System Science and Food for Health
Collaboration Initiatives
Request for Applications (RFA)

Retreat Registration/Preliminary Topic Identification Deadline:
Received by Monday, October 24, 2016 - 5 PM Central Time

Application Deadline:
PIs must ensure that applications are received by their institution's sponsored programs or research office by Friday January 13, 2017 – 5 PM Central Time. Contact your campus research office for procedural details.

Program Websites and Retreat Registration:
http://nebraska.edu/system-science/
http://nebraska.edu/food-for-health/

Introduction: The primary purpose of the **Collaboration Initiatives** is to strengthen the University of Nebraska's research competitiveness by fully leveraging its multi-campus intellectual capacity and research resources. The ongoing **Food for Health Collaboration Initiative** is a comprehensive effort to further enhance Nebraska's research capacity to address critical societal and human health issues related to food. The new **System Science Collaboration Initiative** is designed to facilitate new and strengthen existing research collaborations among faculty in engineering, and/or quantitative/data-science with any other discipline. This new initiative is focused on helping position faculty teams to be more competitive for the extramural funding required to further their studies and to better understand the wide variety of complex systems found in nature and society. This RFA describes the grant opportunities associated with both these initiatives.

Purpose: To encourage the leveraging of statewide expertise by promoting multi-campus collaborations.

Intended Outcome: An increased capacity to address critical issues important to Nebraskans by having the University of Nebraska's campuses be more nationally grant competitive.

Grant Descriptions:[1]

Planning and Proposal Generation Grants [System Science Only]
[Up to $20,000 total for one year]
Planning Grants are intended to facilitate and build new collaborations across University of Nebraska campuses. Funding is available to support planning meetings, retreats, and travel to funding agencies in order to meet with National Program Leaders and gage support for the proposed programmatic direction. These one-year grants are intended to position a potential

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[1] As of November 7, 2016, the total award budget for FY17 has been reduced to approximately $1.8 million; it is anticipated that additional funding for System Science Seed Grants will be available in FY18. All awards are subject to funding availability and determinations of application suitability. It is anticipated that award notifications and funding will be available prior to May 1, 2017.

team to 1) identify extramural funding opportunities that would grow its collective research portfolio, 2) identify knowledge gaps that must be addressed in order to prepare a competitive extramural research proposal, and 3) prepare a 2017/2018 seed grant and/or extramural research proposal. Investigators without extramural funding experience are encouraged to take advantage of this planning grant opportunity (and other internal research grant funds available from most University of Nebraska campuses). Researchers with extensive grant portfolios are encouraged to use this funding source, in conjunction with a seed grant, to help plan Center and other large-scale grant applications.

Formed/Forming Team Seed Grants [Food for Health and System Science]
[Up to $150,000 total over two years]

Formed/Forming Team Grants are designed to enhance research collaborations among PIs that have had some, but modest, levels of previous collaboration. These teams, for example, may not have systematically worked together on a single proposal and/or have only recently identified additional members. Teams receiving these grants must have a clear goal to prepare applications to future federal or foundation funding opportunities (award types of at least $200,000 per year). The purpose of this grant type is to establish a collaborative research team that is actively generating knowledge/preliminary data critical to developing or enhancing a nationally competitive extramural funding proposal.

Team Strengthening Seed Grants [Food for Health and System Science]
[Up to $300,000 total over two years]

Team Strengthening Grants are designed to build upon existing research collaborations among grant-successful research PIs; the addition of new members to fill expertise gaps is encouraged. Teams receiving these grants must have a clear goal to prepare applications to a significant existing or announced future funding opportunity (award types of ~$400,000 per year and above). The purpose of this grant type is to strengthen existing research collaborations in order to establish a foundation from which the team will better compete for significant extramural research funding at levels or with programs not previously accessed. Faculty are encouraged to consult with their research administrator(s) regarding this grant type/funding level; faculty without strong existing collaborations (joint publications and/or joint grant funding) are encouraged to seek the Formed/Forming Team Seed Grants.

