

## **UF Biomaterials Day 2016 Final Report**

The student chapter of the Society for Biomaterials at the University of Florida held its fifth annual Biomaterials Day entitled “Medical Advancement through Innovative Engineering.” on March 11<sup>th</sup>, 2016 in the Reitz Union Grand Ballroom. The one-day symposium consisted of a keynote address, speaker presentations from both faculty and students, a student poster session featuring the work of graduate and undergraduate students, and an industry information session. The following report will highlight the purpose of Biomaterials Day, attendees, sponsors, speakers, and success stories throughout the event.

**Purpose of the event:** Biomaterials Day 2016 served several purposes. Foremost, Biomaterials Day at UF serves to enlighten a wide array of students about what biomaterials has to offer them and the potential career paths and other opportunities in both industry and academia. Secondly, the event was used to expand the biomaterials network at UF with other regional universities and companies actively involved in the biomaterials field. Our event achieved this goal by bringing professors from different universities and representatives from biotechnology companies to discuss advances in biomaterials in the engineering and medical fields. The UF student chapter of SFB focused on promoting the interaction between students, leading scientists, and developers in order to move the field forward.

**Participants:** Biomaterials Day 2016 had a total of 187 registered attendees including students, professors, and industrial professionals. The event had attendees from Florida International University, University of Central Florida, and the University of Florida. The majority of attendees were from different departments including: Materials Science and Engineering, Biomedical Engineering, Mechanical and Aerospace Engineering, Chemical Engineering, Agricultural and Biological Engineering, Chemical Engineering, Neuroscience, Computer Science and Engineering, Civil Engineering, Chemistry, Biology, Molecular Genetics & Microbiology, and Pathology Immunology.

In addition, academic presentations were given by representatives from Virginia Commonwealth University, the University of California, Berkeley, the University of Kansas, the University of Pittsburgh, and the University of Florida. Industry representatives included participants from RTI Surgical, Nanotherapeutics, and Axogen.

**Sponsors:** Sponsors for Biomaterials 2016 included: the National Society for Biomaterials, the UF Office of Research, the UF Materials Science and Engineering department, the UF J. Crayton Pruitt Family Department of Biomedical Engineering, the UF College of Engineering, and the UF Biomaterials Engineering Society.

**Event Highlights:** The symposium was kicked off by a welcome address given by Dr. Gregory Hudalla of the UF Department of Biomedical Engineering. The day consisted of a keynote address given by Dr. Steven Little from the University of Pittsburgh entitled “Controlling Controlled Release to Make Medicine that Imitates Life,” and four talks given by faculty and researchers in the biomaterials field. We also had three student presentations given by Tapomoy Bhattacharjee, Daniel Stewart, and Cary Kuliasha,

Ph.D. students in Mechanical and Aerospace Engineering, Biomedical Engineering, and Materials Science and Engineering, respectively, at UF. The event also featured a student poster presentation competition with 19 presenters, and an industry information session with industry representatives from Axogen, Nanotherapeutics, and RTI Surgical.

We served breakfast, lunch, and snack breaks to all registered guests. In addition, all registered attendees received goodie bags containing a wide variety of informational pamphlets, the event's program, an SFB Biomaterials Day t-shirt designed by SFB students, and several promotional items from SFB and our sponsors.

**Speakers:** The following speakers gave presentations during Biomaterials Day:

- Steven Little, Ph.D., University of Pittsburgh
  - Controlling Controlled Release to Make Medicine that Imitates Life
- Barbara Boyan, Ph.D., Virginia Commonwealth University
  - How Surface Features of a Biomaterial Regulate Musculoskeletal Cells and Tissues: What Does This Mean for Implants in Bone?
- Adam Katz, M.D., University of Florida
  - Translation and Commercialization of Adipose-derived Cell Therapies: What is Taking So Long?
- Kevin Healy, Ph.D., University of California, Berkeley
  - Organs on a chip for high content drug screening Microphysiological systems for high content drug screening
- Candan Tamerler, Ph.D., University of Kansas
  - Self-Organized Bio-Nano Interfaces: From Surfaces to Biologically Integrated Hybrid Materials

**Student Presentations:**

Three graduate students competed in our student presentation competition. Each student prepared and presented a 15 minute oral presentation. Each presentation was judged on various categories including academic merit, presentation quality, and presenter delivery. Daniel Stewart, a Ph.D. student in Biomedical Engineering at UF was our winner. He presented his talk during the symposium and won a cash prize.

Nineteen students composed of undergraduates, graduates, and post-doctoral students presented their research at the student poster session. Maeve Budi, a graduate student in the UF Materials Science and Engineering Department, won best poster presentation as judged by UF faculty and was awarded a cash prize.

**Success Story:** We feel that the biggest success of Biomaterials Day 2016 is the large increase in overall involvement and interest in biomaterials that we have seen over the past 5 years. Our first Biomaterials Day in 2012 brought in a little over 70 participants and consisted of speakers primarily from UF. We have seen participation in our event consistently grow each year with about 200 participants for both the 2015 and 2016 events. We have also grown enough to be able to bring in great speakers from across the country to inspire and invigorate our student attendees. Dr. Steven Little's talk this year received an overwhelming amount of positive feedback from our students, and we feel that these types of talks are pivotal in promoting the growth of the biomaterials field.

**Feedback:** We believe we were very successful in attracting nearly 200 participants for our fifth annual Biomaterials Day at the University of Florida. Overall, people were extremely satisfied with the event and commented on how the event has grown and improved over the years. Several faculty members and industry personnel commented on how impressed they were with such a large-scale event that was organized by SFB student officers.

Although we have increased and diversified the industry portion of our event, we feel that we can do a better job of recruiting old and new companies to attend. We would like to be able to provide numerous employment opportunities for every SFB student member we have. We will keep contact with the current companies that have helped us, and we plan to build new relationships with additional companies over the next year.

Our goal for Biomaterials Day 2017 is to have over 250 registered attendees and 10 industrial partners. The following comments stand out from the survey that was sent to all attendees, and we plan on implementing many of their suggestions for 2016.

Favorite Aspect of Biomaterials Day 2015 taken from our feedback survey:

- Presentation from Dr. Little was really good and informative.
- I enjoyed the presentation by Dr. Steven Little. Found it very interesting and inspiring.
- I was very surprised at the effectiveness and fluidity of the event, since it was ran by students. I will definitely be coming back next year.
- The event was well organized and timely; very enjoyable overall.
- The speakers were outstanding, as always, and I appreciate that you included time for posters and industry.
- Distinguished lecturers and keynote were good. The organization and food were very good, too.

Suggestions and improvements to be made for 2016:

- The poster session was far too long for the number of posters being presented. I want limit the poster session to only 1 hour.
- Try to have everything be in one room (e.g. not the ballroom, salon, and the auditorium) and have more student oral presentations. Have them not at the very end of the day when most people have left.
- I would be interested in seeing a bigger industry presence.
- Timing of the event conflicted with my classes, as it did for many of my peers, so figuring a date/time frame that suits more people would be best.

**Contact Information:** The following people and their contact information were involved in the planning of Biomaterials Day

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