



Changing What's Possible

COLLEGE OF GRADUATE STUDIES

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# COLLEGE OF GRADUATE STUDIES



**Paula Traktman, Ph.D.**  
Dean, College of Graduate Studies

*As Dean of the College of Graduate Studies, it is my pleasure to introduce you to our mission and vision, which emanate from the intersection of research and education. Our three major goals are:*

- To sustain and support the ongoing research mission of MUSC through the efforts and skills of our trainees.*
- To train the biomedical workforce of tomorrow.*
- To work to ensure that the biomedical workforce of tomorrow looks like our community and our nation: diversity and inclusion.*

A strong research enterprise is a central pillar of MUSC's identity and strategic plan. Our M.S. and Ph.D. trainees, and our postdoctoral scholars and fellows, are vital and active participants in the research programs led by MUSC's faculty. These hard-working scientists provide creativity and intellectual insight as well as dedication and commitment.

The nation's ability to sustain an ongoing biomedical research enterprise encompassing a broad range of disciplines from molecular studies to clinical research, from structural biology to genomics, from drug discovery to epidemiology requires that we train the next generation of scientists.





139

Doctoral Students



58

Dual-Degree Students



59

Masters Students



200

Postdoctoral Trainees



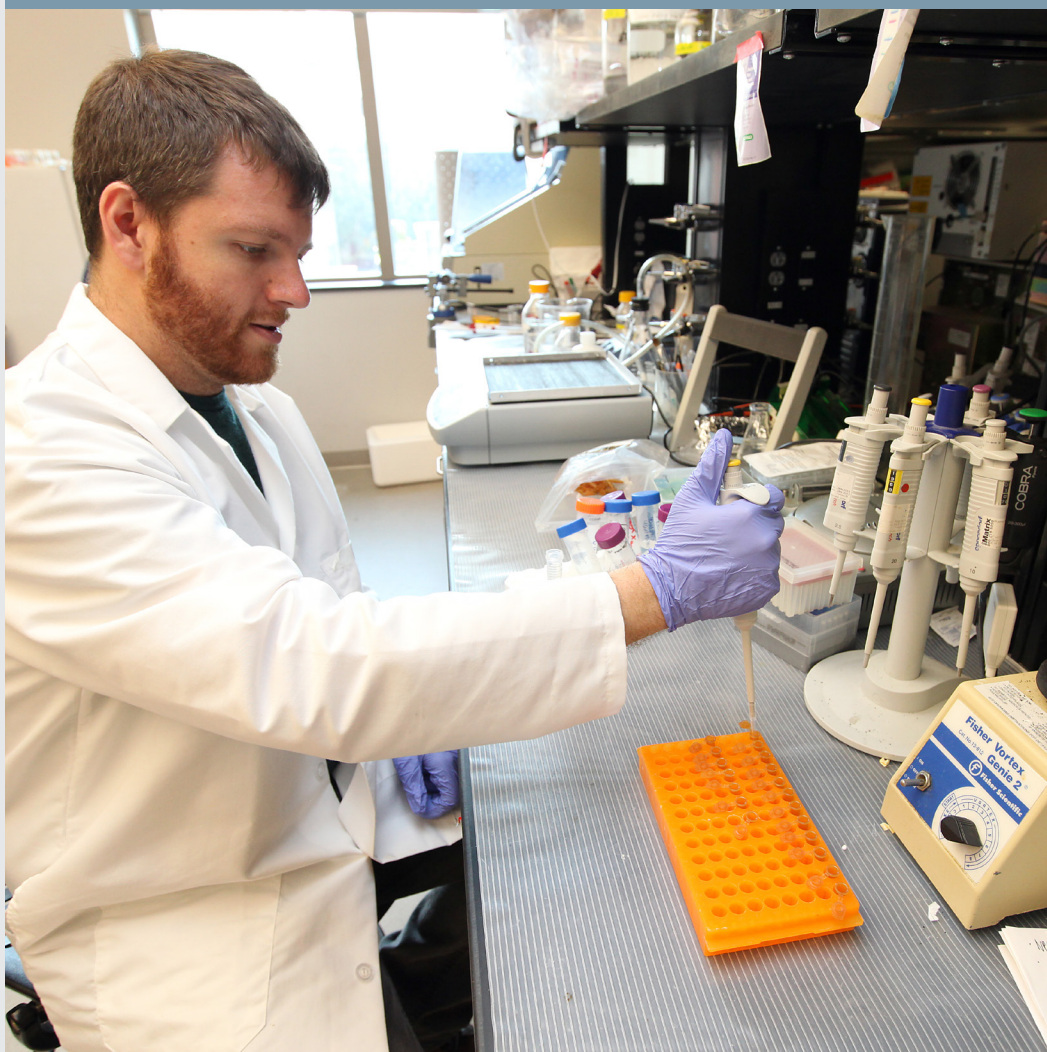
550

Faculty

## “Knowledge today... leads to the cures of tomorrow”

The College of Graduate Studies’ M.S. and Ph.D. programs are dedicated to providing training in foundational and discipline-specific content, in research ethics and critical thinking, in the scientific method and in effective communication. Our students engage in apprenticeship research training, mentored by our distinguished faculty and supported by state-of-the-art research facilities.

