

# *A Strategic Plan for Research Growth at UNC Charlotte*

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## **Background**

In August 2011, Stephen Mosier retired as Vice Chancellor of Research and Federal Relations. Bob Wilhelm was appointed Vice Chancellor for Research and Economic Development with the charge to merge the Research organization with the organization of the Charlotte Research Institute. Responsibility for interaction with federal agencies remains with Research and Economic Development. Responsibility for interaction with federal delegations has been assigned to Constituent Relations.

The new organization of Research and Economic Development includes the Charlotte Research Institute along with the offices of Research Compliance, Research Services and Outreach, Grants and Contracts Administration, Proposal Development, Technology Transfer, Animal Care Research Facilities, and Research Communications as well as the Small Business & Technology Development Center and Ventureprise Inc./The Ben Craig Center Incubator. Research and Economic Development also took on the leadership of the steering committee for the Research Administration Project (RAP) which is now known as AURA – Advancing University Research Administration.

With this reorganization, the UNC Charlotte Institutional plan was revised to call for *a comprehensive plan for the expansion of the University's extramurally funded research programs to a sustainable level of \$50 million annually by 2020.*

To inform the creation of a research growth plan, a number of different processes were used to gather information. Listening sessions were held with faculty, centers directors, and department chairs. An ongoing series of discussions continues with the academic deans. The Committee on the Future of the Faculty was consulted. The College of Liberal Arts and Sciences Faculty Council convened a special committee that produced a report “Enhancing the Research Environment at UNC Charlotte, A Needs Assessment from the CLAS Faculty Council”. This report provided many different insights for the growth plan. Additional college meetings also informed the process. Many suggestions were also offered by The Research & Economic Development staff. The current strategic plans for RFR and CRI were consulted as well as a peer review that was performed by NCURA, The National Council of University Research Administrators. Finally best practices from APLU and the Advisory Board were also used.

In the information gathering process, some ideas were reinforced numerous times over several of the discussions. The most prevalent idea suggested was observation that significant research funding growth would likely have to come from significantly increasing the number of faculty or dramatically increasing the scale of funding pursued by teams of faculty members.

Other reoccurring ideas included

- Limiting the number of focus areas and investing strongly in them,
- Supporting a forward looking process for opportunity and proposal development,
- Emphasizing teams and large proposals,
- Developing infrastructure for landed projects,
- Providing better incentives for large and team efforts,
- Investing in marketing for new proposal topics,
- Increasing seed programs for new initiatives,
- Adding more infrastructure for social sciences,
- Defining a competitive transparent process for focus areas and centers, and
- Attracting and keeping a bigger and better pool of graduate students.

The discussions also brought numerous suggestions to change the way that F&A receipts are distributed to units on campus. While this is not likely to be addressed in the near term, this suggestion points to interests by the faculty to have more flexibility and autonomy in funding research and initiating new efforts. Efforts will be made to address these needs via incentive or reward systems.

Working from this information, this document describes a revised strategic plan for Research and Economic Development that

- Continues merged goals of the RFR and CRI, and
- Outlines new superseding goals for Research and Economic Development.

The planning assumptions and environmental scan remain as they were in the 2010-2015 strategic plans for RFR and CRI.

## Merged Goals of RFR and CRI

The following goals were stated in the 2010-2015 strategic plans for RFR and CRI. They have been combined into the list below. During 2013-2015, we will continue to report performance on these goals following the assessment plans defined in the 2010-2015 strategic plans. One goal related to operation of the animal care program at the North Carolina Research Campus (NCRC) has been struck from the list because UNC Charlotte no longer operated the animal care program at NCRC.

