), dispensing and kitting. The company's lyophilisation expertise and proprietary technology enables complete amplification reactions or immunoassays to be transformed into instantly soluble lyophilised pellets.

PRODUCT CATEGORIES
None Listed

BioGenex Laboratories
Booth #: 2010
49026 Milmont Drive
Fremont, CA 94538
United States
(510) 824-1400
customer.service@biogenex.com
www.biogenex.com

BioGenex is a market leader in automated molecular pathology systems for medical diagnostics, and life science research. We deliver the finest systems for IHC, ISH, FISH and Special stains. BioGenex antibodies, probes, antigen retrieval, detection kits and histology stains are thoroughly validated and their performance is guaranteed. We are committed to quality and providing best in class customer care.

PRODUCT CATEGORIES
Technologies: FISH/ISH; IHC; DNA/RNA sample collection and/or preparation; Circulating tumor cell analysis (CTC)

Bioline USA
Booth #: 1919
305 Constitution Drive
Taunton, MA 02780
United States
(508) 880-8990
julie.sullivan@bioline.com
www.bioline.com

Bioline is an evolving international company, which develops, manufactures and markets a wide range of specialized bio-research reagents that simplify, accelerate and improve life sciences research. Our vision is to position Bioline at the forefront of Human, Animal and Plant health through continuous innovation.

PRODUCT CATEGORIES
Testing Categories & Services: Epigenetics/ epigenomics; Gene expression profiling
Technologies: Next Generation Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

BIOLYPH LLC
Booth #: 1308
4275 Norex Drive
Chaska, MN 55318
United States
(952) 936-0990
kmodrow@biolyph.com
www.BIOLYPH.com

BIOLYPH converts manufacturers' unstable reagents into Room Temperature stable, instantly rehydrating LyoSpheres™, providing years of shelf life and superior ease of use, reducing steps, errors, prep time, and manufacturing costs, and eliminating cold chain dependency. Please visit our booth to learn more about BIOLYPH's LyoSphere™ Technology and Complete Formulation, Stabilization, Lyophilization, and Packaging services.

PRODUCT CATEGORIES
Testing Categories & Services: Infectious Diseases
Technologies: Next Generation Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Biomatrica
Booth #: 506
5627 Oberlin Drive, Suite 120
San Diego, CA 92121
United States
info@biomatrica.com
biomatrica.com

Biomatrica enables assay manufacturers and laboratories to improve the reliability of diagnostic tests by overcoming technological barriers to assay development, sample collection and sample storage using our expertise in biological stabilization chemistry.

PRODUCT CATEGORIES
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Bioneer Inc.

Booth #: 1624

1301 Marina Village Pkwy., Suite 110
Alameda, CA 94501
United States
(877) 264-4300
young.choi@bioneer.us.com
us.bioneer.com

Bioneer is a leading molecular diagnostics and life sciences company. We develop, manufacture and market a comprehensive product portfolio of MDx instruments and reagents from sample preparation to detection and analysis. Our technology and commitment enable labs with molecular testing to create an accurate and reliable approach to the answers they seek.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Gene expression profiling
Technologies: Sequencing; Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection

Bio-Rad Laboratories

Booth #: 918

2000 Alfred Nobel Drive
Hercules, CA 94547
United States
(800) 424-6723
sonya_sano@bio-rad.com
www.bio-rad.com

Depend on Bio-Rad for tools, technologies and expertise to enable genomic and proteomic analysis. Bio-Rad provides instrumentation and reagents for droplet digital PCR, conventional and real-time PCR, amplification reagents and primers, flow cytometry, xMAP technology, cancer biomarkers, electrophoresis, blotting-systems, chromatography, imaging, cell counting, cell imaging and antibodies.

PRODUCT CATEGORIES

None Listed

BioView USA Inc.

Booth #: 803

44 Manning Road
Billerica, MA 01821
United States
(978) 670-4741
bonnie@bioview.co.il
www.bioview.co.il

BioView develops and markets innovative automated cell diagnostic systems via fluorescence in-situ hybridization (FISH) for clinical and research laboratories. The Duet™, and ALLEGRO scanning workstations provide automated detection, analysis and reporting of cells of interest, under fluorescence and brightfield microscopy. Bladder Cancer FISH (UroVysion)is among the FDA cleared applications.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors
Technologies: FISH/ISH; Laboratory Information Systems; Microscopy; Circulating tumor cell analysis (CTC)

BIT Group

Booth #: 626

15870 Bernardo Center Drive
San Diego, CA 92127
United States
(949) 238-1200
v.kaiser@bit-group.com
www.bit-group.com

BIT Group is the leading global resource (US, China, Japan, Germany, France) for development, manufacture and service of IVD, medical and life science instrumentation. Our range of white-label instruments as well as the modular BITSMARTSOLUTIONS™ proprietary platform architecture enable rapid path to market solutions for our global clients. BIT Group is FDA registered as well as ISO-13485 certified.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Laboratory Information Systems; Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mass Spectrometry; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Bristol-Myers Squibb

Booth #: 927

3401 Princeton Pike
Lawrence Township, NJ 08648
United States
(800) 332-2056
sheree.budrecki@bms.com
www.bms.com

Bristol-Myers Squibb is a global biopharmaceutical company whose mission is to discover, develop and deliver innovative medicines that help patients prevail over serious diseases. For more information about Bristol-Myers Squibb, visit us at **BMS.com** or follow us on LinkedIn, Twitter, YouTube and Facebook.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/ genomics; Clinical informatics/Bioinformatics; Gene expression profiling
Technologies: Microarrays; FISH/ISH; Sequencing; Bioinformatics; IHC; DNA/RNA sample collection and/or preparation
Other: Scientific Publications/Books/Journals

Bruker Daltonics

Booth #: 604

40 Manning Road
Billerica, MA 01821
United States
(978) 663-3660
ms.sales.bdal@bruker.com
www.bruker.com

For more than 55 years, Bruker has enabled scientists to make breakthrough discoveries and develop new applications that improve the quality of human life. Bruker's high-performance scientific instruments and high-value analytical and diagnostic solutions enable scientists to explore life and materials at molecular, cellular and microscopic levels.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Mass Spectrometry

Cancer Genetics, Inc.

Booth #: 908

201 Route 17 North, 2nd Floor
Rutherford, NJ 07070
United States
(312) 375-1189
greg.ash@cgix.com
www.cgix.com

CGI is an emerging leader in DNA-based cancer diagnostics and services prestigious medical institutions throughout the world. Our tests target cancers that are difficult to diagnose and predict treatment outcomes which include hematologic, urogenital and HPV-associated cancers. CGI also offers a comprehensive range of non-proprietary oncology-focused tests and laboratory services that provide critical genomic information to help devise patient management.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/genomics; Reference laboratory testing services; Clinical informatics/ Bioinformatics; Reference materials/standards/QC or QA products; Gene expression profiling
Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/ or preparation; Mutation/variant detection; Microscopy; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)
Other: Scientific Publications/Books/Journals; Professional Organizations/Associations; Media Organizations

Canon BioMedical

Booth #: 901

9800 Medical Center Drive, Suite C-120
Rockville, MD 20850
United States
(301) 803-0114
contactus@canon-biomedical.com
www.canon-biomedical.com

Canon BioMedical, Inc. is focused on empowering the biomedical research and healthcare communities by developing innovative technologies and solutions. The solutions developed will enable clinicians and scientists to improve our health and advance science. Canon BioMedical will pursue innovative solutions in line with Canon's Kyosei philosophy.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Pharmacogenetics/genomics
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Capitalbio Technology

Booth #: 909

88 Kechuang 6th Street, Building C
Beijing Economic-Technological
Development Area
Beijing, 101111
China
86-10-80726868
jouyang@capitalbiotech.com
www.capitalbiotech.com

CapitalBio Corporation is a leading life science company that develops and commercializes total health-care solutions. As a core subsidiary of CapitalBio Corporation, CapitalBio Technology provides comprehensive, top-quality products and services including microarray and microfluidic chips and related instruments, software and databases, reagents and consumables for basic and translational research, drug development, clinical diagnostics, biosafety and food safety, and molecular breeding.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Solid Tumors; Epigenetics/epigenomics; Clinical informatics/ Bioinformatics; Gene expression profiling
Technologies: Next Generation Sequencing; Microarrays; Sequencing; Bioinformatics; Proteomics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mass Spectrometry; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Caris Life Sciences

Booth #: 826

6655 N. MacArthur Blvd.
Irving, TX 75039
United States
(866) 771-8946
MIClientServices@carisls.com
www.CarisLifeSciences.com

Caris Life Sciences® is a leading innovator in molecular science focused on fulfilling the promise of precision medicine. Caris Molecular Intelligence®, the company's Comprehensive Genomic Profiling Plus (CGP+) molecular testing service, assesses DNA, RNA and proteins to reveal a molecular blueprint to guide more precise and personalized treatment decisions. To learn more, please visit **www.CarisLifeSciences.com**.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Reference laboratory testing services; Gene expression profiling

Technologies: Next Generation Sequencing; FISH/ISH; Sequencing; Bioinformatics; IHC; Mutation/variant detection

Clearbridge BioMedics Pte Ltd

Booth #: 731

81 Science Park Drive #02-03
The Chadwick
Singapore Science Park I
Singapore, 118257
Singapore
+6564820668
kathryn@clearbridgebiomedics.com
www.clearbridgebiomedics.com

Clearbridge BioMedics pioneered the development of one of the world's first automated and label-free cell retrieval systems. Utilizing our patented inertial focusing microfluidics technology, the ClearCell® FX1 System ensures unbiased enrichment of viable rare Circulating Tumour Cells (CTCs) from a single blood draw. Clearbridge BioMedics – Bringing Clarity to Cancer.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors

Technologies: Circulating tumor cell analysis (CTC)

ClinGen

Booth #: 508

100 N. Academy Ave.
Danville, PA 17822
United States
(570) 522-9430
clingen@clinicalgenome.org
www.clinicalgenome.org

The Clinical Genome Resource (ClinGen) is an NIH-funded initiative dedicated to identifying clinically relevant genes and variants for precision medicine and research.

PRODUCT CATEGORIES

Other: Professional Organizations/Associations

Clinical Genomics

Booth #: 1626

1031 US Highway 202/206
Suite 100
Bridgewater, NJ 08807
United States
customerservice@clinicalgenomics.com
clinicalgenomics.com

Clinical Genomics is a privately held biotechnology company developing and marketing products for colorectal cancer diagnosis. Clinical Genomics offers Colvera™, a blood-based circulating tumor DNA test for colorectal cancer recurrence monitoring that detects methylated DNA from two genes, BCAT1 and IKZF1, and the colorectal cancer screening assay, InSure® FIT™, a fecal immunochemical test that detects blood in the stool.

PRODUCT CATEGORIES

None Listed

Clinical Omics

Booth #: 1701

140 Huguenot Street
New Rochelle, NY 10801
United States
(914) 740-2200
smccarthy@liebertpub.com
www.clinicalomics.com

Clinical OMICs is the leading source of practical insights for pathologists, clinicians, researchers, and scientists working to translate important findings across the broad range of "omics" technologies to deliver on the promise of molecular and precision medicine for patients.

PRODUCT CATEGORIES

Other: Scientific Publications/Books/Journals

College of American Pathologists

Booth #: 1531

325 Waukegan Road
Northfield, IL 60093
United States
(847) 832-7000
mfisher@cap.org
Cap.org

As the world's largest organization of board-certified pathologists and leading provider of laboratory accreditation and proficiency testing programs, the College of American Pathologists (CAP) serves patients, pathologists, and the public by fostering and advocating excellence in the practice of pathology and laboratory medicine worldwide. The CAP laboratory accreditation, more than 55 years old, currently accredits approximately 8,000 laboratories.

