Dear Colleagues,

The purpose of this letter is to invite you to share your ideas to help the University of Nevada, Reno better accomplish its research mission, and to improve the entire University through its successful research.

Extramural research funding is one of the three major funding resources of the University. Research funding in 2001 and 2008 has been reported as 25.4% and 17.1% of UNR’s total budget, respectively\(^1\). We are all acutely aware of the difficult budget climate in which our University operates. Without action, additional severe budget cuts will threaten UNR’s effort to become a “Research University.” Conversely, research excellence is critical to campus differentiation and the funded research area is one of the few ways that funding can increase rapidly.

Since May 2009 the Center for Advanced Studies (CAS: www.unr.edu/cas) has been guiding a faculty-led effort to develop ideas that might enhance our University’s research productivity. CAS is a campus-wide organization composed of the UNR Researcher of the Year awardees. CAS members are not administrators or elected faculty representatives. Thus, instead of another decision-making process, CAS sought to establish a bottom-up grassroots process to give voice to faculty concerns and solutions. The goal is to help identify a range of ideas from the faculty that might help turn our current difficulties into opportunities to revitalize our University through development of its research mission and to vet them through an open and democratic process.

After meetings with relevant administrators and faculty representatives to explain the process, CAS invited all of the top researchers at UNR over the last two years, as defined by research grant funding, to come to a brainstorming session. The meeting was held on May 14\(^{th}\), 2009 for two hours in working groups to generate possible ideas to enhance research on campus. The following ideas were considered:

- Create more incentives to do research
- Better balance research with other duties for productive faculty
- Give research more recognition
- Facilitate research
- Facilitate building effective research teams
- Facilitate seeking funding for research
- Better use research to support the public service mission of the University
- Better use research to support the educational mission of the University
- Better link research to the state or community (e.g., its economy, culture, etc)
- Do a better job of explaining the research mission of the University on campus
- Do a better job of explaining the research mission of the University to the community

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\(^1\) Based on the UNR Planning Budget and Analysis Department’s data.
The ideas resulting from the May Meeting are attached in the text below. All totaled about 50 topics are here to help get the conversation moving forward. These have also been uploaded to the share point portal for this project, which is called “Nevada Research.” This is an open site, and any faculty member may add ideas or comment on topics that are already listed on the site. Additional ideas from CAS members and funded faculty are already on the website.

Although this process started with CAS and a group of funded researchers, with this email, we are opening it up to the entire University community. At the end of this process, CAS has pledged that all the ideas, along with their strengths and weaknesses, as viewed by the faculty will be shared with the administration and the Faculty Senate.

If you would like to participate, please logon to the Nevada Research website:

i) go to https://portal.unr.edu/sites/nvresearch,
ii) enter: unr\NetID, or if you are on the School of Medicine server enter: medicine\NetID [note: you have to enter your NetID after either “unr” or “medicine” and a backslash – the dialogue box does not tell you that] and
iii) enter: your NetID password.

[If you have any difficulty logging on, call or e-mail Mr. Chris McClendon, Computer Systems Administrator, at Tel: 745-7985, e-mail: cmcclendon@unr.edu.]

Please provide your ideas by November 1, 2009.

On behalf of CAS, we sincerely hope that you make every effort to participate in this unique faculty-led process.

Respectfully,

Faramarz Gordaninejad, Director (Professor of Mechanical Engineering)
Steven Hayes, Member (Professor of Psychology)
Iain Buxton, Member (Professor of Pharmacology)
Ideas to Foster Research at the University of Nevada

Section 1: Ideas from the May 14, 2009 meeting
of Top Funded Researchers

Ideas from Table 1

Create and incentivize a research mentorship model to help junior faculty learn the grant ropes from experienced senior faculty

Junior faculty often have to learn the ropes by trial and error. Senior faculty can help but often they are fully funded, or over worked, or are in other areas. One idea was to incentivize this process with a kind of multilevel marketing strategy: A small slide of F and A would be taken from the central administration’s proportion and given to the research mentor’s F and A account for the next xx years from the mentee’s grants.

Self-imposed F and A tax for infrastructure controlled by researchers

Researchers are being crushed by administrative obligations in the absence of good administrative staff support in many units. F & A distribution is not keeping up with these demands and every year the administrative load rolls more downhill to departments and research teams. In some colleges researchers self-tax F & A to produce a pool of money to help with infrastructural needs but not all colleges or units have this capability. A more organized self-tax program could be expanded to involve multiple levels of F and A and voluntary consortia of faculty and research teams across the campus.

Intrepreneurial purchasing of infrastructural support

A variant of the proposal above would be to allow units with staff expertise to sell their expertise (e.g., in budgeting) to other research teams using combination of self, department, college, and university F & A. This would put some competitive pressures on staff to perform or become irrelevant.

Allow IRB reviewed to be purchased commercially

The medical school allows IRB review to be purchased from commercial vendors, with greatly increased responsivity. This program should be expanded, on a voluntary basis (and paid for by F & A) to the entire campus.
Link PR to research

OSPA should be constantly linked to the media relations office so that every new grant (etc) is known to and promoted by public relations.

Create a UNR research magazine

We need to give research much greater visibility. A slick, community and campus focused research magazine would be a good first step. It would also be web-based.

Show the economic impact of funding by linking reports of funding to staff/employment impact

In the recent RGJ story on faculty salaries it became evident that the public does not understand how much employment and economic impact is produced by research grants. The University needs to track and tout these numbers.

Keep track of research team success

We currently track PI success (and college and department) but not the success of organized teams of researchers. This should be done.

Electronic signatures for grants

It is silly in the modern era to hand carry grants from office to office for signatures.

Reducing bureaucratic BS

We need organized efforts constantly in place to detect and to reduce bureaucratic requirements. The effort needs to be ongoing. An online survey/questionnaire could be sent to this group of researchers to begin to catalog the specific barriers and impediments.

Create a Council of Funded Researchers

The top 100 or top 200 funded researchers on campus should be made a recognized group on campus with a council representing their interests. This group should be completely separate from the Faculty Senate. Perhaps this council should have a seat at the ALC, just as the Fac. Senate chair does.

Empirically evaluate the impact of research policies on increasing research

We create policies and programs to impact research but we do not evaluate them. For example, do the junior faculty awards work? We need to start managing by empirical outcomes. If we cannot do that in the research area we cannot do it anywhere.

Link awards for grant writing to grant submission
Give out grant priming awards that come in halves: the first half when you have a good idea; the next half when you submit it.

Create graduate students grant writing classes

Create graduate level, disciplinarily-based grant writing classes taught by the best research faculty. Make them 2 semesters long. The grade comes when the grant is submitted.

Need more data on how UNR ranks in comparison to other institutions on per faculty basis

On a per faculty basis, how are we doing as a campus compared to similar campuses? An administrative entity needs to be tasked to get those numbers, recalculate them each year, and to release them publicly.

Declare a goal

The administration should publicly declare a specific 5 year goal, linked to comparable institutions and updated each year, on research productivity and recognition administrators need to be rewarded or not depending on progress toward that goal. Sub-goals for specific units should also be set.

Ideas from Table 2

Create a culture for research in departments e.g. by recruitment and retention efforts

All too often good young researchers are not recruited aggressively or are stolen away after they come here. We need more attention to this problem perhaps through the creation of college and campus wide special funds for recruitment and retention.

If OSPA does something good it is ignored, if it screws up they are hit hard.

If we want OSPA to transition to a service oriented department we should create easy ways to recognize and reward good service (e.g., bonuses linked to researcher ratings; appreciation notes on the web; etc)

Foundation funding needs to be linked to research

A large amount of University wide F & A goes to the Foundation. The foundation should be held accountable for those funds and their impact on fostering research growth. The Council of Researchers, the VPR, the Provost and the President should get a quarterly report stating how the funds were used to promote research

Review administrative problems

A formal process of anonymous faculty review, done by line faculty, of administrative problems that interfere with research should be conducted and publicly released periodically. The process of collecting the information could be web-based and easy to use. This could be part of the Research Council’s charge
We need a Vice-President for Research. The search should proceed immediately. And we need one with a real budget.

The VP for Research office seems to have been devaluated over time. We need a nationally recruited, powerful VP for Research with a real budget to make a difference in the life of research on this campus.

Teaching loads needs to be lessened for grant writers

Grant submissions and grant success needs to be rewarded by recognition of the considerable effort it takes by readjusting the role statement for grant active faculty to reflect their greater time allocation to research. In many ways the campus seems to have gone backwards on this front. 20 years ago this campus had an automatic course release for any major grant for example. A variety of steps are needed to recognize the principle and merely allowing buy outs is too unidirectional.

Research need to be marketed to the public – citizens need to understand what research is and how it impacts the economy

Through web-based, print, and broadcast media we need to get the story out. Research makes a difference in the lives of the community. Create a Researchers’ Speakers Bureau

Pick areas of focus – centers of excellence – and fund differentially

Based on discipline-sensitive criteria, centers of excellence should be identified and rewarded. Instead of rewarding centers of excellence based on promises and politics, the criteria should be objective and publicly stated. These may include such criteria as outside funding per faculty compared to expected levels within a discipline, national recognition for programs by independent bodies, publications per faculty, literature citations per faculty and so on.

I ideas from Table 3

All grant and research related entities on campus need a service organization mentality

Often researchers feel as though they are begging for help in order just to do their job. The expenditure of social capital to bring in funds to the campus and to run projects that are supposed to be supported once here is offensive and discouraging. All units and levels (department staff; OSPA; the IRB; the VP for Research; Deans) should be expected to adopt a service orientation for encouraging and supporting research and need to be evaluated on that basis.

Soft-money faculty need more job security (e.g., seed funding; bridge funding)

Central and college administration need to establish set aside funds to soften the cycles faces by soft-money faculty. Faculty who are 100% soft money should have at least 10% State funding so they can write proposals, serve on committees and otherwise participate in the campus community without running afoul of effort reporting rules.

Silos have formed in the university. We need to break down barriers among groups that might collaborate
This is a “big picture” item and a number of other items (faculty club, lecture series, joint appointments) should be seen as partially responsive to it.

Create a faculty club

A real multi-faceted faculty club with everything from a lounge to a gym would do a great deal to foster the kind of connections that lead to creative research collaborations across units. The faculty lounge in the new Knowledge Center that could be a starting point with monthly get-togethers (wine & cheese in the late afternoon; coffee and pastry in the morning; soft drinks & snacks mid-day) and build interest in a full-blown faculty club that could be developed/built in stages, perhaps in the old Getchel Library building.

Lecture series sponsored by the University

A real lecture series focuses on cross-disciplinary themes, especially if linked to conscious team building efforts (e.g., discussion sessions with selected faculty that follow lectures with major persons), might help break down University silos.

Joint appointments

Joint appointment (both within and especially across colleges) should be more widely used to link together research teams. Often these are at no cost. Administrators should be encouraged to do this and reports should be made on the growth and success of joint appointment programs. For example, department heads might be asked why they do not have any growth in joint appointments and the role of jointly appointed faculty in collaborative research efforts should be required in annual reports from the department to the Dean or the Deans to the Provost.

Create a partnership with extension to meet citizens and explain what we do

In order to better explain the research mission of the University each academic unit of relevance should be linked to cooperative extension. In fields that are relevant, joint faculty status between cooperative extension faculty and disciplinary department may assist in this process. Develop a researchers’ speakers’ bureau specifically to bring the research story to community groups.

Graduate teaching and research supervision needs to be recognized in the teaching recipe even when it is not classroom based

More credit should be give for supervision and training that is not classroom based. One way to do that might be for the various credits for thesis, research supervision, and dissertations all to be linked to faculty, not just departments as a whole, and when a certain number of such credit accrue faculty should be given an earned release from classroom teaching.

Create a new accounting method for tracking FTE and research and market the big picture; Resist micro-managing – let unit balance interests

Units should be held accountable for their FTE, but not individual faculty. Give units the power to allocate resources and stop micro-managing.
Research mission is coupled to education mission especially through graduate teaching

More attention should be given to the educational impact of research in the form of recruitment of excellent faculty, the presence of excellent graduate students to teach some courses, and so on.

Rotating chairs may reduce the leadership role of Chairs

Many departments have settled into a rotating Chair system. If overdone this can prevent the positive change that can occur when a powerful person is brought to campus to give new leadership to a unit. The Provost should target a certain number of departments each biennium for the expense and effort of an outside search, and rotating Chair systems that go on for many years should be discouraged as a general operating style unless there is proof of good performance and strong faculty support within the unit.

Ideas From Faculty Posting to the Website

Make UNR/DRI a major league player in solar technology (for example)

Here is a long-range, big-project idea that I mentioned briefly at the May 14 meeting, an idea that would address several of the concerns raised at that meeting. The idea is for UNR in conjunction with the DRI to initiate a major project, multifaceted research initiative in a research area that is technically important, a future funding pump, and highly visible both regionally, nationally, and even internationally—and hence a source of pride to the people of this region and to the state of Nevada. Partnership with UNLV, Western, and TMCC as well as with (eventual) commercial ventures should be considered, as well as network links to high-level research institutions and companies. As a particular example, I am thinking of striving to achieve international standing in solar technology. (I am a member of an environmental working group headed by Hans-Peter Plag, research professor of Geology and the NV Bureau of Mines, who has suggested this idea.) This would be a rapid-start but long-term initiative in which UNR would (1) immediately identify anyone here (UNR/DRI and also perhaps at UNLV, etc.) currently working in this or a neighboring area (2) designate funding to hire new research faculty who are rising stars, (3) set aside research space and significant funds for a rapid start-up; and so on. (4) The UNR Foundation would be strongly directed, top-down, to seek targeted funding in this area. (After all, our region is rich in multi-millionaires and even billionaires, some of whom are looking for a good project to which to donate money.) (5) This would be done in accord with a multi-year but frequently evaluated and revised, staged action-plan. Such a project would (1) put UNR and DRI (or the UN system in general) on the research map in a highly visible area the importance of which is universally recognized and easily explained to the wider public. (Unfortunately, many excellent research areas do not connect with the Nevada public and even provoke a negative reaction among some segments of the public of the William Proxmire “Golden Fleece” variety: “What? Why are my Nevada or federal tax dollars going to support research on plants or beetles or ethnic groups in Indonesia?”—that sort of thing.) (2) A project in the solar area would fit our region’s energy resources better than most other places in the world—with the added benefit of being another source of regional pride. UNLV also fits well into this energy-resource picture, so it need not be a matter of competition, and the DRI is already statewide. (3) Several areas of solar technology remain sufficiently underdeveloped that we could move quickly to the research frontier in a significant manner, with the possibility of connecting to industry fairly rapidly—a
development that Marc Johnson makes a high priority for our research. (4) Large amounts of
government and private grant and contract money are becoming available in this area. The initial
startup costs would likely be high but major, major funding would soon be forthcoming, and this
helps everyone. (5) The fact that we have the DRI already well established here would lend great
credibility to such a project in terms of funding and recognition. (6) The research would be

interesting and important in both a scientific and technological/engineering sense and so would
connect with all relevant stakeholders and public groups. (7) Eventually such research would help
attracted hi-tech firms to Nevada, which is just what everyone wants. A high profile project such as
this, although expensive initially, would raise the research visibility of UNR/DRI (and
potentially other units in the system). This would eventually pay off for all areas of research as
the general public and legislators began to appreciate that we are more than an extension of high
school, more than a teaching institution. A rising tide raises all boats!

Allow faculty to use grant funds for buying out all scheduled teaching during one semester

Faculty who have multiple grants to manage and/or publications to write can benefit the most by
being able to buy out all of their scheduled classes during one semester. For example, if a faculty
member who teaches 4 courses a year (2 courses a semester) is allowed one course release per
year (when grant funds would instead be available to buy out two courses), that's often not
enough because it does not leave large chunks of time available for preparing publications.

Incentives for soft-money faculty to choose UNR for their research career

Provide incentives that will encourage soft-money research faculty and classified support staff to
make UNR a career choice. Concepts that have been implemented at other research universities
include: (1) leave pools (sick leave and annual leave) for soft-money research faculty and for
soft-money classified support staff; (2) a sabbatical leave pool for soft-money research faculty;
(3) a higher rate of ICR return to soft-money faculty than currently provided; (4) funding for time
to write proposals for research grants and contracts; (5) editorial services to improve the grammar
and understanding of proposals; (6) encouragement of postdoctoral research scholars to write
proposals and become PIs on grants. UNR could see more research funding if incentives were in
place to encourage soft-money research faculty, technicians, and other support staff to consider
UNR as a career destination. Some incentives could directly lead to more funded research. Other
incentives would foster a culture of support for research activities. (1) There would be no direct
cost to UNR to establish sick and annual leave pools for soft-money faculty and support staff, if
these individuals had higher fringe-benefit rates than State-funded faculty and classified staff.
That is, money would be set aside for leave as the grants are billed for work done. The
accumulated annual leave pool could provide funds to bridge between grants; it would not have to
be used while the grant is still active, and the department or college wouldn't be on the hook to
cover annual leave. (2) Some institutions, including DRI, have sabbatical leave opportunities for
soft-money faculty. This would be an attraction for top-notch researchers to work at UNR. It
could be funded through a higher fringe-benefit rate for these faculty or through ICR. (3) Some
soft-money researchers are hired solely as support of research programs of State-funded PIs;
however many of these individuals and others could well be PIs in their own right. One way of
stimulating the soft-money researchers to be PIs is to give them a higher rate of ICR return than is
currently allocated to PIs. The University could consider the extra ICR generated by soft-money
PIs as over-and-above what is normally expected of State-funded PIs. (4) UNR has had some
funds through the office of the Vice President for Research to support writing of proposals by
soft-money PIs; expansion of this pool of funds (presumably coming from ICR) could increase
the number of successful proposals, particularly if all soft-money PIs who have role statements with expectations of writing grants are given at least some funds each year for this explicit purpose. (5) Some of our smartest and most innovative researchers have difficulties writing coherent, grammatically correct proposals in English. Having editorial services available through the colleges or the VPR office could improve the chances of success on the proposals from these individuals. Perhaps University colleagues in the English or other departments could be enlisted to help, if they were guaranteed a percentage of the ICR on successful proposals that they improved. (6) Postdoctoral researchers often have excellent ideas for proposals and would be more likely to write those proposals at UNR if they could be PIs, and if they were routinely hired with the possibility that their positions could easily be converted from postdoctoral research positions to faculty positions (either on or not on tenure track).

Increase graduate student support

Graduate students and postdocs fuel the process of research. The productivity of a lab is often limited by graduate student numbers. If research is to be increased, we must increase graduate student support to attract more and better students. This should be considered an investment since productive labs will often successfully compete for external funds which can then finance further grad support.

Increased support for post-award grant administration.

Current administrative assistants and PIs are often already overburdened with administering grants. Periodic reporting, accounting, and other paperwork unrelated to the actual research will increase dramatically if our goal of increasing external funding is realized.

Greater academic support for grant production

A great increase in funded applications may be realized if we had experienced staff who could help polish drafts of grant applications or directly aid in the production process. Most likely would pay for itself in increased indirect costs.

Respect diversity of research across disciplines

Research is practiced across disciplines, not entirely within the budgetary definitions of what constitutes F&A. Listing priority privileges according to dollar amounts received may not reflect the research accomplishments by others outside of normal funding channels. We should encourage and support scholars whose research work functions outside of normal F&A paths. Finding methods to support research scholars outside of normal F&A paths could also benefit traditionally funded research. For example: 1. Provide course release time based upon level of research activity determined by Chairs, Deans, or the VP of Research. 2. Seek funding extensions beyond the fiscal year for state-funds, depending upon circumstances. 3. Relax restrictions on outside consulting and commission work, as this can lead to more funding streams. 4. Re-introduce mid-level or senior faculty-level financial support (funding for project grants, in-house). 5. Streamline the Office of Sponsored Projects so that delays are not risking grant renewals. 6. Allow funding from sponsoring agencies or entities that do not allow F&A charges. 7. Evaluate the amount of paperwork and committee work required in grant management and service.
We need more efficiency in administration of funded research activities

State-sponsored activities should conform to State rules but externally funded activities should conform to the rules of the funding agency (usually federal), not necessarily the State rules.

Clearly separate the oversight of federally funded research from the oversight of State-funded activities in all units of the Controller's office- purchasing, PCard, travel, personnel, etc. When State strictures are applied on top of Federal rules in the operations of units of the Controller's office, UNR researchers are boxed in by conflicting, Byzantine strictures that stifle research productivity. With fewer rules to follow, and clearer sets of rules, I believe the Controller's units will be able to do their jobs more efficiently, saving administrative costs.

Streamline the hiring process for technicians

Hiring a technician at UNR is a lengthy process that is burdened by the State classified system. Is there a way that we could set up a different way to hire these people outside of the classified system to avoid the lengthy paperwork. It seems that a research environment is not well suited to the same system as hiring road workers. This is possible to do, as it was used extensively in the University I used to work for. This would allow researchers to quickly hire staff when grants come on line, or when their fast changing research needs call for it. I think the VP could spend time researching this idea and report back to us. I am sure that there are many Universities with systems in place that are not as burdensome as ours.

Provide an award for the chair and/or dean who used F&A most effectively to grow research

At this time, there is little visibility and recognition to those administrators who are using F & A to sponsor continued research growth. A public award would acknowledge those with vision and provide a good model for others on campus. An award of this type might motivate administrators to use ICR funds in ways to further promote research. In these tight economic times, administrators might be more and more pressed to use ICR to cover routine operations. This would give them some latitude and justification for not completely giving in to these types of pressures. This would have very little cost, except for some administrative time to coordinate the application and selection process. Researchers would serve as judges.

Provide Chairs, Deans, VPs, with total F & A generated each year and by whom

In some units, F&A is sent to a common ICR account which then administrators (such as chairs and Deans, or VPs) can access. However, they often do not know where this money comes from and who and which project exactly has generated it. This makes it difficult for researchers to advocate effectively for increased support within their own units. These indirect funds are often viewed as "mana from heaven" that may not get used towards the development of sorely needed research infrastructure. This leads to all faculty requests for help and support for research to be considered equally when the contribution is actually not (e.g., secretarial help). F & A distribution should be made transparent, particularly to administrators. Creating a tradition on campus that at the end of the year, OSPA would send an analysis of which investigator and which project generated the ICR funds administrators have accessed the previous year would bring more visibility to the contribution of research to regular departmental operations as well. These benefits that are often invisible.
Provide annual lists of top research funding producers, organized by units

OSPA should publish the list of top funding producers in separate lists for research, instructional, and public service funding. These should be organized for the whole campus and by unit (by Department and by College). Each administrator should be sent their particular list of top producers and the major results should be release to the entire University community. If you want to give incentives for outside funding, give fair and unbiased credit when people produce. An annual "Top 10" list by college and a "Top 25" for the whole University would have a big impact on the morale virtually no cost once the macros were written.

Provide an automatic teaching release after X amount of F and A

Faculty should be given 1 course release, to be spent over the next xx years (I suggest 3 years) in cooperation with their Department and College administration, for each year they produce xxx amount (I suggest $100,000) of F and A for the University. Up to two course releases could be earned in a given year (the second release would be for the second chunk of F & A -- so if 100K was the cut off, a second one would come at 200K). The amount settled on in this policy would be adjusted for inflation, to keep the incentive properly tuned over the years. Faculty can now buy out of courses, paying a certain amount of their salary (it is 12.5% in my college). This is fine but at a certain level of productivity, the University receives so much that it seems almost usurious, especially since it is usually not expensive to pay for LOA alternatives. It would push faculty to produce more outside funding and reward highly productive faculty if there were automatic course releases at certain levels of outside funding. In 2007 and 2008, for example, only about 50 faculty generated $75,000 in research F and A per year; and about 30 generated $100,000. In over to pay for an LOA, the Provost's office would need to transfer 3-4K to the Department. If the amount generated by the incentive was above the amount spent, which seems highly likely, this policy will pay for itself.

Increase equity in the teaching load between those active in research and scholarship and those who are not

There should be a University wide, explicit standard for the teaching load of research productive faculty (e.g., tenure faculty without at least x number of substantial publications in a three year period would automatically teach an extra course). Individual Deans and Department chairs try to do this but the guidelines are too vague so it is needlessly hard politically. Virginia Tech has this policy and it works very well (these require 3 substantial publications for every 3 year period).

Give researchers proper teaching credit for student research supervision

After a certain number of individual credit hours for supervised research, or for thesis and dissertation credits, faculty should be given a course release. After production of a certain number of master's or doctoral degrees, faculty should be given a course release.