

Research Development Support



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Research Networking

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Agenda

- Welcome
- Research Development
- Faculty Research
- Lunch

Research Development Website



The screenshot shows the top portion of the Research Development website. At the top left, the text "RESEARCH DEVELOPMENT" is displayed in a large, bold, serif font, with "BRIGHAM YOUNG UNIVERSITY" underneath it in a smaller, sans-serif font. To the right of this is a search bar with the word "Search" inside. Below the header is a dark blue navigation bar with white text for various menu items: "Home", "Get Starled", "Request Funding Search", "Finding Tools", "Internal Funding", "External Funding", "Resources", "Feedback", and "About RD". The main content area features a large, vibrant photograph of a volcano erupting at night, with bright orange and yellow lava flows and a plume of dark smoke rising into the dark sky. Below the image, the text "Funding News, Opportunities, and Resources" is written in a bold, serif font.

Research Networking Events

- 5 events to date
- Over 300 attendees; 155 presentations
- Over 80% found it useful



This screenshot shows the main content area of the website. On the left, there is a "Go to Conference Room Calendar" link and a section titled "UPCOMING EVENTS" which lists four events with their dates, times, and locations. The first event is on August 18th at 2:00 PM in the IDR @ 270 MB, IDR Conference Room. The second is on August 23rd at 9:30 AM for Research Networking @ w-111 Benson Bldg. The third is on September 8th at 12:00 PM for Crowdfunding Your Proposal @ 270 McDonald Building. The fourth is on September 22nd at 11:30 AM for U.S. Department of Education Fundin... @ 270 McDonald Building. In the center, there is a news article titled "New Policy Eliminates Most Appendix Material for NIH/AHRQ/NIOSH Applications Submitted for Due Dates On or After January 25, 2017", posted on August 16, 2016 by RDadmin. The article text discusses the elimination of appendix materials for applications submitted to the NIH, AHRQ, or NIOSH for due dates on or after January 25, 2017. It also mentions that application instructions will be updated by November 25, 2016, to reflect this change. On the right side, there is a "START YOUR FUNDING SEARCH" section with a "pivot" logo and a search box. Below that is a "QUICK LINKS" section with a list of links: "Get Started", "Request A Funding Search", "Find Funding Sources", "Funding Opportunities", "Write an Effective Proposal", "Market Ideas", and "Review Faculty Research".

Facebook:

BYU Research Development

@BYUResDev

<https://www.facebook.com/BYUResDev>

Twitter:

Research Development

@BYUResDev

<https://twitter.com/BYUResDev>

Instagram:

BYU Research Development

@BYUResDev

<https://www.instagram.com/byuresdev/>

Get updates about what's happening with BYU RD—take a moment, pull out your phone, and follow us now.

<http://researchdevelopment.byu.edu/>

Objectives of Research Networking

Foster Awareness of the Diverse Research/ Scholarship at BYU

Departments and Disciplines with Active Research/Scholarship Programs

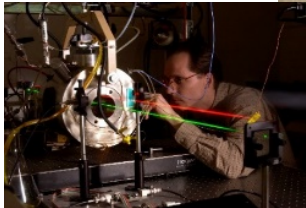
Physical & Mathematical Science

- Chemistry
- Biochemistry
- Geology
- Physics
- Astronomy
- Computer sciences
- Mathematics
- Statistics



Engineering and Technology

- Chemical engineering
- Civil engineering
- Electrical engineering
- Mechanical engineering
- School of Technology



Family, Home and Social Sciences

- Anthropology
- Economics
- History
- Geography
- Psychology
- Archeology
- Family Life
- Economics
- Political sciences
- Sociology
- Social Work



Education

- Education and Schooling
- Counseling and Special Education
- Teacher Education

Nursing

Humanities (Languages)

Law

Visual and Performing Arts

Business

Life Sciences

- Agriculture
- Biology
- Health Sciences
- Microbiology and Molecular Biology
- Nutrition, Dietetics and Food Science
- Physiology
- Developmental Biology
- Exercise Science
- Plant and Wildlife Sciences



Facilitate Interdisciplinary/Collaborative Research

“Interdisciplinary research (IDR) is a mode of **research by teams** or individuals that **integrates information, data, techniques, tools, perspectives, concepts, and/or theories from two or more disciplines** or bodies of specialized knowledge to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice¹”

¹Facilitating Interdisciplinary Research Committee on Facilitating Interdisciplinary Research, National Academy of Sciences, National Academy of Engineering, Institute of Medicine, 2005.

