# **Engineering the Building Blocks to Translational Technologies**

July 22 - 23, 2017

#### Chair

Claire E. Witherel

### **Holderness School**

33 Chapel Lane Holderness, NH, US

### **Conference Description**

The Gordon Research Seminar (GRS) on Biomaterials and Tissue Engineering is a unique forum for graduate students, post-docs, and other scientists with comparable levels of experience and education to present and exchange new data and cutting edge ideas.

The goal of this meeting is to highlight to the breadth and range of topics within the field, but also provide an inclusively broad platform for trainees to showcase their important work. Additionally, there will be an "Alternative Career Paths" panel at the end of the meeting featuring speakers within Science Communication, Start-Ups, and Government Research, who will describe their transition from their academic (PhD or Post-Doc) positions into to their current role and stick around for questions and discussion.

Interested applicants are encouraged to submit abstracts for a talk and/or poster within the sessions described above. Please do not hesitate to contact the chair if you have any questions or concerns.

## **Related Meeting**



This GRS will be held in conjunction with the "Biomaterials and Tissue Engineering" Gordon Research Conference (GRC). Those interested in attending both meetings must submit an application for the GRC in addition to an application for the GRS. Refer to the <u>associated GRC program page</u> for more information.

## Conference Program

Saturday		
2:00 pm - 5:00 pm	Arrival and Check-in	
3:30 pm - 3:45 pm	Introductory Comments by GRC Site Staff / Welcome from the GRS Chair	
3:45 pm - 4:30 pm	Keynote Session: Unlocking the Regenerative Capacity of Skin and Brain Tissues Using Biomaterials Discussion Leader: Brian Aguado (University of Colorado Boulder, USA)	
3:45 pm - 4:20 pm	<b>Tatiana Segura</b> (University of California, Los Angeles, USA) "Unlocking the Regenerative Capacity of Skin and Brain Tissues Using Biomaterials"	
4:20 pm - 4:30 pm	Discussion	
4:30 pm - 6:00 pm	Poster Session	
6:00 pm - 7:00 pm	Dinner	
7:30 pm - 9:30 pm	Instructive Biomaterials Using Molecular Engineering Techniques Discussion Leader: Derfogail Delcassian (University of Nottingham, United Kingdom / Massachusetts Institute of Technology, USA)	
7:30 pm - 7:50 pm	<b>Robert Wieduwild</b> (University of Oxford, United Kingdom) "Twin Protein Superglues Give Hydrogels Mimicking Cell-Cell Interactions"	
7:50 pm - 8:00 pm	Discussion	
8:00 pm - 8:20 pm	<b>Handan Acar</b> (University of Chicago, USA) "Self-Assembling Nanoparticles with Enhanced Stability"	
8:20 pm - 8:30 pm	Discussion	
8:30 pm - 8:50 pm	<b>Eugene Pashuck</b> (Rutgers University, USA) "Controlled Cell Migration Within Cell Selective Hydrogels"	

8:50 pm - 9:00 pm	Discussion
9:00 pm - 9:20 pm	<b>Ece Ozturk</b> (ETH Zurich, Switzerland) "Biomimetic Alginate Sulfate Hydrogels Provide a Chondrogenic and Anti-Inflammatory Microenvironment for Articular Chondrocytes"
9:20 pm - 9:30 pm	Discussion
Sunday	
7:30 am - 8:30 am	Breakfast
9:00 am - 11:00 am	Immunomodulatory and Cell-Targeted Biomaterials for Translational Technologies Discussion Leader: Pamela Graney (Drexel University, USA)
9:00 am - 9:20 am	<b>Evelyn Bracho-Sanchez</b> (University of Florida, USA) "Targeted Extracellular Indoleamine 2,3-Dioxygenase Suppresses Immune Responses <i>In Vitro</i> and <i>In Vivo</i> "
9:20 am - 9:30 am	Discussion
9:30 am - 9:50 am	<b>Yaoying Wu</b> (Duke University, USA) "Alpha-Helical Peptide Nanofibers as Non-Inflammatory Self-Adjuvanting Vaccines"
9:50 am - 10:00 am	Discussion
10:00 am - 10:20 am	Heather Gustafson (University of Washington, USA) "Early Fibrin Stabilization with a Fibrin-Stabilizing Polymer in Breast Cancer Brain Metastatic Development Aides in Macrophage Recruitment and Propagates Reactive Gliosis Enhancing Metastatic Outgrowth"
10:20 am - 10:30 am	Discussion
10:30 am - 10:50 am	<b>Nisarg Shah</b> (Harvard University, USA) "Recapitulating Niche Interactions in T-Cell Neogenesis"
10:50 am - 11:00 am	Discussion

11:00 am - 12:30 pm	Poster Session
·	Coffee will be served in the poster area from 11:00 am - 11:30 am
12:30 pm - 1:30 pm	Lunch
1:30 pm - 2:30 pm	Mentorship Component: Alternative Career Paths
	Panel
	Discussion Leader: <b>Tatiana Segura</b> (University of California, Los
	Angeles, USA)
1:30 pm - 2:30 pm	Panel Discussion
	Alternative Career Paths - Industry, Start-Up, Science Policy,
	Government
	• Sarindr Bhumiratana (EpiBone Inc, USA)
	• Hallie Brinkerhuff (Zimmer Biomet, USA)
	<ul> <li>Marisha Godek (Medtronic, USA)</li> </ul>
	<ul> <li>Sapana Vora (U.S. Department of State, USA)</li> </ul>
	Richard McFarland (Advanced Regenerative Manufacturing
	Institute (ARMI) / BioFabUSA, USA)
2:30 pm - 3:00 pm	Evaluation Period
	Fill in GRS Evaluation Forms
3:00 pm	Seminar Concludes

# Contributors