Oct 26th, 9:00 AM

**Agenda: 2020 University of Massachusetts Medical School Research Retreat**

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UMass Graduate School of Biomedical Sciences

25th Annual Research Retreat

October 26-27, 2020
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</table>
| 9:00 am – 9:20 am | Welcome and Opening Remarks  
Dr. Terence R. Flotte  
Celia and Isaac Haidak Professor of Medical Education  
Dean, Provost and Executive Deputy Chancellor and Chief Research Officer  
Dr. Michael F. Collins  
Chancellor and Professor, Population and Quantitative Health Sciences and Medicine  
Senior Vice President for the Health Sciences  
Dr. Katherine Luzuriaga  
Professor, Molecular Medicine, Pediatrics, and Medicine  
Director, UMass Center for Clinical and Translational Science  
Vice Provost, Clinical and Translational Research |
| 9:20 am – 10:25 am | New Faculty Talks  
Moderator: Dr. Roger Davis  
Chair and Professor, Molecular Medicine  
“Multiplexing and demultiplexing with cerebral organoids for neurological diseases” - Dr. TengTing (Elaine) Lim, Assistant Professor, Program in Bioinformatics and Integrative Biology and Molecular, Cell and Cancer Biology |
| 9:25 am – 10:05 am | “Insulator dysfunction and epigenetic alterations as tumor drivers.”- Dr. William Flavahan, Assistant Professor Molecular, Cell and Cancer Biology |
| 10:05 am – 10:25 am | “Harnessing cellular senescence for cancer immunotherapy” - Dr. Marcus Ruscetti, Assistant Professor Molecular, Cell and Cancer Biology |
| 10:25 am – 11:45 am | BREAK  
New Faculty Talks  
Moderator: Dr. Marian Walhout  
Professor, Program in Molecular Medicine and Co-Director, Program in Systems Biology  
“All hail our viral overloads - Traversing synaptic plasticity with transposons” - Dr. Travis Thomson, Assistant Professor Neurobiology  
“Multiplex pooled in-vitro modeling for genetic studies” - Dr. Rigel Chan, Assistant Professor Neurology  
“Heterogeneity and function of intestinal macrophages “ - Dr. Milena Bogunovic, Associate Professor Pathology |
| 11:45 am – 1:00 pm | LUNCH and Poster Session Preparations  
Virtual Poster Session #1 (see Poster Session agenda for presenter details) |
| 1:00 pm – 2:00 pm | Student Talks  
Moderator: Dr. Kendall L. Knight  
Associate Dean, Graduate School of Biomedical Sciences and Professor, Biochemistry and Molecular Pharmacology  
“Antigen specificity and cross reactivity in vaccine-mediated protection against cryptococcosis” - Maureen Hester, Division of Infectious Disease and Immunology (Stu Levitz lab)  
“Investigating the genetics of social behavior in wolf-dog hybrids” - Xue Li, Bioinformatics and Integrative Biology (Elinor Karlsson lab)  
“Heat stress disrupts piRNA biogenesis machinery” - Nicholas Rice, Program in Molecular Medicine (Bill Theurkauf lab) |
| 2:05 pm – 3:10 pm | BREAK  
Post-Doc Talks  
Moderator: Dr. Mary Ellen Lane  
Dean, Graduate School of Biomedical Sciences and Professor, Neurobiology  
“FMRP loss alters the epigenetic landscape and alternative splicing of mRNAs in Fragile X Syndrome” - Sneha Shah, Program in Molecular Medicine (Joel Richter lab)  
“CRISPR RNP-enhanced adipocyte “browning” as cell therapy for metabolic disease” - Emmanouela Tsagkaraki, Program in Molecular Medicine (Michael Czech lab) |
### Tuesday, October 27, 2020

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<tr>
<th>Time</th>
<th>Event</th>
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<tr>
<td>3:45 pm – 4:00 pm</td>
<td>“NHR-49/PPAR-α and HLH-30/TFEB cooperate for C. elegans host defense via a flavin-containing monooxygenase “ - Khursheed Wani, Laboratory of Comparative Immunology (Javier Irazoqui lab)</td>
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<td>4:00 pm – 4:30 pm</td>
<td>Poster Session Preparation</td>
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<td>4:30 pm – 5:30 pm</td>
<td>Virtual Poster Session #2 (see Poster Session agenda for presenter details)</td>
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<tr>
<td>5:30 pm – 6:30 pm</td>
<td>Virtual Poster Session #3 (see Poster Session agenda for presenter details)</td>
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<td><strong>Presentation: The Dan Mullen Awards for Best Posters</strong></td>
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| 8:45 am – 9:00 am | Dr. Kendall L. Knight  
*Associate Dean, Graduate School of Biomedical Sciences*  
Dr. Mary Ellen Lane  
*Dean, Graduate School of Biomedical Sciences* |
| 9:00 am – 10:30 am | **New Faculty Talks**  
*Moderator:* Dr. Beth McCormick  
*Vice-Chair and Professor, Microbiology and Physiological System* |
| 9:10 am – 9:30 am | “Quantitative approach to understanding autonomous and collective deaths of microbial and mammalian cells” - Dr. Hyun Youk, *Associate Professor in the Program in Systems Biology* |
| 9:30 am – 9:50 am | “Machine learning to decouple associations between microbiome, host immunology and clinical outcome” - Dr. Vanni Bucci, *Associate Professor Microbiology and Physiological Systems* |
| 9:50 am – 10:10 am | “Single-molecule analysis of HIV-1 genomic RNA conformation and dynamics” - Dr. James Munro, *Associate Professor Microbiology and Physiological Systems* |
| 10:10 am – 10:30 am | “Metabolic interactions within microbial communities” - Dr. Elizabeth Shank, *Associate Professor Program in Systems Biology and Microbiology and Physiological Systems* |
| **BREAKE** |  |
| 10:30 am – 11:50 am | **New Faculty Talks**  
*Moderator:* Dr. Michael Green  
*Chair and Professor, Molecular, Cell and Cancer Biology* |
| 10:45 am – 11:00 am | “Macular Degeneration epidemiology: nature-nurture, lifestyle factors, genetic risk, and gene-environment interactions: clues to therapies” - Dr. Johanna Seddon, *Professor, Ophthalmology and Visual Sciences* |
| 11:00 am – 11:20 am | “Neural markers of social engagement in the first year of life” - Dr. Sohye Kim, *Assistant Professor Psychiatry* |
| 11:20 am – 11:40 am | "ORAN: A meta-modeling platform to drive real-life and online outbreak simulations" - Dr. Andres Colubri, *Assistant Professor Microbiology and Physiological Systems* |
| 11:50 am – 12:55 pm | **COVID-19 Research**  
*Moderator:* Dr. Thoru Pederson  
*Professor, Biochemistry and Molecular Pharmacology and Associate Vice Provost for Research* |
| 11:50 am – 12:15 pm | “SARS-CoV-2 and Influenza-What's the difference and why do I care? “ - Dr. Robert Finberg, *Chair and Professor, Medicine* |
| 12:15 pm – 12:35 pm | "Structural insights to antivirals against SARS-CoV-2” - Dr. Celia Schiffer, *Professor Biochemistry and Molecular Pharmacology* |
| 12:35 pm – 12:55 pm | “Developing RNAi-based therapeutics for COVID-19 in five months” - Dr. Anastasia Khvorova, *Professor, RNA Therapeutics Institute* |
| **Closing Remarks** |  
~ Closing Remarks ~  
Dr. Terence R. Flotte  
*Celia and Isaac Haidak Professor of Medical Education  
Dean, Provost and Executive Deputy Chancellor and Chief Research Officer*