

The  
*Biomedical Engineering Society*

*University of Rochester Student Chapter*

**Inside this issue:**

Shu Chien: An Inspiration	2
What is BME 099	2
The Concentration Panel	3
The Graduate Panel	3
BME Crossword	4
BME Blankets	4

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## The National BMES Conference

This year the University of Rochester BMES Chapter sent twenty seven students, many more than in previous years, to the national conference set in Hartford Connecticut. For three days students had a chance to attend numerous speeches and lectures, spanning all the topics forming the multidisciplinary field of biomedical engineering. Talks covered topics from cardiovascular engineering to biomedical imaging and optics to drug delivery systems. There was something for everyone!



In addition to being able to listen to and ask questions about the latest research in their field of interest, students also had the opportunity to network with students and professors from other schools. A lot of networking and socializing occurred at the opening night mixer held by Cornell University and the dinner held in the Hartford Science Center. The Science Center dinner was entertaining and exciting with hundreds of engineers being released upon a building chock-full of interactive science stations and exhibits. Furthermore, our student chapter had the privilege of winning the Student Chapter Mentoring Program Award and had the chance to attend a leadership development workshop which featured a very inspiring talk from Dr. Shu Chien, whom also received an award this year. On the whole the conference was a great experience for the students involved to be inspired by innovative research while having a great weekend meeting new people and learning new things.

-Christopher Schmitt (2012)

## Get Well Soon Dottie!

In mid-November Dottie informed us that she would be out of the office on medical leave for much of the remainder of the semester due to surgery for breast cancer. Dottie has assured us she will, "bounce back here healthy as a horse" and we hope everything goes perfectly as planned and that Dottie is feeling healthy as soon as possible. Dottie has been there for us everyday, and now we are here to support her. Although everything is

operating smoothly in the BME office, there is definitely a void that is to be refilled with Dottie's presence when she comes back. Not only does she fill the office with knowledge of the department and a superfluous ability to keep the department organized, but she also fills the office with smiles. We all hope you get well soon and can return to this wonderful department.

-The BME Students

## Shu Chien: An Inspiration to BMEs Everywhere

The recent BMES conference provided students with many opportunities to meet professionals in the field. One opportunity that stood out to several of us was a presentation on leadership by Dr. Shu Chien, professor and President of the Whitaker Institute of Biomedical Engineering at University of California, San Diego. Dr. Chien gave an enlightening presentation on his career path, from growing up in Shanghai, China to founding the UCSD Bioengineering program in 1991. Recently, he won the National Medal of Science in September for "pioneering work in cardiovascular physiology and bioengineering."

Growing up in China, he had a passion for mathematics, but also dreamed of being a clinician. After receiving a medical degree from the National Taiwan University in China, he looked to the United States to continue his education with a focus on cardiovascular research and rheology. Presented with numerous options, he decided to attend Columbia University, where he received his PhD in 1957. Distinguishing himself as a prominent researcher in the field, he taught as a professor of physiology and biophysics at Columbia from 1969 to 1988. He has worked at USCD ever since. He is also a former president of BMES, succeeded by our very own Dr. Richard Waugh.



The students who witnessed his talk were most struck by his calm demeanor and optimistic message. To a group of tightly-wound BME undergrads, this was greatly appreciated. He stressed the importance of balance in one's life, specifically between work and family, and mentioned that if you've done your best, there's no reason to feel inadequate. When asked if he ever regretted choosing research over clinical practice, he responded "You have eyes in the front of your head for a reason."

-John Nicosia (2013)  
Natalie Mitchell (2013)

### What is BME 099?

It seemed like every junior (Class of 2013) had the same question at the course preregistration advising session for the spring. So many of us asked "What is this BME 099 course I heard we have to take next semester and why does it mention biomaterials?" The simple answer is that it is a zero credit, required laboratory course for BME 221: Biomedical Computation and Statistics and BME 245: Biomaterials.

However this is something greater than just a new lab course, it is a unique interdisciplinary collaboration between two existing BME courses. For the class of 2015, Biomaterials becomes a required course that will be taken in

their junior year (spring 2014.) There will be approximately 5 lab sessions, in alternating weeks, corresponding to each of BME 221 and BME 245. Data attained in biomaterials experiments will be further analyzed in labs corresponding to Computation and Statistics.

For the classes of 2012, 2013 and 2014, students taking Biomaterials should register for the 099 lab as early in the week as possible, while students taking BME 221 should register for the later labs. Dr. Benoit and Dr. Choe are looking forward to seeing the progression of BME 099 over the next few years!

-Jamie Gaewsky (2013)

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## The Concentration Panel

Each year sophomore biomedical engineering students are faced with the task of picking a concentration to specialize in. These sophomores select from biomechanics, biosignals and biosystems, cell and tissue engineering, and medical optics. Each concentration has its own requirements in addition to the general biomedical engineering requirements.

In order to help students choose the concentration that is right for them, our chapter of BMES hosts a concentration panel in the fall semester each year. This is to help advise underclassmen upon their selection of concentrations and the effect on the suggested classwork for the upcoming semester. This year the panel consisted of two upperclassmen from each concentration

and one graduate optics student. Each student on the panel gave a brief description of their concentration and what they plan on doing after they graduate. After that the students were able to ask questions regarding each of the individual concentrations. Students asked questions ranging from the degree of freedom in course selection for each concentration, to the type of research opportunities available for each concentration. The panel was able to answer all the questions based on their personal experiences and provided students with a greater understanding of what to expect from each concentration. Overall, the concentration panel was a success and students left with a better idea of which concentration they wanted to choose.

