Campus Conference
Integrative Research Culture Workshop
August 19, 2016

3:00 pm Session

Tony gave a presentation on current research initiatives and collaborations followed by Johanna in ORA on *Fund Balances for Research* and Matt in CCIT on *Research Support Services*. (Slides attached.)

After the presentations several topics were offered for discussion:

a. Combining research centers into institutes
b. Accelerating buildup of intellectual property
c. Physical reorganization of research space on campus to achieve interdisciplinary research
d. Impediments to enhancing inter-institutional collaborations
e. Impediments to enhancing intra-institutional collaborations

Given the time constraints, the group requested discussion on *Impediments to enhancing inter-institutional collaborations.* Some of the impediments campus is experiencing are:

- lack of external and internal publicity conveying current research initiatives and activities at Mines
- lack of knowledge of competitive proposals due to minimal collaborations with other institutions (matching funds)
- absence of a central data repository with key words
- research website to enhance visibility
- informal seminars on campus for research collaborations
- research displays/exposure on campus for new students and guests
- undergraduate research opportunities
- summer research support
- technical support and editing for large proposal writing and graphics
- project manager for proposals to collect documentation and create a management plan
- tracking finances is difficult
- finding a location for visiting researchers to live, and office space
- parking, and access to campus is difficult for visitors
- training/safety on equipment
- better communications between faculty, ORA and RTT
- more effective Research Council with active research members

4:00 pm session

After the slide presentations, the second group discussed *Impediments to enhancing intra-institutional collaborations.*

- regarding workload – who gets the credit for co-advised students: decrease this kind of barrier that inhibits collaboration

- incentives for collaboration
- enhance collaborations to gain expanded knowledge and create a more effective proposal
- send proposals announcements sooner
- communication mechanism to include key words
- research profiles (people search) with key words
- points of contact across campus

Action item identified: Ye Li (new Library faculty member) has the ability to create a platform data base for research contacts and initiatives. Will get Research Council in the loop to push this.

Integrative Research Culture Workshop

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Research Task Force (TF) Initiatives: Current Status

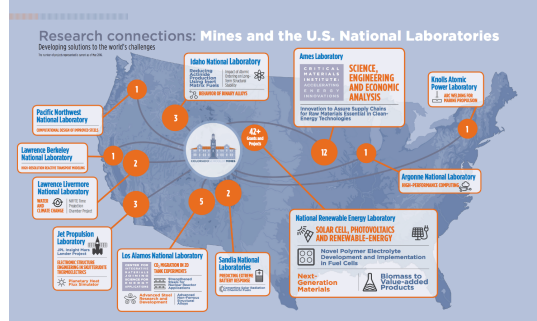| Initiative	Current Status
Improve Graduate Student Quality	Showcased Mines to prospective grad students at Red Rocks in spring. RTT and Grad office discussing strategies for similar events. Identifying funding for named fellowships for top students.
Faculty Work Load Analysis	President Johnson has assigned this initiative to his team to establish and implement a new workload model.
Improve Faculty Mentoring	Research sessions were added to the Fall FY16 new faculty orientation. RTT office will host a series of brown bag sessions on research topics. Encourage all depts to have formal mentoring policy.
Reduction of Administrative Burden	2 ORA initiatives: Checkbook grant accounting being tested. New contracts administrator hired.
Interdisciplinary Research	TF will work closely with the Research Council Chair in the coming semester to kick start an initiative for hosting research conferences.
Create Grand Challenge Institutes	Discussions ongoing with faculty in several areas. Will need seed funding.

Recent Multi-Partner Initiatives

- Renewal of NSF ERC for Urban Water Center
- Alliance for Development of Additive Processing Technologies
- Light Weight Steels
- Carbon Materials for Wind Turbines
- Methane Emissions Reconciliation
- Critical Materials Institute
- Mines/NREL Partnership for International Center for Multiscale Characterization (ICMC)

Major Proposals In the Pipeline

- NSF ERC on Innovation for Carbon Capture, Utilization, and Storage
- NSF MRSEC on Center for Sustainable Materials for Energy (CSM-E)
- NNMI on Center for Process Intensification to Enable Renewables
- NNMI on Clean Energy Manufacturing Innovation Institute

Positioned to Address Major Scientific Challenges

- Strong connections with Federal Labs
- Close connections with Front Range Federal Labs
- Strong industry ties
- Increased international partnerships
- Commercialization activities and entrepreneurial outreach

Campus Workshops Held

- Water
- Catalysis
- Membranes
- Big Data

PI/Financial Manager Fund Balance Summary

Marvin Blaster

Export report: *PDF / Excel*

Grant	Sponsored Research (Inception to Date)	State Date	End Date	Total Budget	Available Balance*
400###	Hydrate Modeling and Flow Loop Expl...	9/1/14	8/31/17	$ 300,000.00	$ 125,000.00
445###	Hydrate Kinetics Studies for the Hy...			##	##
450###	Hydrate Formatin in High Salinity			##	##
450###	Impacts of Inhibitors on Hydrates			##	##
460###	Establishing Industrial Guidelines/			##	##
460###	Hydrate Kinetics Studies for the Hy...			##	##
470###	Desalination by Hydrate Nucleation			##	##
470###	Investigations of the rheological p...			##	##

Fund	Professional Development (Current Fiscal Year)	Available Balance*
111###	Professional Development	$ 139,500.00
111###	Other PD	$ (500.00)

Fund	Research Development (Current Fiscal Year)	Available Balance*
122###	Research Development	$ 10,600.00

Fund	Gifts (Current Fiscal Year)	Available Balance*
600###	Ctr Research PE Hydrate	$ 100,000.00
610###	Center for Hydrate Research	##

*Includes all current Encumbrances   (Printed Date)

Grant: 400### Bala...