1. Provide outstanding service to faculty and staff.
2. Identify, analyze, and improve processes that support or impact pre- and post-award activities.
3. Provide strong sponsored programs financial management.
4. Strengthen biosafety compliance to provide increased support for expanding life science programs.
5. Strengthen the delivery of training programs to better address new federal requirements and growing research risk and complexity.
6. Expand the focus of technology transfer to emphasize innovation and regional economic development.
7. Increase external funding from the Department of Defense and work collaboratively with industry to bring additional defense contracting to Charlotte region.
8. Research Center Development
  - Nationally Prominent Research Centers
  - Commercial R&D on campus
  - Impact on regional economy
9. Infrastructure
  - Capacity leads demand and enables collaboration
  - Supports large R&D efforts
  - Easily accessed by students, faculty & regional partners
  - Reliable and friendly customer service
10. Marketing
  - Growing National Presence
  - Very dense regional network
  - Regional convener
  - Strong “Innovation” Brand
11. Entrepreneurship
  - UNC Charlotte grows regional entrepreneurship community
  - UNC Charlotte attracts students & faculty for entrepreneurship

## **Vision & Mission**

Research is fundamental to the mission of UNC Charlotte. New knowledge and creative works change the world and shape the future of the University.

Research & Economic Development at UNC Charlotte strives to advance the quality, diversity and growth of research at UNC Charlotte. We place a special value on the translation of research results that impact our social, cultural, and economic communities.

To our faculty, we are committed to providing a sustaining environment where your research, creative, and service activities will flourish. We know that you have dedicated yourselves to discovery and that you work long and hard hours to be successful. We continue to place a very high priority on the creation and operation of quality research services.

To our partners beyond the University, we are committed to the growth and economic development of the Charlotte region and the State of North Carolina. Our faculty members support this growth by competing globally in their research domains and making their results available for the benefit of society. We particularly welcome research and service partnerships that build on the expertise and interests of our faculty and staff.

To pursue this vision and mission, six strategic goals are defined to chart a unique direction for research quality and growth.

# Strategic Goals for Research and Economic Development

## 1. Focused Research

To put resources and infrastructure into place to support a finite number of large-scale focused research areas.

This approach is intended to accelerate research growth, respond to regional and national needs, and build research platforms that can support many different intellectual pursuits. These focus areas clearly include EPIC, Advanced Manufacturing, and Data Science and Business Analytics. Cyber-Security is another area for consideration. Others will be established as the research agenda grows.

### Objectives

- Continue and increase CRI partnership efforts to support focused research areas.
- Use term limited research faculty hiring or strategic hiring in new academic initiatives to build larger teams of researchers.
- Support large scale proposals, fund proposal teams as appropriate, and create organization for large scale project management.
- Continue and increase relationships with Federal Agencies and SCIF customers by engaging consultants and funding a team of faculty liaisons.
- Work with faculty and administration to define process for identifying future focus areas.

## 2. Emerging Research

To provide a menu of services and resources to support faculty in all disciplines as they pursue new research efforts and develop as nationally prominent scholars.

The strength of a research university is the diversity of new knowledge that is always developing. UNC Charlotte must be responsive to emerging trends in research and offer resources to initiate and grow new efforts.

### Objectives

- Continue with effort to provide increased resources for social science research.
- Work with the new Dean of Education to define programs and resources to support an already strong research program in Education.
- Continue working with the Dean of Health and Human Services to define programs and resources that support research initiation and growth.
- Work with the Dean of Arts & Architecture to define programs and resources that support research initiation and growth.

- Work with the Dean of the Belk College of Business to define programs and resources that support economic development as well as research initiation and growth.
- Increase funding and program offerings for seed research and research marketing by faculty members.
- Complete a review cycle for all existing university-wide centers.
- Increase faculty training and convening opportunities for team-oriented research proposals.
- Offer additional individual coaching services for faculty working on research proposals.
- Continue and increase CRI efforts to support the growth of Industry/University Cooperative Research Centers (I/UCRCs)

### 3. Collaboration and Culture

To provide programs, services, and resources that promote collaboration and a culture of research.

