OVERVIEW

The past year has been one of tremendous growth and change for university research programs. Building on our traditional strengths as well as emerging areas of expertise, Virginia Tech faculty, staff and students are expanding the boundaries of the discovery mission of the university. The achievements of our administrative units as well as our university research institutes and centers are summarized in the graphs and tables included in this report, which also documents the impressive contributions on the part of our researchers during a time of continued economic uncertainty.

Externally-sponsored research expenditures rose more than 13% during the last fiscal year, marking the 13th consecutive year of growth. In fact, since FY2000, expenditures have grown from $192.7M to $450M. This tremendous expansion of the research enterprise has changed the landscape of our university, providing a platform for increased engagement with a wide variety of stakeholders, encompassing regional, national, and international collaborations and, most importantly, enriching the academic environment of our university for students and faculty members alike.

The sustained advancement of the research enterprise at Virginia Tech is a major component of the comprehensive university strategic planning process, "A Plan for a New Horizon: Envisioning Virginia Tech, 2012-2018." The university-level strategic planning process that began during the past year, continues into the current year. Consistent with our plan for continued growth and distinction in research, this year has seen the continued development of a number of organizations and initiatives which provide a firm foundation for expansion of the Virginia Tech research portfolio. Notable among these is the Virginia Tech Carilion School of Medicine and Research Institute (VTcRI), which successfully recruited seven new faculty to its research teams in the areas of cardiovascular repair and regeneration, cancer biology, aging, infectious disease and brain development, thereby contributing substantially to the depth and breadth of health sciences research at Virginia Tech.

During the past year, we also welcomed Dr. Ben Knapp as founding director of the Institute for Creativity, Arts, and Technology (ICAT), bringing to seven the number of university strategic institutes which will channel resources and the university’s strength toward areas of national need. The mission of ICAT is to forge a pathway between transdisciplinary research and artistic output, scientific and commercial discovery, and educational innovation. This new institute will play a critical role in our mission to inculcate the notions of innovation into the educational experience of our future scholars and leaders.

Virginia Tech’s research infrastructure has also been strengthened by the hiring of Dr. M.A. McCrackin as University Veterinarian and Director of the Office of Animal Resources in December 2011. In her new role, Dr. McCrackin ensures regulatory compliance in the operation and management of animal facilities and that

---

NSS Expenditures 2003-2011

- 2003: 55th
- 2004: 55th
- 2005: 56th
- 2006: 54th
- 2007: 42nd
- 2008: 46th
- 2009: 44th
- 2010: 47th
- 2011: 41st

(Dollars in Millions)
animal health is monitored, staff are trained, and preventive medicine programs are in place. Clinical veterinary staff provide clinical and surgical care for animals housed within the university’s lab animal facilities and provide training in humane animal care to students, staff, and faculty members.

This report also documents a number of enhancements to our operational models, designed to facilitate and streamline the administrative process for researchers throughout the university. Many of these achievements were a result of an organizational advancement plan designed to create the best possible working environment for employees, so that we, in turn, can provide the highest level of service to the faculty, staff, and students of the university. This report also documents the development of systems designed to ensure compliance with new and increasingly complex federal and state requirements.

On a personal note, I would like to thank Dr. Rodd Hall for his significant contributions to organizational advancement within our office and to fostering cross-disciplinary collaboration through his position as Associate Vice President for Research, a role that he assumed in 2007. Dr. Hall brings a wealth of expertise to his new position as Senior Associate Director for Operations and Finance for the Virginia Tech Transportation Institute, and we are pleased to continue our work with him in this new capacity.

In July 2012, we welcomed Martin Daniel as Associate Vice President for Research Operations in the Office of Research. In his new role, Mr. Daniel provides operational leadership for activities including financial management, information technology oversight, and human resource administration within our office. He will also facilitate the activities of organized research programs, institutes, and centers of the university at all levels and of the institution as a whole through leading the migration of key operational processes to electronic research administration formats. Such advancements will be critical to our office as we endeavor to provide online services to our faculty in order to streamline processes, increase responsiveness, and achieve efficiencies that will reduce administrative burdens on individual faculty members and units.

Finally, while the national debate surrounding the federal budget has resulted in continued uncertainty regarding research funding, Virginia Tech is well-positioned to meet these challenges and our future is bright. Our talented faculty, staff, and students are committed to performing the basic and translational research that is critical to meet global challenges and areas of national need in areas such as energy, health, security, and sustainability. Such challenges increasingly require the contributions of many disciplines, discovery at the interface of traditional disciplinary boundaries, the interaction of multiple faculty members and students in a collaborative research environment, and the engagement of stakeholders external to the university. These research areas also provide unprecedented opportunities for the development of young scholars as creative and innovative practitioners, capable of leading research and development teams to advance their fields, solving problems of regional, national and global relevance.

Robert W. Walters
Vice President for Research