

# Research and Internship Experiences for Biomedical Engineering Students Details and Deadlines 2009

## Research and Internship Experiences

### **The American Physiological Society - Undergraduate Summer Research Fellowship**

The program will fund up to 24 fellowships during the summer of 2008. These fellowships are to support full-time undergraduate students to work in the laboratory of an established investigator. The intent of this program is to encourage students to pursue a career as a basic research scientist.

- <http://www.the-aps.org/education/ugsrf/>
- Deadline: **February 2, 2009**

### **Battelle Memorial Institute**

Battelle serves industry and government in developing new technologies and products. They insert technology into systems and processes for manufacturers; pharmaceutical and agrochemical industries; trade associations; and government agencies supporting energy, the environment, health, national security, and transportation.

- <http://www.battelle.org/careers/index.aspx>
- Deadline: **Depends on internship of choice**

### **Boston University**

The Biomedical Engineering Department of the College of Engineering at Boston University is proud to host a National Science Foundation Research Experience for Undergraduates (REU) site program. Students from all engineering, mathematics and natural sciences disciplines with an interest in biomedical engineering are encouraged to apply.

- <http://www.bu.edu/eng/reu>
- Deadline: **February 15, 2009**

### **Case Western Reserve University**

The Department of Biomedical Engineering at Case Western Reserve University is pleased to announce the 2008 summer program in Biomedical Engineering research for undergraduates, funded by the National Science Foundation. Project areas in biomaterials, tissue engineering, drug delivery, imaging, and neural engineering

- <http://bme.case.edu/reu/>
- Deadline: **February 1, 2009**

### **Engineering World Health Organization**

The Summer Institute is an opportunity for engineering students to gain hands on repair and design experience while simultaneously helping disadvantaged hospitals and patients in a developing nation. Open to students of engineering, physics and chemistry, the Summer Institute begins with a one-month stay in Costa Rica or Tanzania in which students live with a host family. Mornings are spent learning Spanish or Swahili, while in the afternoons students receive three hours of technical training in the operation and repair of medical

equipment. Day trips to the country's breathtaking natural features punctuate the experience and give volunteers a time to bond.

After the one-month training, each student travels to his or her target hospital. Students work repairing and installing badly needed equipment. Whether they're working on an infusion pump that helps treat a tiny infant, or an ECG that will aid in diagnosing someone's grandfather, each student-engineer makes a difference in patients' lives.

- <http://www.ewh.org/summer/application.php>
- Deadline: **January 30, 2009**

### **The Georgia Tech/Emory Center for the Engineering of Living Tissues (GTEC) Summer Program for Research Experience for Undergraduates.**

This program allows students to integrate engineering and molecular and cell biology in the following areas: cardiovascular substitutes such as blood vessels and heart valves, orthopedic applications such as bone and cartilage development, and metabolic, secretory organs, such as bioartificial pancreas.

- <http://www.gtec.gatech.edu/reu/index.html>
- Deadline: **February 4, 2008 (Not yet updated for 2009)**

### **Harbor Branch Oceanographic Institute**

The areas of study include: aquaculture, biomedical marine research, marine biology, marine mammal research, marine natural product chemistry, marine microbiology, ocean engineering, and oceanography.

- <http://www.hboi.edu/marineed/internships.html>
- Deadline: **March 1, 2008 (Not yet updated for 2009)**

### **The Lerner Research Institute**

Undergraduate Engineering in Medical Research, sponsored by the National Science Foundation and the Cleveland Clinic Foundation. Five to six month on-site co-operative engineering positions in an international research group . Development of research skills, leadership and collaboration skills, and technical knowledge Opportunity to enroll at local universities as a transient student while working on research project.

- <http://www.lerner.ccf.org/bme/education/reu/nsf/>
- Deadline: **Applications will be continuously reviewed and offers will be extended four times per year**

### **Mayo Graduate School Summer Undergraduate Research Fellowship (SURF) Program.**

Conduct your own small research project or work on part of an ongoing research investigation for 10 weeks, develop your technical skills and participate in a special weekly seminar series that introduces you to rapidly progressing research areas.

- <http://www.mayo.edu/mgs/surf.html>
- Deadline: **February 1, 2009**

### **Mote Marine Laboratory (MML)**

Research internship programs include biomedical, Invertebrate Zoology and Benthic Ecology, Aquaculture, and Marine Mammal Research. The four different centers include the Center for Shark Research, Marine Mammal and Sea Turtle Research, Coastal and Tropical Ecology, and Fisheries Enhancement.

