<table>
<thead>
<tr>
<th>Of the Public, for the Public</th>
<th>Innovation Made Fundamental</th>
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<tbody>
<tr>
<td>No barriers</td>
<td>Foundational research</td>
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<tr>
<td>Expertise brought to bear</td>
<td>New learning</td>
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<td>Working for democracy</td>
<td>Translation</td>
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<td>Adapting to workforce/students</td>
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<td>Preeminence</td>
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<td>Economic powerhouse for state</td>
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<td>Graduates prepared for the new economy</td>
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<tr>
<td>Global mindset</td>
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<td>Address big societal questions</td>
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**Strategic Framework**
What is Research at Carolina?

Bi-weekly meetings with research Deans and Pan-Campus Center directors have informed:

- Key research strengths/priorities
- Common thematic areas for inter-disciplinary collaboration
Six Strategic Research Priorities

- BRAIN
- CANCER
- DATA SCIENCE
- ENVIRONMENT
- OPPORTUNITY, WELL-BEING and CULTURE
- PRECISION HEALTH and SOCIETY
**Structure, behavior, development, disease**

- Circuits, neuronal cell types, neuroscience and neural activity

**BRAIN**

- Child development
- Nutrition and social/environmental effects
- Mental health and addiction
- Effects of medication on cognition
- Trauma and Concussion
- Strong leadership in Autism research
- Educational intervention
CANCER

Comprehensive program in research, health care, public health practice

• New technologies for diagnosis and delivery of therapies
• Social determinants
• New treatments
• Environmental and behavioral effects
• Bioethics and social science in medical research

Collaboration with IBM Watson to utilize artificial intelligence to improve patient treatment

Flipping Cancer: Performance installation in visuals and dance/movement

Falcon Therapeutics: Treat brain cancer with neural stem cells (green) that seek out and destroy cancer cells (pink)
DATA SCIENCE

Research Frontier of the Future

- Integration and application of data science tools and methods to solve complex problems
Many strengths spanning different areas of environmental research and cross cutting tools

7 schools | 14 departments | 17 centers and institutes

<table>
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<tr>
<th>Health</th>
<th>Resilience</th>
<th>Global Change</th>
<th>Natural Systems</th>
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<tr>
<td>Modeling, Analysis &amp; Prediction</td>
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<tr>
<td>Ethics, Social Systems &amp; Communications</td>
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<td>Big Data &amp; Measurement</td>
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<td>Markets &amp; Economic Incentives</td>
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Evaluate access to opportunities and elucidate their relationships to outcomes

- Investments in early childhood education, schooling and health
- Migration, Work Family, and Wealth
- Humanities for the Public Good
- Psychosocial Health
Precision Health and Society

Tailoring development of new therapies, & individualized delivery of healthcare

- Individual gene variability
- Environment
- Lifestyle
- Social structure
- Geographic location
- Behavior

Source: Metabolon
Six Strategic Research Priorities

- BRAIN
- CANCER
- DATA SCIENCE
- ENVIRONMENT
- OPPORTUNITY, WELL-BEING and CULTURE
- PRECISION HEALTH and SOCIETY
Creativity Hubs

An evolving virtual research network that concentrates talent and resources for defined periods of time on bold ideas, free from typical organizational demands and boundaries, with the goal of moving new discoveries and ideas into practice.

Assemble interdisciplinary teams to develop pilot proposals (3 month planning grants)

Creativity Hub Pilot Projects

Generate foundational data leading to large scale external funding opportunities (1-2 year pilot funds)

OUTCOME
Convergent Research: Collaboration and innovation to solve emerging problems and shape the future
Creativity Hub Pilot Award Key Criteria

**Innovation** - Ability to provide solutions to important challenges and/or generation of new fundamental knowledge and create impact to benefit society, culture, community, the environment, or the economy.

**Convergence** - Demonstration that the project takes advantage of expertise from multiple and diverse disciplines and promotes new ways of thinking that push disciplinary boundaries.

**Sustainability** - Likelihood that the project will lead to support of larger and sustained extramural funding from federal agencies, industry, venture groups, or non-profit organizations.

**Program Management Plan** - Clearly articulated plan with description of feasibility, work-plan, milestones, project deliverables, evidence of alignment with large-scale extramural support and timeline for soliciting external support.
Creativity Hub Pilot Award

Features

Awards are for new work that has not been previously funded

Preliminary data are not required but teams must demonstrate that they can successfully advance the project

Projects that align with one or more of the strategic research priorities are encouraged, but projects proposing revolutionary ideas through convergent research in any discipline are also welcome

Teams:

• Leader(s) must hold primary faculty appointment in a UNC-CH Department or Center/Institute

• Include researchers from multiple schools/college and/or Centers/Institutes
Process for Award of Pilot funding

Stage 1: Request for Ideas (Pre-Proposal)
- 4 teams awarded up to $5000 per team for 3 months to build full proposal
- OVCR provides support for further team building, work plans, sustainability plan, and pilot proposal development
- Research Deans and Center/Institute leadership provide recommendations to OVCR for selection of ideas

Stage 2: 4 Pre-proposal teams submit full proposal
- 1 team awarded up to $250,000 per year for 2 years
- Each team to provide presentation of their proposals
- Research Deans, Center/Institute leadership, and faculty with relevant expertise provide recommendations to OVCR for selection of team for funding

Tracking Progress
- Separate executive committees for each Creativity Hub Pilot Award team to advise/track progress against proposed metrics
Timeline for Creativity Hubs Pilot Award

- **Request for Ideas (RFI)**
  - 10/11/17

- **4 Ideas Selected: Generate full proposal for pilot funds**
  - 12/11/17
  - 4 Ideas Selected

- **Full Proposal submission**
  - 3/12/18

- **Review & Select Creativity**

- **Pilot Funds awarded to 1 Hub: 4/16/18**

- **Ideas Submission**
  - 11/13/17

- **Review & Select Ideas**

- **Advice and track progress. Make decisions at end of 1 year to continue 2nd year of funding**

- **1 month**

- **1 month**

- **3 months**

- **4 weeks**

- **1-2 Years**
Pilot Funding Post-Award

Two-Page Report describing accomplishment, progress against pre-defined metrics, and financial accounting of fund expenditures due prior to year 2 funding

- Executive committee makes recommendations and VC of Research makes final decision regarding release of funds for Yr2 of funding

Final report due 2 months after the final year of Funding

ORD will provide proposal development support for large-scale follow-on awards that spring from Creativity Hub funding

Awardees may be called upon to develop and deliver presentations of projects suitable for campus leadership and lay audience
Creativity Hubs

Creativity Hub website, http://research.unc.edu/creativity-hubs/

Information about Creativity Hubs

RFP and submission links