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| **Week 1** | | |
| **Mon. Aug 31** | | |
| 9:30 – 10:30 | Welcome (Jun Allard) |  |
| 10:30 - 10:40 | **Break** |  |
| 10:40 – 12:00 | “This View of Life” (Kyle Stanford) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Coding practices, Part I: Installfest (git, Matlab, Mathematic, Jupyter) (Jun Allard) |  |
| **Tue. Sept 1** | | |
| 9:00 – 10:20 | Biochemistry (Felix Grun) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Molecular Biology Approaches (Rahul Warrior) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 2:00 | Intro to Sys Bio (Arthur Lander) |  |
| 2:00 – 2:30 | Paper assignment |  |
| 2:30 – 4:00 | Meet the tutors |  |
| **Wed. Sept 2** | | |
| 9:00 – 10:20 | Meet the tutors, part deux |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Basic lab skills - Notebooks, pipetting, solutions, lab equipment, lab etiquette, cell, mol bio, biochem techniques (Emi Embler) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Coding practices, Part II: git, bash (Jun Allard) |  |
| **Thurs. Sept 3** | | |
| 9:00 – 10:20 | Chromosomes and Chromatin (Kyoko Yokomori) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Gene Expression (Evgeny Kvon) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Discrete models (Matlab) (Jun Allard) |  |
| **Fri. Sept 4** | | |
| 9:00 – 10:20 | Animal Development (Lander) |  |
| 10:20 – 10:45 | **Break** |  |
| 10:45 – 11:15 | Natalia Komarova | Rotation Project Introduction |
| 11:15 – 11:45 | Dominik Wodarz | Rotation Project Introduction |
| 11:45 – 12:15 | Steve Allison | Rotation Project Introduction |
| 12:15 – 1:15 | **Lunch** |  |
| 1:15 – 5:00 | Numerical calculus (Matlab) (Jun Allard) |  |
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| **Week 2** | | |
| **Mon. Sept 7** | | |
|  | **Labor Day Holiday** |  |
| **Tues. Sept 8** | | |
| 9:00 – 9:25 | Xenopus (Ken Cho) |  |
| 9:30 – 9:55 | Hydra (Rob Steele) |  |
| 10:00 – 10:25 | C. elegans (Olivier Cinquin) |  |
| 10:25 – 10:45 | **Break** |  |
| 10:45 – 11:10 | Mouse (Shimako kawauchi) |  |
| 11:15 – 11:40 | Drosophila (Zeba Wunderlich) |  |
| 11:45 – 12:10 | Zebrafish (Praveer Sharma) |  |
| 12:15 – 1:15 | **Lunch** |  |
| 1:15 – 5:00 | Classical mathematical biology (Matlab) (Jun Allards) |  |
| **Wed. Sept 9** | | |
| 9:00 – 10:20 | Ecology, Evolution, and Population Genetics (Anthony Long) |  |
| 10:20 – 10:45 | **Break** |  |
| 10:45 – 11:15 | Ray Luo | Rotation Project Introduction |
| 11:15 – 11:45 | Reginald McNulty | Rotation Project Introduction |
| 11:45 – 12:15 | Rachel Martin | Rotation Project Introduction |
| 12:15 – 1:15 | **Lunch** |  |
| 1:15 – 5:00 | Jupyter (Jun Allard) |  |
| **Thurs. Sept 10** | | |
| 9:00 – 10:20 | Immunology (Ilhem Messaoudi) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Metabolites, Germs and People: Eavesdropping on Human-associated Microbial Communities (Katrine Whiteson) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Bonus activity day! (Various instructors) |  |
| **Fri. Sept 11** | | |
| 9:00 – 10:20 | Neurobiology (Vivek Swarup) |  |
| 10:20 – 10:45 | **Break** |  |
| 10:45 – 11:15 | Armando Villata | Rotation Project Introduction |
| 11:15 – 11:45 |  | Rotation Project Introduction |
| 11:45 – 12:15 |  | Rotation Project Introduction |
| 12:15 – 1:15 | **Lunch** |  |
| 1:15 – 5:30 | Peer Mentoring |  |
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| **Week 3** | | |
| **Mon. Sept 14** | | |
| 9:00 – 10:20 | Biostatistics (Babak Shabhaba) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Bioinformatics (Norden-Krichmar) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Genomics Bioinformatics Workshop (Jenny Wu) |  |
| **Tues. Sept 15** | | |
| 9:00 – 10:20 | Synthetic Biology (Chang Liu) |  |
| 10:20 – 10:45 | Break |  |
| 10:45 – 11:15 |  | Rotation Project Introduction |
| 11:15 – 11:45 | Matt McHenry | Rotation Project Introduction |
| 11:45 – 12:15 |  | Rotation Project Introduction |
| 12:15 – 1:15 | Lunch |  |
| 1:15 – 5:00 | Mathematica (Peter Taborek) |  |
| **Wed. Sept 16** | | |
| 9:00 – 10:20 | Cancer signaling and Genomics (Scott Atwood) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Biomechanics (Medha Pathak) |  |
| 12:00 – 1:00 | **LUNCH** |  |
| 1:00 – 5:00 | Mathematica (Peter Taborek) |  |
| **Thurs. Sept 17** | | |
| 9:00 – 10:20 | Stem Cells and Aging (Olivier Cinquin) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Stem Cells (Max Plikus) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Mathematica (Peter Taborek) |  |
| **Fri. Sept 18** | | |
| 9:00 – 10:20 | Confocal Microscopy and introduction to Fluorescence Lifetime Imaging Microscopy (Michelle Digman) |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 – 12:00 | Fluctuation correlation Spectroscopy (Enrico Gratton) |  |
| 12:00 – 1:00 | **Lunch** |  |
| 1:00 – 5:00 | Lab: Cell Biology, Microscopy and Fluorescence Lifetime Imaging Microscopy (LFD) | Virtual tour/workshop |
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| **Week 4** | | |
| **Mon. Sept 21** | | |
| 9:00 – 10:20 |  |  |
| 10:20 – 10:40 | **Break** |  |
| 10:40 - 12:00 |  |  |
| 12:00 – 1:00 | **LUNCH** |  |
| 1:00 – 5:00 | Mass Spec Tour (Felix Grun) | Virtual tour |
| **Tues. Sept 22** | | |
|  | **PRESENTATION PREP/FREE DAY** |  |
| **Wed. Sept 23** | | |
| 9:00 – 10:00 | Student Presentations #1 - 3 | 15 min. talk + 5 min. for questions |
| 10:10 – 10:20 | Break |  |
| 10:20 – 11:20 | Student Presentation # 4 - 6 |  |
| 11:20 – 1:00 | Lunch |  |
| 1:00 – 2:00 | Student Presentations #7 - 9 |  |
| 2:00 – 2:10 | Break |  |
| 2:10 – 3:10 | Student Presentations #10 - 12 |  |
| 3:10 | Concluding remarks (Arthur Lander) |  |
| **Fri. Sept 25** | | |
|  | International Graduate Student Orientation | Bren Events Center |
|  | Graduate Student Orientation Day – **Mandatory All Attend** | Bren Events Center |