



College of Graduate Studies

Interfacing Basic Science and Human Health

Hollings Cancer Center –
a National Cancer Institute
Designated Cancer Center



68 President Street, Room BE101, MSC 501, Charleston, SC 29425
www.musc.edu/grad • gradstudies@musc.edu



Areas of Research

- Biochemistry
- Bioengineering
- Bioinformatics
- Biostatistics
- Cancer Biology
- Cardiovascular Biology
- Cell Injury and Repair
- Cell Regulation
- Craniofacial Biology
- Developmental Biology
- Drug Discovery
- Epidemiology
- Genomics
- Immunology
- Lipidomics
- Marine Biomedicine
- Metabolomics
- Microbiology
- Molecular Biology
- Neuroscience
- Pathology
- Pharmacology
- Proteomics
- Regenerative Medicine
- Signal Transduction
- Structural Biology
- Toxicology

Discovery Starts Here

The College of Graduate Studies at the Medical University of South Carolina is committed to the graduate training of biomedical research scientists who learn to work at the interface of the basic sciences and human health and disease. We believe that the single most important experience a University can offer is the opportunity to make exciting new discoveries through research. As a Ph.D. student you may take an interdisciplinary first year curriculum that allows exposure to all departments and programs before a research area and mentor are selected. The curriculum consists of interactive and comprehensive units, self-selected laboratory rotations, and seminars to set the stage for your research career. Later, we encourage you to define your own schedule of courses to complete your educational plan. For many of our students, the research experience culminates in publications in high impact peer-reviewed journals.

Research at MUSC is supported by **over \$238 million** in extramural funding and 842,000 sq. ft. of research space. An additional 200,000 sq. ft. of research space will become available Fall of 2011 with the opening of the new Drug Discovery and Bioengineering buildings. As a student at MUSC, you will apply research techniques in resource-rich laboratories supported by numerous state-of-the-art core facilities. Opportunities are also available to participate in teaching and community outreach activities. Ph.D. students are provided with competitive stipends, paid tuition, health insurance, and travel awards to give presentations at scientific conferences. The time to Ph.D. averages 5 years in our graduate program. M.S. and combined (M.D./Ph.D., D.M.D./Ph.D. and PharmD./Ph.D.) degree programs are also offered.

Apply to our graduate programs online at:

<http://academicdepartments.musc.edu/em/admissions/apply.htm>

For more information, please contact:

Cynthia Wright, Ph.D., Associate Dean for Admissions and Career Development
College of Graduate Studies
843-876-2411
gradstudies@musc.edu

Undergraduate students are offered the opportunity to join us for a 10-week summer undergraduate research training program (SURP) that provides stipend support. The program includes participation in a research lab, a seminar series, oral research presentations, and social activities. For more information about this program contact: Debbie Shoemaker, shoemakd@musc.edu, and apply online at www.musc.edu/grad/SURP.



Our Training Programs are Supported by Extramural Funding

Our Ph.D. students are nationally competitive as evidenced by an amazing 80% success rate in obtaining their own individual NIH fellowships. Thirty-seven extramurally funded training grants or individual fellowships currently support 89 pre-doctoral students. These include the following programs:

- Alcohol Research (NIAAA)
- Bioenergetics, Oxidative Stress, and Metabolic Syndromes (NIDDK)
- Biostatistics, Basic Biomedical (NIGMS)
- Cardiovascular Disease (NHLBI)
- Clinical and Translational Research (NCRR)
- Craniofacial and Oral Health Research (NIDCR)
- Drug Abuse (NIDA)
- Graduate Assistance in Areas of National Need (GAANN)– 2 grants (DOE)
- Initiative for Maximizing Student Development (IMSD program, NIGMS)
- Medical Scientist Training Program (M.D./ Ph.D. program, NIGMS)
- Oceans and Human Health (NOAA)
- Traumatic Stress (NIMH)



Success After Graduation

Our recent Ph.D. graduates are pursuing postdoctoral work at institutions such as Harvard University, the National Institutes of Health, St. Jude Children's Research Hospital, the University of Minnesota, Stanford University, the University of Florida, the Jackson Laboratory, the Scripps Research Institute, Johns Hopkins University, Duke University, and the University of Wisconsin, Madison. Recent M.D./Ph.D. graduates have gone to residency programs at Harvard University, Stanford University, Emory University, the University of California San Diego, Yale University, Vanderbilt University, Duke University, and the University of Chicago. In addition, many other graduates have successfully pursued careers in teaching, industry, and government offices.



