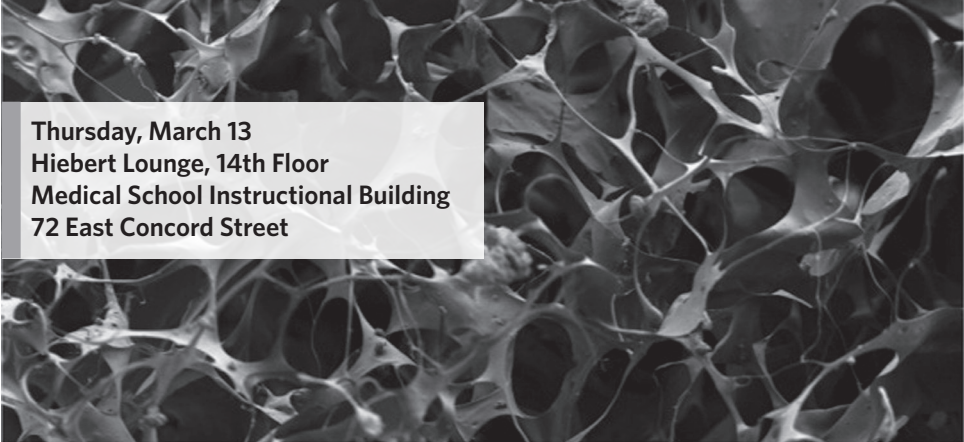


SCIENCE DAY 2014

Thursday, March 13
Hiebert Lounge, 14th Floor
Medical School Instructional Building
72 East Concord Street



(above) Alginate cryogel used for cell and drug delivery; image courtesy of Sidi Bencherif, the Mooney's lab

Controlling Biology with Biomaterials: from Bone Regeneration to Cancer Vaccines

by David J. Mooney, PhD

Robert P. Pinkas Family Professor of
Bioengineering, Harvard School of
Engineering and Applied Sciences;
Founding Core Faculty Member,
Platform Lead, Programmable
Nanomaterials, Wyss Institute at
Harvard; **1 to 2 p.m., Hiebert Lounge**

Science Day is supported by the American Student
Dental Association, the Student Research Group, and
Research at Boston University Henry M. Goldman School of
Dental Medicine.

Poster Viewing

9 a.m. to 4:30 p.m.

Poster Judging

10 a.m. to 1 p.m.

Complimentary Lunch

12 to 1 p.m.

Keynote Address

1 to 2 p.m.

Oral Presentations

2 to 4:30 p.m.

Vendor Fair

8 a.m. to 1:30 p.m.

100 E. Newton St.

Dental School Cafeteria

8 a.m. to
1:30 p.m.

Vendor Fair



100 EAST NEWTON STREET, CAFETERIA

A-Dec
3M/ESPE
Arcari Dental Laboratories
Brasseler USA
Colgate
Designs for Vision
Door to Door Dental
Henry Schein
H & O Dental Lab*

Johnson & Johnson
Palma Dental Laboratory*
Patterson Dental
Phillips Sonicare
Premier Dental Products
Procter & Gamble/Crest Oral-B
Surgitel

***new vendor**

1 to
2 p.m.

Keynote Address

HIEBERT LOUNGE, L-14

David J. Mooney, PhD

Robert P. Pinkas Family Professor of Bioengineering, Harvard School of Engineering and Applied Sciences; Founding Core Faculty Member, Platform Lead, Programmable Nanomaterials, Wyss Institute at Harvard

There are hundreds of clinical trials of cell therapy currently underway, but simple cell infusions lead to large-scale cell death, little control over cell fate, and a typically poor clinical outcome. In contrast, biomaterials can be used to serve as cell carriers or attractors of host cell populations, and to then program the cells in vivo. The potential of biomaterials to regulate cell biology in processes as diverse as tissue regeneration and therapeutic cancer vaccines will be examined.

9 a.m. to
1 p.m.

Poster Presentations

HIEBERT LOUNGE, L-14

Pre-doctoral Student Posters

Kaveh Baharvand Ahmadi, Raffi Miller, Wanda Wright, Jason Mahaffey, Sharon Rich, Leslie Will and Judith Jones. Departments of General Dentistry & Orthodontics and Dentofacial Orthopedics: "Payment for Orthodontic Treatment Parent-reported QOL of Teens."

Nicolas Branshaw and Erdjan Salih. Department of Molecular and Cell Biology: "Phosphorylation Sites Distribution by Mass Spectrometry for Bovine Dentin Phosphophoryn (BDP)."

Matthew Green, Bo Hou and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "Cellular Changes of Stem Cells in 3D Culture."

Homan Javaheri, Sok-Ja Janket, Marganit Ben Dakon, Natalie Gordon and Devaki Sundararajan. Department of General Dentistry: "Pathogenesis of Autoimmune Diseases and Dental Implications."

