RESEARCH COUNCIL MEMBERS PRESENT:

Brent Miller, Chair
Marv Bennett
Byron Burnham
Jennifer Duncan

Ed Glatfelter
for Yolanda Flores-Niemann
M.K. Jeppesen
Jagath Kaluarachchi
for Scott Hinton & Mac McKee

Lisa Berreau
for Mary Hubbard
Paul Rasmussen
Jim Dorward
for Carol Strong
Lorraine Walker

INVITED GUESTS:

Jeff Broadbent
Ray DeVito
Adam Fowles
Jerilyn Hansen

Joyce Kinkead
Chris Luecke
Anna McEntire
David Paul

Russ Price
Teresa Seeholzer
Lorraine Walker

ACTION ITEMS

1. Approval of Minutes – November 20, 2008 - Brent Miller

Minutes approved unanimously as written.

DISCUSSIONS

1. Welcome & Introductions - Brent Miller

2. Presentation: “Implications of Climate Change for Arctic Lake Processes”

By: Dr. Chris Luecke – Department Head and Professor, Watershed Sciences

Dr. Luecke presented an overview of research at Toolik Field Station located in the Brooks Range of Northern Alaska. Dr. Luecke is a lake and stream ecologist and has been associated with the Arctic Long Term Ecology Research (ARC LTER) for many years. This research includes a team of collaborators with vast experience in many fields; two USU doctoral students also participate in this research.
The primary goal of the ARC LTER program is to monitor environmental changes. Through multiple process studies at various sites, researchers focus on the interaction of physics, chemistry, and biology. One advantage of an LTER site is the ability to collect data over time that can produce excellent comparative information. He commented that the LTER data became very useful in monitoring environmental conditions before and after the 2007 tundra fire near the Anaktuvuk River.

Over the past 100 years, air temperature measures have been taken at approximately 200 weather stations in the arctic region. Results show a general increase in air temperatures over the time span. An excellent signal indicator is when the chemistry (alkalinity) of the water changes. Because the tundra has developed a permafrost layer below it, warmer air temperatures in both the winter and summer allow the permafrost layer to melt to a deeper level each year. With this deeper melting process, more chemicals run off the tundra and into the lake water. The chemicals contain many nutrients that stimulate plant growth so the team is monitoring this change to see how the lakes function with the increased nutrients.

In the summer months of 2001, the team began adding nitrogen and phosphorous to the lake through a drip line. Through photosynthesis measurements, results have shown that algae are responding to this additional nutrient. To understand how the extra photosynthesis moves up the food web, the team began a variety of studies on the small invertebrates that live in the lake. The findings indicate warmer temperatures and increased food is positive to these small invertebrates; however, the lake trout’s weight and length showed a decline in years with warmer surface water temperature.

The warmest year on record at the Toolik Field Station occurred in 2007. In warmer and drier summers, more convection cells produce increased lightning strikes. In the 1980s and 1990s lightning strikes were minimal because the tundra stayed relatively moist; however, the 2007 fire started by lightning was a direct relation to the drier climate and increase of convection cells. Ground samples were taken after the fire (Spring 2008), which showed that ash layers sped up the permafrost melting. In June of 2008, it was determined that as permafrost layers melted, landslides occurred and released organic material into the lakes. Green house gases increased and oxygen levels also were substantially reduced in lakes close to the burn site.

With approximately 50 lakes in the area, the team will continue their research this summer to determine the impact oxygen level reductions and nutrient manipulation has on the organisms within the lakes.

3. **Recap of January 1, 2009 RC, SPARC & GEM Awards** - Jeff Broadbent

The second round of seed funding opportunities for FY2009 was completed in December with representation from each of the academic colleges participating on the proposal review committee. In total, thirty-five (35) proposals were submitted for consideration: 30 Research Catalysts (RC), 4 Grant-writing Experience through Mentorship (GEM), and 1 Seed Program to Advance Research Collaborations (SPARC).

Jeff noted the overall quality of proposals improved from those submitted in the first round. He restated that one of the requirements is all proposals should identify an external sponsor that will be targeted. The most competitive proposals in this round were those that addressed this requirement and detailed in the application how the seed funding was going to position the project to be successful in obtaining funding from the external sponsor. Jeff also commented that colleges should encourage interdisciplinary collaboration.
Complete details about RC, SPARC, and GEM are on the VPR website, along with timeline information for each round of funding. Award date for next round of seed funding is July 1, 2009.