- <http://www.mote.org/~jimg/reu.htm>
- Deadline: **February 15, 2009**

### **NIH - Summer Internship Program in Biomedical Research**

Successful applicants will join one of our research laboratories for a minimum of eight weeks between late May and August. Some flexibility in scheduling exists to accommodate individual student needs. Start dates are determined by the selecting officials and other institute staff.

- <http://www.nibib.nih.gov/Training/UndergradGrad/besip/home>
- Deadline: **February 10, 2009**

### **National Institute of Health Biomedical Engineering Summer Internship Program (BESIP).**

This ten week summer program allows undergraduate biomedical engineering students to participate, under the mentorship of scientists on various biomedical research projects in NIH laboratories in Bethesda, Maryland.

- <http://www.nibib.nih.gov/Training/UndergradGrad/besip/home>
- Deadline: **February 25, 2009**

### **Neuroscience Institute Summer Research Program.**

Selected applicants will come to the Morehouse School of Medicine for ten weeks, where they will join a single laboratory, attend lectures on the neurobiology of degenerative disorders, undertake a well-defined research project with Institute faculty, and make scientific presentations at the end of the program.

- <http://web.msm.edu/ni/summer.htm>
- Deadline: **March 30, 2008 (Not yet updated for 2009)**

### **Neural Engineering**

Summer interns work on Neural Engineering projects at the Biomedical and Mechanical Engineering Departments at Northwestern University and the Sensory Motor Performance Program at the Rehabilitation Institute of Chicago for a period of 10 weeks. Junior or senior undergraduate, and junior graduate students are eligible to apply for the internships. \$4000 Stipend for 10 weeks

- <http://www.northwestern.edu/bme/sine2008/>
- Deadline: **January 31, 2009**

### **University of Washington**

This summer, June 15 through August 22, 2008, UWEB will be sponsoring a 10-week research program for undergraduates on the university's Seattle campus. Participants will be involved in ongoing research projects with investigators, and will have the opportunity to take part in workshop training sessions in communication skills, scientific presentation, organization, and delivery, designed to provide the undergraduate scientist with solid skills that will serve as a foundation for graduate study.

- <http://www.uweb.engr.washington.edu/education/reu/>
- Deadline: **January 30, 2009**

### **Whitaker International Fellows and Scholars Program**

The Whitaker International Program is a grant that sends emerging leaders in biomedical engineering (or bioengineering) overseas to increase international collaboration in the field. The Whitaker Program was funded by The Whitaker Foundation (now closed), and is administered by the Institute of International Education. Funding for awards will exist until around 2020.

Whitaker International Program grants are awarded based on an activity/project proposal that is relevant to biomedical engineering. We can offer about 30-45 grants annually, but only the highest-quality applicants are awarded. In the last three competition cycles, 15, 12, and 20 grants have been awarded. This year, we are looking for at least 100 qualified applications this year, so all high-quality students are encouraged to apply.

Recent awards have included research in heart blood flow, improved prosthetic leg design, and development of affordable oral cancer screening tools. Projects occur worldwide, including far-flung countries like the United Kingdom, Denmark, India, and South Africa.

- <http://www.whitaker.org/home.html>
- **Deadline: January 26, 2009**

### **Biology, Biotechnology, and Pre-Medical Engineering Internships**

Homepages and web-links to over 590 paid co-op/internship and summer undergraduate research postings listed alphabetically by organization name and listed by state.

- <http://people.rit.edu/gtfsbi/Symp/summer.htm>

### **Complete List of Research Experiences for Undergraduates**

- [http://www.nsf.gov/crssprgm/reu/reu\\_search.cfm](http://www.nsf.gov/crssprgm/reu/reu_search.cfm)

## Industrial Internship Experiences

### **Abbott Labs**

Research focuses include Analytical chemistry; Analytical services; Biochemistry; Chemical process development; Clinical-related areas; Immunology; Microbiology; Molecular biology; Pathology; Pharmacology; Pharmacy; Physiology; Polymer chemistry; Product development; Research data management; Statistical analysis; Synthetic organic chemistry; Toxicology; and Virology.

- [http://www.abbott.com/global/url/content/en\\_US/50.60.10:10/general\\_content/General\\_Content\\_00166.htm](http://www.abbott.com/global/url/content/en_US/50.60.10:10/general_content/General_Content_00166.htm)
- **Deadline: Electronic resumes are accepted between September 1 and March 1.**

### **Baxter**

Three-month summer internship program in a highly professional, fast-paced environment, opportunities in engineering and biochemistry.

