

**RECOMB/ISCB
Conference on
Regulatory and Systems Genomics
with DREAM Challenges**



**Memorial Sloan Kettering
Cancer Center
New York, New York**

November 4-6, 2019

Program Booklet

DREAM Schedule

Monday - Day 1 – November 4, 2019

START TIME	END TIME	SESSION TYPE
REGISTRATION		
8:00 am - 6:00 pm		
Location: RRL Lobby		
All DREAM Day talks to occur in the RRL Auditorium		
8:40 am	9:00 am	Welcome and Introductory Remarks - Pablo Meyer
9:00 am	9:40 am	Keynote - Christopher Mason
Challenge Updates		
9:40 am	9:50 am	Gustavo Stolovitzky & Justin Guinney <i>Dream Future</i>
9:50 am	10:05 am	Justin Guinney <i>Update on Challenges: Tumor Deconvolution and Electronic Healthcare Record DREAM Challenges</i>
10:05 am	10:15 am	Jim Costello <i>DREAM Rheumatoid Arthritis Challenge 2: Automated Scoring of Radiographic Joint Damage</i>
10:15 am	10:30 am	Julio Saez Rodriguez <i>Single Cell Proteomics DREAM Challenge</i>
10:30 am	10:40 am	Pablo Meyer <i>Allen Institute Cell Lineage Reconstruction DREAM Challenge</i>
10:40 am	11:00 am	Coffee Break with Posters
Challenge 1 - Preterm Birth Prediction: Transcriptomics DREAM Challenge Chair: Jim Costello		
11:00 am	11:30 am	Adi Tarca <i>Preterm Birth Prediction: Transcriptomics Challenge Overview Talk</i>
11:30 am	11:50 pm	Pataki Balint Armin <i>Best Performer Talk I: Blood test with machine learning to estimate the age of a pregnancy</i>
11:50 pm	12:10 pm	Ziyan Wang <i>Best Performer Talk II: Improving the Prediction of gestational age by using kernel-based approaches to denoise the data</i>
12:10 pm	2:10 pm	Lunch on Own
Challenge 2 - IDG-DREAM Drug-Kinase Binding Prediction Challenge Chair: Julio Saez Rodriguez		
2:10 pm	2:40 pm	Robert Allaway <i>IDG-DREAM Drug-Kinase Binding Prediction Challenge Overview Talk</i>
2:40 pm	3:00 pm	Team QED: Fangping Wan <i>Best Performer Talk I: An ensemble learning based approach for the IDG-DREAM Drug-Kinase Binding Prediction Challenge</i>
3:00 pm	3:20 pm	Team DMIS-DK: Sungjoon Park <i>Best Performer Talk II: In Silico Molecular Binding Affinity Prediction with Multi-Task Graph Neural Networks</i>
3:20 pm	3:40 pm	Team Aiwinteriscoming <i>Best Performer Talk III:</i>
3:40 pm	4:20 pm	Coffee Break with Posters
4:20 pm	5:00 pm	Keynote - Chris Wiggins
Challenge 3 - Malaria DREAM Challenge Chair: Pablo Meyer		
5:00 pm	5:30 pm	Geoffrey Siwo <i>Malaria Challenge Overview Talk</i>
5:30 pm	5:50 pm	Slim Fourati <i>Best Performer Talk I: Predict the Artemisinin IC50 of malaria isolates using gene co-expression network analysis</i>
5:50 pm	6:10 pm	Yoon Sanghoo <i>Best Performer Talk II: Prediction of the Artemisinin IC50 of Malaria Isolate using in Vitro the Transcirtptomics Data</i>
6:10 pm	6:30 pm	Jiantao Guo <i>Best Performer Talk III: Predict the resistance status of malaria isolates</i>
6:30 pm	8:00 pm	DREAM Reception and Posters Location: Rooms 104

Abstracts are available in the mobile app
<https://mobile-mobile.swoogo.com/app/ij93v9>



