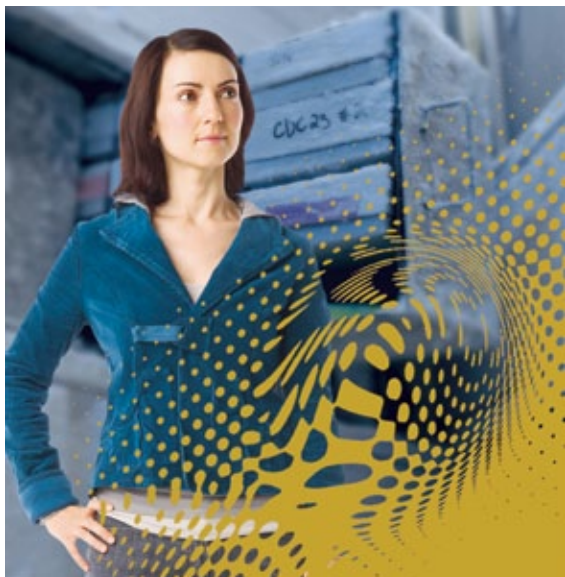


Biochemistry, Cell and Developmental Biology



EMORY

L A N E Y
GRADUATE
S C H O O L



Emory's Biochemistry, Cell and Developmental Biology (BCDB) program combines these complementary disciplines into an interdisciplinary doctoral training program of the highest caliber. BCDB faculty and students are making discoveries at the levels of molecules, cells and organisms that improve our understanding of biological processes, including those that cause or prevent human disease. The pathways to discovery provide the experience necessary for successful scientific careers in academia, industry, or government.

The life sciences are advancing at an unprecedented pace. At the core of these advances are three foundational life sciences: Biochemistry, Cell Biology, and Developmental Biology. Biochemists elucidate the chemical reactions that sustain all living things; Cell Biologists examine how these reactions govern cellular processes; and Developmental Biologists investigate the interactions of cells during the growth and differentiation of organisms.

The Academic Environment

Emory University is a premier research institution. Trends in NIH funding rank Emory among the fastest-growing medical centers in the U.S. The medical school is highly ranked, and several major research centers are located on or near Emory's campus:

- The U.S. Centers for Disease Control & Prevention (CDC), the premier public health research and policy organization in the world, is adjacent to Emory, and many CDC researchers are actively involved in Emory's life sciences programs.
- The Yerkes National Primate Research Center, one of only eight National Institutes of Health-funded national primate research centers, provides specialized scientific resources, expertise and training opportunities in biomedical and behavioral research involving nonhuman primates.
- Two eminent cancer research organizations are close to Emory: the Winship Cancer Institute, part of Emory's Woodruff Health Sciences Center, and the American Cancer Society national headquarters are located a short distance from the campus.

Emory is well known for strengths in many scientific disciplines. With over 55 faculty members in the BCDB program, and over 300 in the Graduate Division of Biological and Biomedical Sciences, Emory is sure to have a leading researcher with state-of-the-art facilities in the specialty of your choice.

DISCOVER

the unexpected

We're the Right Size

BCDB students conduct world-class research in an exceptional academic environment on par with other prestigious research institutions, but our high faculty-to-student ratio ensures that each student receives a level of personal attention and guidance that is not available in larger programs. Indeed, BCDB was recently ranked 8th in overall student satisfaction in a survey by the National Association of Graduate Professional Students.

Interdisciplinary Collaboration

The BCDB program reflects the interdisciplinary nature of modern research. Our faculty includes members from Biochemistry, Biology, Cell Biology, Chemistry, Genetics, Medicine, Pathology, Pharmacology, Medicine, Physiology, Urology, Anesthesiology, Neurosurgery, and Surgery departments. Our faculty also bring scientific discoveries from the sub-molecular level to human disease therapies through interactions with research clinicians, such as those in the Winship Cancer Institute.

Our research environment is truly collaborative, and students frequently perform their research within multiple labs to learn new techniques and broaden their experience. BCDB students are jointly advised when appropriate, and all receive continuing guidance from interdepartmental dissertation committees. BCDB students thus develop broad skill and knowledge sets that enable ultimate success within the competitive scientific career market.

Research Areas

The BCDB program has four major research areas:

- **Biochemistry:** Investigating the molecular interactions and biochemical reactions that drive cellular processes and organismal complexity.
- **Cell Biology:** Investigating the complex interactions of cellular proteins and organelles that drive cellular organization and division in all organisms, and tissue diversity in multicellular organisms.
- **Developmental Biology:** Investigating the four-dimensional unfolding of the genome's information from the fertilized egg to the cognizant individual.
- **Cancer Biology:** Investigating how all of the processes listed above can go awry and be co-opted to yield a growth advantage during tumorigenesis.

Find out more about the faculty who work in these areas and the projects they are engaged in. You'll find a complete list, with links to brief project descriptions, on the faculty research page of our website. Visit www.biomed.emory.edu/PROGRAM_SITES/BCDB/cfm/research.cfm.

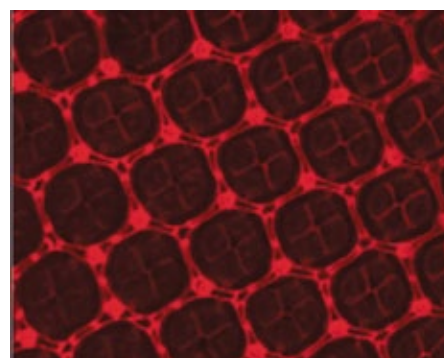
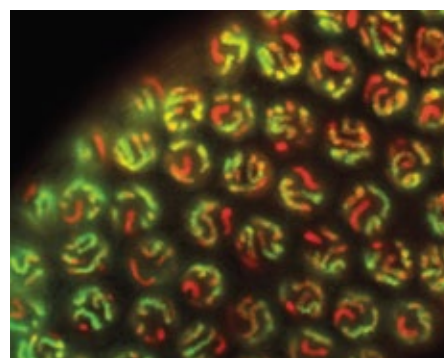
The Curriculum

The Emory BCDB program offers an ideal training venue. Travel to scientific meetings is encouraged and financially supported by the program. Course requirements, though relatively light, are supplemented by diverse elective courses. The curriculum emphasizes communication and critical thinking skills through journal clubs and student seminars, and students are trained in hypothesis development and experimental design in a unique faculty peer-reviewed grant-writing course. Most students graduate within 4 – 6 years.

Graduate Testimonial

“Since I have started my postdoc, I have really appreciated what comprehensive training I received in the BCDB program. Not only was I well-trained in experimental techniques, but the emphasis on grant-writing and presentation of data really prepared me for interviewing and applying for fellowships.”

***Christine Tooley, Ph.D. 2005
Post-Doctoral Fellow,
University of Virginia***



Our curriculum is centered around research, with students starting lab rotations in their first year in the program. Tuition, stipend and health insurance support is guaranteed for the duration of each student's training, which allows the students to focus on their research. Students are also provided numerous opportunities to gain training in teaching to broaden their career path options.

Training in Teaching

Scientists are often also teachers, whether in formal education or in the process of presenting their research to colleagues and lay persons. At Emory, all doctoral students receive training in pedagogy and other elements of teaching, through the Teaching Assistant Training and Teaching Opportunity Program (TATTO) administered by the Graduate School.

After a brief summer workshop (usually before the second year), students are assigned by the Graduate Division of Biological and Biomedical Sciences to assist a faculty member as a lecturer, laboratory instructor or discussion leader for one semester. The Graduate Division offers additional TATTO courses, as well as additional teaching opportunities.

The student part of our website has details about all degree requirements, and more. Visit www.biomed.emory.edu/PROGRAM_SITES/BCDB/html/forstudents.html.

Beyond Emory

Our program is now more than 10 years old and our BCDB alumni have established an excellent record of achievement in academic and pharmaceutical research, and in university level education positions.

Are you ready for the challenge?

We are both selective and rigorous, but don't follow a cookie-cutter approach to finding the best students. Successful applicants have strong undergraduate records in the sciences, and usually have research experience. But the desire to learn can be more important than experience, and each applicant is individually assessed for those qualities that are not contained in quantitative test scores. Are you creative? Are you curious and intuitive? Are you ready to devote yourself to research at the highest level? You may be someone we are looking for.

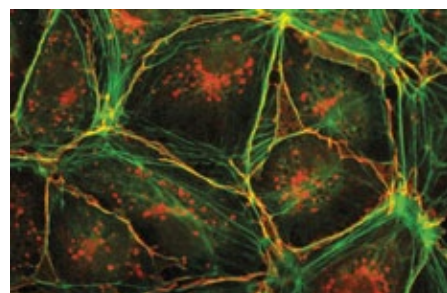
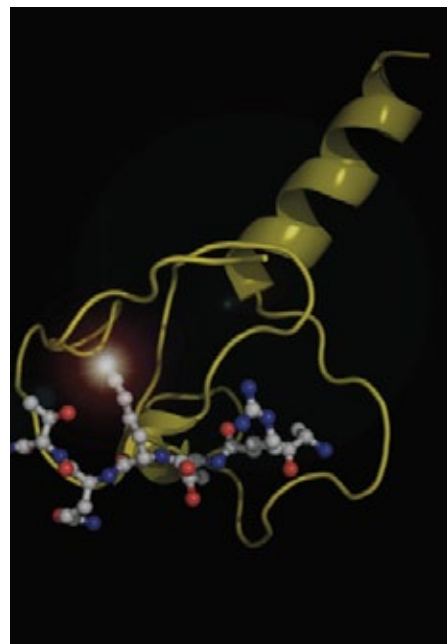
For More Information

Visit www.biomed.emory.edu/PROGRAM_SITES/BCDB/
email: BCDB@emory.edu

Graduate Testimonial

"Graduate work at Emory was a wonderfully enriching time in my career. During my time in the BCDB training program, I was exposed to many different research areas and topics via journal clubs, weekly faculty and student seminars, and special colloquiums. The interdisciplinary nature of these events was outstanding. These experiences gave me a solid knowledge of and excitement for science that I am now passing on to students in my own lab."

Todd Lamitina, Ph.D. 2002
Assistant Professor
Department of Physiology
University of Pennsylvania School of Medicine



About the GDBBS

Emory University is one of the major biological research and medical referral centers in the Southeast and is among the fastest growing Medical Centers in the United States. Emory is consistently ranked in the top 20 institutions nationally for NIH research support. Emory was recently named one of the 25 “New Ivies” by *Newsweek*, a testament to its quality and dedication to education.

The Graduate Division of Biological and Biomedical Sciences (GDBBS) has over 460 graduate students in eight interdisciplinary Ph.D. programs:

- Biochemistry, Cell and Developmental Biology
- Genetics and Molecular Biology
- Immunology and Molecular Pathogenesis
- Microbiology and Molecular Genetics
- Molecular and Systems Pharmacology
- Neuroscience
- Nutrition and Health Sciences
- Population Biology, Ecology and Evolution

Over 330 world-renowned researchers mentor students admitted to these programs, giving them a unique opportunity to train with faculty at:

- the American Cancer Society
- the U.S. Centers for Disease Control and Prevention
- Emory College
- the Robert W. Woodruff Health Sciences Center
- the Rollins School of Public Health
- The Carter Center
- the Winship Cancer Institute
- the Yerkes National Primate Research Center

Financial support includes a tuition scholarship, health insurance and stipend (\$24,500 for the 2009 – 2010 academic year). Funding is guaranteed as long as the student is making satisfactory progress toward their degree. The average time to degree is about 5.5 years. Training is interdisciplinary and students have the flexibility to work with GDBBS faculty outside their program. Students typically perform three rotations before affiliating with a faculty member for their dissertation research.

The application deadline is January 3rd for the following fall semester.



EMORY
LANEY
GRADUATE
SCHOOL

Requests for Additional Information:

RECRUITMENT AND ADMISSIONS

Graduate Division of
Biological and Biomedical Sciences
Emory University
1462 Clifton Road, Suite 314
Atlanta, GA 30322

(404) 727-2545 (direct line)
gdbbs@emory.edu

<http://www.biomed.emory.edu>
http://www.biomed.emory.edu/program_sites/bcdb