General Eligibility: Assistant, Associate or Full Professors and equivalent-rank researchers employed by any University of Nebraska campus are eligible to submit funding applications as Principal Investigators (PI). Seed grant PIs must have a record of extramurally funded research as a PI or co-PI; planning grant PIs without previous funded grant experience should consider the benefits of including a team member with such experience. PIs may apply for no more than one planning grant and one seed grant associated with this combined Food for Health and System Science FY2016-2017 RFA; there is no limit on their participation as Co-PIs.

Collaboration Requirements: Proposals will not be considered for funding unless meaningful multi-campus and appropriate disciplinary collaborations are documented. A PI employed by

one University of Nebraska campus (UNK, UNL,[2] UNMC and UNO) must identify at least one collaborator affiliated with another campus; if appropriate because of unique expertise/resource availability, additional collaborations with other Nebraska research institutions are encouraged. Collaborations are to be driven by mutual interest and disciplinary expertise needs. In addition, for System Science proposals, at least one collaborating faculty member (as a PI or Co-PI) must bring meaningful engineering, biomechanics or quantitative/data-science disciplinary expertise. The required System Science disciplinary expertise will be interpreted broadly.

Retreat: A retreat to facilitate multi-campus collaborations will be held on Friday October 28th, 2016 at the Nebraska Innovation Campus Conference Center in Lincoln. Potential PIs/team leaders wishing to be funding-eligible must attend unless special dispensation is granted; identified team members (PIs/Co-PIs) and others looking to participate on planning or seed grants are strongly encouraged to attend. Those considering leading a seed grant will need to provide a paragraph describing their concept by the October 24th retreat registration deadline; potential planning grant applicants will need to indicate their general topic of interest and disciplinary expertise. Prospective PIs will be expected to discuss their potential fundable research concepts; topic discussions will be facilitated by faculty leaders and research administrators.

Deadlines:

Retreat Registration/Preliminary Topic Identification:
> Received by Monday, October 24, 2016 - 5 PM Central Time

Funding Applications: [PIs must ensure that applications are received by their institution's sponsored programs or research office by **Friday January 13, 2017 – 5 PM Central Time**. Contact your campus research office for procedural details.]

Application Format and Content: Applications (including references, tables, and figures) must not exceed the page limits specified for the grant type. Font size must be 12 points or larger and margins must be at least one inch on all four sides. Approvals must be obtained from appropriate campus research administrator(s) in a format sufficient for the submitting institution to certify that such approvals have been obtained; a signature page is not required. Proposals will only be accepted from the PI's research or sponsored programs office; submission will signify full campus approval. In addition, by submitting an application, each campus certifies that named PIs, Co-PIs, and the campus itself agrees to waive all rights of access to the identity of any person who may conduct internal or external peer evaluations of their application. Each application must consist of a single PDF file and should include the following:

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[2] The Institute of Agriculture and Natural Resources (IANR) is part of the UNL campus.

1. **Cover Page**

    Complete the proposal/application cover page form (available as a PDF form and DOCX file from http://nebraska.edu/system-science/ or http://nebraska.edu/food-for-health).

2. **Project Description**

    For System Science Planning Grant Applications:
    - Title
    - Introduction/Summary (not to exceed 300 words)
    - Project Narrative with the following elements (not to exceed three pages):
        - ✓ **Topic area(s)** to be explored for future research collaborations.
        - ✓ **Preliminary** assessment of the a) potential for collaboration, b) known University of Nebraska expertise, and c) likely extramural grant fundability.
        - ✓ **Approach.** Describe how researchers involved in the planning effort intend to a) identify specific research questions, b) interact with potential funding agencies and program leaders, and c) build/identify collaborations within and between faculty at University of Nebraska campuses, in order to position those involved to prepare a 2017/2018 seed grant and/or an extramural research proposal. Fundable activities include research retreats (with external speakers), planning/proposal preparation meetings, travel to funders, and grant preparation workshops.

