



AGBT

**2016 Preliminary Agenda
JW Marriott, Orlando, FL**

Wednesday, February 10, 2016

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| 11:00 a.m. – 8:00 p.m. | Meeting Registration –Mediterranean Ballroom Registration Desk |
| 5:00 p.m. – 7:00 p.m. | <u>Plenary Session:Genomics I</u> (Eric Green,NHGRI,Chair)
Mediterranean Ballroom |
| 5:00 p.m. – 5:10 p.m. | Opening Remarks |
| 5:10 p.m. – 5:40 p.m. | Debbie Nickerson, University of Washington |
| 5:40 p.m. – 6:10 p.m. | David Haussler, UC Santa Cruz Genomics Institute |
| 6:10 p.m. - 6:30 p.m. | Pardis Sabeti, Harvard University, Harvard School of Public Health |
| 6:30 p.m. – 6:50 p.m. | Matthew B. Sullivan, Ohio State University |
| 7:00 p.m. – 10:00 p.m. | Welcome Reception– Valencia Terrace & Lawn |

Thursday, February 11 (Morning)

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| 7:30 a.m. – 9:00 a.m. | Breakfast – Coquina North |
| 8:00 a.m. – 3:00 p.m. | Meeting Registration
Mediterranean Ballroom Registration Desk |

Plenary Session:	<u>Clinical</u> (Sharon Plon, Baylor College of Medicine, Chair)
	Mediterranean Ballroom
9:00 a.m. – 9:30 a.m.	Sam Aparicio, British Columbia Cancer Research Centre
9:30 a.m. – 10:00 a.m.	Charles Chiu, UCSF School of Medicine
10:00 a.m.- 10:30 a.m.	Luis Diaz, Johns Hopkins Hospital
10:30 a.m. –11:00 a.m.	Coffee Break– Coquina North
11:00 a.m. –11:30 a.m.	*Franck Rapaport, Memorial Sloan Kettering Cancer Center “Integrated DNA/RNA Profiling for Somatic Alterations in Adult B-Cell ALL”
11:30 a.m. – 11:50 a.m.	*John A. Martignetti, Icahn School of Medicine at Mount Sinai “A pre-operative, diagnostic gene panel for guiding primary treatment choices in endometrial cancer: Advancing beyond the decades-old technology of dilation and curettage (D&C)”

Thursday, February 26 (Afternoon)

12:00 p.m. – 1:00 p.m.	Qiagen Workshop (Complimentary Lunch Provided) Coquina North
12:00 p.m. – 2:00 p.m.	AGBT Lunch – Valencia Terrace & Lawn
1:10 p.m. – 2:10 p.m.	PacBio Workshop Mediterranean Ballroom

Plenary Session:	Evolutionary Genomics (Ken Dewar, McGill University and Génome Québec Innovation Centre, Chair)
	Mediterranean Ballroom
2:30 p.m. - 3:00 p.m.	Eske Willerslev, University of Copenhagen
3:00 p.m. – 3:30 p.m.	Felicity Jones, Friedrich Miescher Laboratory of the Max Planck Society
3:30 p.m. – 4:00 p.m.	Coffee Break –Lower Level/Sponsor’s Promenade

4:00 p.m. – 4:30 p.m. ***Beth Shapiro, UCSC, Paleogenomics Lab**
“Passenger pigeon paleogenomes reveal the genomic consequences of long-term extremely large effective population sizes “

4:30p.m. – 5:00 p.m. ***Daniel Rokhsar, DOE Joint Genome Institute**
“When Genomes Collide: The allotetraploid *Xenopus laevis*”

Thursday, February 26 (Evening)

5:15 p.m. – 7:15 p.m. Poster/Software Demo - Roche Wine & Cheese Reception
Coquina North and South

5:15 p.m. – 7:30 p.m. Dinner on your own

Concurrent Session: Technology (Ken Dewar, McGill University and Génome Québec Innovation Centre, Chair)

Mediterranean Ballroom/General Session Room

7:30 p.m. – 7:50 p.m. **Mariateresa de Cesare, University of Oxford**
“Unlocking The Heterogeneity of the Human Transcriptom Utilizing the ONT MinION TM”