The Living is Easy in Charleston

It would be hard to imagine a place offering a more enjoyable environment in which to pursue an advanced degree. Charleston combines the best that life has to offer: the historic charm of centuries-old homes, lively arts festivals, dozens of first-rate restaurants, miles of sandy Atlantic beaches, and a variety of year-round outdoor activities. The historic district, in which the MUSC campus is located, presents a cosmopolitan, European style of living with quiet, winding streets and a varied range of historic architecture that is aggressively protected by local preservation organizations. More than four million visitors come to Charleston each year to sample the historic flavor and enjoy the area's many attractions.



Contact Information-Departments and Programs

- * **Biochemistry & Molecular Biology** <<http://www.musc.edu/BCMB/>>
Contact: Maurizio Del Poeta, MD, (843)792-8381 <delpoeta@musc.edu>
- Bioinformatics** contact: John Schwacke, PhD, (843)876-1106 <schwacke@musc.edu>
- * **Biostatistics and Epidemiology** <<http://www.musc.edu/dbbe>>
Contact: Viswanathan Ramakrishnan, PhD, (843)876-1153 <ramakris@musc.edu>
- * **Cell & Molecular Pharmacology** <<http://www.musc.edu/pharm>>
Contact: Lauren Ball, PhD, (843)792-4513 <balle@musc.edu> or Jennifer Isaacs, PhD, (843)792-8393 <isaacsj@musc.edu>
- * **Microbiology and Immunology** <<http://academicdepartments.musc.edu/immunology>> Contact: Laura Kasman PhD, (843)792-8117 <kasmanl@musc.edu>
- Molecular and Cellular Biology and Pathobiology (MCCBP)** <<http://www.musc.edu/mccbp/>>
Contact: Donald Menick, PhD, Director (843)876-5045 <menickd@musc.edu> Tracks include:
 - Cardiovascular Biology: Contact Donald Menick, PhD, (843)876-5045 <menickd@musc.edu>*
 - Cardiovascular Imaging: Contact Joseph Schoepf, PhD (843)876-7146 <schoepf@musc.edu>*
 - Cell Regulation: Contact Steve Rosenzweig, PhD, (843)792-5841 <rosenzsa@musc.edu>*
 - Craniofacial Biology: Contact Caroline Westwater, PhD, (843)792-7703 <westwatc@musc.edu>*
 - Genetics and Development: Contact Andy Wessels, PhD, (843)792-8183 <wesselsa@musc.edu>*
 - Marine Biomedicine & Environmental Sciences <<http://www.musc.edu/mbes>>*
Contact Eric Lacy, PhD, Director, (843)876-2052 <lacyer@musc.edu>
 - Cancer Biology: Contact Dennis Watson, PhD, (843)792-3962 <watsondk@musc.edu>*
- * **Neurosciences** <<http://academicdepartments.neurosciences.musc.edu/>>
Contact: Antonietta Lavin, PhD, (843)792-6799 <lavina@musc.edu>
- * **Pathology & Laboratory Medicine** <<http://www.musc.edu/pathology/website/research/research.html>>
Contact: Victoria Findlay, PhD, (843)792-7889 <findlay@musc.edu>
- Pharmaceutical Sciences** <<http://www.musc.edu/psci/index.html>>
Contact: Craig Beeson, PhD, (843)876-5091 <beesonc@musc.edu>
- * **Regenerative Medicine and Cell Biology** <<http://cba.musc.edu>>
Contact: Andy Wessels, PhD, (843)792-8183 <wesselsa@musc.edu>
- Medical Scientist Training Program (combined M.D./Ph.D. program)** <<http://www.musc.edu/grad/mstp>>
Contact: Perry Halushka, PhD, MD, Director (1-877-364-2214) <halushpv@musc.edu>
- Dental Medical Scientist Training Program (combined D.M.D./Ph.D. program)** <<http://dmstp.musc.edu/>>
Contact: Keith Kirkwood, DDS, PhD, Director (843)792-0969 <klkirk@musc.edu>; Michael Kern, PhD, Co-Director (843)792-1774 <kernmj@musc.edu>
- Pharm.D./Ph.D. combined program** <http://www.musc.edu/psci/graduate_post/grad_post.html>
Contact: Rick Schnellmann, PhD, Director (843)792-3754 <schnell@musc.edu>
- Ph.D. in Nursing Science** <<http://www.musc.edu/nursing/academics/phd/index.htm>>
Contact: Gail Barbosa, ScD, RN, Director (843)792-0686 <barbosag@musc.edu>
- * Offer the Master of Science in addition to the Ph.D.