    For Food for Health or System Science Seed Grant Applications:
    - Title
    - Abstract/Summary (not to exceed 300 words)
    - Project Narrative with the following elements *(not to exceed eight pages)*
        - ✓ **Long-Term Scientific Objectives.** Clearly state the research question(s) to be addressed in an eventual federal or other extramural grant application.
        - ✓ **Specific Aims.** Clearly state the research question(s) and, as appropriate, the hypothesis to be tested for this collaborative application.
        - ✓ **Significance.** Describe how both the long-term approach and achievement of the specific objectives in the proposal will address a scientific problem or barrier and/or an educational/societal need, why the overall work represents an innovative approach, and how anticipated achievements will lead to a societal benefit.

- ✓ **Approach**. Describe the approach to be used to achieve the specific aims outlined in the proposal, including an integrated plan for achieving the broader impacts/societal benefits expected by most funding agencies.
- ✓ **Collaborative Roles**. Clearly indicate the scientific <u>role(s) and expectations</u> for the PI and each collaborator (Co-PI). Outline the existing facilities available to each participant, and the resources that will be made available if the project is funded. Describe any existing collaborations, how they will be strengthened, and how new Co-PIs will be integrated into the research team. Outline the approaches that the PI and research team will take to ensure impactful and meaningful collaboration, data sharing, data management, and quality reviews/accountability. <u>For a System Science proposal</u>, clearly identify the PI/Co-PI(s) with the required disciplinary expertise.
- ✓ **Future Funding.** Describe the specific extramural funding program(s) and grant-types to be applied for by the collaborating researchers. Furthermore, describe how achieving the specific aims outlined in this proposal will help make the collaborators' future extramural research proposals more competitive. <u>For teams seeking Team Strengthening Seed Grants</u>, clearly indicate how this funding will make the existing team more competitive for extramural grants or grant types not previously accessed by the collaborators.

3. **Budget**

   Complete the project budget form (available as an Excel spreadsheet from http://nebraska.edu/system-science/ or http://nebraska.edu/food-for-health) and a one-page budget justification. Personnel expenses aggregated on the budget form must be justified individually.
   - F&A costs are not allowable expenses.
   - Academic year salary for PIs and Co-PIs are not allowable expenses. Summer salary expenses (0.5 month maximum) are only allowed for a PI without summer support (no summer salary is allowed for any Co-PI); no salary savings can be accrued.
   - Outline what budget resources (dollars) would be made available to each PI/Co-PI, and what resources will be managed "centrally" by the PI. Provide a clear rationale linking budgetary resources and collaborative role(s).

4. **PI/Co-PI CVs**

   For Planning Grant Applications:
   - Include 2-page CVs for each PI/Co-PI. In lieu of Co-PI CVs, a brief biographical paragraph for each Co-PI may be supplied. There is no expectation that all

potential collaborators be identified prior to a planning grant award. Each CV should follow a consistent format.

For Seed Grant Applications:
- Include 2-page CVs for the PI and each Co-PI. Each CV should follow a consistent format.

5. **Timeline**

Describe key project milestones and when they will occur. Include specific plans for grant proposal submissions.

6. **External Reviewer List**

For Planning Grant Applications:
- No listing of external reviewers will be required. Proposals will be assessed by a small committee composed of members of Nebraska's scientific community. <u>Indicate if proposal reviewers should be asked to sign a non-disclosure form prior to receiving your proposal for review</u>.

For Seed Grant Applications:
- Provide the names, professional affiliations, and <u>correct contact information</u> (address and email) for five experts not affiliated with the University of Nebraska who may be recruited as external reviewers for the proposed project. <u>Indicate if proposal reviewers should be asked to sign a non-disclosure form prior to receiving your proposal for review</u>. By providing these names, the PI confirms that none of these experts has a conflict of interest with the application's PI and Co-PIs. For the purpose of this application, conflict of interest is defined as having received grant funding together, jointly published articles with fewer than 20 co-authors, and/or served as PhD or MS (or equivalent) degree mentors/mentees.