7:50 p.m. – 8:10 p.m. **Joel A. Malek, Weill Cornell Medical College in Qatar**

AVA-Seq: a method for all-versus-all protein interaction mapping using next generation sequencing

8:10 p.m. – 8:30 p.m. **Israel Steinfeld, Agilent Technologies**
“Improved methods and analysis tools for efficient CRISPR/Cas genome editing”

8:30 p.m. – 8:50 p.m. **James Hadfield, University of Cambridge**
“Progress in developing a Nanopore rapid cancer MDX test”

8:50 p.m. – 9:10 p.m **GiWon Shin, Stanford University**
“STR-Seq: a massively parallel microatellite sequencing and genotyping technology”

9:10 p.m. – 9:30 p.m. **Jiabin Tang, Cedars-Sinai Medical Center**
“Non-Invasive Somatic Mutation Profiling of Liquid Biopsies Using Capture-Based Next Generation”

Concurrent Session: Transcriptomics (Martin Hirst, University of British Columbia, Chair)

Mediterranean Salons 6-8

7:30 p.m. – 7:50 p.m.

Sten Linnarsson, Karolinska Institutet, Sweden
“Molecular Anatomy of the Mouse Brain by Single-Cell RNA-seq”

7:50 p.m. – 8:10 p.m.

Stefania Giacomello, SciLifeLab, Sweden
“Spatially resolved gene expression in the meristem of model angiosperm and gymnosperm species enabled by Spatial Transcriptomics”

8:10 p.m. – 8:30 p.m.

Chia-Lin Wei, Lawrence Berkeley National Laboratory
“Polycomb mediated 3-Dimensional Chromatin Organization Directs Transcriptional Silencing through Extensive Promoter Looping and Prevalent lncRNA Association”

8:30 p.m. – 8:50 p.m.

Max A. Seibold, National Jewish Health
“Large-scale single cell transcriptome sequencing of the human airway epithelium”

8:50 p.m. - 9:10 p.m.

Mohan T Bolisetty, The Jackson Laboratory
“Determining Exon Connectivity in complex mRNAs using the MinION sequencer”

9:10 p.m. – 9:30 p.m.

Masako Suzuki, Albert Einstein College of Medicine
“Metastable epialleles in mouse epialleles are defined by targeting of 5- hydroxymethylcytosine and increased DNA methylation entropy”

Concurrent Session:

Genome Medicine, (Sharon Plon, Baylor College of Medicine, Chair)

Palazzo Ballroom Salon E

7:30 p.m. – 7:50 p.m.

Alexander Hoischen, Radboud University Medical Center, Nijmegen, The Netherlands
“smMIP based BRCA1 and BRCA2 re-sequencing in a clinical setting”

7:50 p.m. – 8:10 p.m.

Stephen Lincoln, Invitae
Clinically Important Variants are Often Technically Challenging for NGS: Implications for NGS Methods,

Validation and Confirmation

- 8:10 p.m. – 8:30 p.m. **Brendan Keating, University of Pennsylvania**
“Detection and Validation of Signatures of Liver Transplantation Rejection Diagnoses and Successful Minimization of Immunosuppression from Serum miRNA Profiles”
- 8:30 p.m. – 8:50 p.m. **Richard A. Moore, BC Cancer Agency Genome Sciences Centre**
“Whole Genome and Transcriptome Sequencing for Personalized Cancer Therapy: Lessons Learned From First 300 Cases”
- 8:50 p.m. – 9:10 p.m. **Narayanan Veeraraghavan, Baylor College of Medicine**
“Neptune: An Automated Pipeline for Clinical Reporting of Carrier-Tests”
- 9:10 p.m. – 9:30 p.m. **Lei Huang, Peking University**
“Live Births with Monogenic Diseases and Chromosome Abnormality Simultaneously Avoided by NGS-based PGD/PGS with Linkage Analyses”

Friday, February 12 (Morning)

7:30 a.m. – 9:00 a.m. Breakfast – Coquina North

Plenary Session: **Technology I (John McPherson (Ontario Institute for Cancer Research, Chair)**

Mediterranean Ballroom

9:00 a.m. – 9:30 a.m. **Dick McCombie, Cold Spring Harbor Laboratory**

9:30 a.m. – 10:00 a.m. **Anne Wojciki, CEO and Co-Founder, 23andMe**

10:00 a.m. – 10:30 a.m. ***William Greenleaf, Stanford University School of Medicine**
“Single-cell chromatin accessibility reveals principles of regulatory variation”