RSG Schedule

Tuesday – Day 2 – November 5, 2019

START TIME	END TIME	SESSION TYPE
REGISTRATION		
8:00 am - 5:00 pm		
Location: RRL Lobby		
All RSG Day talks to occur in RRL Auditorium		
9:00 am	9:15 am	Welcome
Special Session on Cancer Systems Biology		
9:15 am	10:00 am	Keynote - Sohrab Shah
10:00 am	10:15 am	Gurnit Atwal <i>A deep learning system can accurately classify primary and metastatic cancers based on patterns of passenger mutations</i>
10:15 am	10:30 am	Chloe B. Steen <i>Landscape of Tumor Cell States and Cellular Ecosystems in Lymphoma</i>
10:30 am	11:00 am	Coffee Break with Posters Location: RRL Lobby
11:00 am	11:30 am	New Investigator Spotlight Speaker - Elham Azizi
11:30 am	11:45 pm	Anchal Sharma <i>A computational genomic approach identifies that non-genetic heterogeneity is a major driver of phenotypic heterogeneity and evolutionary dynamics in non-small cell lung cancer</i>
11:45 pm	12:00 pm	Hamed Najafabadi <i>Domain-resolution maps of in vivo DNA binding reveal the molecular phenotypes associated with somatic mutations in zinc finger transcription factors</i>
12:00 pm	12:15 pm	Bogdan Luca <i>Atlas of clinically-distinct cell states and cellular ecosystems across human solid tumors</i>
12:15 pm	1:00 pm	Keynote - Jane Skok <i>CTCF and its impact on gene regulation and interplay with CTCF function</i>
12:45 pm	2:30 pm	Lunch on Own
2:30 pm	2:45 pm	Yuning Zhang <i>Competition for DNA binding between paralogous transcription factors determines their genomic occupancy and regulatory functions</i>
2:45 pm	3:00 pm	Yiming Kang <i>TF binding locations and TF perturbation responses: The search for convergent evidence</i>
3:00 pm	3:15 pm	Shaun Mahony <i>Characterizing the sequence and chromatin predeterminants of induced transcription factor binding with bimodal neural networks</i>
3:15 pm	3:30 pm	Eva Prakash <i>Suggested best practices for interpreting deep learning models of regulatory DNA</i>
3:30 pm	4:00 pm	Coffee Break with Posters Location: RRL Lobby
4:00 pm	4:15 pm	Yuri Pritykin <i>A unified chromatin state and single-cell gene expression analysis defines a common differentiation trajectory towards T cell exhaustion</i>
4:15 pm	4:30 pm	Chengyang Dong <i>INFIMA Leverages Multi-Omic Model Organism Data to Identify Target Genes for Human GWAS Variants</i>
4:30 pm	4:45 pm	Sneha Mitra <i>RoboCOP: Multivariate state space model integrating epigenomic accessibility data to elucidate genome-wide chromatin occupancy</i>
4:45 pm	5:30 pm	Keynote - Anshul Kundaie
5:30 pm	7:00 pm	Reception with Poster viewing Location: Rooms 104 & 116

Abstracts are available in the mobile app
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RSG Schedule