Our faculty will be most competitive as scholars, when they collaborate locally and nationally with their peers and across disciplines. Research and academic programs will grow in quality, diversity, and size as a research culture develops on the UNC Charlotte campus. This culture will be defined by the graduate student environment, visibility of research activities, growing networks within and beyond the campus, and a results orientation that emphasizes quality, completion, and dissemination of creative and research works.

#### Objectives

- Work with academic affairs, the graduate school, the library, and all academic units on programs to recognize and support research and creative works. Expand from current programs like the Graduate Research Symposium, the Undergraduate Research Conference, and Charlotte Research Scholars.
- Organize a Faculty Research Council to advise the Vice Chancellor of Research and Economic Development.
- Continue and increase periodic meetings of center directors and faculty researchers.
- Work with Academic Affairs and Colleges to increase graduate student stipends. Evaluate the creation of Chancellor's Ph.D. Fellowships as a way to increase stipend size and success of Ph.D. students.
- Work with the graduate school to expand the current course offering for responsible conduct of research.
- Work with University Communications to create additional vehicles for research communication.
- Work with faculty, faculty research council, and Deans to identify mechanisms to reward highly productive researchers.

## 4. Alignment

To provide programs, services, and resources that connect UNC Charlotte research goals and outcomes with regional and national objectives that impact social, cultural, and economic communities.

Significant opportunities for new ideas, resources, and translation/application will result from alignment with national research trends and regional economic development directions.

### Objectives

- Fund research initiation and marketing activities for faculty members to pursue regional and national collaborations.
- Collaborate with other UNC Charlotte units to support Community Based Research.
- Continue pursuing strategic plan for Ventureprise that focuses on high growth startup companies in the PORTAL building.
- Continue developing the Small Business Technology Development Center (SBTDC) as both a regional and campus resource.
- Broaden economic development activities to include full-time business development activity, increased marketing of Bioinformatics, and more partnership development presence in super-regional locations like RTP.
- Continue and increase Technology Transfer programs for invention, licensing, and proof-of-concept. Adopt more simplified research and licensing agreements for partners.
- Continue pursuing strategic plan for the Charlotte Research Institute and partnership development in the PORTAL building and across the CRI campus.
  - Complete recruitment of PORTAL manager and PORTAL marketing materials.

## 5. Customer Service

To be highly responsive to the needs of faculty, student, and partner research efforts and be known for efficient and friendly customer service.

Improved customer service will directly impact the growth and quality of research and creative activity at UNC Charlotte and maintain efficiencies that are needed for UNC Charlotte to be a competitive research university.

### Objectives

- Increase use of metrics to evaluate and improve speed, efficiency, and accuracy of administrative processes.
- Complete design and implementation of new survey instrument to evaluate customer service.
- Continue and increase projects initiated and completed by AURA, Advancing University Research Administration.

- Develop training and easy-to-use reference materials for all aspects of research proposal submission.
- Continue and increase the use of R&ED staff council, the research administration council, and AURA councils to gather feedback for team and process improvement.
- Develop an organization-wide approach for cross-training within R&ED.
- Significantly increase reports and online data describing investigator research account balances as well as unit research productivity.

## 6. Research Integrity

To provide programs, services, and resources so that all UNC Charlotte researchers can operate with integrity and satisfy all requirements for research.

Administrative, regulatory, and safety systems are a requirement for a competitive research university. These systems need to serve faculty and students efficiently so that they can concentrate on research and academic programs.

### Objectives

- Continue to strengthen all aspects of fiscal administration, from proposal budgets to award closeouts, with an emphasis on fiscal integrity.
- Continue planning to structure and scale the compliance organization within R&ED and the addition of a senior compliance officer within the next 18 months.
- Complete the current effort to update all biological safety protocols and hire a biological safety officer.
- Complete current project to implement software tools for reporting of conflict of interest and external duties for pay.
- Complete the recruitment of a conflict of interest manager.
- Plan for quick startup of SCIF and BSL-3 operations.