We work diligently to engage a diverse group of trainees and to provide a supportive and enriching environment that maximizes our trainees’ professional development and opportunities for success. We are committed to the training of biomedical scientists across a longitudinal spectrum that spans pipeline to postdoctoral. Our goal is to provide our trainees with the skills needed to think critically, be both rigorous and creative, and work successfully at the interface of basic science and human health in a variety of professional contexts.



# EDUCATION



10

Departments and Programs



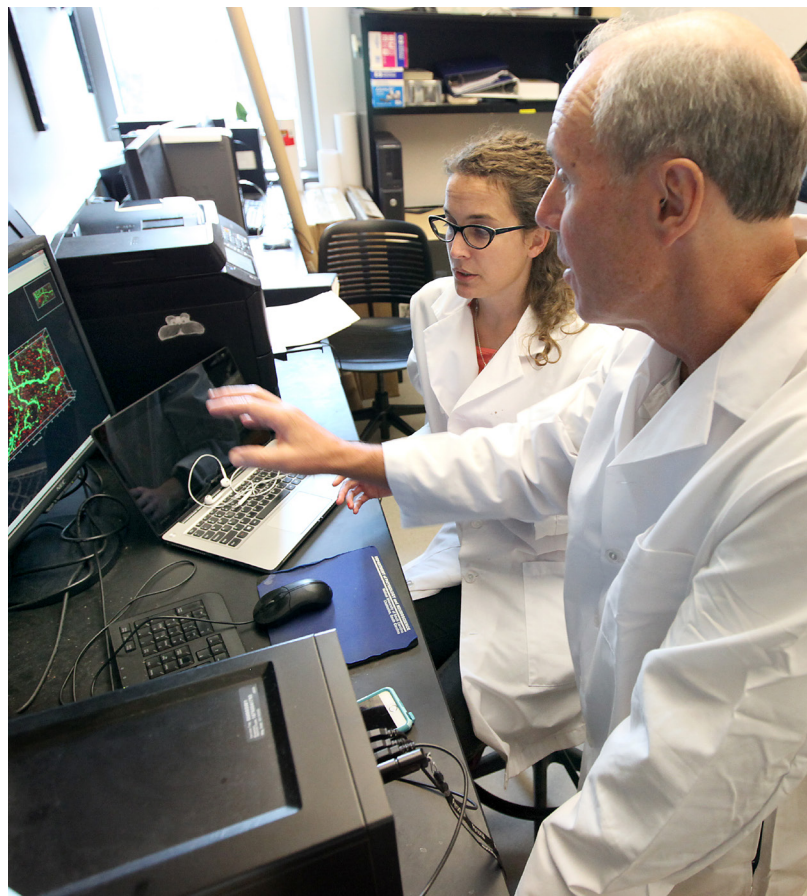
26+

Areas of Research



16+

Shared Facilities and Resources



## DEGREES OFFERED BY THE COLLEGE OF GRADUATE STUDIES

**Doctor of Philosophy (Ph.D.)** is a single-entry pathway program that allows students to participate in an interdisciplinary curriculum that includes foundations of the biomedical sciences and are exposed to all the research training programs in their first year. Each student performs up to four laboratory rotations before choosing a program and mentor for his/her research. This approach allows the student to evaluate his/her own interests after an introduction to research in the classroom and the laboratory. Ph.D. students are provided with competitive stipends, paid tuition, health insurance and travel awards to allow them to present their work at scientific conferences.

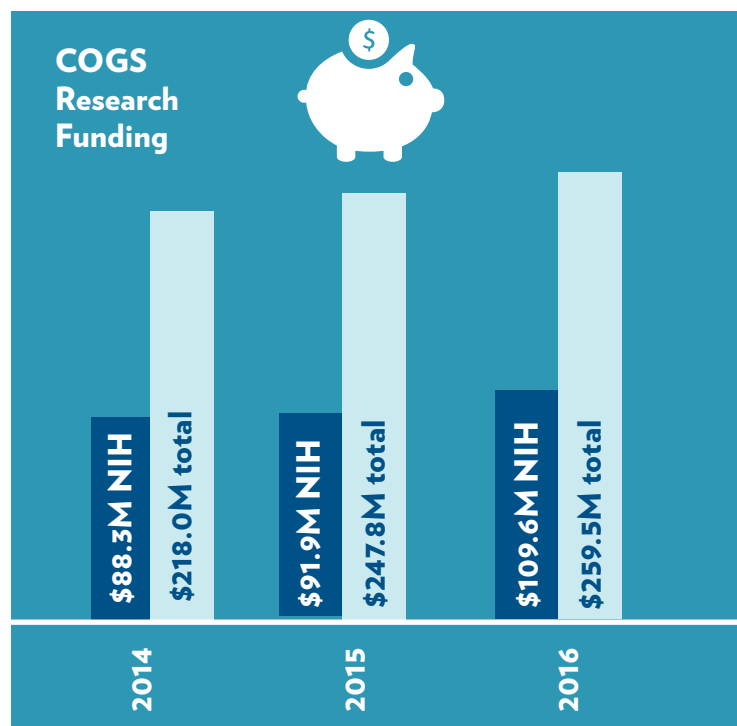
**Medical Scientist Training Program (M.D./Ph.D.)** has been funded by NIH for almost 20 years trains the future leaders in academic medicine. A major emphasis is placed on training our students to translate fundamental discoveries into improved patient care. The curriculum sequence is coordinated to include basic science and clinical rotations in medical school, plus graduate education and sufficient time to conduct a significant research project leading to the Ph.D. DMD/Ph.D. and PharmD/Ph.D. programs also offered