PRODUCT CATEGORIES

Testing Categories & Services: Reference laboratory testing services; Clinical informatics/Bioinformatics; Reference materials/standards/QC or QA products

Technologies: Next Generation Sequencing; Bioinformatics; Microscopy

Other: Scientific Publications/Books/Journals; Professional Organizations/Associations

College of American Pathologists Periodicals

Booth #: 708

325 Waukegan Road
Northfield, IL 60093
United States
subscription@cap.org
www.cap.org

The College of American Pathologists offers two monthly publications: CAP TODAY and the Archives of Pathology & Laboratory Medicine. CAP TODAY brings monthly business and medical news in the clinical laboratory. The Archives of Pathology & Laboratory Medicine is one of the best-read journals among pathologists and laboratory directors. Samples are available.

PRODUCT CATEGORIES

Other: Scientific Publications/Books/Journals; Professional Organizations/Associations

Congenica

Booth #: 1909

BioData Innovation Centre,
Wellcome Trust Genome Campus
Cambridge, Cambridgeshire CB10 1DR
United Kingdom
+44 1223499947
isabel.bains@congenica.com
www.congenica.com

Congenica is a global company founded on pioneering research from the Sanger Institute based at the Wellcome Genome Campus in Cambridge. We've translated this research into the gold standard clinical genomic analytics platform, Sapientia®, providing integration of human DNA sequences with deep clinical phenotyping, enabling clinicians to provide actionable interpretation of genetic disease for patients.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics

Technologies: Bioinformatics; Mutation/variant detection

COPAN Diagnostics, Inc.

Booth #: 622

26055 Jefferson Avenue
Murrieta, CA 92562
United States
(951) 473-4774
marketing@copanusa.net
www.copanusa.com

With a reputation for innovation, COPAN is the leading manufacturer of collection and transport systems in the world. Copan's collaborative approach to preanalytics has resulted in Flocked Swabs, ESwab, Universal Transport Medium and laboratory automation, WASP® and WASPLab. Copan carries a range of microbial sampling products, inoculation loops, and pipettes.

PRODUCT CATEGORIES

Technologies: DNA/RNA sample collection and/or preparation

Coriell Institute for Medical Research

Booth #: 1913

403 Haddon Avenue
Camden, NJ 08103
United States
(856) 966-7377
sheil@coriell.org
catalog.coriell.org

Coriell Institute is a leading biorepository delivering a diverse range of unique biospecimen. The Institute is committed to the highest standard in cell line quality services, as well as unlocking the promise of induced pluripotent stem cells and their role in disease research and drug discovery. For more information, visit **catalog.coriell.org**.

PRODUCT CATEGORIES

Testing Categories & Services: Reference materials/standards/QC or QA products

Technologies: DNA/RNA sample collection and/or preparation

Covaris, Inc.

Booth #: 605

14 Gill Street, Unit H
Woburn, MA 01801
United States
(781) 932-3959
info@covaris.com
www.covarisinc.com

Covaris is the recognized industry leader for DNA fragmentation. Adaptive Focused Acoustics® (AFA™) is the gold standard for shearing DNA and RNA in Next-Generation Sequencing applications, without GC bias or thermal-induced damage and is extensively cited in peer-reviewed research articles. Covaris Focused-ultrasonicators are recommended by all major NGS sequencing platform providers, and are used by leading Genome Centers.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Solid Tumors; Epigenetics/epigenomics

Technologies: Next Generation Sequencing; DNA/RNA sample collection and/or preparation; Cell free plasma DNA analysis (cfDNA)

Curetis USA

Booth #: 1801

10525 Vista Sorrento Pkwy, #104
San Diego, CA 92121
United States
(619) 452-3644
rick.betts@curetis.com
www.curetis.com

Curetis USA is focused on delivering fast, reliable and cost-effective molecular solutions to aid in diagnosing severe infectious diseases. Upon FDA approval, Curetis' Unyvero™ system will provide U.S. clinicians with rapid and critical information for the early detection of pathogens and resistance markers associated with lower respiratory tract infections.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: Next Generation Sequencing; DNA/RNA sample collection and/or preparation

DenLine Uniforms, Inc.

Booth #: 400

301 Oak Street
Quincy, IL 62301
United States
(217) 228-9272
customerservice@denlineuniforms.com
www.denlineuniforms.com

Manufacturer of DenLine Protection Plus Fluid Resistant Reusable PPE Lab Coats for all Medical Laboratory Applications, including Molecular. Tested Clean Room Level ISO 5 (Class 100) Lint Free, Anti-static Fabric, Choice of Styles and Colors with varying levels of Air Permeability and Fluid Resistance Available, Sizes XS to 5XL. Durable Designs, Hot Water Commercial Wash Tested through 200 washes.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Diagnomics Inc.

Booth #: 1628

5795 Kearny Villa Rd
San Diego, CA 92123
United States
(858) 345-4817
info@diagnomics.com
www.diagnomics.com

Diagnomics Inc. is a personalized medicine company. Diagnomics provides full personal genome analysis services using microarrays, sequencing and bioinformatics solutions to biomedical researchers, physicians and consumers. Diagnomics is a CLIA-certified and CAP-accredited laboratory offering genomics laboratory platform services and HIPAA-compliant cloud-based analysis solutions for clinics including NIPT tests, hereditary cancer tests and Hospital Acquired Infection and Drug Resistance Test.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/ epigenomics; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics; Reference materials/ standards/QC or QA products

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Bioinformatics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

DiaSorin Molecular, LLC

Booth #: 401

11331 Valley View Street
Cypress, CA 90630
United States
(562) 240-6500
Marketing-Info_molecular@diasorin.com
www.focusdx.com

DiaSorin Molecular LLC manufactures and distributes molecular diagnostic products worldwide helping laboratories to streamline workflow and improve patient management. Our Simplexa® molecular menu includes kits for HSV-1 & 2, Flu A/B & RSV, Group A Strep and C. difficile. Additionally, our menu includes over 50 primer pairs and general purpose molecular reagents.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Dream Diagnostics Medicine

Booth #: 1705

3rd Floor, Zhushikou East Street No.13,
Dongcheng District
Beijing, 100050
China
8.6106882e+011
will@ivdchina.com
www.ivdchina.com

Established in 2006, DDM is the first and biggest regulatory and clinical trial consulting firm in China that specializes in the needs of medical device and IVD companies. As an ISO certified company with a solid understanding of local and global needs, we offer a wide range of quality assurance, regulatory, clinical trial, marketing supports and headhunting services.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions;Infectious Diseases;Leukemias and Lymphomas;Solid Tumors;Epigenetics/ epigenomics;Pharmacogenetics/ genomics;Reference laboratory testing services;Clinical informatics/ Bioinformatics;Reference materials/standards/QC or QA products;Gene

Technologies: Next Generation Sequencing;Microarrays;FISH/IS ;Sequencing;Bioinformatics;Proteomics;Laboratory Information Systems;Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers;IHC;DNA/RNA sample collection and/or preparation;Mutation/variant detection;Microscopy;Mass Spectrometry;Single Cell Analysis;Cell free plasma DNA analysis (cfDNA);Circulating tumor cell analysis (CTC)

Other: Scientific Publications/Books/ Journals;Professional Organizations/ Associations;Media Organizations

Exhibitor Company Descriptions

DxNA LLC

Booth #: 1706

180 North 300 East, Ste 201
St George, UT 84770
United States
(435) 628-0324
lori.christiansen@dxna.com

DxNA LLC
www.dxna.com

DxNA's primary focus is on bringing the benefits of infectious disease molecular testing to underserved community hospitals and clinics so that critical diagnostic information is more readily and quickly available. Using this information in a more timely manner has been shown to impact clinical decision making, improve patient outcomes and lower treatment costs.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Edge BioSystems

Booth #: 519

201 Perry Parkway, Suite 5
Gaithersburg, MD 20877
United States
(301) 990-2685
customerservice@edgebio.com
www.edgebio.com

Edge Biosystems manufactures DNA purification products to clean-up PCR and Sanger/CE sequencing reactions. Our DTR products are used by virtually all molecular genetic testing labs, both academic and commercial, performing Sanger-based confirmation of NGS-generated variants to remove the BigDye® Terminators from their cycle sequencing reactions prior to sequencing.

PRODUCT CATEGORIES

None Listed

Edico Genome

Booth #: 1802

3344 North Torrey Pines Court, Plaza Level
La Jolla, CA 92037
United States
(858) 361-5071
laura@edicogenome.com

At Edico Genome, we're helping usher in the new era of personalized medicine by enabling change in healthcare with customized treatments and data-driven insights tailored to the individual. By increasing the speed and accuracy for NGS data analysis, our computing platform makes it easier to discover links between DNA sequence variations and human disease.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics
Technologies: Next Generation Sequencing; Sequencing; Bioinformatics

EGT-NA

Booth #: 427

34801 Campus Drive
Fremont, CA 94555
United States
(510) 791-9560
l.marion@egt-biotech.com
secure.eurogentec.com/eu-home.html

"Eurogentec, part of Kaneka Corporation, supplies high-quality reagents, kits, specialty products and custom services for genomic and proteomic research. Our IVD Division (ISO 13485 certified and GMP-compliant) provides extensive technical and project support for contract manufacturing of custom GMP oligonucleotides, ASRs and Taq DNA polymerases for Molecular Diagnostic applications use. "

PRODUCT CATEGORIES

Testing Categories & Services: Pharmacogenetics/ genomics; Reference laboratory testing services
Technologies: Next Generation Sequencing; Sequencing; Proteomics; Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation
Other: Professional Organizations/Associations

ELITechGroup Molecular Diagnostics

Booth #: 1725

21720 23rd Dr. SE
Suite 150
Bothell, WA 98021
United States
(800) 453-2725
mdx@elitechgroup.com
www.elitechgroup.com

ELITechGroup Molecular Diagnostics is showcasing ELITe InGenius®, an open, flexible, and easy to use sample-to-result solution for standardizing complex real-time PCR assay workflows. By combining automated extraction, thermal cycling, and results interpretation on a single platform, ELITe InGenius® provides laboratories unprecedented performance, and efficiency for laboratory developed procedures.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Elsevier

Booth #: 1603

1600 John F. Kennedy Boulevard
Suite 1800
Philadelphia, PA 19103
United States
(866) 416-6697
y.zayas@elsevier.com
www.elsevier.com

Elsevier is a global information analytics company that helps institutions and professionals progress science, advance healthcare and improve performance for the benefit of humanity.

PRODUCT CATEGORIES

None Listed

Exhibitor Company Descriptions

Empire Genomics

Booth #: 730

700 Michigan Avenue, Suite 200
Buffalo, NY 14203
United States
(716) 856-3873
info@empiregenomics.com
www.empiregenomics.com

Empire Genomics is a clinical molecular diagnostics company. We offer a comprehensive menu of products and services that are used in guiding precise treatments for patients. We work together with our clinical and biopharmaceutical clients to create innovative and custom solutions to make personalized medicine a reality. Visit our website at **www.empiregenomics.com**.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/genomics; Reference laboratory testing services

Technologies: Next Generation Sequencing; FISH/ISH; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Circulating tumor cell analysis (CTC)

EntroGen

Booth #: 727

20950 Warner Center Lane
Woodland Hills, CA 91367
United States
(818) 716-1070
info@entrogen.com
www.entrogen.com

EntroGen is a Los Angeles-based biotechnology company with a primary focus on molecular diagnostics in the areas of hematology and oncology. EntroGen has a growing commercial portfolio of real-time PCR and NGS based tests, with many of its products being used to guide and monitor targeted therapies for various malignancies.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors

Technologies: Next Generation Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

Enzo Life Sciences

Booth #: 930

10 Executive Blvd
Farmingdale, NY 11735
United States
(631) 694-7070 1319
trahman@enzolifesciences.com
www.enzolifesciences.com

Enzo is an integrated diagnostics company focused on developing assays and services to improve healthcare. Our labeling and detection technologies are backed by innovative platforms and a deep patent portfolio. Enzo provides a wide array of tools for IHC and ISH detection. We continue to lead the market with our PATHOGENE® HPV Detection Assays and BIOPROBE® Virus Detection Assays.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Reference laboratory testing services

Technologies: Microarrays; FISH/ISH; IHC; Single Cell Analysis

Epigenomics, Inc.

