

Information should include but is not restricted to:

Purpose of the event

Boston Biomaterials Day strove to bring together biomaterials researchers in the Greater Boston Area, and managed to attract students and faculty from all over New England.

Number and names of universities and industry partners participating

Northeastern University

Boston University

Event highlights

David F. Williams of Wake Forest presented as our plenary speaker, and had a great turnout of attendees for his talk. We also held a “Life after PhD” panel event, in which we had young PhD professionals discussing their career path, words of wisdom and warnings. The panel included two Northeastern professors, a systems engineer from EMD-Millipore and a PI at MIT Lincoln Labs. Later in the afternoon we held concurrent workshops highlighting biomaterials in food science, starting up one’s own Society For Biomaterials student section and strategies for entering the entrepreneurial world in collaboration with the Northeastern Biotech Entrepreneurs club.

Number of attendees

125

Name and contact information of organizers

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List of speakers

9:30 – Tyrone M. Porter: “MicroBRAIN: a Dynamic Model of the Blood-Brain Barrier”

9:45 – Gino Karlo Delos Reyes: “Self-Assembled Rosette Nanotubes Effectively Silence Pancreatic Cancer Genes”

10:00 – Benjamin Geilich: “Drug- and Nanoparticle-Embedded Polymersome Nanocarriers for the Treatment of Antibiotic-Resistant Infections”

10:15 – Kanny (Run) Chang: “Self-assembling collagen-mimetic triple helices with antimicrobial peptide amphiphiles as a novel antibacterial agent”

10:30 – Juan Pavon: “Advanced Processing of Porous Titanium for Bone Tissue Repair: Multi-Factorial, Multi-Scale and Multi-Functional New Therapies”

10:45 -Arthur Gonzales III: “Modeling of Rosette Nanotubes for Drug Encapsulation, Display, and Delivery”

11:00 – Daniel Hickey: “Separating the Effects of Nanoscale Surface Roughness and Grain Size on Bacteria and Bone Cell Functions”

11:15 – Andrew Spencer: “Conducting Polymer-based Composite Hydrogels for Biomedical Applications”

11:30 – Joshua Martin: “3D Magnetic Printing of Discontinuous Fiber Composites with Tunable, Bio-Inspired Microarchitectures”

11:45 – Adedokun Adedoyin: “Magneto-Responsive Bionanocomposite Hydrogels as Injectable Scaffolds for Osteochondral Tissue Regeneration”

Afternoon Session 2:30 – 4:00 pm

2:30 – Iman Noshadi: “Novel Bio-Ionic Liquid Functionalized Conductive Hydrogel for Cardiac Tissue Regeneration”

2:45 – James Weber: “Porous transcutaneous devices of varying material and pore geometry promote a biological seal with skin and subcutaneous tissues after surgical implantation into rabbits”

3:00 – Dena Shahriari: “Microchannel scaffolds for spinal cord repair- Going against the dogma of “softer is better””

3:15 – Harikrishnan Parameswaran: “Role of Extracellular Matrix Changes in the Development of Asthma”

3:30 -Jeffrey Sokoloff: “Polyelectrolyte Microgel Particles in a Highly Compressed Suspension as a Model for Biological Material”

3:45 – Roberto Portillo Lara: “A Microfluidic Model of Prostate Cancer Metastasis for Personalized Diagnostic and Therapeutic Applications”

“Life after PhD” Panel Lunch:

Prof. Adam Ekenseair (NEU)

Prof. Ryan Koppes (NEU)

Dr. David Walsh (MIT)

Dr. Joseph Hersey (EMD-Millipore)

Plenary Invited Speaker: David F. Williams, PhD

Afternoon Concurrent Workshops:

The Science of Jello

Matt Micari from Geology

How to start an SFB school chapter

Ben Geilich

Biotech Entrepreneurship: Bringing your Research into Industry

Gino Karlo Delos Reyes, Solomon Mensah, and Adedokun Adedoyin

Names of any awardees (student speakers, poster sessions, etc.)

Best Student Poster: Ehsan Shirzaei Sani

People's Choice Best Oral Presentation: Andrew Spencer

People's Choice Best Poster: Caterina Bartomeu

Success story:

Boston Biomaterials Day was able to connect biomaterials researchers in very different fields, departments and universities to exchange ideas, and resulted in a number of new cross-university collaborations. Additionally, Northeastern's new Bioengineering Department was able to demonstrate its high quality students and new faculty, who presented posters and oral presentations at the conference.