ASSOCIATION FOR MOLECULAR PATHOLOGY

**2017 Molecular Pathology Outreach Course**

***AMPlicons: A Practical Molecular Toolkit and Case Studies***

Wednesday, November 15, 2017
*Location: TBD*

Salt Lake City, UT

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| **TIME** | **SESSION** | **SPEAKER** |
| **7:30am** | **Registration and Continental Breakfast** |  |
| **8:30am** | **Welcome and Introductions** | ***Annette S. Kim, MD, PhD****Brigham & Women’s Hospital* |
| **8:35am** | **Contemporary Topics in Molecular Diagnostics**  | ***Federico A Monzon, MD***Castle Biosciences |
| **9:25am** | **Break (SEW leaves)** |  |
| **9:30am** | **Types of Methodologies and Pre-Analytic Considerations** | ***Anna Yemelyanova, MD****University of Texas MD Anderson Cancer Center* |

**CASE STUDIES:**

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| **CASE STUDIES: Non-template Amplification ("Prete-a-utilizer")** |
| **10:00am** | 1. Cleavase Probe amplification for FVL and Prothrombin
2. MLPA for CF
3. TMA for GC or HPV
4. Oligo hybridization-based methodology
 | ***Cynthia Jackson, PhD****Rhode Island Hospital****Mark Ewalt, MD****Cedars Sinai Medical Center****Jeffrey Gagan, MD, PhD*** *Brigham & Women’s Hospital****Sophie Arbefeville, MD***University of Minnesota Medical Clinic |
| **10:50am** | **Break** |  |

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| **CASE STUDIES: Specialized PCR Methods** |
| **11:05am** | 1. Trinucleotide
2. BCR-ABL1
3. PCR on a film for ID
4. STR applications
 | ***Kristy Crooks, PhD****University of North Carolina at Chapel Hill****Anthony N. Snow, MD****University of Iowa Hospitals & Clinics* ***Kevin Alby, PhD****Hospital of the University of Pennsylvania****Roy Lee, MD****The Cleveland Clinic Foundation* |
| **12:00pm** | **LUNCH** |  |

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| **CASE STUDIES: Non-invasive or Cell Free DNA testing** |
| **1:15pm** | 1. ddPCR cfDNA EGFR testing
2. NIPT
 | ***Annette S. Kim, MD, PhD****Brigham & Women’s Hospital* ***Roberta Sitnik, PhD****Hospital Israelita Albert Einstein* |

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| **CASE STUDIES: Basic SNV Detection by NGS** |
| **1:45pm** | 1. NGS SNVs in hemepath
2. Difficult to sequence areas in constitutional genetics
 | ***Jennifer Dunlap, MD****Oregon Health & Science University* ***Avni Santani, PhD****Children’s Hospital of Philadelphia* |
| **2:15pm** | **Break** |  |

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| **CASE STUDIES: Detection of Fusions** |
| **2:30pm** | 1. multiplex Anchor Archer RNA-based fusions detection for solid tumors
2. DNA-based fusion detection
 | ***Anthony N. Snow, MD****University of Iowa Hospitals & Clinics* ***Jason Rosenbaum, MD****Hospital of the University of Pennsylvania* |

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| **CASE STUDIES: Copy Number Assessments** |
| **3:00pm** | 1. aSNP , aCGH
2. CNVs by NGS
 | ***Kristy Crooks, PhD****University of North Carolina at Chapel Hill****Jeremy Segal, MD, PhD****University of Chicago* |

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| **3:30pm** | **Closing Remarks and Questions** | ***Annette S. Kim, MD, PhD****Brigham & Women’s Hospital* |
| **3:45pm** | **Adjourn** |  |