



## *Office of the President*

April 16, 2010

*To:* University of Vermont Faculty, Staff, and Students

*From:* Daniel Mark Fogel, President  
Jane Knodell, Interim Provost and Senior Vice President  
Domenico Grasso, Vice President for Research and Dean of the Graduate College

*Re:* **Transdisciplinary Research Initiative–The Spires of Excellence**

The past nine months have witnessed an unprecedented University-wide conversation, the Transdisciplinary Research Initiative (TRI), designed to help map UVM's existing and emerging capabilities, to identify those research, teaching, and public service areas that hold the strongest potential for distinction, and to use the findings to guide us in pursuit of our goal of becoming a recognized center for learning and discovery in selected fields (Spires of Excellence). The TRI has engaged us, challenged us, opened new and cross-disciplinary collaborations among colleagues, and sparked important discussions among faculty, students, and staff about our future as a premier small research university.

Throughout the process, our aim has never wavered: we intend to develop and support collaborative research excellence at UVM that is not only ambitious in its scope but that also enhances the quality and experience of both undergraduate and graduate education, helps to create new and important knowledge, and catalyzes economic development for the State of Vermont. To identify the Spires of Excellence, our community has engaged in a highly transparent and collaborative process that has included:

- Identification of eight areas of existing and emerging strength in scholarship, teaching, and public service;
- Faculty-led, self-nominated, multidisciplinary Working Groups that solicited University-wide input from colleagues, held Town Meetings, and prepared competitive, transdisciplinary proposals for distinctive research at UVM (October 2009 to February 2010);
- A two-month (February to March 2010) process of public discussion and review of the Working Group proposals by multiple internal review and advisory panels including:
  - the Council of Deans
  - an *ad hoc* group of University Distinguished Professors and Scholars
  - the Faculty Senate Executive Council
  - a Faculty Senate *ad hoc* Panel
  - the Faculty Senate as a whole

- a Final Review Council comprising representatives from the Council of Deans, Faculty Senate, University Distinguished Professors and Scholars, and the University Administration; and
- an External Review Panel of distinguished scholars and University leaders

Throughout the process, we also maintained and updated a repository of public information on the TRI (see [this website](#)), posting announcements, Frequently Asked Questions, press releases, administrative memos, internal and external review documents, podcasts, and more.

After the review period concluded, we engaged in a consultative process to discuss review results and potential avenues for moving forward. This process included meetings with each of the eight Working Groups, the Faculty Senate President and Vice President, the Faculty Senate Executive Council, the Faculty Senate Research, Scholarship, and Graduate Education Committee, and the Council of Deans. The Final Review Council was twice consulted—lastly on April 9, 2010—to discuss our final, and most strategic, choices of the first areas to be designated Spires of Excellence.

### **Three Spires**

After this lengthy, critical, and collaborative effort by the UVM community, we are now announcing the first set of Spires of Excellence:

Neuroscience, Behavior and Health (NBH)

Complex Systems (CSYS)

Food Systems

These three Spires epitomize the potential of our small research university across our signature themes of environment, health, liberal education, and public service. Each Spire represents varying degrees of extant expertise and capabilities.

The Neuroscience, Behavior, and Health Spire will be developed around a well established, existing strength in this multidisciplinary field. NBH already has numerous faculty members active across the university—from the College of Medicine to the College of Arts & Sciences—as well as established senior faculty leadership, extensive competitive grants, and a growing, nationally-recognized graduate program. With the recent approval by the Faculty Senate and the Board of Trustees of a new B.S. in Neuroscience, our undergraduates will without question benefit from this area of strength, and indeed this Spire exemplifies, in the just-approved undergraduate curriculum, how centrally TRI initiatives may support new opportunities for interdisciplinary undergraduate education and research. Focused investment in NBH will position UVM to have a powerful social impact in understanding chronic health problems of critical importance to Vermont and the nation, such as addiction, cardiovascular disease, and obesity, and in designing strategies to prevent and treat these problems.

The Complex Systems Spire is an emerging strength at UVM, one where the institution has already begun to assert leadership. CSYS has an outstanding cadre of nation-

ally-recognized junior faculty and several senior faculty who have developed well-cited complex systems scholarship in their disciplines, and have attracted significant funding as well as public and private partnerships to UVM. This Spire also has high potential for collaboration across disciplines, engaging UVM faculty in many areas, including, among others, the environment, health, materials science, the arts, psychology, biosciences, and multiscale modeling. With a focus area in Complex Systems, UVM will distinguish itself as a place where scholars take an intellectually rigorous approach to “systems thinking” in tackling a variety of scientific and real-world problems across the natural, physical, and social domains.

The third Spire, Food Systems, is a nascent field of study nationally and an emerging strength at UVM and, as such, is not surprisingly the least developed of the three spires in terms of existing research strength. It is particularly well-suited, however, to our Land-Grant mission in the 21<sup>st</sup> century. It will be grown from one of the strongest applied research and scholarship strengths at UVM: our connection to Vermont’s working landscape. Positioned to build on our existing partnerships with Vermont farms and communities, the Spire also takes advantage of existing Food Systems expertise across disciplines as well as rising public interest in sustainable, secure, and healthy food systems and the growing national recognition of Vermont as a leader in sustainable food systems practice. The Spire will provide new opportunities for our undergraduates in interdisciplinary studies, Service-Learning, and both basic science and applied research. The focused investment in a UVM Food Systems Spire is intended to give our University the ability to inform complex 21<sup>st</sup> century issues—in Vermont and around the world—surrounding food production, the environment, nutrition and public health, food security, food safety, rural economic development, biofuels, and more.

