

**Question 1: In 10 years, what areas of research do you want to be known for among scientific colleagues (e.g., national and international colleagues, program officers, grant review panelists, prize/award committees, etc.)?**

#### Computational and Data Science/Materials

- Leverage our existing strength in theoretical and computational chemistry
- Integrative biology with emphasis in computational analyses and modelling
- Computational and data science astrophysics
- Advanced materials for quantum science and technology, energy efficiency and sustainability
- Soft matter/biophysics
- Build strength in synthetic chemistry and biochemistry, two areas that were developed slowly for historical/space reasons
- Advanced microscopy and image analysis

#### Materials

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#### Sustainability and Environmental Research

(CCBM merging line drawn between health and sustainability clusters)

- Fundamental understanding of earth that has broader relevance (conservation, global change, sustainability) - alt: Fundamental understanding of the resilience of life and environment on a changing planet
- Integrative understanding of biotic and abiotic processes in shaping life and the environment
- Addressing important questions at the intersection of Life and Environmental Sciences including in ecology, evolution, bio geosciences, sustainability

- Advanced materials for quantum science and technology, energy efficiency and sustainability

### Health/HSRI

(CCBM merging line drawn between health and sustainability clusters)

- Clinical nutritional interventions and health
- infectious disease research and virology
- Neuro-epigenetics and gene transcription
- Study of the primary cilium in signal transduction and in the developing brain
- Tissue Morphogenesis
- Mechanistic studies of cell signal transduction
- Developmental neurobiology and developmental disorders

### Well Rounded Academic Programs with strengths in major subdisciplines

- High quality programs in the major subdisciplines of chemistry. Other top-rated chemistry departments are not highly specialized, and flexibility is needed to address new opportunities in the discipline

### High Quality Academic and Research Programs in STEM education

- Science or biology education research
- Advanced undergraduate research training

**Question 2: In 10 years, what do you want to be known for among other external audiences (e.g., legislators, potential students & parents, local community, national rankings, etc.)?**

### Student Success

- Want reputation for producing strong/high-quality graduate students
- High degree of success in preparing for and placing students in both academic and industry careers
- High impact research involving students both undergrad and grad co-authors
- A rigorous graduate program that produces Ph.D. graduates who are well educated in the fundamentals of the discipline, well trained in the use of modern experimental and computational tools, and able to define and address important research problems

- A rigorous undergraduate program that produces B.S. graduates who are well educated in the fundamentals of the discipline and go on to succeed in graduate school, professional school, or employment after graduation
- An academic program that equips the next generation with mathematical modeling, computational, and data analytic skills necessary for success in today's workforce

#### Modern Interdisciplinary Academic and Research Programs - Computation

- An interdisciplinary applied mathematics department that combines traditional and modern techniques in computational and data science to solve pressing real-world problems
- An internationally recognized incubator for creation and application of innovative tools in computational and data-enabled science

#### Modern Interdisciplinary Academic and Research Programs - Sustainability

- Strong research program in sustainability and natural resource-related areas (including climate change)
- Research that emphasizes interdisciplinarity and interactions (biotic-biotic, biotic-abiotic, etc.)

#### DEI

- A diverse and inclusive group of students, faculty, and staff; structure and curriculum that supports training of young scientists, particularly under-represented groups
- Diverse and inclusive faculty majors and grad students including women and UG in STEM (#1 in women faculty in Physics).
- An inclusive and equitable academic and research environment where students and researchers from diverse backgrounds prepare for successful careers

#### Medicine

- Resources for teaching and community activities regarding cell biology, developmental biology and birth defects in the nervous system, and integrative biology

- Someone who made significant contributions towards understanding the development and functioning mechanisms of the brain
- Innovative research that addresses state, national, and international needs in the fundamental science underlying technological and biomedical advances
- Research on cellular and molecular mechanisms underlying brain developmental disorders

#### Research that Informs Policy & Societal Issues

- Application of materials science: PVs, health, sustainability
- Leaders in unique research opportunities (Valley Fever, cannabis, almonds and other tree nuts, etc.)
- Research that informs policy/solutions (including to “wicked problems”)
- A nationally and internationally recognized and well-connected innovation hub
- Would like to be known for thorough science

#### STEM Education Research

- A department that works closely with local stakeholders on improving mathematics education and promoting strong computing skills across educational institutions in the region
- Science/biology education research

#### Outreach & Regional Impact

- Need for more coherent “branding” (we pretty much know what we are, but others don’t); an LES grad program could help
- Stellar outreach efforts

**Question 3: In 10 years, what do you want your unit to be known for among internal audiences (e.g., colleagues across campus, graduate and undergraduate students, administrators, etc.)?**

#### Research Excellence

- Research in cell and molecular biology of multiple systems
- A culture of excellence
- Solid and highly respected science
- A department with a recognizable identity that reflects the research we do and academic programming we provide

### Strong Outreach

- A strong link between campus and local educational institutions that serves to improve mathematics competency and education in the region

### A Hub of Tools & Methodologies for Research Across Campus

- SNS depts have the infrastructure/facilities that enable excellent research
- Driving force for multiple centers, training programs and ORUs on campus
- A hub for expertise in mathematical modeling, computational techniques and data-enabled science on campus

### Interdisciplinary Research Activities

- Active and mutually beneficial collaborations with other departments and programs
- A department that excels at innovative, interdisciplinary and collaborative research and teaching
- A collaborative department where faculty, students, and postdoctoral researchers come together to develop high quality academic and research programs
- Leaders in interdisciplinary research - research productivity (external funding, papers published)
- High impact interdisciplinary research

### Innovative Teaching Based on Cutting Edge Research in STEM Education

- Innovative teaching and teaching support
- Science or biology education research
- Teaching and student engagement in cell and molecular biology
- Innovative teaching as a model for active learning throughout the curriculum

### Comprehensive Support System for Student Success

- An academic and research program that strives to provide comprehensive support for undergraduate and graduate students to be successful
- Grad student success (competitive academic/industry positions)
- Producing impressive number of successful graduates from underrepresented groups
- Known as a popular major for industry and academic careers
- Positive outcomes for students' research

## Supportive Environmental Friendliness/Inclusivity, Collegiality, Amity

- Easy to get along with/collegiality
- An open and supportive program that aims to represent the diverse population of the region and the state
- Collegiality, cohesion, and inclusion among our faculty, staff, and students
- Highly collegial unit, with robust mentoring and advancement of faculty and students
- A department that centers collegiality, equity and inclusion in all of our relationships: between and amongst students, faculty, and staff