10:30 a.m. – 11:00 a.m. Coffee Break – Lower Level/Sponsor's Promenade-Swiftbio-“Thanks Swiftbio for the awesome banana bread”

- 11:00 a.m. – 11:20 a.m. ***Jason H. Bielas, Fred Hutchinson Cancer Research Center**
“Deep profiling of complex cell populations using scalable single cell gene expression analysis”
- 11:20 a.m. – 11:40 a.m. ***Paolo Piazza, University of Oxford**
“Linking Epigenetics and Gene Expression at single cell levels using SMART-ATAC-seq”
- 11:40 a.m. – 12:00 p.m. **** (late breaking)**

Friday, February 12 (Afternoon)

- 12:00 p.m. – 2:00 p.m. **Roche - Workshop
(Complimentary Lunch Provided)
Coquina North**
- 12:00 p.m. – 2:00 p.m. AGBT Lunch – Valencia Terrace & Lawn

Plenary Session: Genomics II (Michael Zody, New York Genome Center, Chair)

Mediterranean Ballroom

- 2:15 p.m. – 2:45 p.m. **Harold Varmus, Nobel Laureate, Meyer Cancer Center, Former Director of The NIH and NCI**
- 2:45 p.m. – 3:15 p.m. **Edward M. "Eddy" Rubin, Lawrence Berkeley National Laboratory, Director DOE Joint Genome Institute**
- 3:15 p.m. – 3:45 p.m. **Sean Eddy, Harvard University**
- 3:45 p.m. - 4:45 p.m. 10X Workshop
(Complimentary coffee/snack)
Coquina North
- 4:45 p.m. - 6:00 p.m Poster Session and Break “RubiconGenomics warm pretzels and beer break= coquina south”
(Coquina South)

Friday, February 12 (Evening)

- 6:15 p.m. – 7:25 p.m. Dinner – Valencia Terrace & Lawn
- Concurrent Session: Biology (Robert Lyons, University of Michigan, Chair)**
Mediterranean Ballroom/General Session Room
- 7:30 p.m. – 7:50 p.m. **Alexandre Melnikov, The Broad Institute of MIT & Harvard**
“Efficient sequencing of malaria parasite DNA from clinical samples to investigate genetic basis of drug resistance, demographic history and genomic diversity”
- 7:50 p.m. – 8:10 p.m. **Valerie A. Schneider, National Center for Biotechnology Information**
“Evolving Approaches to Reference Assembly Improvement”
- 8:10 p.m. – 8:30 p.m. **Christopher Mason, Weill Cornell Medical College**
- 8:30 p.m. – 8:50 p.m. **Gregory Buck, Virginia Commonwealth University**
“The Impact of the Vaginal Microbiome on Women's Reproductive Health and Pregnancy”
- 8:50 p.m. – 9:10 p.m. **Richard Green, University of California, Santa Cruz**
- 9:10 p.m. – 9:30 p.m. **Ivan Liachko, University of Washington**
“Assembling whole genomes from mixed microbial communities using Hi-C”
- Concurrent Session: Cancer (John McPherson (Ontario Institute for Cancer Research , Chair)**
Palazzo Ballroom Salon E
- 7:30 p.m. – 7:50 p.m. **Somasekar Seshagiri, Genentech**
Comprehensive analysis of tumors at whole tissue to single cell level
- 7:50 p.m. – 8:10 p.m. **Tyler Garvin, Cold Spring Harbor Laboratory**
“Recurrent noncoding regulatory mutations in pancreatic ductal adenocarcinoma”
- 8:10 p.m. – 8:30 p.m. **Geoff Otto, Foundation Medicine**
“Assessment of the Relative Clinical Utility of ctDNA and Tissue Biopsies for the Detection of Actionable Genomic Alterations in Routine Clinical Oncology Specimens”