-Morgan Feder (2015)

## The Graduate Panel

On Thursday October 27, the University of Rochester Biomedical Engineering Society held a Graduate Education Night for all undergraduate biomedical engineering students at the University of Rochester. This event brought together a distinguished group of 12 individuals, from various backgrounds, to answer any question students had about post-graduation options and how each member got to where they are. Our panel was composed of doctoral and masters students, medical students, Dr. Amy learner from the University of Rochester department of

Biomedical Engineering, and engineers currently working in industry. Many University of Rochester students took advantage of this event and posed many questions to our panel, who did an excellent job answering each question and providing useful information. Some members of the panel were gracious enough to provide various hand-outs and brochures of different graduate programs, graduate schools, and other post-graduation programs. Even after the event ended, many members of the panel stayed to talk with students that sought extra information.

-Brian Dixon (2012)

## A BME Crossword Puzzle

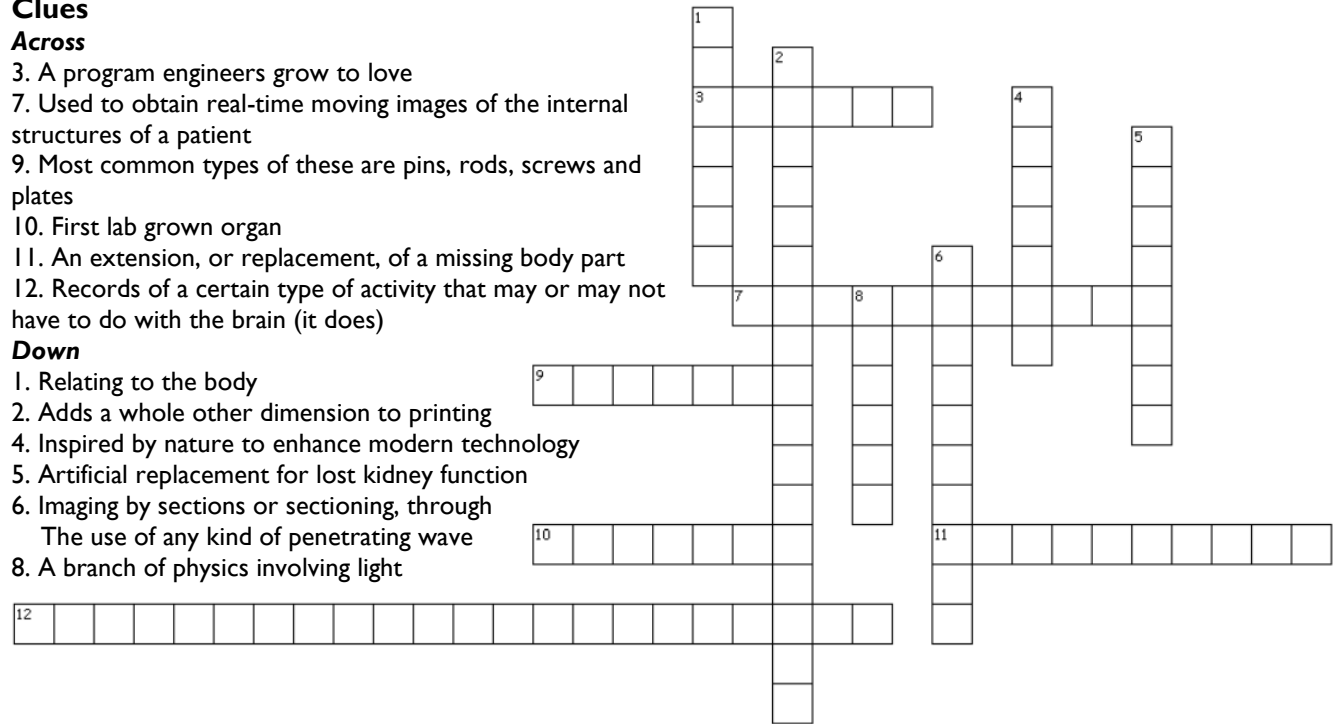
### Clues

#### Across

3. A program engineers grow to love
7. Used to obtain real-time moving images of the internal structures of a patient
9. Most common types of these are pins, rods, screws and plates
10. First lab grown organ
11. An extension, or replacement, of a missing body part
12. Records of a certain type of activity that may or may not have to do with the brain (it does)

#### Down

1. Relating to the body
2. Adds a whole other dimension to printing
4. Inspired by nature to enhance modern technology
5. Artificial replacement for lost kidney function
6. Imaging by sections or sectioning, through  
The use of any kind of penetrating wave
8. A branch of physics involving light



## Announcing: 2011-2012 BME Merchandise

Featuring University of Rochester **BME Blankets!**

Blankets featuring the logo below will be on sale in Wilson Commons this week from 10 AM to Noon for \$12 or 2 for \$20 using cash or Flex. After this week they can be purchased from the BME office. They will make a great gift for families this winter break!

BME graduated cylinders, mugs, and window stickers are also still on sale!