Booth #: 1407

20271 Goldenrod Lane, Suite 2027
Germantown, MD 20876
United States
(240) 386-8702
jordan.devos@epigenomics.com
www.epigenomics.com

Epigenomics is a molecular diagnostics company focused on the development of blood-based DNA methylation tests for the early detection of cancer. Our lead product, Epi proColon, is the first and only FDA approved blood-based test for colorectal cancer screening. Epi proColon detects methylated Septin 9 DNA in plasma via real time PCR.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Epigenetics/epigenomics

Technologies: DNA/RNA sample collection and/or preparation

Eppendorf North America

Booth #: 1700

102 Motor Parkway
Hauppauge, NY 11788
United States
(800) 645-3050
info@eppendorf.com
www.eppendorf.com

Eppendorf offers multipurpose and micro centrifuges; electronic, manual, and repetitive pipettes; bottletop dispensers; standard thermal cyclers; microinjectors/manipulators; spectrophotometers; tube and plate heaters and shakers; automated liquid handlers; ULT freezers, shakers, CO2 incubators and bioprocessing solutions. Also offering accompanying consumables and repair/calibration services. Now offering cell culture consumables including serological pipets, plates, flasks and dishes as well as cell imaging consumables.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; DNA/RNA sample collection and/or preparation

Exhibitor Company Descriptions

Exact Diagnostics
Booth #: 501

3400 Camp Bowie Blvd
CBH -214
Fort Worth, TX 76107
United States
(817) 585-4202
Customerservice@exactdiagnostics.com
www.exactdiagnostics.com

Exact Diagnostics is a molecular standards and controls manufacturer based in Fort Worth Texas.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

EZLife Bio Inc.
Booth #: 1803

16246 Vintage Street
North Hills, CA 91343
United States
(408) 315-4556
michael.tu@yihuobio.com
www.ezlife.bio

EZLife Bio Inc. is crafting the future of genetic testing. Using the novel EFIRM (electric field induced release and measurement) platform, EZLife Bio is growing a new ecosystem for performing accurate testing of ctDNA targets. EZLife's EFIRM electrochemical method is rapid, uses <100uL of biofluid to perform PCR-free and DNA extraction free detection of oncogenic mutations.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors; Reference laboratory testing services; Clinical informatics/Bioinformatics
Technologies: Microarrays; FISH/ISH; Bioinformatics; Proteomics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

Fabric Genomics, Inc.
Booth #: 827

1611 Telegraph Avenue, Suite 500
Oakland, CA 94612
United States
(415) 574-0377
vsawyer@fabricgenomics.com
www.fabricgenomics.com

Fabric Genomics is a global healthcare platform for genomic data analysis.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Solid Tumors; Pharmacogenetics/ genomics; Clinical informatics/Bioinformatics
Technologies: Next Generation Sequencing; Bioinformatics; Mutation/variant detection

Fluidigm Corporation
Booth #: 1105

7000 Shoreline Ct., Suite 100
South San Francisco, CA 94080
United States
(650) 266-0000
michaeline.bunting@fluidigm.com
www.fluidigm.com

Fluidigm is committed to empowering the cytometry community with research tools to deeply interrogate cell phenotypes and function. Using Fluidigm mass cytometry and trusted single-cell genomics workflows, you can obtain high-dimensional cellular phenotypes and identify changes in rare cell populations as never before. Engage with us at **fluidigm.com**.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Gene expression profiling
Technologies: Next Generation Sequencing; DNA/RNA sample collection and/or preparation; Mutation/variant detection

Foundation Medicine
Booth #: 1709

150 Second Street
Cambridge, MA 02141
United States
(617) 418-2200
connect@foundationmedicine.com
www.foundationmedicine.com

We are leading a transformation in cancer care, where each patient's treatment is informed by an understanding of the molecular changes that contribute to their disease. With comprehensive genomic profiles, support services, and a knowledge base of over 120,000 patients, we help oncologists discover more treatment options for their patients.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors; Clinical informatics/ Bioinformatics
Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; Mutation/variant detection; Circulating tumor cell analysis (CTC)
Other: Scientific Publications/Books/Journals

Exhibitor Company Descriptions

GenePOC
Booth #: 1028
360 Franquet, Suite 100
Quebec, QC G1P 4N3
Canada
+1 (418) 650-3535
info@genepoc.ca
www.genepoc-diagnostics.com

GenePOC is a company that develops cost-effective and rapid molecular devices to detect genes for Near Patient Testing and at Point-of-Care. GenePOC has developed a simple disposable and integrated instrument for the prevention and early detection of infectious diseases based on a unique centripetal technology enabling to analyse up to 8 samples per run.

PRODUCT CATEGORIES
Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/Probes and Primers; DNA/RNA sample collection and/or preparation

Genetic Signatures
Booth #: 1005
706 Patterson Place
Pacific Palisades, CA 90272
United States
(972) 571-7131
brad.hart@geneticsignatures.com
www.Genetic Signatures.com

We are the developers of 3base™ technology which is the cornerstone of our EasyScreen™ Pathogen Detection Kits. Our proprietary technology provides hospital and pathology laboratories with the molecular tools to screen for a wide array of infectious pathogens in a rapid high-throughput environment.

PRODUCT CATEGORIES
Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/Probes and Primers; Mutation/variant detection

Genialis
Booth #: 902
2726 Bissonnet Street, Suite 240-374
Houston, TX 77005
United States
(832) 356-4612
info@genialis.com
www.genialis.com

Genialis software delivers insights from your NGS data. Our wholly configurable workflows accommodate virtually any level of inquiry, whether interrogating the genome, transcriptome, or epigenome. Automate your validated pipelines for scalable, reproducible, traceable analyses. Interactive visualizations empower non-computational scientists and data gurus alike to find answers, even to the questions you didn't think to ask.

PRODUCT CATEGORIES
Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Clinical informatics/Bioinformatics; Gene expression profiling
Technologies: Next Generation Sequencing; Microarrays; Bioinformatics

GenMark Diagnostics
Booth #: 1301
5964 La Place Court
Carlsbad, CA 92008
United States
(760) 448-4300
info@genmarkdx.com
www.genmarkdx.com

GenMark Diagnostics is a leading provider of automated, multiplex molecular diagnostic testing systems. Utilizing GenMark's proprietary eSensor detection technology, GenMark's eSensor XT-8 system and ePlex sample-to-answer systems are designed to support a broad range of molecular diagnostic tests with a compact, easy-to-use workstation and self-contained, disposable test cartridges.

PRODUCT CATEGORIES
None Listed

GENOMENON
Booth #: 1503
3135 S. State Street, Suite 350 BR
Ann Arbor, MI 48108
United States
(734) 794-3075
info@genomenon.com
www.genomenon.com

Genomenon has eliminated manual searches for gene and variant curation with its genomic search engine for clinical decision-making. Our flagship product, Mastermind, provides immediate insight into millions of scientific articles from the primary medical literature.

By indexing millions of genomic-related articles, Mastermind is the only comprehensive genomic search engine for pathologists to quickly and accurately assess disease-causing variants.

PRODUCT CATEGORIES
Testing Categories & Services: Clinical informatics/Bioinformatics
Technologies: Bioinformatics; Mutation/variant detection

GenomeWeb
Booth #: 1812
40 Fulton Street, Floor 10
New York, NY 10038
United States
(212) 651-5621
btoner@genomeweb.com
www.genomeweb.com

GenomeWeb is an independent online news organization based in New York. Our editorial mission is to cover the scientific and economic ecosystem spurred by the advent of high-throughput genome sequencing. We operate the largest online newsroom focused on advanced molecular research tools in order to provide our readers with exclusive news and in-depth analysis of this rapidly evolving market.

PRODUCT CATEGORIES
Other: Media Organizations

GenomOncology

Booth #: 1110

1375 East 9th Street, Suite 1120
Cleveland, OH 44114
United States
(440) 617-6087
Baiju@genomoncology.com
www.GenomOncology.com

GenomOncology is a healthcare technology company enabling precision medicine by transforming genomic data into actionable information.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; Mutation/variant detection

Genoptix Medical Laboratory

Booth #: 1800

1811 Aston Avenue
Carlsbad, CA 92008
United States
(800) 755-1605
radams@genoptix.com
www.genoptix.com

At Genoptix, we specialize in oncology diagnostics and informatics services. As one of the largest hematopathology centers in the U.S., we provide community oncologists and pathologists with comprehensive testing solutions in hematology and solid tumor molecular profiling. With reliable and clinically actionable reports, we empower clinicians to make more informed decisions and provide better patient care.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Reference laboratory testing services; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; FISH/ISH; Sequencing; Bioinformatics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation

Genotech Matrix

Booth #: 409

555 Long Wharf Drive,11th Floor
New Haven, CT 06511
United States
(646) 418-6306
mtobin@genotechmatrix.com
www.genotechmatrix.com

Genotech Matrix, a New Haven, CT based healthcare technology company, is focused on delivering superior bioinformatics and precision medicine solutions, including locally integrated knowledgebases, that provide accurate, efficient and cost-effective results to biotechnology, hospital and pharmaceutical industries to improve the health of patients worldwide.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/ genomics; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Mass Spectrometry; Single Cell Analysis

GenPath Diagnostics, BioReference Laboratories

Booth #: 524

481 Edward H. Ross Drive
Elmwood Park, NJ 07407
United States
(800) 229-5227 ext. 8205
msansing@bioreference.com
www.genpathdiagnostics.com

GenPath, a CLIA and CAP certified national oncology laboratory, offers unmatched expertise and a comprehensive test menu. From routine clinical to advanced genomic testing for tumor sequencing and hereditary cancers, the full testing spectrum for cancer patients is covered. GenPath is a division of BioReference Laboratories, an OPKO Health Company.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors; Reference laboratory testing services

Technologies: Microarrays; FISH/ISH; Sequencing; Mutation/variant detection

Hamilton Company

Booth #: 1824

4970 Energy Way
Reno, NV 89502
United States
(775) 858-3000
kelli.cavallaro@hamiltoncompany.com
hamiltoncompany.com

Hamilton Company is a leading global provider of laboratory instruments and solutions in biopharmaceuticals, forensics, and clinical diagnostics. Hamilton provides automated sample processing solutions designed for your lab;

- Immunoassa
- Mass Spectrometry sample prep
- Liquid liquid extraction
- Molecular diagnostics
- Clinical genomics

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; Proteomics; DNA/RNA sample collection and/or preparation; Mass Spectrometry

Health Decisions

Booth #: 1712

2510 Meridian Parkway
Durham, NC 27713
United States
(919) 967-1111
lhammill@healthdec.com
www.healthdec.com

Health Decisions CRO+ is a full-service CRO providing excellence in every aspect of clinical research. We are the customer-focused specialty CRO of choice for diagnostics, medical device, precision medicine and pharma companies. We have consistently delivered clinical development success for our sponsors through our people, performance and transparency. Our clinical experts look forward to meeting you at booth 413.

PRODUCT CATEGORIES

None Listed

CORPORATE PARTNER

Hologic

Booth #: 1018

10210 Genetic Center Drive
San Diego, CA 92121
United States
(781) 999-7300
info@hologic.com
www.hologic.com/en/laboratory-solutions/overview/

Hologic is committed to improving lives through the development of premium diagnostics utilizing the latest technology for molecular testing, cervical health screening and cytology preparation. We continue to expand our offering with superior automation platforms and a growing menu of molecular tests for infectious diseases. Our clinical diagnostics solutions are designed to benefit laboratories, clinicians and the patients they serve.