**Master of Science in Biomedical Sciences (M.S.B.S.)** is a research-intensive degree program requiring completion of an independent laboratory research project under the direction of a mentor in a student's chosen field, written thesis, and oral thesis defense.





## RESEARCH



**Master of Science in Medical Sciences (M.S.M.S.)** is a one-year program specifically designed to provide students with a structured opportunity to acquire knowledge and skills that will prepare them for the challenges of applying to and succeeding in medical school and other professional schools. This on-site program contains didactic coursework at the professional level, professional skills development sessions, standardized test preparation, and clinical exposures to form a complementary skill set to those that have been acquired at the undergraduate level.

**Master of Science in Clinical Research (M.S.C.R.)** program trains individuals to become principal investigators on grants, faculty in medical schools, and team leaders who are seeking careers in clinical research. The program is a component of the educational core of the South Carolina Clinical and Translational Research Institute (SCTRI), and is compliant with core competencies recommended by the National Center for the Advancement of Translational Sciences (NCATS)



- Ranked in the Top 100 Biomedical Sciences Programs by NSF Survey
- Ranked as one of America's Best Graduate Schools for Drug and Alcohol Abuse by U.S. News and World Report

# Diversity and Pipeline Programs

The College of Graduate Studies is committed to using the benefits gained from diversity to power discovery in the biomedical sciences.

## Post-baccalaureate Research Education Program (PREP)

This NIH-funded program provides one year of intensive research and professional development for individuals from under-represented groups who are interested in pursuing a PhD or a MD/PhD in the biomedical sciences. PREP scholars engage full time in activities to ready themselves for graduate school and a career in scientific research. Perks of the program include participation in summer techniques courses and graduate level coursework during the academic year, preparation for the GRE exam, and travel to a national scientific conference.

## Initiative for Maximizing Student Development (IMSD)

This NIH-funded program supports Ph.D. students during their first and second years and is designed to increase the participation of underrepresented groups in the biomedical sciences. In addition to tuition support provided by the grant IMSD scholars receive support for travel to present their research at other colleges and universities and participate in professional development workshops.

## Summer Undergraduate Research Program (SURP)

Offers undergraduate students the opportunity to work closely with faculty members, graduate students, and postdocs on research while also acquiring important research skills and techniques. Students accepted to this program are offered housing and paid a stipend to work full-time hours and attend special seminars.

## Annual Ernest E. Just Research Symposium

Hosted by the College of Graduate Studies, the Ernest E. Just Symposium celebrates the life of the noted African-American biologist with a day devoted to providing information to undergraduate students about opportunities in all of the colleges at MUSC.





## PROFESSIONAL DEVELOPMENT

The College of Graduate Studies is committed to helping its trainees develop robust career planning strategies.

## PERRY V. HALUSHKA MUSC RESEARCH DAY

A celebration of MUSC student and postdoctoral research, which includes research posters and talks by MUSC students.

## NEXT (NETWORK, EXPLORE, TRANSITION) CAREER DAY

Packed with career advice and exploration, this day includes panel talks by esteemed professionals and alumni from different career paths; a keynote lecture by a distinguished professional in the field of biomedical research; and a networking lunch for all participants.



# Contact Us | College of Graduate Studies

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## THE MEDICAL UNIVERSITY OF SOUTH CAROLINA

Founded in 1824 in Charleston, The Medical University of South Carolina is the oldest medical school in the South. Today, MUSC continues the tradition of excellence in education, research, and patient care. MUSC educates and trains more than 3,000 students and 700 residents in six colleges (Dental Medicine, Graduate Studies, Health Professions, Medicine, Nursing, and Pharmacy), and has nearly 14,000 employees, including approximately 1,500 faculty members.

As the largest non-federal employer in Charleston, the university and its affiliates have collective annual budgets in excess of \$2.4 billion, with an annual economic impact of more than \$3.8 billion and annual research funding in excess of \$250 million. MUSC operates a 700-bed medical center, which includes a nationally recognized children's hospital, the Ashley River Tower (cardiovascular, digestive disease, and surgical oncology), Hollings Cancer Center (a National Cancer Institute-designated center), Level I trauma center, Institute of Psychiatry, and the state's only transplant center. In 2018, for the fourth consecutive year, U.S. News & World Report named MUSC Health the number one hospital in South Carolina.

For more information on academic programs or clinical services, visit [musc.edu](https://musc.edu).

For more information on hospital patient services, visit [muschealth.org](https://muschealth.org).



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