

## BISB Bootcamp: September 21-25, 2020 through Zoom

### Monday, September 21, 2020

<b>9:00 AM - 10:00 AM</b>	<b>Icebreakers, Technical Difficulties, &amp; Introductions</b>
<b>10:00 AM - 10:30 AM</b>	<b>BISB Opening Statement from Program Chairs</b> Terry Gaasterland, Ph.D. <i>Program Co-Chair</i>
<b>10:30 AM - 11:30 AM</b>	<b>BISB Administrative Overview, Part I</b> Savannah Orosco <i>Interim Bioinformatics Program Coordinator</i>
<b>11:30 AM - 11:45 AM</b>	<b><i>Break</i></b>
<b>11:45 AM - 12:15 PM</b>	<b><i>Faculty Presentation #1</i></b> <i>Genetic studies of drug abuse using multi-omic rat datasets</i> Abraham Palmer, Ph.D.
<b>12:15 PM - 12:45 PM</b>	<b><i>Faculty Presentation #2</i></b> <i>Mapping the non-genetic landscape of human disease</i> Mo Jain, M.D., Ph.D.
<b>12:45 PM - 1:15 PM</b>	<b><i>Faculty Presentation #3</i></b> <i>Healthcare/Genomic Blockchain-base Predictive Modeling</i> Tsung-Ting Kuo, Ph.D.
<b>1:15 PM - 1:30 PM</b>	<b><i>Break</i></b>
<b>1:30 PM - 2:30 PM</b>	<b>BISB Administrative Overview, Part II</b> Savannah Orosco <i>Interim Bioinformatics Program Coordinator</i>
<b>2:30 PM - 4:00 PM</b>	<b>[BIO] Module 1a: Bench to Terminal</b> Michelle Franc Ragsac <i>Bootcamp Instructor</i>
<b>2:30 PM - 4:00 PM</b>	<b>[CSE] Module 1b: Genetics 101</b> Owen Chapman <i>Bootcamp Instructor</i>

**Tuesday, September 22, 2020**

8:30 AM - 9:00 AM	<b>Coffee &amp; Breakfast Break</b>
9:00 AM - 11:00 AM	<b>Module 2: Genomic Technologies I &amp; II</b> Cameron Martino <i>Bootcamp Instructor</i>
11:00 AM - 11:30 AM	<b>Introduction to San Diego</b> Owen Chapman <i>Bootcamp Instructor</i>
11:30 AM - 11:45 AM	<b>Break</b>
11:45 AM - 12:15 PM	<b>Faculty Presentation #1</b> <i>Quantitative modeling of cancer evolution and early detection</i> Kit Curtius, Ph.D.
12:15 PM - 12:45 PM	<b>Faculty Presentation #2</b> <i>Biological timeseries, wearable sensors, and diversity and health</i> Benjamin Smarr, Ph.D.
12:45 PM - 1:15 PM	<b>Faculty Presentation #3</b> <i>Integrative Computational Approaches to the Understanding and Treatment of Cancer</i> Jill P. Mesirov, Ph.D.
1:15 PM - 1:30 PM	<b>Break</b>
1:30 PM - 3:00 PM	<b>[BIO] Module 3a: Best Software Practices</b> Owen Chapman <i>Bootcamp Instructor</i>
1:30 PM - 3:00 PM	<b>[CSE] Module 3b: How the Sausage is Made</b> Cameron Martino <i>Bootcamp Instructor</i>
3:00 PM - 3:30 PM	<b>How to Choose an Advisor</b> Alexander Wenzel <i>4th Year BMI Student, Mesirov Lab</i>

