Fund Established to Support Biomedical Innovation and Research at U.Va.

March 20, 2008 – The University of Virginia's Department of Biomedical Engineering has been selected by Johnson & Johnson as the recipient of a grant to finance biomedical translational research, which will promote the advancement of treatments to improve patient care.

The $150,000 grant, matched 100 percent by the University's Office of the Vice President for Research and Graduate Studies, the Department of Biomedical Engineering, and the schools of Engineering and Applied Science and Medicine, recognizes U.Va. and the Commonwealth of Virginia as promising areas for development in the biomedical field.

Established through the Johnson & Johnson Corporate Office of Science and Technology, the new partnership will supplement the five-year, $4.6 million Wallace H. Coulter Foundation Translational Research Partnership Award that the U.Va. Department of Biomedical Engineering received in 2006.

The role of Johnson & Johnson's Corporate Office of Science and Technology's role is "to seek out, around the world, leading breakthrough technologies and innovations that have the potential to push forward new developments in health care in a way that is consistent with the University's mission, societal needs, and the capabilities of the private sector," said Thomas Skalak, chairman of U.Va.'s Biomedical Engineering Department.

COSAT director Youseph Yazdi expressed enthusiasm for the alliance and emphasized that the chief goal is the development of long-term relationships between Johnson & Johnson and U.Va.

"I speak on behalf of almost every single employee of Johnson & Johnson that I have met in my job," he said. "The real passion that drives them is helping patients. That's what this is all about. It is something that no corporation by itself can do, and no university by itself can do. It is through alliances like this that we can translate the wonderful science and engineering that you are doing here to really make the world a better place."

The Coulter Foundation was created to carry forth the legacy and passion of Wallace Coulter to improve health care through medical research and engineering. Through its innovative programs, the foundation has enabled colleges, universities and professional associations to improve their ability to do translational research. The Coulter Foundation Translational Research Partnership award is putting forth $1 million per year to support innovative U.Va biomedical engineering translational research. The program created by
the award provides a vital support structure for translational research that is made possible by the financial investment and human capital put in place by U.Va. and the Coulter Foundation.

Arthur Garson Jr., the University's executive vice president and provost, thanked both Johnson & Johnson and the Coulter Foundation for promoting the commercial application of research in U.Va.'s Department of Biomedical Engineering and schools of Engineering and Applied Science and Medicine.

According to David Chen, director of the Coulter Partnership at U.Va., the involvement of Johnson & Johnson with the University will open opportunities to lead U.Va. people and ideas down commercial pathways that produce improved patient care. The key to translational research is improving human health through scientific discoveries with a practical application. Researchers are beginning to realize that this bench-to-bedside approach to translational research is highly synergistic – where the basic researchers provide tools for the clinicians, and the clinical researchers can offer evidence which enables the basic researcher to do further studies.

"Johnson & Johnson has excellent research and commercialization expertise. They are bringing this skill set to our researchers and building bridges to industry and investors. The result will be a tremendous value to our community," Chen said.

Commonwealth Secretary of Technology Aneesh Chopra recognized the importance the Johnson & Johnson fund holds for not just the University, but also the commonwealth as a whole.

"Governor Kaine has noted that economic development in the 21st century is largely driven by our higher education institutions," Chopra said. "In fact, [U.Va. Vice Provost for Research] Ariel Gomez, on behalf of all the research universities in the commonwealth, studied the areas in which we have strength and the areas in which we have attractiveness for industries and opportunities for growth. This world of life sciences and biomedical engineering emerged among our top priorities set for the commonwealth. ... This is something the governor believes is critical for our economic development and success."

The following nine projects will be funded as part of the 2008-2009 Wallace H. Coulter Translational Research Partnership and the Johnson & Johnson COSAT award to U.Va.:

• "Therapeutic Modification of Myocardial Infarct Anisotropy," Jeff Holmes, M.D., Ph.D., and Gorav Ailawadi, M.D.

• "Enhanced Targeting of Adipose Stem Cells to Ischemic Injury," Shayn Peirce-Cottler, Ph.D., and Ellen Keeley, M.D.
• "Cytokines as Diagnostic Markers for Prediction of Neonatal Sepsis," Jeff Saucerman, Ph.D., Karen Fairchild, M.D., and Randal Moorman, M.D.

• "Targeted Molecular Imaging of Vulnerable Atherosclerotic Plaque," Craig Meyer, Ph.D., David Glover, Ph.D., and George Beller, M.D.

• "Determination of the Need for Blood Platelet Transfusion During Cardiopulmonary Bypass Surgery with an Ultrasound –Based Technique for Real-time Blood Viscosity Estimation," Michael Lawrence, Ph.D., and Gorav Ailawadi, M.D.

• "Adipose Stem Cells for the Healing of Chronic Wounds," Shayn Peirce-Cottler, Ph.D., and Adam Katz, M.D.

• "CardioSolutions: Technologies for Treating In-Stent Restenosis," John Hossack, Ph.D., Brian Wamhoff, Ph.D., Alexander Klibanov, Ph.D., and Michael Ragosta, M.D.

• "Subxyphoid Access System for Use With the Epicardial Tool Kit," George Gillies, Ph.D., and Srijoy Mahapatra, M.D.

• "Comparison of Molecular Imaging Using a Double-Sided Gamma Camera and Contrast Enhanced MRI for Breast Cancer Detection and Characterization," Mark Williams, Ph.D., and Brandi Nicholson, M.D.