

## **UI Carver College of Medicine Research Enterprise**

The research enterprise of the University of Iowa Carver College of Medicine garnered \$200 million in external funding in 2008. The UI currently ranks 11<sup>th</sup> among public institutions and third among Big Ten medical schools in National Institutes of Health (NIH) funding. UI Carver College of Medicine faculty members are also some of the most productive when measured by NIH dollars. The College ranks sixth among public medical schools in NIH dollars and NIH grants per faculty member.

The enterprise is overseen by two senior associate deans for research: Michael Apicella, MD, interim senior associate dean for scientific affairs and Patricia Winokur, MD, associate dean for clinical and translational sciences. Robert Piper, PhD, directs the UI Carver College of Medicine's core research facilities.

Many College faculty members are internationally renowned for their research. Four faculty members are Howard Hughes Medical Institute Investigators, 16 are members of the Institute of Medicine and three are members of the National Academies of Sciences.

Research is conducted in over 250 faculty laboratories in 12 dedicated buildings including 450,000 square feet of wet bench space. Faculty research projects are served by state-of-the-art core research facilities and research support facilities.

Much of the research conducted at the College is interdisciplinary and collaborations are fostered and coordinated through over 30 major research centers, institutes and programs.

Centers within the UI Carver College of Medicine include:

- Center on Aging
- Center for Auditory Regeneration and Deafness
- Center for Bioinformatics and Computational Biology
- Holden Comprehensive Cancer Center, one of 39 NCI-designated comprehensive cancer centers in the nation
- Cardiovascular Research Center
- Craniofacial Research Center
- Cystic Fibrosis Research Center
- Fraternal Order of Eagles Diabetes Research Center
- Center for Functional Genomics of Hypertension
- Center for Gene Therapy of Cystic Fibrosis and Other Genetic Diseases
- General Clinical Research Center
- Huntington's Disease Society of America Huntington's Disease Center
- Center for the Implementation of Innovative Strategies in Practices
- George M. O'Brien Kidney Research Center
- Iowa Comprehensive Lung Imaging Center
- Carver Family Center for Macular Degeneration
- Senator Paul D. Wellstone Cooperative Research Center, one of six such NIH-funded centers in the nation
- Specialized Center of Research in Osteoarthritis
- Helen C. Levitt Center for Viral Pathogenesis and Disease

Research programs within the College include:

- Program Project Grant on Atherosclerosis
- Bacterial Respiratory Pathogens Research Unit
- Cancer and Aging Program
- Cerebral Vascular Biology Program Project Grant
- Program in Gene Discovery
- Research Program in Genetics of Prematurity
- Inflammation Program
- Pain Research Program
- NIH Vaccine Treatment and Evaluation Unit

The UI Carver College of Medicine is also a member of several campus institutes including the University of Iowa Institute for Clinical and Translational Science, which was made possible through a \$33.8 million NIH Clinical and Translational Science Award. The UI is one of only 24 academic medical centers to receive such an award.

The University of Iowa Institute for Biomedical Discovery will involve several UI Carver College of Medicine investigators. The new Institute will provide a world-class facility in which scientists from across the University will collaborate to explore high-risk/high-yield scientific questions in the life sciences with the goal of advancing treatments for a wide array of human diseases.

Approved by the Iowa Board of Regents in 2007, the Iowa Institute for Biomedical Imaging is an interdisciplinary effort including 15 departments which has received over \$33 million in funding since 2003.

## **Core Facilities Available to Carver College of Medicine Investigators**

- Office of Animal Resources
- Biochemistry Stores
- Bioengineering Facility
- Biosafety Level III Laboratories
- Biomedical Research Store
- Center for Biocatalysis and Bioprocessing
- Central Microscopy Research Facilities
- Comparative Pathology Research Laboratory
- Crystallography Facility
- DNA Facility
- Electron Spin Resonance Facility
- Flow Cytometry Facility
- Gene Targeting Facility
- Gene Transfer Vector Core Facility
- High Resolution Mass Spectrometry Facility
- Histology Research Laboratory
- Hybridoma Facility
- Large-scale Digital Cell Analysis System Facility
- Magnetic Resonance Research Facility
- Nuclear Magnetic Resonance Facility
- Protein Facility
- Proteomics Facility
- Small Animal Imaging Facility
- Tissue Procurement Facility
- Transgenic Animal Facility

## **Research Funding Numbers and Facts**

- CCOM garnered \$200 million in 2008
- CCOM ranks 11<sup>th</sup> among public medical schools in NIH funding
- CCOM ranks third among Big Ten medical schools in NIH funding
- CCOM ranks sixth among public medical schools in NIH dollars per faculty member
- University of Iowa received 87% of total NIH provided to all organizations in Iowa in 2007
- 330 CCOM research grants were funded by NIH in 2006
- CCOM is home to 22 NIH program project, specialized centers of interdisciplinary research and center grants.
- CCOM is home to 17 grants for graduate and postdoctoral training and is the lead institution on another 4 interdisciplinary training grants

## **Carver College of Medicine Training Grants**

- Cardiovascular Interdisciplinary Research Fellowship
- Research Training: Major Psychoses and Clinical Neurobiology
- Predoctoral Training Program in Immunology
- Training in Mechanisms of Parasitism
- Research Training Program for Otolaryngology
- Training Program in Molecular and Cellular Biology
- Interdisciplinary Training Program in Pain Research
- Predoctoral Training in the Pharmacological Sciences
- Multidisciplinary Lung Research Career Development Program
- Medical Scientist Training Program
- Program in Hematology: Molecular and Cell Biology Blood Cells
- Predoctoral Training in Genetics
- Hematologic and Oncologic Diseases of Childhood
- Interdisciplinary Immunology Postdoctoral Training
- Research Training Program in Pediatric Cardiology
- Training Program in Free Radical and Radiation Biology
- Research Training in Infectious Diseases
- Training in Kidney Disease, Hypertension and Cell Biology
- Training in Molecular Virology and Viral Pathogenesis
- Neuroscience Training Program
- Physician Training Program in Neonatal Biology