PRODUCT CATEGORIES

None Listed

Horizon Discovery LTD

Booth #: 1013

Building 8100, Cambridge Research Park, Waterbeach
Cambridge, CB25 9TL
United Kingdom
44 1223 976126
amy.cowan@horizondiscovery.com
www.horizondx.com

Horizon Diagnostics is a leading provider of genetically defined, human genomic reference standards, including FFPE cell line sections and purified genomic DNA. These standards offer a sustainable source of reference material to laboratories, proficiency schemes and manufacturers, providing an unprecedented level of control.

PRODUCT CATEGORIES

None Listed

HTG Molecular

Booth #: 1130

3430 E. Global Loop
Tucson, AZ 85706
United States
(520) 289-0526
rchesser@htgmolecular.com
www.htgmolecular.com

Headquartered in Tucson, Arizona, HTG's mission is to empower precision medicine at the local level. In 2013 HTG commercialized its HTG Edge instrument platform and a portfolio of RNA assays that leverage HTG's proprietary nuclease protection chemistry. HTG's product offerings have since expanded to include its HTG EdgeSeq product line, which automates sample and targeted library preparation for next-generation sequencing.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Gene expression profiling

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics

iCubate

Booth #: 1009

601 Genome Way, Suite 3005
Huntsville, AL 35806
United States
(855) 256-3330
amy.mata@icubate.com

iCubate® developed arm-PCR - an innovative multiplex PCR technology, and iCubate® 2.0 - an open access business model, for use on the iCubate® System - a fully automated diagnostic instrument. The integrated iCubate® System enables extraction, multiplexed amplification and detection automatically in a closed and disposable cassette. Clinical and research possibilities are infinite.

PRODUCT CATEGORIES

None Listed

CORPORATE PARTNER

Illumina, Inc.

Booth #: 1229

5200 Illumina Way
San Diego, CA 92122
United States
(858) 882-1690 85888
tdavis1@illumina.com
www.illumina.com

Illumina provides innovative sequencing and array-based solutions for genotyping, copy number variation analysis, methylation studies, gene expression profiling, and low-multiplex analysis of DNA, RNA, and protein. We also provide tools and services that are fueling advances in consumer genomics and diagnostics; paving the way for molecular medicine and ultimately transforming healthcare.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Bioinformatics; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

IncellDx, Inc.

Booth #: 1819

1700 El Camino Real
Menlo Park, CA 94027
United States
(650) 777-7630
chrism@incelldx.com

IncellDx, Inc. is a single cell diagnostic company committed to advancing Precision Medicine by offering transformative diagnostic and prognostic clinical patient information based on an innovative technology platform that enables simultaneous cell classification and single cell analysis of proteomic and genomic biomarkers.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors

Technologies: Single Cell Analysis

InteGen LLC

Booth #: 1830

8865 Commodity Circle, Suite 2
Orlando, FL 32819
United States
(321) 946-0403
rbabu@integenllc.com
www.integenllc.com

InteGen LLC is a diagnostic reagent manufacturing company that has developed the disruptive technology Interphase Chromosome Profiling (ICP). Our ICP FISH probes have clinical applications in cancer cytogenetics and genetic testing (miscarriages, pre- and perinatal diagnoses, IVF). Our clients get results faster (often < 1 hour), guaranteed results (near 100%) without fail, and more information than karyotype and regular FISH.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors

Technologies: FISH/ISH; Single Cell Analysis; Circulating tumor cell analysis (CTC)

Integrated DNA Technologies

Booth #: 910

1710 Commercial Park
Coralville, IA 52241
United States
(319) 665-7248
fasad@idtdna.com
www.idtdna.com

Integrated DNA Technologies (IDT) is the world leader in delivering custom nucleic acid products for life sciences and medical research, serving academic, clinical, biotechnology, pharmaceutical development, and agricultural research communities. IDT product applications include qPCR, gene construction, CRISPR-Cas9 genome editing, next generation sequencing, and functional genomics.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; FISH/ISH; Sequencing; Digital PCR (cPCR)/PCR/qPCR/Probes and Primers; Mutation/variant detection; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Intermountain Precision Genomics

Booth #: 629

292 S 1470 E
St George, UT 84790
United States
(435) 251-5780
genomics@imail.org
precisioncancer.org

Working at the forefront of medical science and technology, Intermountain Precision Genomics leverages the power of next-generation sequencing and state-of-the-art genomic technology to enable translational research. We are a dedicated group inside Intermountain Healthcare compiled of scientists, physicians and technicians under visionary leadership, fueled by a passion to deliver on the promise of personalized treatments to improve patients' lives.

PRODUCT CATEGORIES

None Listed

CORPORATE PARTNER

Invivoscribe Technologies, Inc.

Booth #: 419

6330 Nancy Ridge Drive, Suite 106
San Diego, CA 92121
United States
(858) 224-6600
marketing@invivoscribe.com
www.invivoscribe.com

Invivoscribe® is an ISO13485 compliant cGMP manufacturer of standardized reagents and bioinformatics software used by LabPMM clinical labs and >700 customers. Products include the FDA-approved LeukoStrat® CDx FLT3 Mutation Assay, RUO and CE-marked assays for capillary and NGS platforms. Kits, gene panels, and MRD assays (Ig, TCR, FLT3, NPM1) are used to stratify/enroll subjects and track malignancies in clinical trials.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Reference laboratory testing services; Reference materials/standards/QC or QA products

Technologies: Next Generation Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Mutation/variant detection

Isohelix

Booth #: 928

Unit 2 Roebuck Business Park,
Ashford Road
Harrietsham, Kent ME171AB
United Kingdom
+44 1622 851177
tom.hole@isohelix.com
www.isohelix.com

Isohelix manufactures DNA and RNA High Yielding Saliva and Buccal Swab Sampling Collectors, various DNA/RNA Stabilization options for long term room temperature storage and High Purity Isolation/Purification Kits for manual and automated applications. Separate Kit are also available for Blood and Buffy coat DNA stabilisation and extraction.

PRODUCT CATEGORIES

Testing Categories & Services: Epigenetics/ epigenomics; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Sequencing; DNA/RNA sample collection and/or preparation

Journal of Precision Medicine

Booth #: 1625

10388 Tremont Drive
Fishers, IN 46037
United States
(317) 762-7220
nrussell@thejournalofprecisiomedicine.com
www.thejournalofprecisionmedicine.com

The Journal of Precision Medicine is the world's first print publication to discuss the key global issues surrounding the Precision Medicine landscape. It does so by connecting both ends of the life science continuum - the compelling discoveries in molecular research with the critical needs of the patient in the clinical setting. Free Subscriptions available!

PRODUCT CATEGORIES

Other: Media Organizations

KMC Systems

Booth #: 600

220 Daniel Webster Hwy.
Merrimack, NH 03054
United States
(866) 742-0442
michael.kallelis@elbitsystems-us.com
www.kmcsystems.com

KMC Systems partners with leading instrument companies to successfully bring their complex molecular diagnostic instrumentation to market. As an engineering and manufacturing firm, KMC has expertise in full hardware, software and electrical design, chemistry integration, thermal analysis & control, robotics, optics, fluidics, precision automation, complex assembly, integration and testing. Visit us at Booth #600 & **www.KMCSystems.com** to learn more.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Next Generation Sequencing; Microarrays; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mass Spectrometry; Circulating tumor cell analysis (CTC)

Lathrop Engineering, Inc.

Booth #: 829

18635 Sutter Blvd.
Morgan Hill, CA 95037
United States
(408) 778-7600 7615
teinal@lathropengineering.com
www.lathropengineering.com

Lathrop, now a Paramit company, specializes in the design and manufacturing of medical and life science instrumentation. Our proven processes simplify complex product development from concept to commercial product. Eliminating NPI, our new 'transferless' manufacturing gets products to market in < 24 months and ensures better than best-in-class quality.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; Mass Spectrometry

LexaGene

Booth #: 2024

100 Cummings Center, Suite 207-P
Beverly, MA 1915
United States
(800) 215-1824
jackregan@lexagene.com
www.lexagene.com

LexaGene is developing a pathogen-detection instrument that can process six liquid samples at a time, returning results in ~1 hour. Using microfluidics, the instrument concentrates pathogens and then purifies the DNA and RNA before assembling and performing 22 qPCR tests. Its open-access feature allows end users to load their own assays onto the instrument for customized genetic testing.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection

LRE Medical GmbH (Esterline Corporation)

Booth #: 505

771 Corte San Luis
Oceanside, CA 92057
United States
(760) 822-4299
stevebiby@me.com
www.lre.de

LRE Medical GmbH, a member of Esterline Corporation, is an award-winning contract developer and manufacturer of IVD instrumentation (handheld, point-of-care, laboratory, molecular diagnostics) for partnering companies. LRE offers "One Stop Shopping" solutions for converting customer ideas into commercially successful products. We integrate our customers' assay "know-how" with our instrumentation expertise. LRE's instruments are competitively priced, yet manufactured with superior quality!

PRODUCT CATEGORIES

Testing Categories & Services:
Technologies: Next Generation Sequencing; Microarrays; Sequencing

Lucigen Corporation

Booth #: 900

2905 Parmenter Street
Middleton, WI 53562
United States
(608) 831-9011
tradeshows@lucigen.com
www.lucigen.com

Lucigen discovers, manufactures, and commercializes molecular biology products used across the spectrum from basic research to molecular diagnostics. Today, the products and services developed at Lucigen enable life-science professionals to perform their research and testing more efficiently and effectively.

PRODUCT CATEGORIES

Testing Categories & Services: Pharmacogenetics/genomics; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

CORPORATE PARTNER

Luminex Corporation

Booth #: 1419

12212 Technology Blvd
Austin, TX 78727
United States
(512) 381-4311
VGutierrez@Luminexcorp.com
www.luminexcorp.com

Luminex is committed to creating innovative, breakthrough solutions to help our customers improve health and advance science. We serve the needs of our customers in diverse markets including clinical diagnostics, biodefense research and food safety. Our goal is to transform healthcare and life science research by developing instruments and assays that deliver cost-effective, rapid results to clinicians and researchers.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Other: Professional Organizations/Associations

Macrogen

Booth #: 1404

1330 Piccard Drive Suite 103
Rockville, MD 20850
United States
(301) 251-1007 ext204
susanchung@macrogenlab.com
macrogenlab.com

Macrogen Celebrates 20 Years!
Macrogen has been the corporate partner of choice on genomic sequencing for many academic and commercial organizations. Our superior quality, cost effective business model and customer focused services allowed us to expand and grow into an international organization. Our twenty years of sequencing experience uniquely position us to contribute in the next generation genomic sequencing.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Reference laboratory testing services; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Bioinformatics; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Maine Molecular Quality Controls, Inc.

Booth #: 1402

23 Mill Brook Road
Saco, ME 4072
United States
(207) 885-1072
ppinette@mmqci.com
www.mmqci.com

MMQCI designs and markets unique quality controls for molecular testing for inherited disease, pharmacogenetics and infectious disease. MMQCI's easy-to-use controls contain multiple targets and can be extracted like patient samples, are non-infectious, stable and provide consistent results. INTROL™ CF Panel I is the first FDA-cleared QC for genetic testing. Custom control orders welcome at MMQCI's cGMP facility in Scarborough, Maine.

PRODUCT CATEGORIES

Testing Categories & Services:
Inherited Conditions; Infectious Diseases; Pharmacogenetics/genomics

Exhibitor Company Descriptions

Market Ready Rx, Inc.

