

Wednesday, April 26, 2017	Frontiers in Mathematical Oncology: Young Investigators Conference
8:30 – 9:00	Breakfast
9:00 – 9:10	Opening remarks
9:10 – 9:55	Dr. Natalia Komarova (University of California, Irvine) Stochastic calculus of stem cells
10:00 – 10:45	Dr. Wolfgang Losert (University of Maryland) Physical guidance of cell migration
10:50 – 11:20	Break
11:20 – 11:35	Contributed talk – Chong Wang (George Washington University) Pattern formation – on the modeling of multi-constituent inhibitory systems
11:40 – 11:55	Contributed talk – Kaitlin Sundling (University of Wisconsin) Creating Personalized Mathematical Models of Gene Expression in Thyroid Carcinoma
12:00 – 12:15	Contributed talk – Anelia Horvath (George Washington University) Model dictionaries to screen experimental data for possible biological events
12:20 – 2:00	Lunch
2:00 – 2:45	Dr. Warren Kibbe (National Institutes of Health, National Cancer Institute) Precision Medicine - using Genomics, Proteomics and Imaging to inform biology and treatment
2:50 – 3:35	Dr. Stan Lipkowitz (National Institutes of Health, National Cancer Institute) Oncogenic Mutations in Cbl Proteins
3:40 – 4:10	Break
4:10 – 4:55	Dr. Qing Nie (University of California, Irvine) Data-driven multiscale modeling of cell fate dynamics

Thursday, April 27, 2017	Frontiers in Mathematical Oncology: Young Investigators Conference
9:00 – 9:10	Coffee
9:10 – 9:55	Dr. David Basanta (H. Lee Moffitt Cancer Center) Eco-evolutionary modeling of metastatic prostate cancer growth and treatment
10:00 – 10:45	Dr. Paul Macklin (Indiana University) Advances towards open source 3-D multicellular cancer systems biology
10:50 – 11:20	Break
11:20 – 11:35	Contributed talk
11:40 – 11:55	Contributed talk
12:00 – 12:15	Contributed talk
12:20 – 2:00	Lunch
2:00 – 2:45	Dr. Peter Choyke (National Institutes of Health, National Cancer Institute) Challenges in Prostate Cancer: Are there mathematical solutions?
2:50 – 3:40	Dr. Sylvia Plevritis (Stanford University) Optimizing drug combinations using single-cell perturbation response to account for intratumoral heterogeneity
3:40 – 4:10	Break
4:10 – 4:40	Dr. Sean Davis (National Institutes of Health, National Cancer Institute) Distributed computing approaches for large-scale data engineering and data science in cancer research
4:45 – 5:30	Dr. James Glazier (Indiana University) Using CompuCell3D as a platform for the Rapid Development of Flexible and Sharable Simulations to Address Problems in Cancer Biology
EVENING ACTIVITY	Dinner

Friday, April 28, 2017	Frontiers in Mathematical Oncology: Young Investigators Conference
9:00 – 9:10	Coffee
9:10 – 9:55	Dr. Mark Gilbert (National Institutes of Health, National Cancer Institute) The Brain Tumor Problem
10:00 – 10:45	Dr. Wojciech Czaja (University of Maryland) Machine Learning for Integrating Complementary Data Sources for Cancer Pharmacogenomics and Precision Medicine
10:50 -11:20	Break
11:20 – 11:50	Dr. Shannon Hughes (National Institutes of Health, National Cancer Institute) Opportunities in systems biology and mathematical oncology at NCI
11:55 – 12:35	Dr. Anna Marciniak-Czochra (University of Heidelberg) Mathematical modeling of heterogeneity and clonal selection in acute leukemias
12:35 – 12:40	Closing remarks