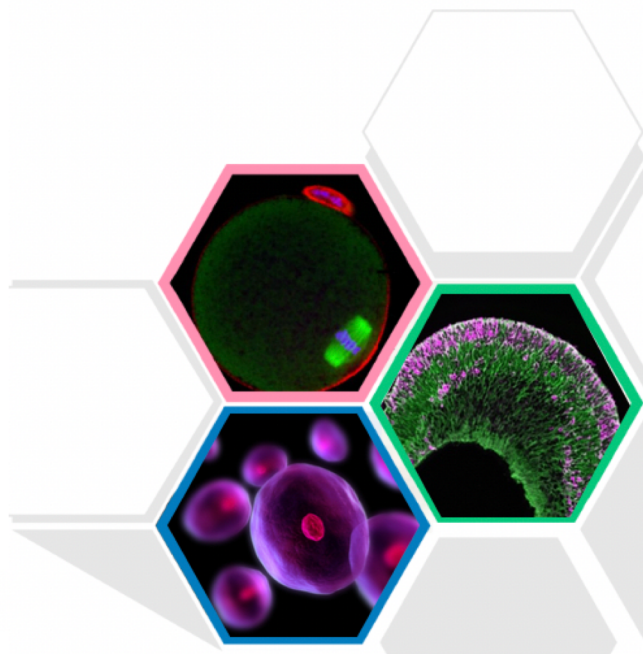




3<sup>RD</sup> ANNUAL BTP SYMPOSIUM

# CELL-BASED THERAPIES



# Schedule

Time	Events
8:15 – 9:00	Check-In and Coffee
9:00 – 9:10	Introduction
9:10 – 9:40	Jonathan Thon, Platelet BioGenesis
9:40 – 10:05	Glen Raffel, Magenta Therapeutics
10:05 -10:30	Biju Parekkadan, Sentien
10:30 – 11:15	Coffee break and Poster Session I
11:15 – 11:40	Kyung-Jin (KJ) Jang, Emulate
11:40 – 12:05	Courtney Williams, Regeneron
12:15 – 1:45	Rotational Connections Lunch (by invitation) Marriot Campus Center 11 <sup>th</sup> Floor
2:00 – 2:45	Keynote: Jennifer Brogdon, Novartis
2:45 – 6:00	Biotech Battles (by invitation, closed to public)
6:00 – 6:10	Award Ceremony (open to public)
6:10 – 7:00	Happy Hour and Poster Session II
7:00 – 9:00	Dinner (by invitation)

<b>POSTER #</b>	<b>TITLE and PRESENTING AUTHOR</b>
1	Detecting Caspase-3 Cytosolic Delivery Using Split GFP <b>Francesca Anson</b>
2	Characterizing Zika Virus Protease and MH1 complex <b>Kristalle Cruz</b>
3	Directional Cell Migration Guided by a Strain Gradient on the Extracellular Matrix <b>Feiyu Yang</b>
4	Effectiveness of Pharmacological Chaperone on amenable Fabry Disease mutations <b>Efecan Aral</b>
5	Engineering Antibody (Fab') Conjugated Nanoparticles for Targeted Delivery to T-Lymphocytes <b>Khushboo Singh</b>
6	Enzymatic Polymerization for Biotechnology <b>Deborah Snyder</b>
7	Nuclear encoded mitochondrial ribosomal proteins are required for mammalian gastrulation <b>Agnes Cheong</b>
8	Regulation of Notch ligand expression on CD4 T cells <b>Ankita Mitra</b>
9	Stimuli-Responsive Nanoparticles to Monitor Immune Checkpoint Inhibitor Response in Real Time <b>Anh Nguyen</b>
10	Tau detection in salivary glands- Elms College Cell Culture Lab <b>Sudad Saman</b>
11	Fertilization and early embryo development are influenced by sperm incubation condition <b>Darya Tourzani</b>

12	Where stem cell technology meets neurobiology: Investigating the role of CASK protein in synapse function and cortical development using human induced neuronal cells <b>Danny McSweeney</b>
13	Influence of PTDM Binding and Structure on Intracellular Protein Delivery <b>Christopher Hango</b>
14	Analysis of Ppp1r35 Knockout Mouse Embryos <b>Danielle Archambault</b>





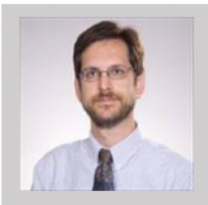
## **Jonathan Thon, PhD**

**Founder and Chief Scientific  
Officer**

### **Platelet Biogenesis**

Dr. Thon invented PBG's platelet platform in his laboratory at Harvard Medical School, where he served as an assistant professor. He has published more than 30 peer-reviewed papers on the production and storage of platelets. He earned his Ph.D. in biochemistry and molecular biology from the University of British Columbia, Vancouver.

The goals of PBG are to develop a bio-mimetic system to study the cell biological and molecular pathways involved in platelet production and produce useable numbers of clinically viable human platelets for infusion. We are accomplishing this by generating a microfluidics platform that recapitulates the human bone marrow cellular environment and vasculature under physiologically relevant shear forces. Our biochips fully integrate megakaryocyte and platelet biology with extracellular matrix composition and stiffness, hemodynamics and microvascular geometry to study the physiological determinants of platelet formation. Functional equivalence is determined by comparing culture-derived platelets to blood platelet controls.



