BME PhD Immersion Term
First-hand experience in a clinical environment

Who:
Cornell’s BME Ph.D. students and physicians at Weill Cornell Medical College and associated institutions

What:
Each Ph.D. student spends 7 weeks at Weill Cornell Medical College and associated institutions observing physicians in various settings including the operating room and outpatient clinic and participating in clinical research.

When:
Usually the summer following the first year of graduate school.

Where:
Upper East Side of Manhattan in New York City.

How:
Stipend and housing expenses paid by Cornell’s Department of Biomedical Engineering.

Why:
The goal of the immersion term is for each student to have the opportunity to see first-hand how the results of biomedical engineering impact patient diagnosis and care and to better understand the challenges facing physicians as they try to deliver outstanding patient care. For example, what really happens during a total knee replacement and what are the challenges? BME students scrubbed and one foot away from the patient’s knee in the operating room get the ultimate insider’s look and the opportunity to integrate that information into their thesis research and career!

More information:
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Molecular, Cellular, and Tissue Engineering
Tissue engineering holds great promise for replacing compromised or lost tissue and organ functions, and offers invaluable
strategies to the recreation of tissues that may be used as model systems for basic research or drug testing.

Immersion Term at Weill Cornell Medical College in New York City
An unusual aspect of the BME Ph.D. program at Cornell is the Immersion Term at Weill Cornell Medical College in New York City. Usually done during the summer following the first year of graduate study, the Immersion Term allows each Ph.D. student to spend seven weeks at the Weill Cornell Medical College and affiliated hospitals observing the practice of medicine from the outpatient clinic to the operating room and participating in clinical research. Many students report that this is a wonderful experience that motivates them and orients them to the world of clinical medicine. While New York City is expensive, participation in the Immersion Term costs the students nothing; housing at the medical school is provided at no cost to the students and stipend and health insurance continue with no change from the academic year.

Opportunities for Training in Education and Outreach
In addition to a world-class research environment, the BME Department at Cornell has opportunities for you to learn to be a better educator and to teach students at various levels, middle school through undergraduates, about science and engineering. For instance, our NSF-funded GK-12 program, CLIMB (www.climb.bme.cornell.edu), funds graduate students to spend time in nearby middle and high schools working alongside teachers to improve science education.

Practicalities
All Ph.D. students are fully funded (tuition, stipend, and health insurance). The funding comes from a variety of sources including graduate research assistantships, teaching assistantships, and external and internal fellowships.

The specific requirements for the Ph.D. degree are minimal. The fundamental requirement is to form a thesis advisory committee of at least three faculty members. The chair of the committee is your thesis advisor. The two required additional members represent your minor programs, one in engineering and one in life science. The content of your program is determined jointly with your committee. In order to help students understand the breadth of Biomedical Engineering, the Department also requires each Ph.D. student to complete two broad overview courses (currently BME 7110 Fundamentals of Biomedical Engineering Research and BME 7130 Core Concepts in Disease) and participate in the departmental seminar (BME 7900 Biomedical Engineering Seminar). In order to expose all students to quantitative ideas and methods, the Department requires each Ph.D. student to take one methods course (currently BME 7310 Advanced Biomedical Engineering Analysis of Biological Systems). Finally, all students must participate in the Immersion Term, which has a course number BME 7160 Immersion Experience in Medical Research and Clinical Practice.

Learn more online: www.bme.cornell.edu/bme/academics/graduate

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