Daniel Moynihan, Anita Gohel, Paul Rigali, Neal Fleisher, Sharon Rich and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "Using a Cone Beam CT Scan to Evaluate Periodontal Bone Height."

Jay Patel, Raffi Miller, Wanda Wright, Jason Mahaffey, Sharon Rich, Leslie Will and Judith Jones. Department of General Dentistry & Orthodontics and Dentofacial Orthopedics: "Impacts of Malocclusion are Different from Children's and Parent's Perspectives."

Post-doctoral Student Posters

Abdullah Alayad, Richard Pober and Russell Giordano. Department of Restorative Science/Biomaterials: "Strength of Veneer Porcelain with Various Zirconia Thickness and Sintering."

Mazin Algahtani and Woosung Sohn. Department of Health Policy and Health Services Research: "Unmet Preventive Dental Care Needs Among Children with Special Health Care Needs."

Munirah Almershed, Vikki Noonan and Maria Kukuruzinska. Department of Molecular and Cell Biology: "N-glycosylation Signaling Pathways in Oral Squamous Cell Carcinoma."

MarieAnne Badalamanti and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "Skeletal and Dentoalveolar Effects of Class II Treatment Modalities in Patients Treated with Suresmile: A Comparative Retrospective Pilot Study."

Mohammed Badri, Honghao Zhang, Nobuhiro Kamiya, Sundharamani Venkitapathi, Yoshio Ohyama, Takehito Tsuji, Tetsuo Kunieda, Yuji Mishina and Yoshiyuki Mochida. Department of Molecular and Cell Biology: "Role of Ellis-van Creveld Syndrome2 (Evc2) in Craniofacial Development."

Julianne Doyle and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "Comparison of Nasal Airway Dimensions in Patients with Vertical and Horizontal Growth Patterns: A Cone-Beam Computed Tomography Evaluation."

Arshan Haghi, Mohamed Masoud and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "The Validity of Radiation Free 3D Imaging as an Orthodontic Diagnostic Tool."

Mohamed Jamal and Darrell Kotton. Center of Regenerative Medicine: "Directed Differentiation of Induced Pluripotent Stem Cells into Endothelial Like Cells."

Mamata Mukkara, Richard Pober and Russell Giordano. Department of Restorative Sciences/Biomaterials: "Comparison of Esthetic Brackets Made of Composite, Porcelain and Alumina."

Aggasit Manosudprasit, Hatice Hasturk, Thomas Van Dyke and Alpdogan Kantarci. Department of Molecular and Cell Biology: "Delayed Peripheral Blood Neutrophil Apoptosis in Diabetes and Chronic Periodontal Disease."

Debashree Saxena, Manish Bais and Philip Trackman. Department of Molecular and Cell Biology: "Lysyl Oxidase Like-2 Mediates CCN2-Stimulated Gingival Fibroblast."

Yi Zhong, Guoxian Wei, Adriana Valery and Eva Helmerhorst. Department of Molecular and Cell Biology: "Isolation and Purification of a Gluten-degrading Enzyme from Human Gastrointestinal Tract-derived Bacteria."

Fellow Poster

Michael Dion, Bing Liu, Laura Kaufman, Steven Karpas and Judith Jones. Department of General Dentistry: "Xerostomia and Salivary Hypofunction in Vulnerable Elders: Complications and Management."

2 to
4:30 p.m.

Oral Presentations

HIEBERT LOUNGE, L-14

Pre-doctoral Student Oral Presentations

Mohamed Bayoumy, Kiyoshi Sakai and Yoshihiko Yamada. Department of Molecular Biology Section at NIDCR: "The Correlative Role of Epiprofin and Tbx1 in Tooth Proliferation and Differentiation."

Post-doctoral Student Oral Presentations

Neetu Bansal, Mohamed Masoud and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "The Standardization of a Non-radiation Technique for Orthodontic Diagnosis."

Deborah Heller, Eva Helmerhorst, Walter Siqueira, Bruce Paster, Frank Oppenheim. Department of Molecular and Cell Biology: "The Effect of Serum on in Vivo Early Microbial Colonization of Tooth Enamel."

Gokhan Ozdener, Manish Bais, Philip Trackman. Department of Molecular and Cell Biology: "Cellular Uptake of rLOX-PP Involves Phosphatidylinositol 3-kinase (PI(3)K) Dependent, HSPG Mediated Macropinocytosis, Caveola-dependent Endocytosis. rLOX-PP Alkalizes Endosomes via Modulating Endosomal pH."

Goli Parsi and Leslie Will. Department of Orthodontics and Dentofacial Orthopedics: "Morphometric Analysis of Facial Structures and its Relationship to Attractiveness."

Na Tian, Joshua Hansen, Dan Leffler, Ciaran Kelly, Eva Helmerhorst. Department of Molecular and Cell Biology: "Assessment of Potential Gluten-like Properties of Salivary Proline-rich Proteins."