Wednesday – Day 3 – November 6, 2019

START TIME	END TIME	SESSION TYPE
REGISTRATION		
8:00 am - 5:00 pm		
Location: RRL Lobby		
All RSG Day talks to occur in RRL Auditorium		
9:00 am	9:15 am	Welcome
9:15 am	10:00 am	Keynote - Elodie Ghedin
10:00 am	10:15 am	Anthony Findley <i>Context-specific genetic regulation of gene expression across cell types and treatments</i>
10:15 am	10:30 am	Ralf Herwig <i>Network integration and modelling of dynamic drug responses at multi-omics levels</i>
10:30 am	10:45 am	George Rosenberger <i>Inference of functional protein attributes from protein correlation profiles for the multi-omic elucidation of molecular mechanisms</i>
10:45 am	11:15 am	Coffee Break with Posters Location: RRL Lobby
11:15 am	11:30 am	Shiqi Xie <i>Global analysis of enhancer targets reveals convergent enhancer-driven regulatory modules</i>
11:30 am	11:45 am	Hatice Osmanbeyoglu <i>Integrative computational framework for linking signaling and transcriptional programs in single cells</i>
11:45 am	12:00 pm	Nelson Johansen <i>Combining deep single cell atlases and case-control bulk RNA studies to identify cell type-specific signatures of disease using deep learning</i>
12:00 pm	12:45 pm	Keynote - Joakim Lundeberg <i>Exploring data driven analysis of spatially resolved transcriptomes in situ and in single cells</i>
12:45 pm	2:00 pm	Lunch on Own
2:00 pm	2:45 pm	Keynote - Peng Yin
2:45 pm	3:00 pm	Anders Rasmussen <i>CRISPR-decryptr: A Bayesian Pipeline for the Analysis of CRISPR Screens</i>
3:00 pm	3:15 pm	Cynthia Kalita <i>A powerful method to estimate cell-type specific QTLs from bulk expression by leveraging allelic imbalance</i>
3:15 pm	3:30 pm	Denise Duma <i>Modeling and prediction of genes associated with rare Mendelian phenotypes using an end-to-end deep learning approach</i>
3:30 pm	4:00 pm	Coffee Break with Posters Location: RRL Lobby
4:00 pm	4:15 pm	Xi Chen <i>Tissue-specific enhancer functional networks for associating distal regulatory regions to disease</i>
4:15 pm	4:30 pm	Austin Wang <i>Allele-Specific QTL Fine-Mapping with PLASMA</i>
4:30 pm	4:45 pm	Brittany Baur <i>Leveraging Public Epigenomic Datasets to Examine the Role of Regulatory Variation in the Three-dimensional Organization of the Genome</i>
4:45 pm	5:30 pm	Keynote - Alexis Battle
5:30 pm	7:00 pm	Reception with poster viewing Location: Room 104 & 116

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Thank you for attending the RSGDREAM 2019 Conference. Please read all of the information provided below and visit the conference registration desk should you have any additional questions about conference activities.

ATM

The closest ATM is located on the corner of 67th and 1st Ave and is a TD bank.

Badge Policy

Your name badge functions as your admission to all official conference activities. As a safety tip, please remember to take off your conference badge any time you go outside the conference area.

Cell Phones

As a courtesy to your fellow attendees, and especially the presenters and speakers, please turn off or silence your cell phone or any other portable electronic devices.

Certificates of Attendance

Certificate of attendance will be sent via email at the end of the conference.

Conference Evaluation Forms

The conference evaluation will be emailed to all registrants. Please take a few moments to complete the evaluation, as it provides valuable feedback that assists in planning future conferences.

Emergencies

In the event of a medical emergency, please call 911 from your cell phone. Be prepared to give the building and floor where the emergency has occurred on and the room number you are in or nearest to, as well as the type of emergency.

Endorsements

RSGDREAM does not endorse the products or services displayed or sold by sponsors, exhibitors or advertisers, or the views expressed by any speaker or other conference participant.

Job Opportunities

A poster board will be available near room 117 for you to post jobs and candidates to post resumes. If you require any assistance on-site with the job opportunities board, please ask at the registration desk.

Meeting Room Overcrowding

Law requires RSGDREAM and the MSKCC, to follow room capacity regulations set forth by the fire marshal. We ask that you respect request from conference staff in regards to room overcrowding. We will be looping the presentations into room 117. We appreciate your cooperation. Thank you.

Membership

If you are interested in joining ISCB, please proceed to the registration desk or www.iscb.org for more information.

Mobile App

Please download the app to view the full program and abstracts.

<https://mobile-mobile.swoogo.com/app/ij93v9>



Poster Sessions

Poster presentations will be held during three sessions, DREAM, RSG Odd Number Session and RSG Even Number Session. Posters are listed by number online at <https://www.iscb.org/recomb-regsystgen2019-program/recomb-regsystgen2019-posters-schedule> and assigned number will be located on the poster boards. Additional details are available on the website.

Registration

MSKCC Rockefeller Research Laboratories
LOBBY

MONDAY, November 4 8:00AM-6:00PM

TUESDAY, November 5 8:00AM-5:00PM

WEDNESDAY, November 6 8:00AM-5:00PM

Social Events

CONTINENTAL BREAKFAST

Beverages and light breakfast will be available when registration opens until the start of the talks.

COFFEE BREAKS

Beverages and light snacks will be available during the session breaks in the morning and afternoon.

LUNCH

Lunch is on your own each day

WELCOME RECEPTIONS

Hors d'oeuvres as well as beverages will be available each evening during poster sessions.

Smoking Policy

Please note that smoking is NOT permitted in any University buildings. Smoking is only permitted in designated areas.

