BMES General Meeting

9/23/09

Announcements:

- Recap (Kick-off Cookout, Kickball w/ GE, Career Fair Orientation, River Food Pantry)
- C.R.U.I.S.E. Study Session, Thursday. Sept. 24th to prepare to first set of midterms, 6-8pm Room 1045 ECB
- Girl Scout Badge Day, Saturday, Oct. 3rd from 9am-3
- River Food Pantry, 4:45-8pm, meet at engineering fountain
- BMES will be going to Miami for January 10th-17th Habitat for Humanity trip
- BMES vs. IIE Capture the flag game Thursday, Oct. 1st at 8pm
- Pizza Sale Wed. sept. 30th 10:45-2:00p at chemistry lobby
- Database has been updated on website, fill out an online form on website and select submit
- Distinguished Member Watch: Sarah Reichert, Alice Tang are in the lead

Amy Silder, Phd.
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- Research with Biomechanics Department
- Topic: How to find the best graduate program, and how to be successful once you get there
- Biosystems Engineering from Michigan State
- Research Focus/Background: hamstring injuries, more specifically mechanical strains on difference muscles and how they cause injury. Look at MRI post-injury, and 2 mos. Post injury, even after 2 mos. the athletes are still suffering from injury, also focused on dynamic imaging protocol. Used a machine that contracted and released muscle while in the scanner. Look at strains in all directions using dynamic MRI images. Another way to study injury is to use motion capture to calculate joint velocities and angles.
- If you want to go to grad school, what to do now:
    1. Get good grades, to get fellowships they usually make cut-offs (>3.7)
    2. Get involved with *something*, not necessarily published
    3. Do well on the GRE, can make up for an average GPA
    4. Know what you want to do
- Step 2: Find a good school:
    1. Know what you want to do
    2. Read RECENT papers of what you want to do
        a. Google scholar keywords and pay attention to the listed authors, 1st author is commonly a student, and last author is commonly the advisor, find out where they are from and go to the website
    3. Talk to those people NOW, their grad students too…(don't ask for funding after you've been accepted)
        a. Talk to grad students too, ask them how many hours is expected, what is expected of you

   b. What they are doing now may change, look for trends
4. Funding
   a. Fellowships, RA, TA

Q&A

1. **What will you be doing at Stanford?** Generating walking and running models based on muscle forces, etc.
2. **Do you want to stay in academia?** Yes, if you are interested in industry I suggest getting a masters instead of phd.
3. **Is it discouraged to go to the same school as your undergrad?** If you stay at the same place, you miss out on a lot of other teaching/student philosophies. For example, Stanford is more focused on simulations, while UW is more focused on musculoskeletal models. Its good to get more experience.
4. **What kinds of things do you say in an e-mail to a prospective advisor?** Keep it short and to the point because they receive a lot of e-mails everyday. You could send your resume if you are comfortable, but its not necessary. One thing you don't want to do, don't cut and copy what is on their website, say what you like to do.
5. **How did you find your focus for your Phd.?** Suffered from muscle strain injuries, and kept trying to compete and it wasn't getting better. Know your area of interest and advisors have projects for you that are already funded. This is why it's good to contact them now.
6. **Once you graduate with that specific focus, are you stuck with that for the rest of your career?** No, but that's where you start and go from there. Smaller schools are more focused on teaching, but larger schools are more focused on research. Research focus can be used as a stepping stone for funding, "hey I'm an expert in this area, give me more money." Know that changing paths, takes some time.