Booth #: 1911

334 E. Padre Street
Santa Barbara, CA 93105
United States
(805) 256-1777
martha@marketreadyrx.com
www.marketreadyrx.com

Market Ready Rx is a marketing consultancy focused on bringing personalized diagnostics to market. We support global diagnostic companies to plan and execute successful commercial launches from pre-launch voice-of-the-customer assessments informing market-entry strategy to fully executed commercial launches of personalized molecular tests. We are passionate about the success of our clients and enhancing the quality of patient care.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/genomics; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Proteomics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mass Spectrometry; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Other: Professional Organizations/Associations; Media Organizations

Mayo Medical Laboratories

Booth #: 300

3050 Superior Drive NW
Rochester, MN 55905
United States
(800) 533-1710
mml@mayo.edu
MayoMedicalLaboratories.com

Mayo Medical Laboratories is a global reference laboratory operating within Mayo Clinic's Department of Laboratory Medicine and Pathology. Mayo Medical Laboratories has supported community-based laboratory medicine for more than 45 years, providing both complex testing and pathology consultation to more than 5,000 hospital, clinics and laboratories in the United States and around the world.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Reference laboratory testing services

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing

MedicalLab Management Magazine

Booth #: 1900

30 Garber Square Suite A
Ridgewood, NJ 07450
United States
(201) 670-0077
cwong@ridgewoodmedia.com
www.MedLabMag.com

MedicalLab Management (MLM) is the peer-to-peer information source for clinical laboratory management. Featuring concise, unbiased articles and practical, actionable, real-world examples, MLM delivers valuable content in a meaningful way. Visit our website (**www.MedLabMag.com**) to learn why MLM readers find our content to be the most useful content there is.

PRODUCT CATEGORIES

Other: Media Organizations

Menarini Silicon Biosystems

Booth #: 1329

10355 Science Center Drive, Suite 210
San Diego, CA 92121
United States
(800) 381-4929
cost@siliconbiosystems.com
www.siliconbiosystems.com

Menarini Silicon Biosystems' DEPArray™ NxT technology can sort and recover individual or groups of tumor cells with 100% purity. The DEPArray system is able to recover single circulating tumor cells from blood samples or separate tumor cells from stromal cells in FFPE tissue preps. The method is compatible with molecular characterization of tumor cells via NGS, CNV, or expression profiling.

PRODUCT CATEGORIES

Technologies: Single Cell Analysis; Circulating tumor cell analysis (CTC)

Meridian Bioscience, Inc.

Booth #: 610

3471 River Hills Drive
Cincinnati, OH 45244
United States
(513) 271-3700
linda.derose@meridianbioscience.com
www.meridianbioscience.com

Meridian Bioscience is a leading manufacturer of innovative diagnostic tests, purified reagents and biopharmaceutical enabling technologies that help deliver answers. Our products provide accuracy, simplicity and speed for the early diagnosis and treatment of medical conditions, such as C. difficile, Group B Streptococcus, H. pylori, foodborne diseases and respiratory infections.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Exhibitor Company Descriptions

MetaSystems Group, Inc.

Booth #: 704

70 Bridge Street, Suite 100
Newton, MA 02458
United States
(617) 924-9950
sales@metasystems.org
www.metasystems.org

MetaSystems is a leading manufacturer of genetic imaging (high throughput) slide scanning systems and high quality DNA FISH probes for clinical laboratories. We offer innovative solutions for automated interphase FISH spot counting with RapidScore technology, TissueFISH and TMA analysis in fluorescence and brightfield, pathology whole slide imaging, metaphase search, and automatic karyotyping.

PRODUCT CATEGORIES

None Listed

Microbiologics

Booth #: 911

200 Cooper Ave N
Saint Cloud, MN 56303
United States
(320) 229-7057
tholig@microbiologics.com
www.microbiologics.com

Microbiologics, the world's #1 provider of ready-to-use biological controls, has everything your laboratory needs for Quality Control. We're your single source for over 900 QC microorganisms in a variety of formats including qualitative cultures, inactivated pathogens, synthetic molecular standards and more! Stop by booth #911 to learn more about our new controls for QC of molecular diagnostic assays and instruments!

PRODUCT CATEGORIES

Testing Categories & Services: Reference materials/standards/QC or QA products

Micronics, Inc.

Booth #: 513

8463 154th Avenue NE
Redmond, WA 98052
United States
(425) 895-9197
ddelong@micronics.net
www.micronics.net

Micronics develops products for near patient infectious disease molecular tests. The PanNAT® System is a fully automated instrument that provides results in approximately 1 hour. All assay steps including extraction/purification, PCR and detection are performed automatically. The instrument features an intuitive on board GUI, battery backup, Wi-Fi and LIS/HIS interface capability. All reagents are included in the Test Cartridge.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

Molecular Health

Booth #: 906

70 Fargo Street suit 900, Suite 125
Boston, MA 02210
United States
(617) 901-5939
alex.picozza@molecularhealth.com
www.molecularhealth.com

Molecular Health is a computational biomedicine company focused on big-data curation, integration, and analytics to enable precision medicine. The company has developed Dataome®, a top quality-curated, interoperable technology system comprising a large set of databases and analytics that allow the integration and referencing of clinico-molecular drug and disease data to generate novel and actionable insights on drug outcomes. **www.molecularhealth.com**.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics
Technologies: Bioinformatics

MRC-Holland

Booth #: 410

Willem Schoutenstraat 1
Amsterdam, 1057 DL
Netherlands
+0031 88 8657200
info@mlpa.com
www.mlpa.com

Multiplex Ligation-dependent Probe Amplification (MLPA®) is the gold standard for DNA copy number quantification and is used worldwide to study both hereditary disorders and tumours. MLPA can also be applied to investigate the methylation status of DNA sequences. Up to 60 DNA sequences can be analysed in a single reaction in high-throughput manner, with results being available within 24h.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics

MRIGlobalDx

Booth #: 825

425 Volker Blvd.
Kansas City, MO 64110
United States
(321) 308-6919
psharitz-tesch@mriglobal.org
www.mriglobaldx.com

MRIGlobal Dx provides fee-for service assay development for menu expansion in in-vitro and molecular diagnostics, validation and clinical testing, and platform engineering and integration. MRIGlobal Dx operates a Clinical Laboratory Improvement Amendments (CLIA)-laboratory accredited by the College of American Pathologists. MRIGlobal Dx is ISO 9001 certified, employs current Good Manufacturing Practices, Good Laboratory Practices, and maintains Biosafety Level 3 laboratories.

PRODUCT CATEGORIES

None Listed

CORPORATE PARTNER

NanoString Technologies Inc.

Booth #: 819

530 Fairview Avenue North
Seattle, WA 98109
United States
(888) 358-6266
info@nanostring.com
www.nanostring.com

NanoString® Technologies provides life science tools for translational research and molecular diagnostic products. The Company's proprietary nCounter® Analysis System offers simultaneous analysis of RNA, DNA, and protein expression with high sensitivity and precision. NanoString collaborates with multiple biopharmaceutical companies in the development of companion diagnostic tests for various cancer therapies, helping to realize the promise of precision oncology.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Gene expression profiling

Technologies: IHC; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

Natera, Inc.

Booth #: 311

201 Industrial Road, Suite 410
San Carlos, CA 94070
United States
(858) 353-2262 85835
jaliamus@natera.com
www.natera.com

Natera offers innovative liquid biopsy genetic testing including the world's leading NIPT capable of differentiating maternal and fetal cell-free DNA. Our innovation comes from being able to detect specific, minute DNA signatures in blood with applications in reproductive genetic testing, oncology, as well as other applications. Natera licenses its advanced detection technologies through its Constellation platform.

PRODUCT CATEGORIES

Testing Categories & Services: Reference laboratory testing services; Clinical informatics/ Bioinformatics

Technologies: Next Generation Sequencing; FISH/ ISH; Sequencing; Bioinformatics; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

National Jewish Health

Booth #: 805

1400 Jackson Street
Denver, CO 80206
United States
(303) 398-1669
ClinRefLabs@njhealth.org
www.njlabs.org

National Jewish Health Advanced Diagnostic Laboratories provides functional and phenotypic confirmatory testing to support the clinical diagnosis of immunodeficiency, complement and mycobacteriology infection. NEW is the 400 variant Primary Immunodeficiency sequencing panel. The Laboratories work with product developers to improve patient care by offering our clinical expertise and access to rare disease samples.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Epigenetics/ epigenomics; Pharmacogenetics/genomics; Reference laboratory testing services; Gene expression profiling

Technologies: Next Generation Sequencing; Sequencing; Proteomics; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Mass Spectrometry

NeoGenomics Laboratories

Booth #: 830

12701 Commonwealth Dr., Suite 5
Fort Myers, FL 33913
United States
(239) 768-0600
lori.ross@neogenomics.com
www.neogenomics.com

NeoGenomics Laboratories is a specialized oncology reference laboratory providing the latest testing technologies, global/tech-only options, and interactive education to the pathology community. NeoGenomics offers the complete spectrum of diagnostic services in immunohistochemistry, FISH, flow cytometry, cytogenetics, and molecular testing through our nationwide network of laboratories.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors; Reference laboratory testing services; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/ or preparation; Mutation/variant detection; Microscopy; Cell free plasma DNA analysis (cfDNA)

NeuMoDx Molecular

Booth #: 1029

1250 Eisenhower Place
Ann Arbor, MI 48108
United States
(734) 477-0111
info@neumodx.com
www.neumodx.com

NeuMoDx Molecular, Inc. is a development stage company located in Ann Arbor, MI. The NeuMoDx500 Molecular IVD System will provide hospital and clinical reference laboratories with a superior solution for in-vitro molecular diagnostic (MDx) testing.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases
Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

New England Biolabs

Booth #: 710

240 County Road
Ipswich, MA 01938
United States
(978) 380-7352
info@neb.com
www.neb.com

For over 40 years, New England Biolabs, Inc. has led the industry in the supply of molecular biology reagents. In addition to products for genomics, NEB continues to expand its offering into areas related to PCR, gene expression, sample preparation for next generation sequencing, synthetic biology, glycobiology, genome editing, epigenetics and RNA analysis.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; Proteomics; Digital PCR (cPCR)/PCR/ qPCR/ Probes and Primers

NIH/NLM/NCBI

Booth #: 706

2304 Lathrop Ct.
Fort Collins, CO 80526
United States
(301) 318-1671
katherine.harpster@mscweb.com
www.ncbi.nlm.nih.gov/gtr

The National Center for Biotechnology Information (NCBI) at NIH advances science and health by providing access to biomedical and genomic information. Resources for medical genetics include MedGen, the Genetic Testing Registry (GTR) and ClinVar.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics
Technologies: Bioinformatics
Other: Scientific Publications/Books/Journals

N-of-One, Inc.

Booth #: 1504

561 Virginia Road, Suite 300
Concord, MA 01742
United States
(617) 202-9808
emily.haynes@n-of-one.com
www.n-of-one.com

N-of-One partners with leading hospital systems, cancer centers, and commercial labs to deliver clinical interpretation for precision oncology. N-of-One's expert-powered solutions, supported by the latest relevant scientific evidence, have provided personalized treatment options, including clinical trials, to clinicians for tens of thousands of patient cases across hundreds of cancer types.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Solid Tumors; Clinical informatics/ Bioinformatics
Technologies: Next Generation Sequencing; Bioinformatics

Norgen Biotek Corp.

Booth #: 411

3430 Schmon Parkway
Thorold, ON L2V 4Y6
Canada
+(905) 227-8848
info@norgenbiotek.com
www.norgenbiotek.com

Norgen Biotek provides researchers with innovative kits for Sample Collection/Preservation [cf-DNA from Blood/Plasma/Serum, Urine, Saliva], Molecular Diagnostics (MDx), and microRNA/RNA/DNA/Protein Purification. Our kits feature exceptional quality, ease-of-use and sensitivity. Norgen Biotek provides researchers worldwide with the tools to address any sample preservation and preparation challenge.

PRODUCT CATEGORIES

Testing Categories & Services: Pharmacogenetics/ genomics; Reference laboratory testing services
Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; DNA/RNA sample collection and/or preparation

Olympus America Inc.

