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| **Monday, June 4** |
| 08:00 | ***Registration & Welcome Coffee*** *(CNSI Lobby)* |
| 09:00 | **A. Hoffmann /R. Eils**  | Opening and welcome remarks |
|  | **Session 1 Chair: Matteo Pellegrini** |
| 09:10 | **Garry Nolan***Stanford, USA* | *TBA* |
| 09:50 | **Vanessa Jonsson***City of Hope, Duarte, USA* | In Silico Adaptive Trial Design: Assessment of CART Combination Dosing Strategies for Solid Tumors |
| 12:20 | **Jason E. Shoemaker***Pittsburgh, USA* | Immunodynamics During Deadly Influenza Virus Infection |
| 10:30 | ***Break (CNSI Lobby)*** |
|  | **Session 2 Chair:**  |
| 10:50 | **Thomas Hofer***BioQuant, Heidelberg* | *TBA* |
| 11.30 | **Caroline Zitzmann***DKFZ, Heidelberg, Germany* | Mathematical Modeling of the Intracellular Dengue Virus Replication and the Innate Immune Response |
| 11:50 | **Anna Kicheva***IST, Vienna, Austria* | Coordination of Progenitor Specification and Growth in the Developing Spinal Cord |
| 12:30 | ***Lunch*** | CNSI, Rooftop (5th floor) |
|  | **Session 3** | Chair: Alexander Hoffmann |
| 13.45 | **Eleazar Eskin** | *TBA*  | *QCB @ UCLA Session* |
| 14:05 | **Leonid Kruglyak** | *TBA*  |
| 14:25 | **Sri Kosuri** | The Impact of Rare Genetic Variation on Pre-mRNA Splicing |
| 14:45 | **Grace Xiao** | Global Studies of RNA Editing in Health and Disease |
| 15:05 | **Roy Wollman** | Cell State Variability in Calcium Signaling  |
| 15:25 | **Xia Yang** | Multi-tissue, Multi-omics Modeling of Complex Human Diseases |
| 15:45 | ***Coffee break*** |
|  | **Session 4 Chair:**  |
| 16:20 | **Roland Eils***BioQuant & BIH Berlin* | *TBA* |
| 17:00 | **Ariel Bensimon***Heidelberg, Germany* | Exploring Cellular Phosphorylation Network Responses to DNA Damage Using Targeted Mass Spectrometry |
| 17:20 | **George T. Chen***UC Irvine, USA* | Linking Wnt to Patterns of Metabolism in Colon Cancer Using Math Models and Single Cell Sequencing |
| 17:40 | **Nikolas Balanis***Los Angeles, USA* | Convergent Pan-Cancer De-differentiation to Small Cell Phenotype | *Lightening Talks* |
|  | **Aiman Elragig***Benghazi, Libya* | On the Mathematica Modeling of Plaque Psoriasis |
|  | **Mohit K. Jolly***Houston, USA* | Quantifying Epithelial-Mesenchymal Plasticity during Cancer metastasis  |
|  | **Linda Krause***Münich, Germany* | Predicting Disease Courses in Children with Atopic Eczema |
|  | **Adam Lewis** *Seattle, USA* | Modeling Susceptibility to Infection Using Single Cell Data of Ephrin Receptors |  |
| 17:50 | **Reception** | **Poster Session 1**  |
| **Tuesday, June 5** |
|  | **Session 5 Chair: Aaron Meyer** |
| 09:00 | **Michael Elowitz***Pasadena, USA* | Communication and Computation in Mammalian Cells |
| 09:40 | **Hui Xiao Chao***Chapel Hill, USA* | Evidence that the Human Cell Cycle is a Series of Uncoupled, Memoryless Phases |
| 10:00 | **Silvia Santos***London, England* | Decoding Cellular Signals: Commitment During hES Cells Differentiation |
| 10:40 | ***Coffee break***  |
|  | **Session 6** | Chair |
| 11:00 | **Ursula Klingmuller***Heidelberg, Germany* | Multilevel Regulation of TGFβ Signal Transduction |
| 11:40 | **Carlos Lopez***Nashville, USA* | Calibration of Mechanistic Apoptosis Models to Single Cell Data Using PySB |
| 12:00 | **James Lu***Houston, USA* | Modeling Synergy between Idasanutlin and Venetoclax in an AML Cell Line |  |
|  | **Darius Schweinoch***Heidelberg, Germany* | Temporal Control of the RiG-I-Dependent Antiviral Innate Immune Response |
|  | **Shyr-Shea Chang***Los Angeles, USA* | Physical Principles for Capillary Network Formation |
|  | **Kartik Subramanian***San Francisco, USA* | Predicting Drivers of Drug Response from Omics Data Across Breast Cancers |
|  | **Gajendra Suryawanshi***Los Angeles, USA* | QVISA: Quantitative Vector Integration Site Analysis for In Vitro Clonal Tracking |
|  | **Mattia Zampieri***Zurich, Swizerland* | Mapping Transcription Factor- Metabolite Associations in Cancer Cells |
| 12:30 | ***Lunch (Extended)*** | **Poster Session 2**  |
|  | **Session 7** | Chair: Peipei Ping |
| 14:45 | **Andreas Raue***Boston, USA* | Predicting Ligand-dependent Tumors from Multi-dimensional Signaling and Gene Expression Features |
| 15:25 | **Karine Le Roch***Riverside, USA* | Changes in Genome Organization of Parasite |
| 15:45 | **Bernhard Palsson***San Diego, USA* | Pasteur21: A Global System Biology Platform |
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| 16:30 | **Carpool to Annenberg Community Beach House** |
| 17:30 | **Activities/Cocktails** |
| 19:45 | **Conference Dinner**  |
| **Wednesday June 6** |
|  | **Session 8 Chair: Hilary Coller**  |
| 09:00 | **Arthur Lander***UC Irvine, USA* | *TBA* |
| 09:40 | **Kakajan Komurov***Cincinnati, USA* | Integrated Modeling and Targeting of Oncogenic Liabilities in Cancers |
| 10:00 | **Vito Quaranta***Nashville, USA* | Systems Biology of Small Cell Lung Cancer: Treatment Evasion by Phenotypic Transitions |
| 10:40 | ***Coffee break*** |
|  | **Award Lectures Chair: Roland Eils & Alexander Hoffmann** |
| 11:00 | **Pavak Shah***MSKCC, New York, USA* | **Anne Heidenthal Prize for Fluorescence Research, 2018***sponsored by Chroma Technology Corp.* *ShootingStar: Imaging Technologies for Single Cell Analysis in vivo* |
| 11:45 | **Frank Alber***USC, Los Angeles, USA* | **CSB Prize in Computational Systems Biology, 2018***sponsored by Merrimack Pharmaceuticals* *Mapping the Spatial Organization of Genomes and Cells through Data Integration* |
| 12:30 | ***Lunch***  |
|  | **Session 9 Chair: Jasmine Zhou**  |
| 13:45 | **Irina Lehmann***BIH Berlin, Germany* | *TBA* |
| 14:25 | **David Van Valen***Caltech Pasadena, USA* | Deep Learning for Single-Cell Biology |
| 14:45 | **Avi Ma’ayan***Mt Sinai, New York, USA* | The Art of Connectivity Mapping |
| 15:25 | Closing Remarks: Hoffmann/Eils |