

# Bioinformatics Workshop Agenda – September 6, 2017

Hosted by the Puglisi Laboratory

Stanford University School of Medicine – Paul Brest Hall



THE LEADER IN LONG-READ SEQUENCING



1:45 – 2:00 p.m.

## Registration and Coffee

2:00 – 2:10 p.m.

Welcome and Introduction

Matthew Seetin, Ph.D., Field Applications Scientist, Bioinformatics, PacBio

2:10 – 2:55 p.m.

Introduction to SMRT Link v5.0

Iso-Seq Transcriptome Analysis: From SMRT Link to Downstream Applications

Elizabeth Tseng, Ph.D., Senior Staff Scientist, Bioinformatics, PacBio

Minor Variant Detection with Juliet: Sequencing Complex Mixtures

Michael Brown, Ph.D., Senior Staff Scientist, Bioinformatics, PacBio

3:00 – 3:15 p.m.

## Break

3:15 – 4:30 p.m.

Concurrent Breakout Sessions

### SESSION I: Phased Diploid Genome Assembly and Analysis

3:15 – 3:45 p.m.

Understanding, Curating, and Analyzing Your Diploid Genome Assembly

Sarah Kingan, Ph.D., Senior Scientist, Bioinformatics, PacBio

3:45 – 4:00 p.m.

Installation and Testing with FALCON-Unzip

Greg Concepcion, Ph.D., Staff Engineer, Bioinformatics, PacBio

4:00 – 4:30 p.m.

SESSION I Discussion

### SESSION II: Mini-training Session – Best Practices in PacBio Multiplexing

3:15 – 3:45 p.m.

Best Practice for Interpreting Demultiplexed Output

Carmen Guarco, Ph.D., Field Applications Scientist, Bioinformatics, PacBio

3:45 – 4:05 p.m.

Downstream Applications: Minor Variant Calling, Microbial Assembly, CCS2, and Iso-Seq Analysis

Matthew Seetin, Ph.D., Field Applications Scientist, Bioinformatics, PacBio

4:05 – 4:30 p.m.

SESSION II Discussion

4:30 – 4:45 p.m.

## Coffee Break

4:45 – 5:00 p.m.

Breakout Sessions Wrap-up

5:00 – 5:45 p.m.

**Keynote:** Fourteen New Reference Genomes Reveal Extensive Hidden Genetic Variation in *Drosophila melanogaster*

Mahul Chakraborty, Ph.D., Postdoctoral Scholar, Department of Ecology and Evolutionary Biology, University of California, Irvine

5:45 – 6:00 p.m.

Open Forum for Questions, Comments and Feedback on SMRT Link

6:00 – 6:10 p.m.

Closing Remarks

Thanks to our Partners:



Covaris



DNAexus