- [http://www.baxter.com/about\\_baxter/careers/college\\_relations/summer.html](http://www.baxter.com/about_baxter/careers/college_relations/summer.html)
- **Deadline: Depends on the position**

### **Bayer**

Bayer offers paid internships in almost 20 professional areas, including engineering and research and development.

- <http://www.bayerjobs.com/recruiting/recruiting/index.html>

- Deadline: **Depends on position of choice**

### **Biogen**

Interns must be available to start in June and continue for 10-12 weeks through August. This program includes lab positions but you must have completed either basic or advanced science courses and have developed experience in laboratory practices.

- <http://www.biogenidec.com/site/internships.html>
- Deadline: **For summer internships, submit resumes by the end of March**

### **Boston Scientific**

Boston Scientific Corporation is the world's largest medical device company dedicated to less-invasive therapies. Summer internship and year round Co-op opportunities are available.

- [http://www2.bostonscientific.com/templatedata/imports/HTML/AboutBostonScientific/careers\\_college\\_relations.shtml](http://www2.bostonscientific.com/templatedata/imports/HTML/AboutBostonScientific/careers_college_relations.shtml)
- Deadline: **No specific deadline, but internships typically start in May.**

### **Columbia Industries Internships**

A variety of engineering internships are available for 10 to 16 weeks in the spring and summer with Energy Northwest, Flour Federal Services, Flour Hanford Inc., or Protection Technology Hanford. The internship carries a weekly stipend paid bi-weekly.

- <http://www.ciintern.com>
- Deadline: **April 15, 2009**

### **G.E. Medical Systems**

Assignments range from Engineering Design, either Software, Hardware, or Systems to Six Sigma and Quality to Manufacturing, Operations, and Inventory management, to Sourcing and Supplier Management to Service Engineering and Operations

- [http://www.gecareers.com/GECAREERS/html/us/studentOpportunities/internshipsCoOps/eid\\_index.html](http://www.gecareers.com/GECAREERS/html/us/studentOpportunities/internshipsCoOps/eid_index.html)
- Deadline: **No specific deadline given.**

### **Genetech**

The Genentech Internship Program is an intensive 10-12 week program during the summer. Interns have the opportunity to assist in the development, manufacturing and marketing of recombinant DNA products. Some projects include developing assays in support of pharmacokinetic studies using real-time immuno-PCR, assisting in the design of therapeutic molecules for the treatment of diabetes, and developing nutrient feeding strategies to optimize cell growth and productivity.

- <http://www.gene.com/gene/careers/university/internships/index.html>
- Deadline: **Depends on position of choice**

### **Genzyme**

Interns can work in any life science field and typically begin their internships in May or June and continue throughout August.

- [http://www.genzyme.com/corp/careers/intern\\_positions.asp](http://www.genzyme.com/corp/careers/intern_positions.asp)
- Deadline: **Summer positions posted from February to April**

### **Johnson and Johnson**

The Co-op and Internship program places qualified students in full- and part-time internship positions within Johnson & Johnson companies, three times a year, during the spring, summer and fall semesters.

- [http://www.jnj.com/careers/global/undergraduate/internships\\_co-ops/index.htm](http://www.jnj.com/careers/global/undergraduate/internships_co-ops/index.htm)
- Deadline: **No specific deadline given**

### **Medrad**

Medrad has internships, co-ops, and full-time opportunities for undergraduate and graduate students. Their products are focused on medical imaging.

- <http://www.medrad.com/careers/interns-coops.html>
- Deadline: **Check with company**

### **Medtronic**

The Summer Associates program is an eleven week program

- [http://www.medtronic.com/employment/summer\\_assoc.html](http://www.medtronic.com/employment/summer_assoc.html)
- Deadline: **No specific deadline given.**

### **St. Jude Medical**

Some St Jude Medical locations offer high-caliber students the opportunity to apply their knowledge in practical business settings through internship and co-op programs. These programs combine academic study and practical experience—a learning and training partnership between the student, St. Jude Medical, colleges and universities. The internship and co-op programs give you the opportunity to work in a corporate environment where you are treated as a professional with responsibilities and accountability.

- <http://www.sjm.com/careers/informationforcollegestudents.aspx?section=InternshipsAndCoOpOpportunities>
- Deadline: **No specific deadline**