Booth #: 1604

48 Woerd Avenue
Waltham, MA 02453
United States
(508) 804-2845
robin.assencoa@olympus.com
www.olympusamerica.com

Olympus is an international precision technology leader operating in industrial, medical, academic, and consumer markets, specializing in optics, electronics, and precision engineering. As a subsidiary of Olympus Corporation, Olympus Corporation of Americas' core product lineup comprises clinical, educational, and research microscopes, nondestructive testing equipment, and analytical instruments, all designed with an unwavering commitment to enhancing people's lives every day.

PRODUCT CATEGORIES

Technologies: Microscopy

Omega Bio-Tek

Booth #: 1708

400 Pinnacle Way Suite 450
Lawrenceville, GA 30071
United States
(770) 931-8400
info@omegabiotek.com
www.omegabiotek.com

Omega Bio-Tek manufactures a complete line of DNA|RNA isolation kits utilizing magnetic beads and silica filter technology for both high throughput facilities and individual labs. Offering Plant, Plasmid, Tissue, and Blood DNA and RNA Purification and PCR Clean-up systems, Omega Bio-tek provides an affordability and selection that is unmatched.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; Cell free plasma DNA analysis (cfDNA)

Oracle Health Sciences

Booth #: 304

Thames Valley Park
Reading, Berkshire RG40 4EP
United Kingdom
+447748321260
clare.gaul@oracle.com
www.oracle.com/healthsciences

Oracle Healthcare turns comprehensive data from any source into a complete, unified and trustworthy picture of patient and population health to improve outcomes while lowering costs.

PRODUCT CATEGORIES

Technologies: Sequencing; Bioinformatics

Oxford Gene Technology

Booth #: 601

520 White Plains Road, Suite 500
Tarrytown, NY 10591
United States
(914) 467-5285
contact@ogt.com
www.ogt.com

Oxford Gene Technology (OGT) provides world-class genetics research solutions to leading institutions worldwide. Our integrated product portfolio enables accurate identification of variation to facilitate understanding of genetic disease. Visit the OGT booth to learn more about our focus on customised solutions and high-quality Cytocell® FISH probes, SureSeq™ next generation sequencing (NGS) panels, and CytoSure™ array products.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Leukemias and Lymphomas; Solid Tumors

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing

Oxford Nanopore Technologies

Booth #: 1400

Edmund Cartwright House,
Oxford Science Park
4 Robert Robinson Avenue
Oxford, OX4 4GA
United Kingdom
+44 (0) 1865 335 521 1936
Kim.Cowan@nanoporetech.com
nanoporetech.com

Oxford Nanopore Technologies has developed the world's first nanopore DNA sequencer. MinION™ is a portable, real-time, long-read device designed to bring biological analyses to anyone, in scientific research or real-world applications. Desktop PromethION™ provides high-throughput, high sample-number analysis, and mobile phone-compatible SmidgION™ is designed to enable analyses in any environment.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

CORPORATE PARTNER

Paragon Genomics, Inc.

Booth #: 527

paragongenomics.com, Suite 1
Hayward, CA 94545
United States
(650) 822-7370
tao@paragongenomics.com
www.paragongenomics.com

Paragon Genomics develops technology to streamline Next-Generation Sequencing (NGS) targeted library preparation through a proprietary background removal solution. CleanPlex™ technology, developed by genomic research experts and bioinformaticians, eliminates non-specific PCR products generated during multiplex PCR reactions. CleanPlex™ technology provides >98% uniformity and >97% specificity, paramount to NGS segments such as cancer research, liquid biopsy, biomarker discovery, and personalized medicine.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/ epigenomics; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; Digital PCR (cPCR)/ PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Exhibitor Company Descriptions

PerkinElmer
Booth #: 1401
710 Bridgeport Avenue
Shelton, CT 6484
United States
(800) 762-4000
andrea.feher@perkinelmer.com
www.perkinelmer.com

PerkinElmer is a global leader focused on improving the health and safety of people and the environment. Our innovative detection, imaging, software, reagents and services solutions accelerate discovery in core areas of research including: next generation DNA sequencing, featuring our chemagen technology, epigenetics, genomics, cellular research, quantitative pathology, in vivo imaging, biotherapeutics and informatics.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; DNA/RNA sample collection and/or preparation; Cell free plasma DNA analysis (cfDNA)

Personal Genome Diagnostics
Booth #: 1000
2809 Boston Street
Baltimore, MD 21224
United States
(443) 602-8833
info@personalgenome.com
www.personalgenome.com

PGDx's comprehensive genomic technologies empower the fight against cancer. PGDx is driving toward broad patient access to its genomic approaches, through a CLIA-certified facility providing comprehensive genomic services, as well as its PROGENEUS™ technology transfer solution and in vitro diagnostic products to enable other molecular laboratories to easily internalize testing.

PRODUCT CATEGORIES

Testing Categories & Services: Solid Tumors; Reference laboratory testing services; Clinical informatics/Bioinformatics; Reference materials/standards/QC or QA products

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Circulating tumor cell analysis (CTC)

Philips Healthcare
Booth #: 1309
2 Canal Park
Cambridge, MA 02141
United States
(978) 995-9846
autri.dutta@philips.com
www.philips.com/genomics

Royal Philips of the Netherlands is a leading health technology company focused on improving people's health and enabling better outcomes across the health continuum from healthy living and prevention, to diagnosis, treatment and home care. Philips leverages advanced technology and deep clinical and consumer insights to deliver integrated solutions. Philips is demonstrating an end-to-end precision medicine platform at AMP.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics

Technologies: Bioinformatics

Phosphorus
Booth #: 2008
25 W. 26th Street, 3rd Floor
New York, NY 10010
United States
1-855-746-7423
scarlett@phosphorus.com

Phosphorus is a computational genomics company with the vision to create a world where every healthcare decision is optimized with genomics. Founded in 2016 and based in New York City, Phosphorus develops powerful data-driven software that enables labs around the world to deliver the most advanced clinical genetic tests.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions;Pharmacogenetics/genomics;Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; Digital PCR (cPCR)/ PCR/qPCR/ Probes and Primers

PierianDx
Booth #: 1613
77 maryland plaza,
St. Louis, MO 63108
United States
(678) 371-2045 67837
brad.herrick@pieriandx.com
pieriandx.com

If you operate a clinical lab seeking to build or expand your genomic testing, we can help. PierianDx provides the most comprehensive, robust and integrated solution for Next Generation Sequencing (NGS) that enables labs to quickly go from raw sequencing data to actionable, informed patient diagnosis and treatment.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics

Technologies: Bioinformatics

PILLAR BIOSCIENCES

Booth #: 1724

12 Michigan Drive
Natick, MA 01760
United States
(202) 525-9547
duganb@pillar-biosciences.com
pillar-biosciences.com

Pillar Biosciences is democratizing next generation technologies to accelerate in vitro diagnostics.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Solid Tumors; Pharmacogenetics/genomics; Reference laboratory testing services

Technologies: Next Generation Sequencing; Bioinformatics; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

PreAnalytiX

Booth #: 809

Feldbachstrasse
Hombrechtikon, 8634
Switzerland
+41 201 669 2022
jeanmkpark@gmail.com
www.preanalytix.com

PreAnalytiX, a joint venture between BD and QIAGEN, develops, manufactures and sells integrated and standardized systems for sample collection, stabilization and purification of RNA, miRNA, DNA and ctDNA from human blood, bone marrow, or tissue specimens. The Company serves healthcare institutions, academic researchers, clinical laboratories and the pharmaceutical industry with a broad array of manual and automated products. Visit **www.preanalytix.com**.

PRODUCT CATEGORIES

Technologies: DNA/RNA sample collection and/or preparation; Cell free plasma DNA analysis (cfDNA)

Precision System Science USA, inc.

Booth #: 523

5673 W. Las Positas Blvd, Suite 202
Pleasanton, CA 94588
United States
(925) 960-9181
jonatan.lysen@pssbio.com
www.pss.co.jp/english

Precision System Science, for over 20 years an OEM leader in automated, self-contained instrumentation meeting the rigors of today's IVD market. We provide clinical diagnostic laboratories with solutions for extraction, purification as well as versatile sample-to-answer instruments. Complete systems with user friendly software interface, consumables and reagents. Simple, fast solutions for improving the healthcare around the world.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection

PrimBio Research Institute

Booth #: 521

665 Stockton Drive
Suite 200-I
Exton, PA 19341
United States
(610) 458-1112
primbiobiz@primbioresearch.com
www.primbioresearch.com

PrimBio is committed to provide high quality Next Generation Sequencing services with fast turnaround times and competitive prices. We offer many research services including: RNAseq, Ampliseq Exome, Targeted Exome, Targeted Gene panels and CE sequencing. We are also a CLIA certified lab and offer numerous clinically certified NGS panels.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Bioinformatics

Primerdesign

Booth #: 728

York House, School Lane
Southampton, Hampshire SO53 4DG
United Kingdom
+44 (0) 2380 748830
anoop@primerdesign.co.uk
www.primerdesign.co.uk/home

Primerdesign provides the World's broadest menu of >550 genesig real-time PCR detection kits, and fast development of new assays on demand. Additionally, it designs, validates and manufactures qPCR kits, Precision Master Mixes, controls, lyophilised reagents, and qPCR instruments.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Pharmacogenetics/genomics; Reference laboratory testing services; Reference materials/standards/QC or QA products; Gene expression profiling

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

Pro-Lab Diagnostics

Booth #: 1710

21 Cypress Blvd., Suite 1070
Round Rock, TX 78665
United States
(512) 832-9145 51283
daniel.portillo@pro-lab.us
www.pro-lab-direct.com

Pro-Lab Diagnostics established in 1974 is dedicated to the provision of high quality, cost effective immunodiagnostic and molecular products. For years we have been providing laboratories Microbank, Prolex, and other Microbiology essentials. We have recently launched our new molecular isothermal based line, ProAMP assays and Extraction kits ProMAG & Pure Pro-Spin.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Reference materials/standards/QC or QA products

Technologies: Next Generation Sequencing; DNA/RNA sample collection and/or preparation

Promega Corporation

Booth #: 1719

2800 Woods Hollow Road
Madison, WI 53711
United States
(608) 274-4330
techserv@promega.com
Promega Corporation

Promega Corporation provides innovative solutions for forensics, life science and clinical research, and molecular diagnostics. With a portfolio of more than 3,000 products, Promega has a breadth of solutions spanning the clinical laboratory's workflow. Promega is a trusted partner, with more than 30 years of manufacturing experience, to supply the robust and reliable solutions you need for your molecular assay.

