Meeting Minutes
Associate Deans for Research

Friday, December 18, 2015, 9:00-10:30 a.m.
SEB 2251

In Attendance: Jillian Inouye, Andrew Hardin, Jay Shen, Connie Mobley, Mohamed Trabia, Jennifer Keene, Javier Rodriguez, Tara Emmers-Sommer, Stan Smith, Carol Brodie, Sue DiBella, Lori Olafson, Liam Frink, Zach Miles, David Paul, John Brodie, Kwang Kim, Eche Ezeanolue, Tami Bruno, Dina Patel, and Jill Zimbelman

1. General Announcements/Updates – Stan Smith
   a. None

2. Top Tier Updates – Stan Smith
   a. Increasing Proposals (presentation attached) – Kwang Kim
      i. One of the major goals of the Top Tier initiative is for UNLV to achieve at least $150 million per year of research expenditures by 2025.
      ii. Top 10-20% of faculty typically carries the high load and pressure in terms of grant/contact activities
      iii. Subcommittee noticed that UNLV’s proposal output for FY 2015 actually went down
      iv. A few recommendations/ideas to the RSCA Committee for consideration to address:
         1. Low number of grant proposals
         2. Low number of large volume/flagship grants
         3. Low number of “young investigator” awards

3. Global Health Initiative – Dr. Ezeanolue
   a. Dr. Eche Ezeanolue, Professor of Pediatrics and Public Health, who is a faculty member at the School of Community Health Sciences gave a broad overview of the Global Health Initiative (GHI)
   b. The GHI aims to take advantage of existing resources, partnerships and funding established by faculty members around the globe to build an infrastructure for global health research.
   c. The GHI objective is to expand interdisciplinary research efforts across multiple schools and disciplines at UNLV creating opportunities for collaborative research projects that can increase the number and amount of extramural funding awarded to UNLV
   d. This is designed to achieve a bold goal of having UNLV footprint in all the countries under the United Nation either through the students we train, the graduate we have trained or the faculty working or collaborating in those countries
e. VPR will be hosting a brown bag networking event in early 2016 to bring together faculty members from various school who are or might be interested in global health initiatives.

4. Spotlight on Research Presentation – Jen Keene  
   a. College of Liberal Arts (presentation attached)

5. Volunteers for Spotlight on Research  
   a. Jan. 15 – Billy Bai: Hotel Administration  
   b. Feb. 19 – Volunteer Needed  
   c. Mar. 18 – Volunteer Needed  
   d. Future Volunteer: Ramona Denby-Brinson

**Next Associate Deans for Research Meeting:**
Friday, January 15, 2016, 9:00-10:30 a.m., SEB 2251
Research, Scholarship, and Creative Activity (RSCA)
(FY 2016: Top Tier Subcommittee #2-3)
“Develop plans & strategies for increasing competitive grant applications & entrepreneurial funding opportunities”

A short report prepared by:
Kwang Kim (Engineering)
Barbara St. Pierre Schneider (Nursing and Allied Health)
Brian Hedlund (Sciences)
in consultation with
David Paul (Office of Sponsored Project)
Deans Rama Venkat (COE), Tim Porter (COS), and Carolyn Yucha (SON)

Submitted to:
Thomas Piechota and Kate Korgan, Chairs of RSCA
and
Presented to:
UNLV Research Council (on December 11, 2015)
UNLV Associate Deans’ Council (on December 18, 2015)

Some Background Information & Urgency of Needs
1. One of the major goals of the Top Tier initiative is for UNLV to achieve AT LEAST $150 M/YEAR of research expenditure by 2025.

2. Where we are NOW?
   - FY15 Research expenditure of $31.6M.
   - FY15 Research awards of $32.1M.
   - FY15 Research proposals of $226.7M.
   - Note: Approximately 12% (in terms of $ volume) of the submitted proposals are materialized.

3. To achieve such a challenging goal, the RSCA Top Tier Subcommittee #2-3 strongly feels that the UNLV operation for research support, needs to become MORE RISK-TAKING, CREATIVE, AND BUSINESS-MINDED!

Considering the success rate at around 12%, UNLV needs to produce more proposal submissions!
For example $500M/year proposal submission will produce about $60M.
Some Naive Comparison (peer institutions?)

• UNLV
  – FY15 Research proposals of $226.7M.
  – FY15 Research awards of $32.1M (~14% conversion).

• Univ. of Houston (www.uh.edu/research)
  – FY14 Research proposals of $737.0M.
  – FY14 Research awards of $119.0M (~16% conversion).

• Univ. of Central Florida (www.ucf.edu/research)
  – FY13 Research proposals of $622.8M.
  – FY13 Research awards of $113.2M (~18% conversion).

• Univ. of New Mexico (www.unm.edu/research-reports)
  – FY15 Research proposals of $402.6M.
  – FY15 Research awards of $124.2M (~30% conversion).

• Short-term: Some targeted goals (?) – it could be very stiff goal(s)
  – UNLV may need to write proposals at least $400M annually by 2020.
  – UNLV need to improve the winning rate to at least 15% by 2020.
    → This will help UNLV produce about $60M research annually by 2020???
Some Naive Comparison (continued…)

College of Engineering

<table>
<thead>
<tr>
<th>Year</th>
<th>UNR/COE</th>
<th>UNLV/COE</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>13</td>
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<td>$2,500</td>
</tr>
<tr>
<td>14</td>
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</tr>
<tr>
<td>15</td>
<td>$20,000</td>
<td>$7,500</td>
</tr>
</tbody>
</table>

Data Sources:
- [http://www.unlv.edu/engineering/proposal-award-activities](http://www.unlv.edu/engineering/proposal-award-activities)
- [http://www.unr.edu/sponsored-projects/reports](http://www.unr.edu/sponsored-projects/reports)

An Example: Status of College of Engineering’s Research Productivity: **What that means in 2025**

**Urgency of Needs**

1. One of the major goals of the Top Tier initiative is for UNLV/COE to achieve approximately $37.5M/year of research expenditure by 2025.
2. Where COE/UNLV is NOW (@70 faculty):
   - FY15 Research awards of $9.3M (~$130K/faculty).
   - FY15 Research proposals of $42.1M (~$600K/faculty).
   - FY15 the number of research proposals is 178 (~2.5 proposals/faculty).
   - Note: Approximately 19% (in terms of $ volume) of the submitted proposals are materialized.

**FY12-FY15 4 Years Total Research Awards=$33.9 Millions**

**FY12-FY15 4 Years Total Proposal $ Amount=$179.0 Millions**

COE MAY need to submit approximately 500 proposals of approximate amount $200M. That will potentially lead to approximately $40M awards in FY2026! This will be a challenging task for the UNLV/COE faculty!

In summary (@100 faculty size) by 2025:
- 5 proposals/faculty/year → Double the number of proposals/faculty
- $400K awards amount/faculty/year → Triple the amount of awards/faculty
An Example Case: UH College of Engineering

Faculty: 110
NAE members: 10
Graduate Students: 1,210
Undergraduate Students: 3,282
Alumni: 18,045

US News ranking #76 (2015)
Research Expenditures: $24M
(35% of faculty generates 80% of the research expenditure; $250K per faculty annually)
Degrees Awarded (FY 2014):
B.S. 339
M.S. 194
Ph.D. 50
Total 583

Source: https://www.egr.uh.edu/our-college/facts

Another example comparison (UNLV/COE vs. one competing school)

UNLV/COE FY2014 Research Expenditure
Total $9,283,160
Average = $130,749/faculty
Median=$62,443/faculty

One of our competing schools FY14 Res. Expenditure
Total $12,602,602
Average = $182,646/faculty
Median=$93,510/faculty

Top 20% generated 73% ($6,766,292) of the total research expenditure
Top 20% generated 70% ($8,940,633) of the total research expenditure

http://www.unlv.edu/engineering/research
Findings / Question(s)

- At the moment, top 10-20% of the faculty typically carries high load and pressure in terms of grant/contract activities and, most likely, will be in a situation to carry much more load and pressure as UNLV wants to become a Top-Tier institution.
- Some operation flexibility or strategic investments are needed (Q: in where?) to bring the overall performance up?
  1. Spread them out (?), Bottom 20% (?), Top 20% (?)
  2. What are the associated cost and ROI?

Similarities are everywhere! : Initial investment on the top producers and then expand to others.. (make up the volume first!)

An example: Univ. of Houston / Cullen College of Engineering’s Strategic Plan 2014 to 2020

Vision: To become a “Top 50” Engineering Program, as defined by U.S. News and World Report, in support of the University of Houston’s Tier One initiative.

Increase Research Activity across the College: Currently, 35% of CCE faculty generates 80% of the research expenditures for the college. By 2020, “the CCE’s goal is not only to increase overall research activity, but to broaden research activity among faculty so that a substantial majority of faculty are contributing to the research enterprise.” To support this goal, the CCE will ensure.......

AN EXAMPLE DATA for FY13-FY15: National Science Foundation
1. Number of NSF grant proposals “directly” submitted by UNLV annually is low.
2. Large volume (>1M/flagship grants “directly” submitted/received by UNLV is low.
   - 13 submissions/1 funded
   - Since 1976 (Fastlane data): 3 grants > $1M; 13 grants are between $500K and $1M
3. Number of NSF CAREER awards received by UNLV

<table>
<thead>
<tr>
<th>Zip Code</th>
<th>Institution</th>
<th># of Active NSF Grants</th>
<th># of Active CAREER Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>80509</td>
<td>U of Boulder</td>
<td>153</td>
<td>14</td>
</tr>
<tr>
<td>84112</td>
<td>U of Utah</td>
<td>278</td>
<td>23</td>
</tr>
<tr>
<td>77204</td>
<td>University of Houston</td>
<td>174</td>
<td>20</td>
</tr>
<tr>
<td>97403</td>
<td>University of Oregon (no Engineering)</td>
<td>141</td>
<td>4</td>
</tr>
<tr>
<td>32816</td>
<td>University of Central Florida</td>
<td>134</td>
<td>10</td>
</tr>
<tr>
<td>85557</td>
<td>UNR</td>
<td>81</td>
<td>4</td>
</tr>
<tr>
<td>92182</td>
<td>San Diego State University</td>
<td>76</td>
<td>1</td>
</tr>
<tr>
<td>89154</td>
<td>UNLV</td>
<td>47</td>
<td>1 (no cost ext.)</td>
</tr>
</tbody>
</table>

(NSF Fastlane data as of August 7, 2015)
NSF Data (Fastlane as of Dec. 16, 2015)

- NSF funding means to each faculty?
- Need to broaden the exposure to NSF ASAP to become a mature institution
- Need to try large/flagship grants (> $1M)

RSCA Top Tier Subcommittee #2-3 Assignment
Develop plans & strategies for increasing competitive grant applications & entrepreneurial funding opportunities

**SWOT ANALYSIS**

**Strengths in:**
1. Small but a number of strong areas of faculty research,
2. Not enough but good support for faculty grant applications, and
3. Good investment/intension for faculty grant applications from the administration

**Weaknesses in:**
1. Number of grant proposals is low.
2. Number of large volume/flagship grants is low.
3. Number of “Young Investigator” awardees is low ➔ Questions (Recruiting? Mentoring?)

**Opportunities in:**
1. UNLV Uniqueness: EPSCoR, MSI, KF, others...
2. Growing interest in UNLV medical school and health care research
3. Slowly but growing faculty-participation in campus research initiatives (FOA, limited submission, etc.)

**Threats in:**
1. Federal budget cut in research
2. Increasing competition in grant applications as more universities pursue research funding
3. Limited research infrastructure at UNLV
4. UNLV Campus culture on research
5. Difficulty in recruitment of high caliber researchers (resource, student quality, location..?)
A few recommendations/ideas to the RSCA Committee for consideration to address (1) low number of grant proposals; (2) low number of large volume/flagship grants; and (3) low number of “Young Investigator” awards

1. Provide the PIs with incentives to submit more proposals.
   - Identify any faculty without federal funding in the last 5 years and help them submit proposal(s) to NSF (may be $XX per proposal?).

2. Provide some creative and meaningful incentives to research-active PIs.
   - For 9 Mon. salary faculty: (1) Allow summer/over-load up to 48% of their salary (UNR model?); (2) Allow summer salary saving for rainy days (Penn State model?); (3) Matching (U of Florida model?)
   - For 12 Mon. salary faculty (for example Nursing/Dental faculty): Create a mechanism for teaching release or other financial incentives.

Urgency: The subcommittee noticed that the UNLV’s proposal output for FY2015 actually went down!

Thus, for UNLV to achieve $150M/year research expenditure and write more proposals, it is so obvious that UNLV needs to provide the research active PIs with:

1. More TIME,
2. Meaningful INCENTIVES, and
3. Effective SUPPORT

3. For large grant applications and institution-limited (time sensitive) submissions
   - Form a task force (VPR/Deans/other research leaderships) to strategize so the campus infrastructure will support large funded grant applications in an unfragmented and efficient way.
   - Streamline the institution-limited submission process to allow the PI to have enough time to prepare the proposal (if necessary, the executive decisions by the leaderships are needed for decision making.)

4. To help TT faculty to win Young Investigator awards:
   - Providing early-career researchers with seed investment and mentorship support to help them effectively launch their research and prepare to apply for early career or selected research awards (for example, NSF CAREER, DoD/DoE/NASA Young Investigator, and other programs).
   - Host NSF CAREER workshop(s) at the UNLV campus.
   - Send TT faculty to “NSF supported” NSF CAREER workshop(s).
   - Help TT faculty have proposal reviewing opportunities.
   - Help TT faculty have “NETWORKING” and “BRENDING” (setting up informative websites, etc).
   - Special support programs for TT faculty: mini-sabbatical, appropriate teaching load, first grant program, mentoring... TT → Being/Becoming PERSISTENT!

5. “Improved” Research Space Utilization (RSU)
   - The current level of RSU is sitting at approximately $150/SF annual expenditure. This number is expected to go up as UNLV will bring more research $. A short-term solution to deal with such an increased demand rather than adding more research space, could be more centrally controlled management (similar to class-rooms that are centrally managed)? This will create more inter-changeable space utilization (and provide the chairs/deans with some tools)?
   - An example scenario: Suppose a PI/team wants to make a bid to bring a federally funded Center of Excellence, one usual evaluation criteria is “availability of space/location of the proposed center.” With the current research space management practice, it is extremely challenging for a PI to propose a convening Space Management Plan. Thus, the proposal will be less favored by the reviewers.
6. "Entrepreneurial" ways for providing matching (or reallocating the existing resources) toward grant applications (we recognize that it is a tough issue for resource-poor institutions including UNLV)
   - Often times, grant applications require MATCHING (in particular DOE)! In this regard, the UNLV communities at all levels (central administration/VPR/Graduate School/Deans/Chairs/PIs) may need to look for some aggressive but creative matching mechanisms to overcome this huddle?
   - Properly packaged matching plan(s) included in grant proposals will greatly help the PIs win more grants/contacts – in particular for large/flagship grants.
7. Encourage the UNLV faculty to go to federal funding agencies as a program director (or provide the faculty with some incentives - via IPA / in connection with sabbatical or development leave).
8. Further effective utilization of “Centers of Excellence” to help secure external funding and recruit dynamic faculty and capable students
   - College of Eng. and College of Sci.: a targeted volume of $1.5M expenditure/year
   - Centrally administrative ⇒ needs some investment (?) (administrative support ?)
9. “Distinguished professorships/Endowed professorships” will also help the PIs to secure large volume-flagship programs.

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10. Help the PIs bringing “focused workshops” to the UNLV campus.
11. Some External Input (or consultants) to UNLV’s Research Enhancement
   - UNLV may need to bring some “external advisor groups” from our comparative schools and/or agencies & consultants (some from our targeted schools and agencies and national labs. consultants??) and look for their advice and wisdom regarding research-enhancement decision-making?
12. Place some strategic existence and/or collaborations in the DC areas to have more connections with federal agencies?
13. Look into a model to hire very capable RESEARCH ONLY FACULTY who can started with some initial investment (University of Central Florida model, most medical schools..?)
14. Strategically place some “graduate fellowships” that can target upon “High-risk / High-pay-off research.”
15. Encourage the faculty (particularly TT faculty) to participate in grant writing clubs having a mock review element.
16. Provide the UNLV faculty with fastlane access capability?

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Many thanks for your attention!
UNLV COLLEGE OF LIBERAL ARTS: SPOTLIGHT ON RESEARCH

Jennifer Keene
Associate Dean
FOUNDATIONS OF THE UNIVERSITY

- Skills for Freedom: *Liberales* “to liberate” “free”, *Artes* “skills”
- Education is essential for preserving democratic freedom
- Self-directed, critical thinkers

- Social Sciences: Anthropology, Political Science, Psychology, Sociology
- Humanities: English, History, Philosophy, World Languages & Cultures
- Interdisciplinary Studies Programs
- Black Mountain Institute
RESEARCH IN LIBERAL ARTS

- 143 faculty

- Discovery through research and scholarship
  - Classes and coursework
  - Internships, labs, and hands-on research experiences
  - Membership in communities of scholars

- Strong, reciprocal, and interdependent relationships between UNLV and the region around us

- Graduate student job placement

- Interdisciplinary research
RESEARCH FUNDING

$10m in grant proposals 2014-2015

The heaviest hitters:

- Psychology: Behavioral and cognitive sciences, Brain health, Neurological Disorders
  - NSF, Cleveland Clinic
- Sociology: Neighborhood and community focused research projects.
  - DOJ, SN Regional Housing Authority
- Anthropology: Physical anthropology
  - NSF
- Political Science
  - NSF
ANTHROPOLOGY

- Food and Nutrition
- Adaptive Strategies
- Parenting, Childhood, and Development
- Sexuality, Romance, Gender, & Identity

The study of the complete human experience—past, present, and future.

Brian Villmoare and colleagues found a 2.8 million year old jawbone of what may be the earliest human, providing important clues about the timeline of human evolution.

In 2014, Dr. Debra Martin, Lincy Professor of Anthropology, received the Barrick Senior Scholar Award (human osteology and bioarchaeology).

Dr. Levent Atici, Associate Professor of Anthropology, received the Barrick Scholar Award (zooarcheology).
ANTHROPOLOGY

Ethnoecology and Experimental Studies Lab
Ethnoarchaeological and experimental examination of the Alaskan seal poke storage system (NSF Office of Polar Programs $232,750)

Examining subsistence foods, health and changes in technology as generations move away from more traditional subsistence food storage methods.
Rebecca Gill received a $171,000 NSF grant to study Objective Measures and Implicit Bias in Evaluating Public Officials.

David Damore studies campaigns and elections and public policy at the state and national levels. He appears regularly in the local news and on NPR.

Tiffiany Howard studies international security, immigration and refugee policies, and political violence, conflict and terrorism.
Psychology

Science of the mind, especially focused on behaviors in certain contexts. Clinical, cognitive, & developmental

Connections with many organizations including private schools, Clark County agencies, and mental health, medical, and neuroscience centers.

Jefferson Kinney looks for cellular and molecular mechanisms responsible for Alzheimer's and schizophrenia. Cleveland Clinic

Jennifer Rennels studies how infants, children, and adults perceive and process faces to understand how stereotypes become associated with facial appearance. NSF, NICHD

Cleveland Clinic Lou Ruvo Center for Brain Health and UNLV earn $11.1 million grant from National Institutes of Health to tackle Alzheimer's and Parkinson's diseases!
Not just Sports Psychology: $2m National Institute on Drug Abuse to study how Family Behavior Therapy works among UNLV student-athletes.

James Hyman: Neuropsychology, Biological Psychology. Uses electrophysiological recordings to better understand how the brain encodes information related to actions and their outcomes.
SOCIOLOGY

- The Sex Industry in NV and Las Vegas
  - Brothels, strip clubs, online sexual commerce, sex worker outreach
- Gambling and the Gaming industry
  - Problem gambling and international gaming
- Crime and Sexual assault
- Health in Nevada
  - Social Health of Nevada, mental health, health disparities
- Las Vegas’ Urban Environment and Community
  - LVMASS, Life is Beautiful, Immigration Issues
- Environmental Issues
  - Nevada Test Site, water use and conservation
- Aging and Volunteerism
ENGLISH
Read the World!
Literature, Composition, & Creative Writing
ENGLISH
BLACK MOUNTAIN INSTITUTE

BMI’s goal is advancing literary and cross-cultural dialogue:

- public programs
- residential fellowships
- publishing initiatives

BMI provides a cultural lens through which today's most pressing issues can be addressed and evaluated.

BMI is affiliated with the university’s MFA and Ph.D. programs in creative writing.
HISTORY

- American West
- Empire & Dominion
- Environmental History
- Gender & Sexuality
- Public History
- Urban History
PUBLIC HISTORY

- Connections between LV History and current issues: immigration, labor, race and equality, energy and water.
  - Atomic Culture, LV Entertainment History, LV Labor Relations, Walking Box Ranch.
- >$2m in external funding since 2000!

Nevada Test Site Oral History
Documenting, preserving and disseminating the remembered past of persons affiliated with and affected by the Nevada Test Site during the era of Cold War nuclear testing
http://digital.library.unlv.edu/ntsohp/
PHILOSOPHY

- Expertise ranges from ancient to recent philosophy, Plato and Aristotle to Kripke and Lewis.

- Particular expertise in philosophical logic and in the region of analytic thought where issues in metaphysics, epistemology, and the philosophies of mind, language and science come together.
WORLD LANGUAGES & CULTURES

- Chinese
- French
- German
- Italian
- Japanese
- Spanish
INTERDISCIPLINARY DEGREE PROGRAMS

- African American Studies
- Asian Studies
- Latin American Studies
- Multidisciplinary Studies
- Social Sciences Studies
- Gender & Sexuality Studies
THAT’S ALL FOLKS!

SCIENCE CAN TELL YOU HOW TO CLONE A TYRANNOSAURUS REX

HUMANITIES CAN TELL YOU WHY THIS MIGHT BE A BAD IDEA