Marvin Blaster

Description   Du
Performance Period: Mf
IDC Rate: ##

Labor Costs

Account Pool	Co
Salaries	52
Tuition	51
Firinge Benefits	51

Operating Costs

Account Pool	Co
Travel	55
Subcontracts	5x
Supplies/Materials Pool	54
Equipment	5x
Indirect Costs	59

Grant 400### Expense Detail

Select Expense Period: (from date : to date (default inception to date))   Export report: *PDF / Excel*

Name: Marvin Blaster
Description: Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur.
Performance Period: MM/DD/YY to MM/DD/YY
IDC Rate: NN%

Account Pool	Account	Description	Date	Document	Detail	Expense
Salaries						
	5201	Academic Faculty Salary	1/30/2015	I0832404	Blaster, Marvin	$ 5,000.00
	5203	Graduate Student Stipend	1/30/2015	I0832404	Hammer, Jack	$ 900.00
	5203	Graduate Student Stipend	1/30/2015	I0832404	Black, Jenny	$ 900.00
	5218	Hourly Student Help	1/30/2015	I0832404	Smith, Sam	$ 150.00
	5201	Academic Faculty Salary	1/28/2015	I0832404	Blaster, Marvin	$ 5,000.00
	5203	Graduate Student Stipend	1/29/2015	I0832404	Hammer, Jack	$ 900.00
	5201	Academic Faculty Salary	1/30/2015	I0832404	Blaster, Marvin	$ 1,246.67
	5203	Graduate Student Stipend	1/30/2015	I0832404	Hammer, Jack	$ 990.95
	5203	Graduate Student Stipend	1/30/2015	I0832404	Black, Jenny	$ 735.24
	xxxx	Hourly Student Help	1/30/2015	I0832404	Smith, Sam	$ 479.52
	xxxx	Academic Faculty Salary	1/30/2015	I0832404	Blaster, Marvin	$ 479.52
	xxxx	Graduate Student Stipend	1/30/2015	I0832404	Hammer, Jack	$ 223.81
	xxxx	Academic Faculty Salary	1/30/2015	I0832404	Blaster, Marvin	$ 1,246.67
	xxxx	Graduate Student Stipend	1/30/2015	I0832404	Hammer, Jack	$ 990.95
	xxxx	Graduate Student Stipend	2/28/2015	I0832506	Black, Jenny	$ 735.24
	xxxx	Hourly Student Help	2/28/2015	I0832506	Smith, Sam	$ 479.52
	xxxx	Academic Faculty Salary	2/28/2015	I0832506	Blaster, Marvin	$ 1,246.67
	xxxx	Graduate Student Stipend	2/28/2015	I0832506	Hammer, Jack	$ 990.95
	xxxx	Academic Faculty Salary	2/28/2015	I0832506	Blaster, Marvin	$ 735.24
	xxxx	Graduate Student Stipend	2/28/2015	I0832506	Hammer, Jack	$ 479.52
	xxxx	Graduate Student Stipend	2/28/2015	I0832506	Black, Jenny	$ 5,000.00
	xxxx	Hourly Student Help	2/28/2015	I0832506	Smith, Sam	$ 900.00
						$ 29,810.48

Return to 400### Balance Summary >>

(Printed Date)

Research Support Services (CCIT)

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Data Management
- Data Management Plans (templates, tools and reviews)
- Best practices (storage structures, file naming, etc.)
- Data curation (Institutional and external repositories)
- Help understanding funder requirements
- Metadata guidance

Consultations
- Evaluate storage options for researchers
- Communicate specific and general IT needs
- Connect researchers with other departments or individuals
- Help navigating IP (or connecting those needing IP help)
- Limited scripting help
- Educational talks for researchers or departments

Matt Ketterling: mketterling@mines.edu, rss.mines.edu

HPC Resources
- BlueM and Mio
  - ~13,000 total compute cores
  - Additional accelerator/GPU cores
- Code optimization
- HPC consultations
- Education

Tim Kaiser: tkaiser@mines.edu, hpc.mines.edu

Breakout Groups

- ☐ BO#1: Combining research centers into institutes
- ☐ BO#2: Accelerating buildup of intellectual property
- ☐ BO#3: Physical reorganization of research space on campus to achieve interdisciplinary research
- ☐ BO#4: Impediments to enhancing inter-institutional collaborations
- ☐ BO#5: Impediments to enhancing intra-institutional collaborations