PRODUCT CATEGORIES

None Listed

Psyche Systems Corporation

Booth #: 1609

25 Birch St Bldg B
Milford, MA 01757
United States
(508) 473-1500
sales@psychesystems.com
www.psychesystems.com

Psyche Systems Corporation is a private, profit-driven software company that, since 1976, has been offering best-of-breed products designed to meet the specific needs of Anatomic Pathology, Cytology, Histology, Dermatopathology, GI, Toxicology, Microbiology and Molecular laboratories. Psyche works closely with existing customers during product development to ensure that the highest quality products and services are delivered at a competitive price. **https://www.psychesystems.com**

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Reference laboratory testing services; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Laboratory Information Systems

Q^2 Solutions

Booth #: 1606

5927 S Miami Blvd., Suite 100
Morrisville, NC 27560
United States
(919) 998-1165
sarah.butler@q2labsolutions.com
www.Q2LabSolutions.com

Q^2 Solutions is a global clinical trials laboratory services organization that helps biopharmaceutical, medical device and diagnostics customers improve human health through innovation that transforms science and data into actionable medical insights. With a range of genomic services to support drug discovery, precision medicine and clinical development, our experts design smarter studies to help customers develop safer, more effective medicines.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Reference laboratory testing services; Clinical informatics/Bioinformatics; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Proteomics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Microscopy; Mass Spectrometry; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Other: Scientific Publications/Books/Journals

Exhibitor Company Descriptions

CORPORATE PARTNER

QIAGEN
Booth #: 707

19300 Germantown Rd
Germantown, MD 20874
United States
nstevens@acerexhibits.com

QIAGEN is the leading global provider of Sample to Insight solutions–transforming biological materials into valuable molecular insights. Our portfolio of consumables, instruments and bioinformatics helps customers process all volumes of samples, automate laboratory workflows and detect molecular targets, while interpreting this complex information and reporting relevant, actionable insights.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics

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Qnostics Inc.
Booth #: 1808

45 Ramsey Road, Unit 25
Shirley, NY 11967
United States
(631) 504-6450
nancycion@qnostics.com
www.qnostics.com

Qnostics specializes in the development, manufacture and distribution of independent external quality controls. Well characterized whole pathogens mimic clinical samples and monitor the entire testing process as well as supporting laboratory validation and verification. Provided in a 'ready to go' format. Qnostics is the exclusive USA distributor for QCMD Past Proficiency Panels.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Quidel Corporation
Booth #: 1010

12544 High Bluff Drive, #200
San Diego, CA 92130
United States
(858) 552-1100
tammi.ranalli@quidel.com
www.quidel.com

Quidel® Corporation is committed to enhancing health and well-being through innovative diagnostic solutions. Quidel assays use lateral-flow, direct fluorescent antibody, molecular and other technologies to improve patient outcomes with economic benefits to healthcare providers. Leading brands - QuickVue®, AmpliVue®, Lyra™, MicroVue™, D3 Direct Detection™, Thyretain®, Sofia®, and Solana™, aid in the detection and diagnosis of critical diseases and conditions.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: Microarrays

Qvella Corporation
Booth #: 926

9133 Leslie Street, Suite 110
Richmond Hill, ON L4B 4N1
Canada
+1 (289) 317-0414
info@qvella.com
www.qvella.com

At Qvella™ we are committed to dramatically reducing the time to results in microbiology. Our FAST™ (Field Activated Sample Treatment) technology is designed to enable fully-automated detection of pathogens direct from whole blood in under an hour. Join us for a demonstration of our new FAST™ ID System, which is currently for investigational use only and not available for sale.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: DNA/RNA sample collection and/or preparation

ResearchDx
Booth #: 608

5 Mason
Irvine, CA 92618
United States
(866) 225-9195
pcotter@researchdx.com
www.researchdx.com

ResearchDx is the leading Contract Diagnostics Organization (CDO) for the biopharmaceutical and diagnostic industries. We provide integrated, turn-key, flexible services that are focused on our customers' objectives. We manage the entire diagnostic development process – from initial assay concept and discovery through clinical research to regulatory approval. At ResearchDx, we take contract R&D for diagnostics to the next generation.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Pharmacogenetics/genomics; Reference laboratory testing services; Clinical informatics/Bioinformatics; Reference materials/standards/QC or QA products; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Exhibitor Company Descriptions

CORPORATE PARTNER

Roche

Booth #: 1219

9115 Hague Road
Indianapolis, IN 46256
United States
(317) 521-2000
ellen.byrum@roche.com
www.roche.com

Roche provides innovative research and clinical diagnostics solutions to help laboratories be more productive and help healthcare providers make faster, more confident therapy decisions to improve people's health. Our comprehensive portfolio includes PCR-based solutions for virology, infectious diseases, STIs/women's health, genomics and oncology; CLIA-waived PCR testing for the POC; and various solutions to enhance next generation sequencing. **www.amp.roche.com**

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Epigenetics/epigenomics; Reference laboratory testing services; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Microarrays; FISH/ISH; Sequencing; Bioinformatics; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; IHC; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Microscopy; Cell free plasma DNA analysis (cfDNA)

SCC Soft Computer

Booth #: 1501

5400 Tech Data Drive
Clearwater, FL 33760
United States
(727) 789-0100
Jordanne@softcomputer.com
www.softcomputer.com

SCC Soft Computer

The world's largest LIS vendor, SCC Soft Computer is at the forefront of laboratory, genetics, outreach, and blood services information systems software development. Committed to supplying innovative technologies, SCC designs, develops, and delivers full suites of integrated laboratory and genetics information management system solutions for hospitals, large IDNs, and laboratories.

PRODUCT CATEGORIES

None Listed

Scienion

Booth #: 828

11 Deerpark Dr, Suite 100
Monmouth Junction, NJ 08852
United States
(888) 988-3842
info@scienion.us
www.scienion.com

SCIENION offers complete solutions for precise non-concat liquid dispensing applications, multiplex assays and high throughput production of multiparameter assays in diagnostics, life and material sciences. Our single cell dispensing technology is unique in enabling very high cell recovery and viability rates from extremely small sample volumes.

PRODUCT CATEGORIES

Testing Categories & Services: Gene expression profiling

Technologies: Microarrays; DNA/RNA sample collection and/or preparation; Single Cell Analysis

Sentinel CH. SpA

Booth #: 1426

Via Robert Koch 2
Milan, 20152
Italy
+390234551456
wendyvaneindhoven@sentinel.it
www.sentinel.it

Sentinel Diagnostics is an Italian company with a long and well established background in the development and manufacturing of innovative diagnostic tests for Clinical Chemistry, Colon Cancer Screening and Molecular Biology. Since 1983, Sentinel has privileged the values of quality through technology and innovation and in over thirty years of activity the company managed to affirm its worldwide market presence.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Epigenetics/epigenomics

SeraCare Life Sciences, Inc.

Booth #: 811

37 Birch Street
Milford, MA 01757
United States
(508) 244-6400
info@seracare.com
www.seracare.com

SeraCare is a leading partner to global IVD manufacturers and clinical testing laboratories. For over 30 years we have focused on the development of technologies and products to help improve the quality and safety of diagnostic tests. Our portfolio includes quality control technologies for precision diagnostics, disease-state specimens for research and development, processed biological materials, and immunoassay reagents.

PRODUCT CATEGORIES

Testing Categories & Services: Reference materials/standards/QC or QA products

Siemens
Booth #: 905

511 Benedict Avenue
Tarrytown, NY 10591
United States
(914) 631-8000
kaiyane.bynoe@siemens.com
www.siemens.com/healthineers

Siemens Healthineers is committed to becoming the trusted partner of healthcare providers worldwide, enabling them to improve patient outcomes while reducing costs. Driven by our long legacy of engineering excellence and our pioneering approach to developing the latest advancements, we are a global leader in medical imaging, laboratory diagnostics, clinical IT, and services.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Reference laboratory testing services

SmartGene
Booth #: 1529

P O Box 99543
Raleigh, NC 27624-9543
United States
(919) 844-6145
dellis@smartgene.com
www.smartgene.com

SmartGene is a bio-informatics application service provider (ASP), delivering secure, integrated, software solutions for the analysis, interpretation and data management of genetic sequences. SmartGene provides specific medical, clinical research and epidemiological surveillance applications, focusing on the rapid identification, typing and analysis of pathogens.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Clinical informatics/ Bioinformatics

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics

SoftGenetics, LLC
Booth #: 1525

100 Oakwood Ave, Suite 350
State College, PA 16803
United States
(814) 237-9340
kyle@softgenetics.com
www.softgenetics.com

Featuring NextGENe software for analysis of all NGS data now including CNV, HLA, and Somatic Analysis modules; Geneticist Assistant NGS Workbench, a knowledge base for the archiving of variant predictions; GeneMarker with new Fragile X module; ChimerMarker, Chimerism Analysis software and Mutation Surveyor software for the analysis of Sanger Sequences. SoftGenetics is providing no cost trials of each program.

PRODUCT CATEGORIES

None Listed

SOPHiA GENETICS
Booth #: 1925

Rue du Centre 172
St-Sulpice, 1025
Switzerland
+41 21 694 10 60
jbrochant@sophiagenetics.com
www.sophiagenetics.com

Global leader in Data-Driven Medicine, SOPHiA GENETICS is a technology company which has developed SOPHiA, the collective artificial intelligence for clinical genomics, helping healthcare professionals better diagnose and treat patients. By enabling the rapid adoption of genomic testing worldwide, turning data into actionable clinical insights, and sharing knowledge through its community, SOPHiA GENETICS is democratizing Data-Driven Medicine to save lives.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics; Mutation/variant detection

Standard Molecular, Inc.
Booth #: 2012

One Broadway, 14th Floor
Cambridge, MA 02142
(617) 401-3318
nathaniel@standardmolecular.com
www.standardmolecular.com

Standard Molecular's mission is to make clinical genomic testing routine. Our tool, Continuity GIS™, is the first purpose-engineered Genomic Information System for molecular pathology. Continuity GIS™ manages molecular pathology workflow, variant analysis, annotation and signout, and sends HL7/XML discrete data to the EMR (Epic, Cerner, Meditech, Allscripts, etc.) EMR-integration of discrete molecular data enables precision medicine.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Clinical informatics/ Bioinformatics

Technologies: Bioinformatics; Laboratory Information Systems

STEMCELL Technologies, Inc.

Booth #: 1011

Suite 400 - 570 West 7th Avenue
Vancouver, BC V5Z 1B3
Canada
+1 (604) 675-7877
conferences@stemcell.com
www.stemcell.com

EasySep™ by STEMCELL Technologies allows fast and easy immunomagnetic isolation of cells to increase assay sensitivity. The EasySep™ RBC Depletion Kit isolates leukocytes by depleting red blood cells (RBC) from samples without lysis, centrifugation or other pre-processing steps that can alter cellular function or interfere with downstream applications. EasySep™ can be automated using RoboSep™, the fully automated cell separation platform.

PRODUCT CATEGORIES

Testing Categories & Services: Leukemias and Lymphomas; Pharmacogenetics/genomics; Gene expression profiling

Technologies: FISH/ISH; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Circulating tumor cell analysis (CTC)

STRATEC Biomedical AG

Booth #: 1809

Gewerbestr. 37
Birkenfeld, 75217
Germany
8187
v.eibl@stratec.com
www.stratec.com

STRATEC Molecular, part of the STRATEC group, offers products for manual and automated DNA and RNA extraction from different samples starting with sample collection, stabilization and purification. At the exhibition STRATEC Molecular will present a suite of innovative products which enable to process liquid biopsy and FFPE samples for a standardized and robost workflow, especially in the areas of oncology.

PRODUCT CATEGORIES

Technologies: DNA/RNA sample collection and/or preparation;Cell free plasma DNA analysis (cfDNA)

Streck

Booth #: 1713

7002 South 109th Street
La Vista, NE 68128
United States
(800) 843-0912
custserv@streck.com
www.streck.com

Streck is an industry leader in the development of laboratory products including a rapid real-time thermal cycler that can perform PCR in as little as 20 minutes and kits for antibiotic resistance detection. Also available are blood collection tubes that standardize methods for sample collection, stabilization and transport.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases

Technologies: DNA/RNA sample collection and/or preparation; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Sunquest Information Systems

Booth #: 510

3300 E. Sunrise Drive
Tucson, AZ 85718
United States
(520) 955-0496
tina.newman@sunquestinfo.com
www.sunquestinfo.com

Sunquest Information Systems Inc. provides diagnostic informatics solutions to more than 1,700 laboratories. Since 1979, we have helped labs and healthcare organizations enhance efficiency, improve patient care, and optimize financial results. Our solutions enable world-class lab capabilities, including multisite, multi-disciplinary support for complex anatomic, molecular and genetic testing, and engagement with physicians and patients outside the hospitals at the point-of-care.

PRODUCT CATEGORIES

Testing Categories & Services: Clinical informatics/Bioinformatics

Technologies: Laboratory Information Systems

Swift Biosciences, Inc.

Booth #: 1207

58 Parkland Plaza, Suite 100
Ann Arbor, MI 48103
United States
(734) 330-2568
Info@swiftbiosci.com
www.swiftbiosci.com

Swift Biosciences specializes in sample preparation for next-generation sequencing (NGS). We are an energetic, highly innovative company focused on creating better tools to empower NGS technologies and deliver superior science. Specifically, our Accel-Amplicon™ Panels are a proven, all-in-one solution for FFPE and liquid biopsy samples. They provide consistent reliability and reproducible results with a fast and easy workflow.