Transportation

Please note that transportation is NOT provided by ISCB for this conference. Conference locations are approximately a 12-15 minute walk from the three conference hotels. Additionally, your hotel may have a shuttle. Please check with your hotel directly.

Website for RSGDREAM

For additional and more detailed information please visit the conference website at

<https://www.iscb.org/recomb-regsysgen2019>

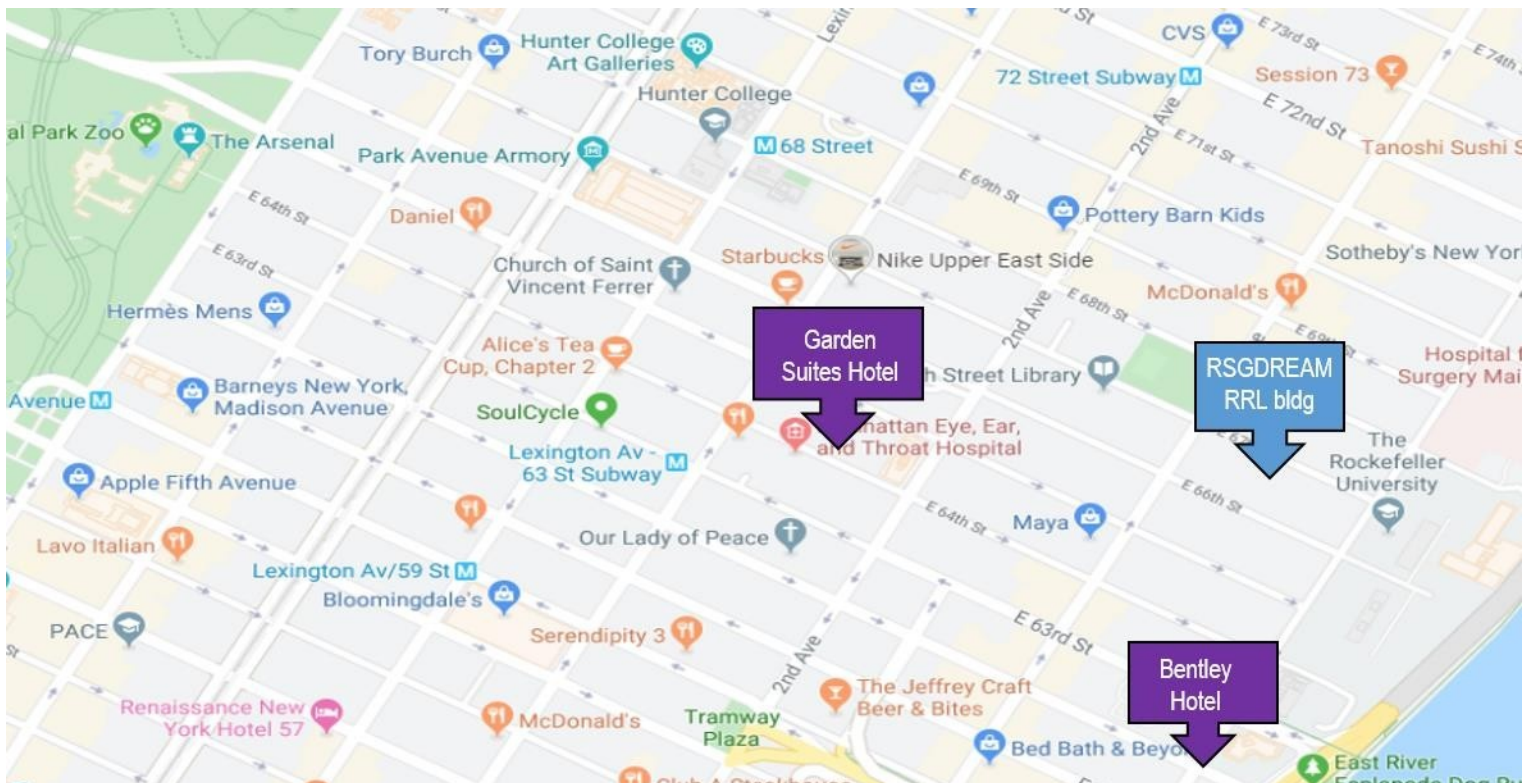
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