## **Glen Raffel, MD, PhD**

**Senior Medical Director  
Magenta Therapeutics**

Dr. Raffel received his B.S. in Biochemistry at Bowdoin University, Ph.D. in Molecular Biology and M.D. in Hematology and Oncology from Tufts University. His research has focused on understanding the molecular regulation of hematopoietic stem cells in the bone marrow. In particular, he has been pursuing the critical functions of *Ott1* gene in the molecular regulation of hematopoietic stem cells under the goal to develop therapeutic interventions to guard hematopoietic stem cell function during stress and impair function in malignant cells. He was the director for bone marrow transplantation unit at the UMass-Medical School. Since 2018 he is a senior medical director at Magenta Therapeutics, a clinical-stage biotechnology company that develops therapeutics to revolutionize bone marrow transplant for patients with autoimmune disease, blood cancers, and genetic diseases.



## **Biju Parekkadan, PhD**

**Co-Founder  
Sentien**

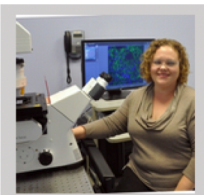
Dr. Parekkadan is an Associate Professor of Bioengineering and Medicine at Rutgers University and a Core Faculty Member at the Center for Surgery, Innovation, and Bioengineering at Harvard Medical School. His laboratory specializes in cell, gene and tissue engineering that is supported by continuous funding from the NIH and disseminated in >100 invited lectures, >35 publications in high-impact journals (Nature Biomedical Engineering, PNAS, Science Translational Medicine) with >3000 citations and >10 patent applications. In 2012, he was recognized by Harvard Medical School with a Young Mentor of the Year Award and by the White House with a Presidential Early Career Award for Scientists and Engineers (PECASE), the highest honor given by the US government for early career investigators. His doctoral research generated the IP behind the formation of Sentien, and he continues to lead the R&D efforts. He received a BS in Biomedical Engineering from Rutgers University (2003) and a PhD in Chemical and Medical Engineering from the Harvard-MIT Division of Health Sciences and Technology (2008).



## **Kyung-Jin Jang, PhD**

**Vice President  
Emulate**

Kyung-Jin (KJ) Jang is Vice President at Emulate, Inc. Prior to joining Emulate, Jang and her team developed multiple organ systems including lung, kidney, liver, gut, brain and linked organ systems at the Wyss Institute at Harvard University. Jang received her Ph.D. in the interdisciplinary program in nanoscience and technology from Seoul National University in South Korea. She has built a pioneering position within the organs-on-chip field through her multidisciplinary experiences for last 13 years. Jang has earned numerous recognitions for academic excellence and has received many honors in the field of lab on a chip and toxicology. She has authored or coauthored over 20 research publications and 2 book chapters.



## **Courtney Williams, PhD**

### **Staff Scientist**

### **Regeneron Pharmaceuticals**

Dr. Williams is currently a scientist at Regeneron Pharmaceuticals working in the Oncology and Angiogenesis Group. Her current focus is on tissue and cancer stem cells, using in vitro differentiation protocols, ex vivo organoid models and 3D cell culture systems to compliment in vivo mouse tumor models for cancer stem cell target identification and validation. She did her post-doctoral training in the laboratory of Linda G. Griffith, PhD at MIT in the Department of Biological Engineering. Her work in the Griffith lab focused on tissue engineering for maintenance of the metabolic function and differentiation state of primary hepatocytes in culture using synthetic and semi-synthetic hydrogels. Williams received her PhD in Molecular Biology from Princeton University in 2007, working in the laboratory of Jean E. Schwarzbauer, PhD. She studied the role of fibronectin, an extracellular matrix protein, in the progression of breast cancer using a three-dimensional cell culture model. As an undergraduate at Yale University she received a BS in Molecular Biophysics and Biochemistry in 2001 doing research in the Laboratory of Joann B. Sweasy in the Department of Therapeutic Radiology at the Yale University School of Medicine. She studied the role of DNA polymerase  $\beta$  in mismatch repair during meiosis.



## **KEYNOTE SPEAKER**

## **Jennifer Brogdon, PhD**

### **Novartis**

Jennifer Brogdon is currently Executive Director of Exploratory Immunology at Novartis Institutes for BioMedical Research in Cambridge, MA where she leads a diverse, cross-functional team to develop next generation CAR-T therapies. Since she joined NIBR in 2004, Jennifer has developed broad expertise in antibody, small molecule and cell & gene therapy programs, most notably during the BLA submission, ODAC and approval of Kymriah. She recently received the Novartis Distinguished Scientist Award for her contributions in the CAR-T cell collaboration with the University of Pennsylvania to treat pediatric ALL patients and to innovate novel therapies for multiple hematological and solid malignancies. In addition, Jennifer sits on several joint steering committees with external partners and cross-divisional leadership teams, while also contributing regularly to BD&L opportunities and mentoring programs within Novartis. She holds a PhD in Immunology from Duke University and received postdoctoral training in Immunobiology from Yale University.

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