PRODUCT CATEGORIES

Technologies: Next Generation Sequencing; Sequencing; Mutation/variant detection; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

T2 Biosystems

Booth #: 211

101 Hartwell Avenue
Lexington, MA 2421
United States
Info@T2BIOSYSTEMS.COM
t2biosystems.com

T2 Biosystems offers the T2Sepsis Solution™ for the direct-from-whole-blood identification of organisms causing bloodstream infections in 3 to 5 hours. With the faster availability of more accurate results independent of blood culture, hospitals are realizing shortened ICU and hospital lengths of stay and reduced use of unnecessary antimicrobials.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Reference laboratory testing services

Tecan

Booth #: 1306

9401 Globe Center Drive, Suite 140
Morrisville, NC 27560
United States
(919) 361-5200
kim.dellis@tecan.com
www.tecan.com

Tecan is a leading global provider of automated laboratory instruments and solutions, helping people working in CDx, research and drug discovery bring their science to life. We develop, produce, market and support automated workflow solutions that empower laboratories to achieve more. Our expertise extends to developing and manufacturing OEM instruments and components, marketed by our partner companies.

PRODUCT CATEGORIES

Technologies: Proteomics; DNA/RNA sample collection and/or preparation

Tempus

Booth #: 807

600 W. Chicago Ave, Suite 775
Chicago, IL 60654
United States
kevinjturk@gmail.com

We're a team with a shared goal: improve patient outcomes. At Tempus, we are on a mission to redefine how genomic data is used in a clinical setting. Our goal is for each patient to benefit from the treatment of others who came before by providing physicians with tools that learn as we gather more data.

PRODUCT CATEGORIES

Testing Categories & Services: Reference laboratory testing services

Technologies: Next Generation Sequencing, DNA/RNA sample collection and/or preparation, Circulating tumor cell analysis (CTC)

The Lab People, Inc.

Booth #: 602

9693 Gerwig Lane
Suite D
Columbia, MD 21046
United States
(410) 309-5880
amanda@scalepeople.com
www.labpeople.com

The Scale People, Inc. is a master distributor of laboratory equipment, consumables, and weighing technologies. We are also an ISO certified calibration group for laboratory and industrial equipment including pipettes, balances, test weights and temperature. We offer our services and products under GSA, ECAT & Leidos Contracts.

www.labpeople.com

PRODUCT CATEGORIES

None Listed

CORPORATE PARTNER

Thermo Fisher Scientific

Booth #: 718

180 Oyster Point Blvd.
South San Francisco, CA 94080
United States
ian.estrin@thermofisher.com
www.thermofisher.com

Thermo Fisher Scientific is the world leader in serving science. Sharing the pursuit to enable personalized care and improve life, we help clinical laboratories uncover meaningful genetic information with trusted Applied Biosystems™ and Ion Torrent™ research and diagnostic systems, service and support for next-generation sequencing, real-time PCR and Sanger sequencing.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Infectious Diseases; Solid Tumors; Pharmacogenetics/genomics; Gene expression profiling

Technologies: Next Generation Sequencing; Microarrays; Sequencing; Bioinformatics; Laboratory Information Systems; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Mass Spectrometry; Single Cell Analysis; Cell free plasma DNA analysis (cfDNA); Circulating tumor cell analysis (CTC)

Translational Software

Booth #: 1027

12410 se 32nd Street, Suite 250
BELLEVUE, WA 98005
United States
(206) 777-4063
rick.shigaki@translationalsoftware.com
www.translationalsoftware.com

Translational Software provides solutions to clinical laboratories, health systems, payers and pharmacies to integrate molecular testing so that it can directly impact patient care. Experts in the fields of pharmacogenetics, carrier screening, nutrigenomics and certain cancers, our IT platform can be applied in many clinical settings.

PRODUCT CATEGORIES

Testing Categories & Services: Pharmacogenetics/genomics; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Exhibitor Company Descriptions

Variantyx, Inc.
Booth #: 611

1671 Worcester Rd, Suite 300
Framingham, MA 01701
United States
(617) 209-2090
muthu.meyyappan@variantyx.com
www.variantyx.com

Variantyx provides whole genome testing services to clinicians for collaborative diagnosis of rare inherited disorders. We also enable hospitals and labs to profitably expand their test menu with validated genomic diagnostic solutions using our Genomic Intelligence® platform for simplified NGS data analysis, interpretation and clinical reporting.

PRODUCT CATEGORIES

Testing Categories & Services: Inherited Conditions; Pharmacogenetics/genomics; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Sequencing; Bioinformatics

CORPORATE PARTNER

Vela Diagnostics
Booth #: 1929

353 Route 46
Fairfield, NJ 07004
United States
(973) 852-3740
louis.welebob@veladx.com
www.veladx.com

Vela Diagnostics is a worldwide supplier of integrated life sciences and diagnostic solutions that help provide customers with valuable molecular information. From scientists striving to make research advances to technicians reporting the information necessary to identify, monitor and treat diseases, Vela Diagnostics is a trusted partner for research and clinical laboratories around the globe.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Leukemias and Lymphomas; Solid Tumors; Clinical informatics/Bioinformatics

Technologies: Next Generation Sequencing; Sequencing; Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation; Mutation/variant detection; Cell free plasma DNA analysis (cfDNA)

Volpi Group
Booth #: 1810

5 Commerce Way
Auburn, NY 13021
United States
(315) 255-1737 39
SALES@VOLPIUSA.COM
www.volpiusa.com

Volpi – Your OEM partner for integrated systems engineering solutions for optical measurement modules in the in vitro diagnostics and life science tools markets.

Based in the USA and Switzerland, Volpi provides design, development, manufacturing and life cycle support through its ISO 13485 certified operations. Applications include PCR, NGS, molecular diagnostics, immunoassay systems, clinical chemistry and spectroscopy in central lab and POC analysers.

PRODUCT CATEGORIES

None Listed

XCR Diagnostics
Booth #: 2018

2700 Homestead Rd, Suite 50
Park City, UT 84098
United States
(877) 927-3946
jpurcell@xcrdiagnostics.com
fluoresentric.com

XCR Diagnostics is a technology driven company developing near patient systems that will deliver actionable infectious disease results in ~10 minutes. This amazing "sample to result" is due to combining patented XCR™ chemistry, instrumentation, sample preparation chemistry and collection device. XCR Chemistry preforms DNA, RNA & multiplex reactions using an abridged sample preparation, amplification and detection process.

PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Reference laboratory testing services

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers; DNA/RNA sample collection and/or preparation

XimedicaDx
Booth #: 1004

103 Cooper Court, Los Gatos, CA,
United States,
Los Gatos, CA 95032
United States
(408) 354-1700
abrantner@accellbiotech.com
accelbiotech.com

XimedicaDx, formerly Accel Biotech, specializes in product development and accelerating time-to-market for the Biotech, Life Science & Diagnostic Industries.

PRODUCT CATEGORIES

Testing Categories & Services: Reference laboratory testing services

Technologies: Laboratory Information Systems; DNA/RNA sample collection and/or preparation; Circulating tumor cell analysis (CTC)

ZeptoMetrix Corporation
Booth #: 618

878 Main Street
Buffalo, NY 14202
United States
(508) 553-5852 50855
mhershfield@zeptometrix.com
www.zeptometrix.com

ZeptoMetrix™ Corporation (ZMC) is an Industry Leader and Innovator identified with quality, reliable and trusted Products, Services and Global Solutions for Infectious Disease Diagnostic Development. ZeptoMetrix™ is a fully integrated Biotechnology Company whose offerings support all phases of Research & Development, Assay Validation & Verification, Quality Control, Service Testing, Manufacturing, BioStorage, Regulatory Submissions and Test Kit Commercialization.

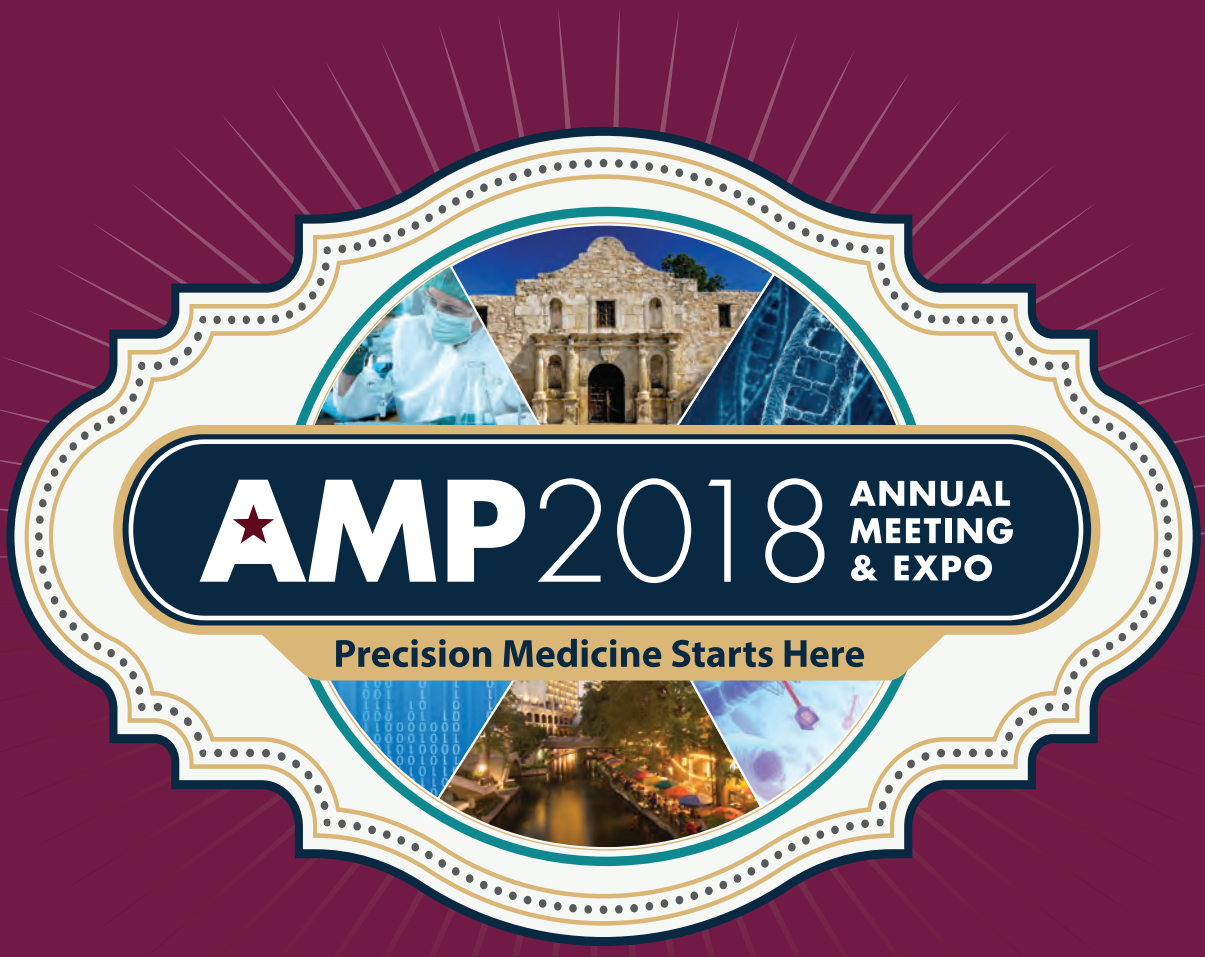
PRODUCT CATEGORIES

Testing Categories & Services: Infectious Diseases; Reference materials/standards/QC or QA products

Technologies: Digital PCR (cPCR)/PCR/qPCR/ Probes and Primers

Notes

AMP Association for Molecular Pathology



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VERIGENE® *C. difficile* Test (CDF)

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