4. **USU Grant Writer Institute** – Jerilyn Hansen & Jeff Broadbent

Jerilyn distributed handouts outlining the process and responsibilities of USU’s Proposal Development Network, along with the “mission statement”, goals, and objectives of the VPR Proposal Development Office. Annually USU will offer a Proposal Writing Institute that will assist (new or established faculty) researchers in a “hands on” environment with developing high-quality proposals. A brief overview of the institute was discussed as well as a timeline of the sessions that will be offered.

Participation in this institute will be identified through a competitive process. Because training will be geared to provide intensive individual assistance, only twelve (12) participants will be selected to participate in the first year. Each academic college will be assured 1 spot in the institute, and the remaining 5 slots will be awarded competitively. Jerilyn and Jeff will meet with the college deans and center directors within the next few weeks to explain the institute and process for selecting participants.

**Questions & Comments**

- Dean Burnham asked if graduate assistants and post doctoral students are eligible to participate in the institute. Brent Miller commented that because this training is targeted for faculty seeking first time and major grant projects, only USU faculty are eligible; however, he agreed that this idea is appealing and would certainly be considered as a future workshop.

- Jim Dorward commented that he would like to see this training include instruction on “how to identify, select, and interface with collaborators on grant proposal projects.” Jeff and Jerilyn liked this idea and will plan to implement this as part of the institute.

- Lisa Berreau asked for clarification about the deadline of when a participant would be required to submit their proposal. All participants will be required to have their proposal “ready” for submission by December 31, 2009; therefore, agency deadlines will vary and will dictate the submission date.

- Lisa Berreau commented that it would be helpful to participants if they were given instruction about “who” to select for their peer review as sometimes individuals select those they personally know versus individuals/colleagues who would provide an objective peer review. Jerilyn commented that this instruction would be included in the training.

5. **Overview of 2009 Research on Capitol Hill** – Joyce Kinkead

On January 29th, thirty-three (33) USU undergraduate researchers will participate with the University of Utah in the 9th annual Research on Capitol Hill. Twenty-five (25) posters will be presented with representation from each of the academic colleges. Invitations highlighting this event were sent to all Utah legislators, Governor’s Office and staff, Utah Board of Regents, USU Board of Trustees, parents of each participant, deans, department heads, and faculty mentors of each student.
6. **Research Matters & Research Week** – Anna McEntire

Anna distributed a copy of the revised Research Office Mission Statement which incorporated suggestions from the November Research Council meeting.

Research Matters is in progress and Anna noted that a few new areas will be featured in the 2009 publication. Anna shared a spreadsheet identifying all of the 2008 faculty honors, awards, and books. She will forward this information to all colleges electronically for review. Any additions or amendments to the list should be forwarded to Anna by Monday, February 9, 2009. Research Matters 2009 will reference all major faculty honors, awards, books and media references to research projects that occurred in 2008.

Research Week will be held March 30th thru April 4th, 2009. Events are being finalized and an agenda will be distributed at Research Council in February. Anna will send an email to the deans on 1/23/09 to highlight important dates and events that week:

- March 30, 2009 11:30 a.m. - Faculty Research Awards Luncheon
  - Dean or designee to introduce recipient
- March 31, 2009 Time: Noon – Undergraduate Research Awards Ceremony
  - Dean or designee & department head to introduce Undergraduate Researcher of the Year and Undergraduate Research Mentor of the Year for each college
- April 1, 2009 – Research Symposium

Anna commented that if any of the colleges have research related events the same week, the VPR Office is willing to publicize these events as well.

7. **TCO Discussion: University I.P. Assignments** - Ray DeVito

In recent weeks, Ray organized and conducted a discussion on Intellectual Property (IP) with several campus units. Brent Miller asked that this information be shared with Research Council to broaden awareness about potential problems.

Ray noted several incidents in the past year where the USU IP Policy (Number 327) was not adhered to by USU employees, thus various legalities can result that impact important USU business relationships and potential future funding. When incidents do result, they are challenging to resolve and can be costly to all parties.

Examples were shared of past problems where violations resulted with 3rd party associations both on and off campus. He also highlighted key areas within both the Federal and Utah law (34-39-1) relative to employment inventions and commented that examples of non-compliance to USU’s policy occur with both inexperienced and experienced USU personnel. Ray noted that USU employees who also consult need to be especially careful that they follow USU’s policy outlining consulting guidelines.

**Comments**

- Dean Burnham asked if USU graduate students are required to follow USU’s IP policy. Ray noted that if the student works under the direction of USU personnel, and is on USU property, the IP policy applies. If the work is associated with a grant, the SPO contract also defines the guidelines for individuals working on a project.
• The TCO should be contacted to assist in clarifying and answering gray area questions that might surface relative to USU IP.

Brent noted that TCO will be sending out a FAQ booklet to all faculty that will assist them in addressing IP questions along with working with Sponsored Programs Office (SPO) on all contracts. The TCO is available to help address any questions and also welcomes guests and visitors to discuss related IP issues. Additionally, the TCO is willing to examine issues and offer expertise in advance of USU personnel entering into agreements and commitments where potential problems might occur.

8. Wrap Up Discussion & Calendar Events – Brent Miller

• Graduate Student Travel Funding: The VPR Office contributes funding to the Graduate School to support travel for some graduate programs. Brent asked the council to consider if funds from recovered overhead money should be available to support all programs offered through graduate studies, or should there be priority for specific areas such as thesis/dissertation (Plan A) emphasis. Currently, these travel funds are designated solely for graduate student presentations and have not supported travel associated with professional development. The consensus from the group is that all graduate students who are producing work associated with a graduate program should be eligible for travel funds.

Action Item (Brent Miller & Byron Burnham): A paragraph will be written to clarify and define the requirements for a graduate student to obtain travel funding. This outline will be presented to Research Council in March 2009 for review and consideration.

• EPSCoR Memo: Brent commented on the status of Utah’s jurisdiction as an EPSCoR state and referenced a memo that was distributed by the VPR Office to all college deans and department heads on January 21, 2009. On February 20, 2009, USU representatives, along with other collaborators in the state, will meet with NSF in Washington D.C. to have a discussion with the EPSCoR program director. The Utah team is being led by the Tamara Goetz, State Science Advisor in the governor’s office. Follow-on meetings with USU personnel will be held after the Washington D.C. meeting as well as informational workshops about EPSCoR during USU’s Research Week.

Jeff Broadbent noted that several USU individuals have noted other agencies may use the NSF criteria to determine EPSCoR eligibility. Jeff has been in contact with six (6) identified agencies and has learned that NIH and USDA determine eligibility for their EPSCoR programs based on their own level of funding. Even if Utah does receive NSF EPSCoR jurisdiction, Utah will not be eligible for NIH or USDA EPSCoR funding. On the positive side, NASA has already determined that Utah is EPSCoR eligible and has identified Doran Baker, College of Engineering & Director of USU/NASA Space Grant Consortium, as point of contact for NASA EPSCoR in Utah. Once Utah has been identified with NSF jurisdiction, USU will have eligibility with the Department of Energy along with possible opportunities with the Department of Defense and Environmental Protection Agency. As progress continues, updates will be provided.

Jeff concluded the discussion by clarifying that this process means Utah “is eligible to become” an NSF EPSCoR jurisdiction and should not be confused with the status that Utah is currently an NSF EPSCoR state. At this time, USU faculty is not
eligible for consideration in any EPSCoR funding mechanism through NSF until the state of Utah is approved as a jurisdiction.

Comments/Concerns:
  o Lisa Berreau asked if this process is a formality and could a state jurisdiction be denied through this process. Jeff Broadbent was not sure if a state could be denied, but noted that this process is not a mere formality. NSF is looking for ways to assure that a state develops mechanisms to assure sustainability in the future. NSF will not approve one institution within the state to be EPSCoR eligible. When jurisdiction is awarded to a state, it applies to the entire state.

• Documentation for Time & Effort Reporting – Paul Rasmussen asked if further clarification could be provided about what type of supporting documentation is acceptable for Time & Effort reporting. Irene Jorgensen will be asked to share more information on this topic at February’s Research Council meeting.

• Calendar Events:
  ➢ January 23, 2009 – Sunrise Session in Salt Lake City
    o Presenter: John Morrey
    o Topic: Emerging Worldwide Infectious Diseases: Opportunities and Prospects
    o Time: 7:30 a.m.
    o Location: Little America Hotel
  ➢ January 29, 2009 - Research on Capitol Hill
  ➢ February 13, 2009 – Deadline for deans to submit college nominees for
    o Researcher of the Year
    o Undergraduate Research Mentors of the Year
    o Undergraduate Researcher of the Year
    o Deadline to submit application to dean’s office for Proposal Writing Institute
  ➢ February 20, 2009 – Deadline for colleges to submit letters of support for faculty member(s) to participate in Proposal Writing Institute
  ➢ February 26, 2009 – Utah Conference on Undergraduate Research
    o Westminster College, Salt Lake City
  ➢ February 26, 2009 – Research Council

Meeting adjourned at 4:30 p.m.
Minutes Submitted By: Teresa Seeholzer, Research Council Secretary