Over the next few months, we will convene multidisciplinary, faculty-led Steering Committees for each of the Spires. Initial measures to develop and support these first three Spire initiatives will be designed to help them most efficiently and effectively achieve distinction for the University of Vermont. While we intend to engage the Steering Committees in resource allocation plans, we have some initial thinking to share with the broader community.

We find much of value in the advice offered by the external reviewers about recommended levels of investments, which were relatively modest in each instance. To move NBH forward, we will seek to create an efficient and effective administrative structure for NBH and to support three tenure-track hires over the next several years. For Complex Systems, we intend to explore with the faculty the development of a proposal for consideration by the Faculty Senate to create a University-wide, interdisciplinary research center, and we also plan to support a search for a new nationally-recognized senior CSYS faculty member and to identify several junior faculty CSYS hires across UVM colleges and schools over the next few years. Finally, in Food Systems, we agree that a good first step is to search for a nationally-recognized senior scholar who will help develop the program.

It is worth emphasizing that no new graduate degree programs are being proposed at this time. Of course, any new degree program proposals (undergraduate or graduate) that may come out of the Spires in the future will be submitted to the Senate for review and action.

## **The Other Five TRI Proposals**

We have continued to discuss the TRI proposals that, though excellent on many fronts, will not yet move on to become UVM Spires. These include Biological and Bioengineering Sciences, Public Health and Health Policy, Culture and Society, Policy Studies, and Environment. As promised early in this process, we want to ensure that the best ideas from these proposals are given the opportunity to develop. Our thinking about next steps is shaped in large part by our recent conversations with the Working Groups.

Biological and Bioengineering Sciences. There was broad concurrence with a view reiterated at every stage of the review process that the proposal was too broad. We agree with the Working Group's suggestion that we pursue focus by developing faculty expertise at the intersection between multi-scale dynamics in biological systems and two of our designated Spires, NBH and CSYS.

Public Health and Health Policy. The Working Group has a strong interest in continuing to develop a transdisciplinary research group in public health and health policy. We agree that it makes sense to explore how their interests intersect with and contribute to the NBH Spire, particularly its community health component.

Culture and Society. As with some of the other Working Groups, this one was challenged by the sheer breadth of its topic, but at the same time was encouraged by the number of faculty who came forward as the Group developed its proposal. There is strong interest on the Working Group, and strong support from central administration, to continue building toward a University-wide center to advance scholarship in the arts, the humanities, and the social sciences.

Policy Studies. The Working Group felt that, notwithstanding the outcome of the Spire reviews (with which they largely agreed), there is a strong case for a Policy Studies Ph.D. They agreed that, to be viable, a Ph.D. proposal would need to identify an initial area of strength that would adequately differentiate UVM and have the potential to create a well-regarded and high-quality graduate program at UVM in a resource-neutral environment.

Environment. This Group reported that it felt challenged by the breadth of its defined area and had a difficult time reaching consensus. Because the environment is one of UVM's signature areas, and clearly an area of significant faculty strength, the UVM community needs to continue thinking and talking about how to advance discovery, learning, and public service in this area. We think there should be a new proposal in the environmental area during the next round of the TRI.

## **Looking Forward**

With the identification of the initial Spires of Excellence, we have taken important and concrete steps toward meeting previous commitments we have made to ourselves through our shared governance system. These are the first steps on the path laid out in the University's current Strategic Plan (endorsed in a unanimous vote by the Faculty Senate in May 2008, and adopted by the Board of Trustees in December 2008), which calls for us to "focus and strengthen research, scholarship, and the creative arts," and to do so by creating a "roadmap and a process to measure success and allo-

cate resources to mutually enhance research foci.” At its May meeting, the Board of Trustees will receive a status report on TRI and be asked to authorize the administration to proceed with next steps consistent with the report.

First steps are seldom easy. We have considered the concerns of our faculty colleagues and students with the utmost respect and seriousness, but we believe that we must not flag in our efforts to build academic quality and distinction through focused investment in order to advance our mission of creating, transmitting, and applying knowledge that is consequential for the benefit of our students, of Vermont, and of the larger society. As we move forward with the TRI, which we see as an iterative and continuing process of identification, evaluation, and resourcing of promising areas, we will apply what we have learned from the implementation of the 2009-2010 process and will make appropriate revisions. We look forward to receiving the final report of the Ad Hoc Committee of the Faculty Senate, and to what is sure to be a rich dialogue with the Faculty Senate and the campus community over the coming academic year about these important matters.

We recognize the importance of continuing transparently to share how the TRI process works, who is involved in decision-making, and the criteria for our decisions. As resources are deployed, we will monitor progress toward our goals of outstanding education, research, and service and share these results with the University community, will seek input from all members of the community, and will make adjustments accordingly. This work will begin very soon, engaging the Provost’s Office with the Financial and Physical Planning Committee in the review of anticipated FY11-12 resource needs for teaching and research, as requested by the Senate at its April 12 meeting.

Thank you all for your engagement, your voices, and your contributions to this process.