**Wednesday, September 23, 2020**

<b>8:30 AM - 9:00 AM</b>	<b>Coffee &amp; Breakfast Break</b>
<b>9:00 AM - 9:30 AM</b>	<b>GBIC and YOU</b> Owen Chapman <i>Bootcamp Instructor</i>
<b>9:30 AM - 11:30 AM</b>	<b>Module 4: Introduction to High-Performance Computing (HPC)</b> Michelle Franc Ragsac <i>Bootcamp Instructor</i>
<b>11:30 AM - 11:45 AM</b>	<b>Break</b>
<b>11:45 AM - 12:15 PM</b>	<b>Faculty Presentation #1</b> <i>The Pre-Cancer Atlas</i> Olivier Harismendy, Ph.D.
<b>12:15 PM - 12:45 PM</b>	<b>Faculty Presentation #2</b> <i>Application of Genomics for understanding human development and disease</i> Louise Laurent, M.D., Ph.D.
<b>12:45 PM - 1:15 PM</b>	<b>Faculty Presentation #3</b> <i>Systems biology of climate change linked stress resistance in plants</i> Julian Schroeder, Ph.D.
<b>1:15 PM - 1:30 PM</b>	<b>Break</b>
<b>1:30 PM - 2:15 PM</b>	<b>Cold Calls</b> Owen Chapman <i>Bootcamp Instructor</i>
<b>2:15 PM - 3:15 PM</b>	<b>Scientific Communication</b> Cameron Martino <i>Bootcamp Instructor</i> Michelle Franc Ragsac <i>Bootcamp Instructor</i>

**Thursday, September 24, 2020**

8:30 AM - 9:00 AM	<b>Coffee &amp; Breakfast Break</b>
9:00 AM - 11:00 AM	<b>Module 5: Introduction to Bioinformatics - RNA-Sequencing Demo</b> Michelle Franc Ragsac <i>Bootcamp Instructor</i>
11:00 AM - 11:30 AM	<b>BISB Student Funding Obligations</b> Terry Gaasterland, Ph.D. <i>Program Co-Chair</i>
11:30 AM - 11:45 AM	<b>Break</b>
11:45 AM - 12:15 PM	<b>Faculty Presentation #1</b> <i>Chromatin and Gene Regulation in Childhood Brain Cancers</i> Owen Chapman ( <b>PI:</b> Lukas Chavez, Ph.D.)
12:15 PM - 12:45 PM	<b>Faculty Presentation #2</b> <i>RNA-chromatin interactions in dysfunctional blood vessels</i> Riccardo Calandrelli ( <b>PI:</b> Sheng Zhong, Ph.D.)
12:45 PM - 1:15 PM	<b>Faculty Presentation #3</b> <i>Interpreting genetic variation in tumor genomes</i> Hannah Carter, Ph.D.
1:15 PM - 1:30 PM	<b>Break</b>
1:30 PM - 2:30 PM	<b>Module 6: Pair Programming</b> Owen Chapman <i>Bootcamp Instructor</i>
2:30 PM - 4:00 PM	<b>Module 7: Introduction to Machine Learning</b> Cameron Martino <i>Bootcamp Instructor</i>

**Friday, September 25, 2020**

8:30 AM - 9:00 AM	<b>Coffee &amp; Breakfast Break</b>
9:00 AM - 9:30 AM	<b>Elective: Cancer Biology</b> Adam Officer <i>3rd Year BMI Student, Mesirov Lab</i>
9:30 AM - 10:00 AM	<b>Elective: Mental Health in Graduate School</b> Michelle Franc Ragsac <i>Bootcamp Instructor</i>
10:00 AM - 10:30 AM	<b>Elective: TBA</b>
10:30 AM - 11:30 AM	<b>Module 8: Software Engineering on a Team</b> George Armstrong <i>3rd Year BISB Student, Knight Lab</i> Gibraan Rahman <i>3rd Year BISB Student, Knight Lab</i>
11:30 AM - 11:45 AM	<b>Break</b>
11:45 AM - 12:15 PM	<b>Faculty Presentation #1</b> <i>Discovering novel regulatory sequences with CRISPR screens</i> Graham McVicker, Ph.D.
12:15 PM - 12:45 PM	<b>Faculty Presentation #2</b> <i>High throughput sequencing approaches to address the COVID pandemic</i> Rob Knight, Ph.D.
12:45 PM - 1:15 PM	<b>Faculty Presentation #3</b> <i>Using deep learning to model the structure and function of a cancer cell</i> Brent Kuenzi, Ph.D. (PI: Trey Ideker, Ph.D.)
1:15 PM - 1:30 PM	<b>Break</b>
1:30 PM - 2:30 PM	<b>BISB/BMI General Town Hall Meeting</b>