Presenters

Karl V. Steiner, Sr. Associate Provost for Research Development

Leigh Botner, Manager of Proposal Development
Outline for today’s discussion

Research
- UD Research Enterprise

Planning
- Federal Funding Landscape
- UD Strategic Research Priorities and Infrastructure Development

Development
- What is Research Development?
- UD Research Development Office

Analysis
- Internal Funding Programs
- Limited Submission Programs

Strategy
- Strategic Partnerships & Development of New Resources

http://www.udel.edu/research
Today’s Learning Objectives

• Raise your awareness of the challenges facing faculty researchers you interact with on a day-to-day basis

• Increase your knowledge about the road signs RDO is following to address these challenges

• Challenge you to help us CREATE ideas for leveraging all the hard work each of you do and together steer our faculty towards the road to success
UD Research Enterprise

- Top 100 institutions for Federal Science and Engineering obligations (without its own medical school)

- Among 96 Carnegie Foundation “Research Universities with Very High Research Activity”

- Nationally ranked Top-10 graduate programs in Chemical Engineering, Art Conservation, Physical Therapy
13-Year History of UD Sponsored Program Expenditures

- Sponsored Program Expenditures in FY11: $196 Million
- Proposals Submitted in FY11: 1,599
- Proposals Awarded in FY11: 579
UD FY 11 Research Expenditures: $134MM; 80% Federal

Research Expenditures by Sponsor

- Other: 22%
- U.S. Dept. of Defense: 17%
- U.S. Dept. of Energy: 16%
- State of Delaware: 11%
- U.S. Dept of Health & Human Services: 21%
- National Science Foundation: 9%
- Other Federal: 4%

http://www.udel.edu/research
Proposals by College

Proposal Count 1599

- Ag & Natural Resources: 229
- Arts & Sciences: 415
- Engineering: 477
- Exec VP: 8
- Health Sciences: 79
- Educ & Human Development: 154
- Lerner College of B&E: 13
- Earth, Ocean, & Environment: 140
- Provost: 84
Federal Funding Landscape in 2012

Trends in R&D by Agency
in billions of constant FY 2011 dollars

FY 2011 and FY 2012 figures are latest estimates.
1976-1994 figures are NSF data on obligations in the Federal Funds survey.
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President Obama’s FY 2013 Federal R & D Priorities

• Promoting Sustainable Economic Growth and Job Creation
• Moving Toward a Clean Energy Picture
• Defeating Dangerous Diseases and Achieving Better Health Outcomes
• Understanding Global Climate Change and its Impacts
• Stewardship of Natural Resources
• Science and Technology for Security
Total R&D by Agency, FY 2013

budget authority in billions of dollars

- Commerce, $2.6
- USDA, $2.3
- NSF, $5.9
- NASA, $9.6
- DOE, $11.9
- HHS (NIH), $31.4
- All Other, $6.0

Total R&D = $142.2 billion

Defense: -1.9%
Nondefense: +5.1%

Source: OMB R&D data, agency budget justifications, and other agency documents.
R&D includes conduct of R&D and R&D facilities.
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R&D in the FY 2013 Budget
percent change from FY 2012

NIST 18.1%
DHS 26.3%
Other HHS 21.9%
DOT 17.0%
DOE Energy 16.2%
DOE Defense 9.6%
USGS 7.6%
NSF 4.6%
DOE Science 2.4%
NASA 2.2%
EPA 2.1%
VA 0.2%
NIH 0.0%
USDA -1.5%
DOD Other -1.5%
NOAA -3.8%
DOD S&T -7.4%
TOTAL 1.2%

Inflation: ~1.7%

Source: OMB R&D data, agency budget justifications, and other agency documents. © 2012 AAAS

http://www.udel.edu/research
NIH Funding Perception

“Competition for funds from the NIH and other sponsors, intensifying year by year, now stands at an unprecedented level, and shows no sign of abating. Never before have so many established investigators faced so much uncertainty about their longevity as active scientists. Never before have so many novices faced so many disincentives to entering or continuing a research career.”

Dr. William F. Raub, NIH Associate Director for Research and Training, Strategy Paper, 1982
NIH Funding Realities

- **Overall Success Rate for NIH Research Projects**
  - 32% in 1999
  - 24% in 2007

- **Average Age of Researchers receiving their first NIH Grant**
  - 39 years old in 1990
  - 43 years old in 2007

- **Percent of R15’s that go to first-time Investigators**
  - 29% in 1990
  - 25% in 2007
NIH Research Project Grants
Competing applications, awards, and success rates

NIH Data Book-
NIH Research center grants
Applications, awards, and success rates

NIH Data Book-
National Trend toward Multi-investigator Awards

Appendix: Trend in Single vs. Multiple Investigator Awards at NSF

NSF Research Grants for Single Investigators (SIRPS) and Multiple Primary Investigators (PIs) by Percentage for both the total Dollar Value [bars] and the Number of Grants [lines].

From NSB-08-80
UD’s “3 Plus 1” Research Strategy

Aligning Strategic Priorities with Opportunities

Life and Health Sciences
Energy and Environment
National Security and Defense

• Areas of UD strength that align with national priorities
• Focus of our strategic investments & initiatives
• Focus of our major external partnership efforts

plus
Enabling Infrastructure
Delaware Biotechnology Institute

- Founded in 1999 as a statewide hub for interdisciplinary research, education and economic development.

- Catalyst for hiring over 50 life sciences faculty, including several faculty leaders

- Over 100 affiliated faculty members from 23 departments

- Start-up funding in 1999:
  - $65M (State, UD, Private Sector)

- Competitive funding secured since:
  - $240M (NIH, NSF, DOE, USDA, etc.)

Director: Kelvin Lee
Delaware Health Sciences Alliance

www.dhsa1.org

Launched: November 2009
Delaware Environmental Institute

• Statewide Institute
• UD, DSU, Wesley, DTCC, DNS
• State Agencies
• 85 Affiliates
• Launched October 23, 2009
• Director: Don Sparks
• www.denin.udel.edu

Mission:
Provide solutions to pressing environmental needs and produce strategies to address emerging environmental challenges by conducting research and promoting and coordinating knowledge partnerships that integrate environmental science, engineering and policy.
UDEI Builds on Existing Strengths:

- Institute of Energy Conversion
- Center for Energy and Environmental Policy
- Center for Catalytic Science and Technology
- Solar Power Program
- Center for Fuel Cell Research
- Solar Hydrogen IGERT
- Solar Poultry House Project
- Center for Composite Materials
- Industrial Assessment Center
- Center for Carbon-Free Power Integration
- Advanced Magnetics Research Program

Launched September, 2008
Director: Michael Klein
www.energy.udel.edu
Founded in 1974, CCM is an internationally recognized interdisciplinary center of excellence for composites education and research

Director: Jack Gillespie

Three-Part Mission

- Conduct basic and applied research
- Educate scientists and engineers
- Transition technology to industry

Currently 200+ people participate representing 3 colleges and 7 departments

Host to 6 NSF/DoD Centers of Excellence since 1985

More than 3500 small, medium and large companies have benefited

Soft funded deriving support from State of Delaware, federal government and industry
BRAC – Aberdeen Proving Ground

• “BRAC” stands for Base Realignment and Closure. It is the process the Department of Defense has used to reorganize its base structure to more efficiently and effectively support our forces, increase operational readiness and facilitate new ways of doing business.

• BRAC will realign mission capabilities and resources to allow the Aberdeen Proving Ground (APG) to not only save money but also to posture itself for the future by becoming more efficient and innovative.

• 8,200 new, direct positions on Post (civilian DoD and embedded contractors); 7,500 – 10,000 indirect jobs (contractor tail and spin-off located off Post); 28,000 direct, indirect, and induced new positions to the region; 60,000 new residents statewide.

UD Interactions with Aberdeen

The University of Delaware is already engaged in collaborative research with a number of units at APG in areas as diverse as:

- Advanced Composites
- Multifunctional Materials
- Prosthetics, Orthotics, Robotics, and Imaging
- Computer and Information Science
- Biological and Chemical Sciences
- Management, Business and Finance

CRADA signed between UD and RDECOM
- January 26, 2010

http://www.udel.edu/army/
Interdisciplinary Science & Engineering Laboratory

- Future home of Delaware Environmental Institute (DENIN), Center for Energy and Environmental Policy (CEEP), UD Energy Institute (UDEI) and Catalysis Center for Energy Innovation
- Space for newly structured Science Classes in Biology, Chemistry and Physics
- 194,000 sft, completion scheduled for 2013
Science & Technology Campus

Former Chrysler Automotive Manufacturing Plant

- 272 Acres adjacent to the UD Campus

- The S&T Campus can easily hold the entire Newark Main UD Campus

- Future Home of Health Sciences
What is Research Development?

Research Development

A set of strategic, proactive, catalytic, and capacity-building activities designed to facilitate individual faculty members, teams of researchers, and central research administrations in attracting extramural research funding, creating relationships, and developing and implementing strategies that increase institutional competitiveness.

Research Development Professionals Provide

- funding opportunity identification and targeted dissemination
- grant/contract proposal development
- strategic initiatives for research
- technical writing and editing
- research team building
- interaction with funding agencies and governmental offices
- limited submissions review process
- coordination with institutional research administration and leadership
- training and outreach activities
- a resource for institutional knowledge and information

http://www.udel.edu/research
Office of Research Development

**Activities**

**Infrastructure development:** NSF Delaware EPSCoR, NIH INBRE programs

**Assists with the creation and maintenance of collaborative partnerships:** Delaware Health Science Alliance, Provost’s Social Science Task Force and RDO Symposium Series, Research Deans Committee, College Financial Officers, etc.

**Proposal development and outreach activities aligned w/strategic initiatives:** Assistance with the creation of peer review of proposals, grant workshops for faculty and graduate students, etc.

**Identification of large funding opportunities aligned w/strategic initiatives:** Limited Submissions [http://www.udel.edu/research/limitedsubmissions](http://www.udel.edu/research/limitedsubmissions)

**Coordination of large multi-disciplinary and/or inter-institutional proposals:** NSF STEP and NERC programs, NIH COBRE and CTR and CTSA programs, equipment grants like NSF’s MRI, NIH’s SIG and HEI, etc.

**Resource Development:** Led efforts on campus to evaluate emerging software products that locate targeted funding opportunities, 2) link such opportunities to faculty members, in a database-driven approach 3) help faculty across the institution to connect with each other and support possible future collaborations. In addition, collaborating with central IT to create educational tools for SharePoint

**Management of UD’s internal grant programs:** UDRF and GUR

[http://www.udel.edu/research](http://www.udel.edu/research)
# Internal Grant Opportunities

<table>
<thead>
<tr>
<th>Internal Grant Opportunities</th>
<th>Details</th>
</tr>
</thead>
</table>
| **General University Research (GUR)** http://www.udel.edu/research/preparing/funding.html#gur  | Up to $6,000 in Direct Costs  
Funds early career faculty in the  arts, humanities, and social sciences                                                                       |
| Deadline typically in October                                                                                                                         |                                                                                                                                                                                                         |
| **UD Research Foundation (UDRF)** http://www.udel.edu/research/preparing/funding.html#udrf       | Up to $35,000 in Direct Costs  
Funds early career faculty in the sciences and engineering                                                                                        |
| Deadline typically in November                                                                  |                                                                                                                                                                                                         |
| **UD Research Foundation (UDRF) Strategic Initiatives** http://www.udel.edu/research/preparing/funding.html#udrf | Up to $45,000 in Direct Costs  
Funds teams of tenured & early career faculty in the sciences and engineering                                                                       |
| Deadline typically in September                                                                      |                                                                                                                                                                                                         |
| **NIH: Delaware IDeA Networks of Biomedical Research Excellence (INBRE)** http://inbre.udel.edu/ | Up to $75,000 in Direct Costs annual for two years  
Funds biomedical pilot grants from new and early career investigators at partner institutions                                                   |
| Deadline typically in July                                                                           |                                                                                                                                                                                                         |
| **NSF: Delaware Experimental Program to Stimulate Competitive Research (EPScOR)** http://www.epscor.udel.edu | Up to $50,000 in Direct Costs (opportunity to request a second year later)  
Funds multidisciplinary & cross-institutional collaboration in environmental research  
Participation from social scientists encouraged                                                      |
| Deadline typically early December                                                                     |                                                                                                                                                                                                         |
| **UD: Fraunhofer Collaboration**  
First deadline was March 15, 2012 | Up to $250,000 is available per year to fund 2-3 projects with budgets between $75 and $150k, including F&A  
Funds collaborative research projects to generate pilot data  
Funds graduate & undergrad student fellowships                                                   |
| **Delaware Health Science Alliance** http://www.delawarehsa.org/                                      | In the past, funded pilot grants for new biomedical research programs in basic or translational research----No new competitions currently scheduled                                                                 |
|}
Current internal grant programs:

Collaborative multi-disciplinary research grants

“Integrated Semester” interdisciplinary teaching grants

Visiting Artists and Scholars grants

Contact us: IHRC@art-sci.udel.edu

www.udel.edu/ihrc  [coming soon!]

Ann Ardis, Director (aardis@udel.edu)
Janis Tomlinson, Associate Director (jat@udel.edu)
Oak Ridge Associated Universities (ORAU)

- Consortium of ~100 major Ph.D.- granting academic institutions
- Aimed at encouraging and enhancing the strengthening of U.S. research and education
- Opportunities are diverse in “field of interest” (i.e., Business, Communications & Graphic Design, Computer Science, Earth, Environmental & Marine Sciences, Engineering, Life, Health & Medical Sciences, Mathematics, Physical Sciences, and Social & Behavior Sciences), begin throughout the year, and vary with respect to US citizenship requirements.
- ORAU funding opportunities and activities fall into two categories:
  1) Internships, Scholarships & Fellowships
  2) Faculty & Student Programs

http://www.udel.edu/research
## Analysis

### UD Seed Grant Opportunities

<table>
<thead>
<tr>
<th></th>
<th>Applications</th>
<th>Awards</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>UDRF</td>
<td>132</td>
<td>63</td>
<td>47%</td>
</tr>
<tr>
<td>UDRF–SI</td>
<td>67</td>
<td>28</td>
<td>42%</td>
</tr>
<tr>
<td>GUR</td>
<td>179</td>
<td>136</td>
<td>76%</td>
</tr>
<tr>
<td>NIH–INBRE</td>
<td>86</td>
<td>33</td>
<td>38%</td>
</tr>
<tr>
<td>NSF–EPSCoR</td>
<td>45</td>
<td>17</td>
<td>38%</td>
</tr>
<tr>
<td>DHSA</td>
<td>33</td>
<td>9</td>
<td>27%</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td><strong>542</strong></td>
<td><strong>286</strong></td>
<td><strong>53%</strong></td>
</tr>
</tbody>
</table>
Since 2008

<table>
<thead>
<tr>
<th>Field</th>
<th>Applications</th>
<th>Awards</th>
<th>Success Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>26</td>
<td>8</td>
<td>31%</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>40</td>
<td>23</td>
<td>58%</td>
</tr>
<tr>
<td>Earth, Ocean &amp; Environment</td>
<td>14</td>
<td>7</td>
<td>50%</td>
</tr>
<tr>
<td>Engineering</td>
<td>35</td>
<td>19</td>
<td>54%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>14</td>
<td>6</td>
<td>43%</td>
</tr>
<tr>
<td>Business &amp; Economics</td>
<td>3</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Education &amp; Public Policy</td>
<td>1</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>133</strong></td>
<td><strong>63</strong></td>
<td><strong>47%</strong></td>
</tr>
</tbody>
</table>
### UDRF–SI

<table>
<thead>
<tr>
<th>Since 2008</th>
<th>Applications</th>
<th>Awards</th>
<th>Success Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>9</td>
<td>1</td>
<td>11%</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>19</td>
<td>6</td>
<td>32%</td>
</tr>
<tr>
<td>Earth, Ocean &amp; Environment</td>
<td>5</td>
<td>1</td>
<td>20%</td>
</tr>
<tr>
<td>Engineering</td>
<td>25</td>
<td>16</td>
<td>64%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>9</td>
<td>4</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>67</strong></td>
<td><strong>28</strong></td>
<td><strong>42%</strong></td>
</tr>
</tbody>
</table>

#### UDRF-SI Overall Success Ratio

![Bar chart showing UDRF-SI Overall Success Ratio for various categories](chart.png)
### Since 2006 Applications Awards Success Ratio

<table>
<thead>
<tr>
<th>Category</th>
<th>Applications</th>
<th>Awards</th>
<th>Success Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>3</td>
<td>2</td>
<td>67%</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>124</td>
<td>95</td>
<td>77%</td>
</tr>
<tr>
<td>Earth, Ocean &amp; Environment</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Engineering</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>9</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Business &amp; Economics</td>
<td>28</td>
<td>22</td>
<td>79%</td>
</tr>
<tr>
<td>Education &amp; Human Development</td>
<td>15</td>
<td>9</td>
<td>60%</td>
</tr>
</tbody>
</table>

**GUR Overall Success Ratio**

![GUR Overall Success Ratio Chart](chart.png)
# NIH–INBRE

Since 2004 | Applications | Awards | Success Ratio
--- | --- | --- | ---
Agriculture & Natural Resources | 4 | 0 | 0%
Arts & Sciences | 32 | 11 | 34%
Earth, Ocean & Environment | 0 | 0 | N/A
Engineering | 24 | 6 | 25%
Health Sciences | 26 | 16 | 62%

**Total** | **86** | **33** | **38%**

**INBRE Overall Success Ratio**

![INBRE Overall Success Ratio Graph](chart.png)
## NSF–EPSCoR

**Since 2008**

<table>
<thead>
<tr>
<th>Field</th>
<th>Applications</th>
<th>Awards</th>
<th>Success Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>12</td>
<td>5</td>
<td>42%</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>6</td>
<td>1</td>
<td>17%</td>
</tr>
<tr>
<td>Earth, Ocean &amp; Environment</td>
<td>17</td>
<td>7</td>
<td>41%</td>
</tr>
<tr>
<td>Engineering</td>
<td>10</td>
<td>4</td>
<td>40%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
</tbody>
</table>

45  17  38%

**EPSCoR Overall Success Ratio**

- **Applications**
- **Awards**
DHSA

Since 2009

<table>
<thead>
<tr>
<th>Field</th>
<th>Applications</th>
<th>Awards</th>
<th>Success Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture &amp; Natural Resources</td>
<td>2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Arts &amp; Sciences</td>
<td>19</td>
<td>6</td>
<td>32%</td>
</tr>
<tr>
<td>Earth, Ocean &amp; Environment</td>
<td>0</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>Engineering</td>
<td>5</td>
<td>2</td>
<td>40%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>7</td>
<td>1</td>
<td>14%</td>
</tr>
</tbody>
</table>

33 9 27%

DHSA Overall Success Ratio

- Applications
- Awards

Agriculture & Natural Resources
Arts & Sciences
Earth, Ocean & Environment
Engineering
Health Sciences
Limited Submission Programs

• Funding opportunities that limit the number of applications that can be submitted from a single institution
• Searchable website went live in 2011
  http://www.udel.edu/research/limitedsubmissions/
• Faculty and administrators are encouraged to join the listserve
• Internal reviews are typically conducted electronically by Research Deans or faculty identified by Research Deans and RDO
• Some competitions require face-to-face review meetings to finalize
• Final decision is made by Mark Barteau, Sr. Vice Provost for Research
• New: We are changing how the department administrators enter data into PeopleSoft for limited submissions so that additional analysis may be conducted
  – Dept. Admins are now instructed to select “Limited Submission” instead of selecting solicitation and putting comments in the description section
Strategic Partnerships

- Formed a Research Deans Committee which now meets monthly to help with the identification and development of needed resources.

- Worked closely with a sub-group of the Provost’s Social Science Task Force to develop a symposium series aimed at advancing cross-campus collaborations and sparking dialogue about the growing role of social sciences and translational research:
  - Sept. 2011: Inaugural Social Sciences and Human Health Symposium. Keynote speaker: Dr. Robert Kaplan director of the Office of Behavioral and Social Sciences Research (OBSSR) at NIH.
  - Nov. 2011: Three new social science faculty shared their research on health care policy in a research colloquium.
  - Jan. 2012: Second Delaware Environmental Institute (DENIN) Research Symposium stressed the importance of integrating environmental science and engineering research with environmental policy, economics, humanities and social dynamics.
Contact
Rob Rudd
302-831-7462
robrudd@udel.edu

Works in partnership with RO

http://www.udel.edu/research
New Resources

• In collaboration with the Morris Library, secured a 3 year license with **COS Pivot** http://www2.lib.udel.edu/database/cospivot.html
  ✓ Helps faculty identify funding opportunities and other faculty researchers
  ✓ Helps administrators identify relevant faculty for a particular funding opportunity and to easily share the opportunity
SharePoint

• SharePoint is a Web-based application that allows working groups to collaborate online using any supported Web browser. You can use SharePoint for document management, file management, workflow management, and online discussion.

• Summer of 2011, IT unveiled a new Microsoft SharePoint 2010 server at teamwork.udel.edu.

• RDO used SP 2010 to prepare the DE-CTR proposal:
  – October 2011 online DE-CTR survey revealed concerns.

• Collaboratively shared results of survey with three groups within central IT:
  – Reviewed over 20 different project management tools available on the market.
  – Streamlined IT support processes for SP.
  – Created a SP study group.
  – Created a SP educational initiative.

http://www.udel.edu/research
Coming Soon!

• In collaboration with the IT group, we will be unveiling several educational videos on our training website and will conduct at least one workshop in June on how to use SharePoint for collaborative proposals.

• IT will be unveiling a version of Harvard Profiles on the Delaware Health Science Alliance website shortly. This was made possible through an amendment to Thomas Jefferson University’s existing agreement and funding from UD’s IT.

  ✓ Harvard Profiles is a research networking and expertise mining software tool.

• In addition, we will be expanding the existing to include a of new online resources.

http://www.udel.edu/research
Help us CREATE

- At each table is a list of tools which represents some resources we believe should go into the new tool belt of online resources

**Researcher’s Tool Belt**

- Links to proposal writing resources
- Links to federal award databases
- How to contact program officers
- How to use SharePoint
- Boiler plates for letters of support, resources and environment, etc.
- How to find external funding
- Links to funding databases (Governmental, corporate, and foundation)
- Central location for all internal funding opportunities
- Targeted funding searches for shared instrumentation grants
- Workshops
- Links to federal conferences/seminars
- RDO news e.g. Social Science Symposium series
- Links to existing collaborative partnerships (DHSA, Fraunhofer, etc.)
- Link to grant administrator and/or faculty listserv or some other social media tool
Using the acronym CREATE work together at your table to:

**Collaborate:** Can any of the tools be combined to help faculty and administrators? What other tools could we include on the website that would enable grant administrators and/or faculty from across campus to collaborate better?

**Rearrange:** What tools do you use within your college or institute that could be beneficial to other administrators and/or faculty? Can these tools be made available on our central website? Can parts of our proposed tools be moved to your website and be more effective?

**Eliminate:** Is there any proposed tool which could be removed or replaced- in part or whole? Can the tools be simplified?

**Adapt:** Can any of the tools be put to other uses- or given a new use if you changed one part?

**Training:** Will any of the tools require training before being effective? What type of training do you need? What type of training do your faculty need?

**Extend:** Can we add something else to the toolbelt that would help you in your job?