Faculty Virtual Town Hall
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Provost and Vice President for Academic Affairs
Jim Quick, Ph.D. Associate Provost for Research
Dean of the Moody School
April 30, 2021
Areas of strategic investment over the next 3-5 years

2016-2025 Strategic Plan
- Inclusive, transparent budgeting process
- Inter-disciplinary programs
- Maximize revenue generation
- Research support
- Cluster hires
- Post-docs

US News and World Report top 50
- Student success /retention
- Affordability/ need-based aid

2020-2025
- Student success /retention
- Affordability / need-based aid
- Opportunity hires
- Post-docs

Road to R-1
Inclusive Excellence Initiatives
- Student success /retention
- Affordability / need-based aid
- Opportunity hires
- Post-docs
## Draft Timeline: Academic priorities for the next 3-5 years

<table>
<thead>
<tr>
<th>Area</th>
<th>Year One (2020 – 2021)</th>
<th>Year Two (2021 – 2022)</th>
<th>Year Three (2022 – 2023)</th>
<th>Year Four (2023 – 2024)</th>
<th>Year Five (2024-2025)</th>
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</thead>
<tbody>
<tr>
<td><strong>Strategic Plan</strong></td>
<td><strong>Budget Process/Revenue</strong></td>
<td><em>Collaboration</em></td>
<td><em>College/School models</em></td>
<td><em>Online/Digital Ed</em></td>
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<td></td>
<td></td>
<td><strong>Centers/Institutes</strong></td>
<td></td>
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<td>*National search, Directors</td>
</tr>
<tr>
<td><strong>US News &amp; World Report</strong></td>
<td><strong>Enrollment Management</strong></td>
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<td><em>Enhanced recruiting</em></td>
<td><em>Need-based aid</em></td>
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<td></td>
<td><strong>SMU in Four</strong></td>
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<tr>
<td><strong>BUF Action Plan</strong></td>
<td><strong>Workload Policies</strong></td>
<td><strong>Postdocs</strong></td>
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<td>*Need-based aid</td>
</tr>
<tr>
<td><strong>Road to R-1</strong></td>
<td><strong>3-5 Initial cluster hires with R-1 focus</strong></td>
<td><em>Discuss priority areas</em></td>
<td><em>Recruiting</em></td>
<td><em>Onboarding</em></td>
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</tbody>
</table>
Faculty input is needed to identify investment targets for the Road to R1 that will create research efforts that compete nationally for significant and sustainable external funding, and that will support postdoctoral researchers and PhD students.
Proposed Changes in the Past 13 Presidential Budgets

2020 Federal R&D Priorities

Democratic Platform R&D Priorities
https://democrats.org/where-we-stand/party-platform/

Health:
• Diagnosis, vaccine & therapies
• Rapid detection, containment and treatment
  • **Data mining epidemiological, clinical & genomic data is emphasized**

Resilience:
• Natural disasters
• Biological threats
• Cyber/EM attacks

Earth System Predictability:
• Weather, climate, hydrology, ocean, and other environmental systems

Military Preparedness:
• Advanced military capabilities
  • **Increased responsiveness to emerging threats in all domains emphasized**

STEM Ecosystem:
• Provide all Americans access to STEM education and advanced workforce pathways
• Tools for remote & in-person learning
• Expand broadband access
• Improve remote learning
• Ensure a pipeline for capable student to graduate education in STEM fields

Democratic Themes:
• Pandemic Recovery
• Infrastructure
• Social, Environmental & Economic Justice
• Ethical & Civil Liberty
  Considerations related to technological advances

Stated Commitment to:
• Health Science
• Artificial Intelligence
• Advanced Materials
• Biotechnology
• Aerospace

Climate Change:
• Resilient grids
• Sustainable agriculture
• Efficient energy
• Emission reduction
• NASA/NOAA Earth Observation

World-Class Education in every ZIP code,
K-12 & STEM emphasized

Technology:
• Artificial Intelligence
• Communication
• Advanced computing
• Advanced manufacturing
• Biotech
  • **Creation of consortia and centers of excellence emphasized**

Space:
• Maintain US leadership
• Return to Moon by 2024
• Enable longer human missions in space
• Study in-situ utilization of lunar & Martian resources
• Advanced materials and manufacturing processes

Ocean Mapping:
• Explore & characterize resources
  • **R&D that improves response to changes in ocean systems emphasized.**

Arctic:
• Predict Arctic physical, biological and socio-economic processes to advance US interests

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Selecting Priority Areas for the Road to R1

Overarching Themes

Investing in Public Health
Creating an Economy that Works for All
Tackling the Climate Crisis
Advancing Equity
Confronting 21st Century Security Challenges
Restoring America’s Global Standing

Proposed changes to base discretionary funding in Biden’s budget*

<table>
<thead>
<tr>
<th>Category</th>
<th>Increase</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>+28%</td>
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<tr>
<td>Commerce</td>
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<td>+23%</td>
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<tr>
<td>Health and Human Services</td>
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<tr>
<td>EPA</td>
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<td>+20%</td>
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<td>National Science Foundation</td>
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<tr>
<td>Interior</td>
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<td>HUD</td>
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<tr>
<td>Transportation</td>
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<td>Labor</td>
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<td>State and USAID</td>
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<tr>
<td>Treasury</td>
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<tr>
<td>Energy</td>
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<tr>
<td>Small Business Administration</td>
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<tr>
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<tr>
<td>NASA</td>
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<td>+2%</td>
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<tr>
<td>Justice</td>
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<td>Defense</td>
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<tr>
<td>Homeland Security</td>
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Note: Comparison does not include mandatory spending, emergency funding, or program integrity funding

Highlights

$20B increase to Title 1 to create new learning opportunities.

$6.9B to NOAA for climate observation, forecasting, and impacts of climate change. NIST doubled ($442M) for climate, 5G tech, cybersecurity, advanced materials.

$6.5B to establish ARPA-H; initial research foci include cancer, diabetes, Alzheimer’s

$1.6B increase for basic research across sciences and engineering.

$1.2B for climate/clean energy research. New Directorate focused technology development in AI, HPC, cybersecurity, disaster response & resilience, biotech, and other areas.

$7.4B for climate, novel materials, clean energy, AI & HPC.

$2.3B for earth observation systems to track effects of climate change.

Highlights R&D, biological threat reduction, climate resilience, energy efficiency.

$2.1B to CISA includes support to acquire tools & services to improve cybersecurity

$600M for research including R&D on climate resilience, cybersecurity.


Based on OMB/OSTP R&D priorities overlaid with the democratic platform and considered in light of SMU research strengths, the following major areas emerge for consideration for research investment.

1. **National Security:** resilience, earth-system predictability and climate, military preparedness

2. **Education:** STEM ecosystem & world-class education in every zip code

3. **Technology:** application of Data Science, AI, ML, HPC to health, national security, education, economic development