Strong Support from Federal Funders for Interdisciplinary Research

- “...marked shift toward scientific research that spans disciplines and organizational boundaries and is carried out by teams rather than individuals...”¹
- “NSF gives high priority to promoting interdisciplinary research ...35% of active NSF solicitations in 2008 included the term “interdisciplinary”²
- “DoD’s Multidisciplinary Research Program of the University Research Initiative (MURI) supports basic research in the science and engineering areas intersecting more than one traditional discipline in order to accelerate research”³



"I'M ON THE VERGE OF A MAJOR BREAKTHROUGH, BUT I'M ALSO AT THAT POINT WHERE CHEMISTRY LEAVES OFF AND PHYSICS BEGINS, SO I'LL HAVE TO DROP THE WHOLE THING."

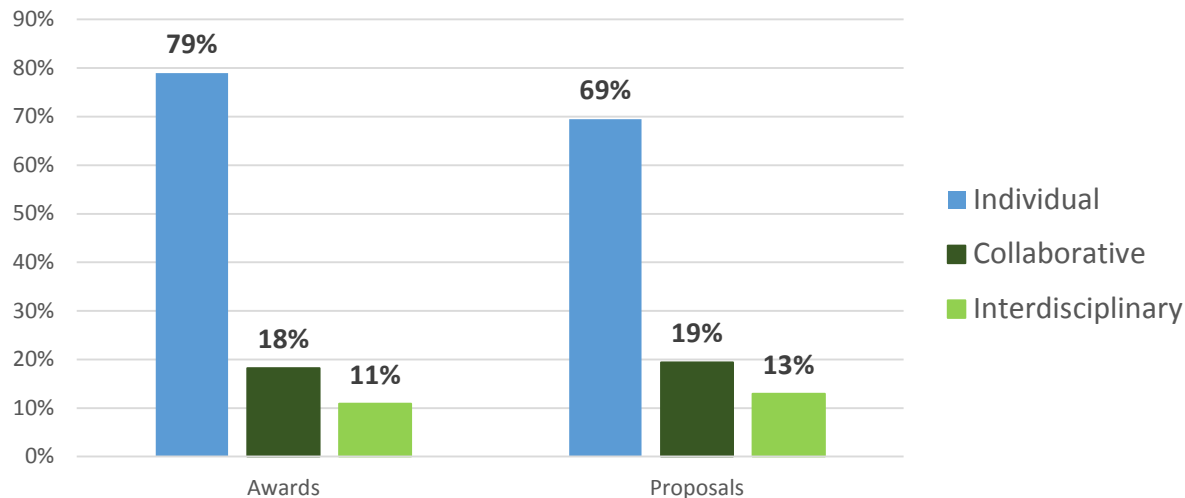
¹from “Addressing Complexity: Fostering Collaboration and Interdisciplinary Science Research at the Smithsonian”, May, 2009

²Addressing 21st Century Grand Challenges through Interdisciplinary Research and Education – An NSF Perspective, Richard Boone 2008)

³Department of Defense News Release, June 2, 2015

Categories of Research at BYU

Percent of Awards and Proposals Over a 10-year Period



Individual - one investigator (does include some subawards, ~30% total awards)

Collaborative – multiple investigators from the same department

Interdisciplinary - multiple investigators from more than one department

There are relatively few proposals and awards for interdisciplinary/collaborative research

Creating IDR Topics

- Faculty discussions
 - NSF has developed programs based on topics from collaborative faculty discussions
- Select from Grand Challenges

“Research themes and questions that have the greatest potential to advance STEM disciplines and to promote human wellness and sustainability (NSF definition)”

- Grand challenges topics have been developed by NSF, NIH, USDA, USAID, National Academies of Science and Engineering, the White House, Foundations, etc.; examples include
- | | |
|---|--|
| <ul style="list-style-type: none">• <i>Develop food plants to adapt and grow sustainably in changing environments</i>• <i>Expand sustainable alternatives to fossil fuel</i>• <i>Develop and manage smart grids</i>• <i>Provide access to clean water</i>• <i>Manage the nitrogen cycle</i> | <ul style="list-style-type: none">• <i>Restore and improve urban infrastructure</i>• <i>Develop better forecasting and proactive mitigation strategies for invasive species</i>• <i>Reverse engineer the brain</i>• <i>Increase the spatial resolution of regional climate change models</i>• <i>Manage and utilize data effectively</i> |
|---|--|

RD Support for Interdisciplinary Research Efforts

- Develop databases of research interests
- Facilitate IDR meetings
 - INFEWs team
 - Brain team
 - Arctic team
 - Diabetes
 - Dementia
 - Data
- Identify potential collaborators
- Identify funding opportunities
- Work with program officers
- Manage IDR proposals
- Well established research networking program
- Provide food (lunch, snacks)



Conference Room for IDR Planning

- Large computer display screen
- Printer, white boards, printer, speaker phone, storage
- Reconfigurable as long conference table or separate work areas

Contact Sarah Dorff sarahdorff@byu.edu to schedule room