- 8:30 p.m. – 8:50 p.m. **Hiroyuki Aburatani, The University of Tokyo**
“Genomic assessment of chemotherapy sensitivity in High Grade Serous Ovarian Cancer”
- 8:50 p.m. – 9:10 p.m. **Andrew Mungall, BC Cancer Agency Genome Sciences Centre**
“Detection of genomic rearrangements in archival lymphoma tissues using targeted capture sequencing”
- 9:10 p.m. – 9:30 p.m. **Eric Zhao, Genome Sciences Centre, BC Cancer Agency**
“A BRCA-Associated Genomic Signature Predicts Clinical Improvement with Cisplatin Therapy”
- Concurrent Session: Informatics (Paul Flicek, European Bioinformatics Institute, Chair)**

Mediterranean Salons 6-8
- 7:30 p.m. – 7:50 p.m. **Geoffrey M. Nelson, MRC Laboratory of Molecular Biology**
“A high-throughput genomics approach to efficiently link genes to phenotype”
- 7:50 p.m. – 8:10 p.m. **Maria Nattestad, Cold Spring Harbor Laboratory**
“SplitThreader: A graphical algorithm for the historical reconstruction of highly rearranged and amplified cancer genomes “
- 8:10 p.m. – 8:30 p.m. **Robert P. Davey, The Genome Analysis Centre**
“Nanopore, PacBio and Illumina assemblies of antifungal bacterium *Pseudomonas fluorescens*”
- 8:30 p.m. – 8:50 p.m. **David B. Jaffe, 10x Genomics**
“Low cost Linked-Reads yield long range haplotyped human assemblies from a nanogram of DNA”
- 8:50 p.m. – 9:10 p.m. **Han Fang, Cold Spring Harbor Laboratory**
“Scikit-ribo: Accurate A-site prediction and robust modeling of translation control from Riboseq and RNAseq data”
- 9:10 p.m. – 9:30 p.m. **Karen Meltz Steinberg, McDonnell Genome Institute at Washington University**
“The first African reference genome assembly”

Saturday, February 13 (Morning)

7:30 a.m. – 9:00 a.m. Breakfast – Coquina North

Bronze Sponsor Workshops: Mediterranean Ballroom

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| 9:00 a.m. – 9:20 a.m. | Fluidigm Workshop |
| 9:20 a.m. – 9:40 a.m. | Agilent Workshop |
| 9:40 a.m. – 10:00 a.m. | Thermo Fisher Workshop |
| 10:00 a.m. – 10:15 a.m. | Bronze 4 – Lexogen
“Spike-in RNA Variants (SIRVs): External transcript isoform controls in RNA-Sequencing” |
| 10:15 a.m. – 10:40am | Coffee Break (Mediterranean Pre-Function Space) IDT refueling station right outside-Thanks IDT |
| 10:45 a.m. – 11:00 a.m. | Illumina Workshop |
| 11:00 a.m. – 11:15a.m. | New England BioLabs Workshop |
| 11:15 a.m. – 11:30 a.m.. | NanoString Workshop |
| 11:30 a.m. -11:45p.m | Advanced Analytical
“Ultrasensitive Detection of Nucleic Acids and Visualization of DNA Through >165,000bp with a New PFGE Capillary Electrophoresis System” |
| 11:45p.m.- 12:00pm | Kapa Biosystems Workshop |

Saturday, February 28 (Afternoon)

12:15 p.m. – 1:30 p.m. AGBT Lunch Valencia Terrace & Lawn

Plenary Session: Technology II (Len Pennacchio, Lawrence Berkeley National Laboratory, Chair)

Mediterranean Ballroom

1:30 p.m. – 2:00 p.m. **Nick Loman**

2:00 p.m. – 2:30 p.m.	Jay Flatley,
2:30 p.m. – 3:00 p.m.	Susan Rosenberg
3:00 p.m. – 3:20 p.m.	*Shawn Levy, HudsonAlpha Institute for Biotechnology “Unique run conditions allow multiplexed phased genomes on the HiSeq X to reveal”
3:20 p.m. – 3:40 p.m.	*Jonas Korfach, Pacific Biosciences
3:40pm-4:00pm	TBD28
4:00-4:30	MEDITERANEAN PRE-FUNCTION SWIFTBIO WOWS US AGAIN WITH SPECIALITY ICECREAM BARS
4:30p.m. – 5:00 p.m.	Closing Comments and Meeting Feedback
7:00 p.m. – 12:00 a.m.	Farewell Dinner Party Coquina Ballrooms

Presented By:

