

## School Highlights

The Graduate School of Biomedical Sciences has over 350 internationally renowned faculty, including Nobel Prize winner Craig Mello; 3 members of the National Academy of Sciences; and 6 Howard Hughes Medical Institute investigators. GSBS faculty are leaders in diverse research areas including RNA biology, cancer biology, immunology, diabetes, and neuroscience. The GSBS student body currently stands at 400 students, and it annually admits 35-60 Ph.D. and 10 MD/Ph.D students. More than 580 doctoral graduates have published over 3,000 research articles en route to graduation.

## Eligibility

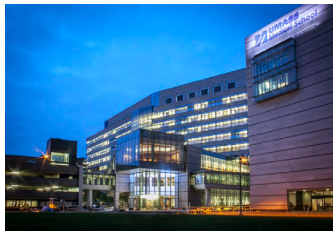
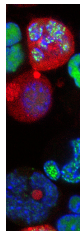
US citizens and permanent residents who have achieved sound predoctoral academic performance in the biological and/or physical sciences but who seek to enhance their academic preparedness and laboratory-based research experiences are eligible for admission to the Pathway to Graduate Study Program (PGSP) of the Graduate School of Biomedical Sciences.

## Financial Support

PGSP students receive a stipend (\$28,050 for academic year 2017-2018), health and dental insurance and tuition waiver. Curriculum fees are paid by the GSBS.

## Application Procedures

Candidates for the PGSP begin the application process by visiting the GSBS application web site (see below). Requirements include transcripts from all undergraduate and graduate institutions attended (only scanned copies are needed for our initial review) and 3 letters of reference. Graduate Record Exams (GRE) are not required, but must be taken during the PGSP year in preparation for application to PhD programs.



[www.umassmed.edu/gsbs](http://www.umassmed.edu/gsbs)

## Pathway to Graduate Study Program

The Pathway to Graduate Study Program (PGSP) in the Graduate School of Biomedical Sciences (GSBS) at the University of Massachusetts Medical School (UMMS) offers an outstanding opportunity to enhance student academic preparedness and laboratory-based or clinical research experience. The result is a graduate who is competitive for admission into top-tier graduate programs. Successful students will be presented to the GSBS admissions committee for acceptance into the PhD program for the following fall semester.

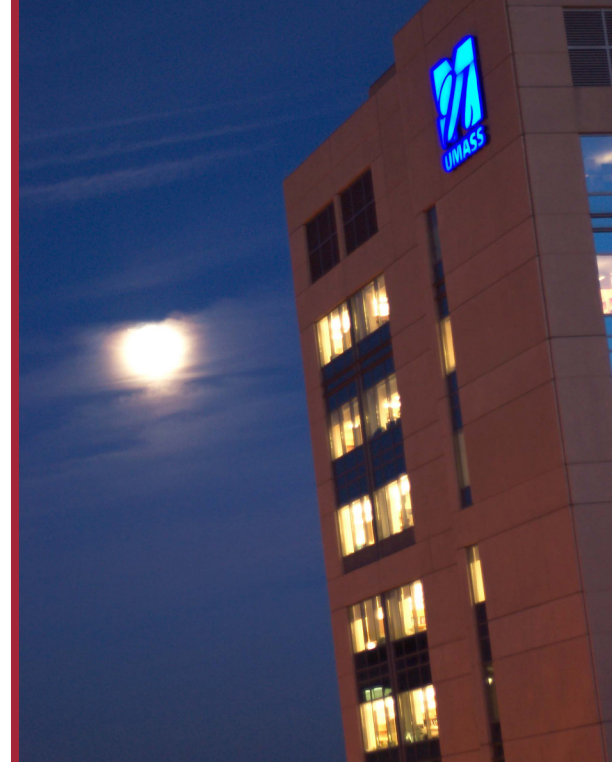
The PGSP prepares students with a Bachelor's or Master's degree in the Physical or Life Sciences (if interested in Basic Biomedical Science study) or a Bachelor's or Master's degree in Public Health or related social science degree (if interested in Clinical and Population Health Research) for doctoral study. Those interested in the Basic & Biomedical Sciences undertake a yearlong mentored research project while studying foundational principles in Biochemistry, Molecular Genetics and Cell Biology. PGSP students interested in Clinical & Population Health Research undertake a yearlong mentored research project while studying foundational principles in health and epidemiology research methods.

An important goal of the PGSP is to broaden diversity among biomedical sciences graduate student populations. Therefore, applications are encouraged from students belonging to groups underrepresented in the biomedical sciences, including racial minorities, students with disabilities, or from economically disadvantaged backgrounds.

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Graduate School of Biomedical Sciences  
Pathway to Graduate Study Program  
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University of Massachusetts Medical School  
Graduate School of Biomedical Sciences



Pathway to Graduate Study



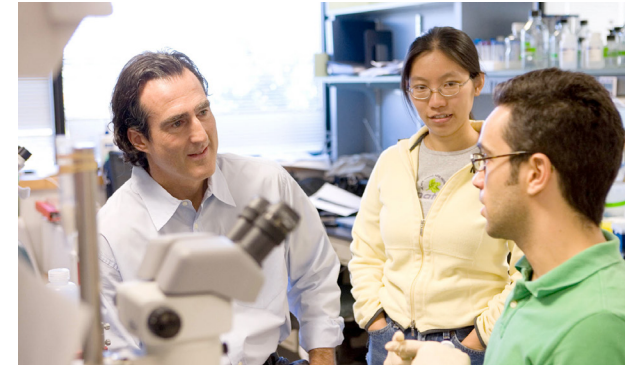
## Basic & Biomedical Sciences Pathway

Students selecting the Basic & Biomedical Sciences pathway undertake a core curriculum comprising Research Ethics, Biochemistry, Molecular Genetics, Cell Biology and Scientific Writing. This is a blended, yearlong curriculum comprised of interactive lectures, critical evaluation of the primary research literature and on-line instruction.

At the beginning of the program in July, students take an intense 3-week course, BBS748: Introduction to cellular metabolism and disease, that prepares entering GSBS students to the independent learning, critical thinking and written communication skills that facilitate success in the graduate curriculum. In the fall semester, students take BBS614: Foundations in Biomedicine, a problem-based course that provides learning opportunities through exploration of multidisciplinary areas of contemporary biomedical research, and creates a forum for practice in the skills required for research. The course consists of 4 topical modules in which students gain (and integrate) foundational knowledge in areas such as biophysics, biochemistry and molecular genetics, as well as workshops in important areas such as statistical analysis and bioinformatics. In the spring semester, students take an advanced topics course in an area of specialization of their choosing. These courses typically consist of a combination of lectures and paper discussion sessions.

Classes in the Responsible Conduct of Research and Communicating Science expose students to critical issues in research ethics and sharpen the ability of students to write clear and concise research proposals and research articles.

	SUMMER 1	FALL	SPRING	SUMMER 2
CORE	BBS 748: INTRO TO CELLULAR METABOLISM AND DISEASE	BBS 614: FOUNDATIONS IN BIOMEDICAL SCIENCE	ADVANCED TOPIC	
RESEARCH	RESEARCH INTERNSHIP			
MENTORING	LAB PRINCIPAL INVESTIGATOR - RESEARCH ADVISING			
	FACULTY ACADEMIC MENTORS - CURRICULUM ADVISING			
	PATHWAY FACULTY & PEER ADVISING			



## Clinical & Population Health Research Pathway

PGSP students selecting the Clinical & Population Health Research Pathway have a curriculum tailored to their academic experiences and research goals. In the summer, students take CTS605A: Introduction to Clinical Epidemiology and Biostatistics. This course reviews basic principles of epidemiology, investigation of disease outbreaks, and the application of various observational and experimental research designs and strategies to clinical, epidemiological, and translational research. In the fall and spring semesters, PGSP students take foundation courses in Epidemiology, Research Methods, and Biostatistics. Typically, courses in the Clinical & Population Health Research Program consist of small group lectures and discussions, student papers and presentations, and hands on exercises. Students develop skills in use of clinical and epidemiological databases. They develop their applied research skills working with a research mentor for the full year where they will contribute to the mentor's work as well as develop an independent project.

Courses will be selected with the mentor. All PGSP students must consider that some of the courses available have pre-requisites and students entering the courses must have met the prerequisites.

	SUMMER 1	FALL	SPRING	SUMMER 2
CORE	RESEARCH BOOTCAMP	HUMAN SUBJECTS RESEARCH CERTIFICATION	SCIENTIFIC WRITING TUTORING	
	CURRICULUM TAILORED TO STUDENTS NEEDS & RESEARCH GOALS			
RESEARCH	RESEARCH PROJECT			
	BRIDGE SEMINARS			
MENTORING	TEATIME, INSIDE THE RESEARCHER'S STUDIO, JOURNAL CLUB			
	RESEARCH MENTOR			
	PATHWAY FACULTY & PEER MENTORS			

