

The
Biomedical Engineering Society

University of Rochester Student Chapter

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Guest Seminar: William Federspiel

On October 29th, 2013 the Biomedical Engineering Society co-sponsored the seminar given by Dr. William Federspiel. The lecture hall was filled during the seminar. The talk followed Dr. Federspiel's journey from an undergraduate and PhD student at the University of Rochester, to his current position as a professor of chemical engineering, surgery, and bioengineering at the University of Pittsburgh. Dr. Federspiel highlighted roadblocks and triumphs along his journey which included the failed launch of a ventilation assistance device, the troubles of clinical testing and funding, and the development and successful clinical testing of a new ventilation assistance device. His talk was light-hearted and filled with anecdotes which led to an entertaining and informative seminar.

Dr. Federspiel was also generous enough to meet with a small group of students the day before the

seminar for a "round table" talk. This casual talk was a great opportunity for the students to learn about Dr. Federspiel's extensive previous experience in academia, as well as in industry. The students were able to ask many questions and everyone seemed to value the rare chance to talk candidly to a successful professor, researcher, and businessman.

-Stephanie Rigot '15



Volunteering at Foodlink

On Saturday, November 9th members of BMES took a trip to Foodlink to help sort donated food. Foodlink is a regional food bank that redistributes donations to local agencies like food pantries and soup kitchens that serve the needy. Foodlink gets donations from local supermarkets and businesses, such as Wegmans and Walmart. However, they have to sort through the donations to remove unhealthy food, stale food, and pet food. These items are redistributed and the remaining donations are sorted and sent out to Foodlink affiliated sites. The BMES volunteers worked with volunteers from other organizations to take out unhealthy food and sort the remaining food by

category for three hours at the Foodlink facility. The volunteers not only contributed to the local community, but also learned how the regional food bank system works, and how the food-sorting is done.

-Janet Sorrels & Sophie Zhang '17



Be a Mentor Social Event

The Be a Mentor program had a successful Frozen Yogurt social on October 17th. A lot of mentors and mentees got a chance to talk and socialize, some found new mentors and mentees during the event. This year, BMES invited Professor Diane Dalecki to give a brief talk on her experience as a mentor and a mentee. Professor Dalecki emphasized the importance of relationships: how a mentor can be found in any setting, and how those relationships should be valued. Along with the professor and the students, everyone enjoyed

the delicious ice cream and was able to have a discussion about the importance of mentoring. We are hoping to have more social events for the mentors and mentees, so they have a chance to get to know each other more and continue building their relationship! So look out for these great events in the future!

-Nuley Seo '15

Meliora Weekend Alumni Speaker

This year, during Meliora Weekend, BMES collaborated with the University of Rochester's American Institute of Chemical Engineers (AiChE) Student Chapter to host a mini regulations course and Q&A with two University of Rochester alums.

Natalie J. Kennel, RAC, ASQ CQE & CQMgr founded NJK & Associates, a medical device consultancy firm, to bring her practical perspective in medical device quality, clinical and regulatory affairs to her clients. With more than 25 years in industry, mostly devoted to medical devices, she has hands-on experience in product development and manufacturing as well as Regulatory Affairs/Quality Assurance (RA/QA) and clinical roles in both major and start up medical device companies. Since forming her consulting business in 2005, she has submitted more than thirty 510(k)s and 13 Pre-IDEs, set up quality systems for client companies, and has provided on-going RA/QA services. She has prepared numerous international medical device submissions; including submissions in Australia, Europe, Canada, and Singapore, and currently provides regulatory affairs support for a novel tissue bank. Kennel has been published in RAPS regarding clinical trials for medical devices. She has spoken at several conferences including SDRAN, ASQ and ACRP on a multitude of topics. She is currently the President of SDRAN. For the past 12 years she has taught the medical device submission section for the U.S. RAC study group, and regularly teaches a software validation seminar for the USC regulatory affairs master's program. Kennel holds a BS degree in Chemical Engineering from the University of Rochester.

Roger J. Greenwald is a prolific inventor with 48 US patents, most for medical devices. He has extensive industry experience, working for giant corporations, startups, and those in-between in R&D,

product development, manufacturing, and quality assurance roles. In 2007 he became a partner in NJK & Associates, Inc., a consulting firm specializing in medical device and IVD regulatory affairs and quality assurance. In this capacity, he draws upon his vast body of knowledge and experience to assist clients worldwide. Recent achievements include the design of a novel orbital implant, setting up facilities for a number of orthopedic implant companies, performing the development quality functions for a high throughput molecular diagnostic device, and performing due diligence and supplier audits of companies in the US, Europe and Asia. Mr. Greenwald holds a B.S. in Physics from Northeastern University and an M.S. in Optics from the Institute of Optics at the University of Rochester.

The purpose of this course was to provide a basic introduction to medical device regulation with a particular emphasis on the U.S. FDA requirements. The course covered both pre- and post-market requirements. Those contemplating employment in the industry including R&D and manufacturing engineers will benefit from an understanding of these requirements, so this experience was quite unique and exciting for both BME and ChE students. Awareness of the regulatory environment can certainly give an edge in the job interview process. A big thank you goes out to Daniel Sherman (ChE '14), President of AiChE, for inviting our BMES chapter to co-sponsor this event.

-Courtney Astemborski '14

Concentration Panel

By the end of their sophomore year, Biomedical Engineering students are required to make the tough choice of which concentration they will specialize in. Their options are Biomechanics, Bio-Signals and Systems, Cell and Tissue, and Medical Optics. Although each concentration has its merits and detriments, without being able to experience the exciting prospects each one offers first-hand, it's difficult to know which concentration is the best fit for you.

This is where the concentration panel comes in. On October 23rd, 2013, BMES had its annual concentration panel. The event consisted of upperclassmen from various concentrations within the BME major giving up some of their time to answer any questions

underclassmen may have. The questions varied from which types of courses each concentration had to take to what type of jobs opportunities were available to Biomedical Engineers after graduation.

This year had a record showing of underclassmen come to the event. Free food was also provided which was no doubt a strong incentive for people to show up. We tried our best to answer any questions that they had and to enlighten them on the best choice to make based on their passion for engineering. Overall, the panel was a great experience and I can only hope that the sophomores who attended were able to make a more informed decision about their choice of which concentration to pursue.

-Cyrus Lambotte '14

UR and RIT BMES Dinner

The Biomedical Engineering Society at Rochester has teamed up with the BMES chapter at RIT to initiate some collaborative events next semester. We recently invited the RIT chapter to the U of R, and over dinner, discussed some possible events we would want to host. The ideas discussed included a research symposium, a mini networking night, and hosting a RIT professor for a talk here at U of

R. The dinner went well, and we learned a lot about the RIT curriculum. We look forward to the collaborations in the near future and hope that we can continue them in the years to come.

-Tiffany Kobee '14