Application Submission Requirements: <u>Applications must be received by each campus' sponsored programs or research office by Friday January 13, 2017 – 5 PM Central Time</u>. [Applications must be submitted from the recognized research office of the PI's campus of record via email to David Jackson <djackson@nebraska.edu> with a CC to Jeanne Holdren <jholdren@nebraska.edu> by 5 PM Central Time, Thursday January 19, 2017. Applications received after this deadline, or those submitted directly by PIs, will not be accepted. In submitting the application, the PI's campus affirms that the proposal has received all appropriate administrative approvals from its and all other participating institutions. In addition, the campus affirms that the institutions and their PIs/Co-PIs have the capacity/resources to conduct the proposed plan of work.]

General Criteria for Evaluation: Applications will first be evaluated to determine if all RFA guidelines have been met, including (but not limited to) retreat participation, general eligibility, formatting, collaboration requirements, budget amounts, and topic alignment. For Team Strengthening Grants, CVs will be evaluated to verify existing collaborations (shared publications and/or grants). For those applications that meet stated RFA submission criteria, at least two external reviews will be solicited. Reviewers will be asked to rate the application(s) they receive on the following criteria: a) Merit and relevance (30 pts.), b) Potential to receive future extramural support (30 pts.), c) Appropriate and meaningful collaborations/roles defined for PI/Co-PIs (20 pts.), and d) Potential to achieve short-term stated aims (20 pts.). Final funding decisions will be made by the Vice Provost and the Executive Vice President and Provost. Funding announcements are expected to be made in March/April 2017.

Post Award Management, Obligations, and Reporting Requirements: PIs will be required to submit a brief project initiation report three months after award; while the grant remains active, programmatic progress and detailed financial reports will be due 30 days after each award anniversary. A final report will be due 90 days after the award's termination date. As the purpose of this program is to enhance the University of Nebraska's research capacity and competitiveness, submission of significant high-quality extramural research grants is a condition of all awards. Satisfactory progress and adherence to award conditions will be required for access to current and future award funds from the University of Nebraska. All reports will be shared with applicable campus/institution research offices. This program is administered by the University of Nebraska's Office of the Executive Vice President and Provost.[3]

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[3] RFA and award management questions should be directed Vice Provost Dr. David Jackson (djackson@nebraska.edu).

Please use the cover page template available on the Collaboration Initiative websites:
http://nebraska.edu/system-science/
http://nebraska.edu/food-for-health/

Nebraska
UNIVERSITY OF

Collaboration Initiative Proposal Cover Page

Title

Grant Type

PI Contact Information

Name:	
Campus Affiliation:	
Email:	
Phone:	

Co-PIs

Name	Campus Affiliation

Any additional Co-PIs should be listed in the project narrative.

<u>Total</u> funds requested

Reviewer Non-Disclosure Agreement

Please use the budget templates available on the Collaboration Initiative websites:
http://nebraska.edu/system-science/
http://nebraska.edu/food-for-health/

(Proposal Title)	Year 1	Year 2 (If applicable)	Total Requested
A. PERSONNEL (TOTAL COSTS, INCLUDING BENEFITS) (SHOW HEADCOUNT (XX) AND FTEs (Y.YY) IN BRACKETS)			
1. (XX, Y.YY FTE) PI and CO-Pis			
2. (XX, Y.YY FTE) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)			
3. (XX, Y.YY FTE) GRADUATE STUDENTS			
4. (XX, Y.YY FTE) UNDERGRADUATE STUDENTS			
5. (XX, Y.YY FTE) SECRETARIAL CLERICAL			
6. (XX, Y.YY FTE) POST DOCTORAL ASSOCIATES			
7. (XX, Y.YY FTE) OTHER: (specify)			
TOTAL PERSONNEL	$ -	$ -	$ -
B. EQUIPMENT >$5,000 (LIST ITEM AND DOLLAR AMOUNT) (Combine multi-component systems on a single line)			
1. _____ $_____			
2. _____ $_____			
3. _____ $_____			
4. _____ $_____			
5. _____ $_____			
TOTAL EQUIPMENT	$ -	$ -	$ -
C. TRAVEL 1. DOMESTIC (INCLUDE CANADA, MEXICO, AND U.S. POSSESSIONS)			
2. FOREIGN			
TOTAL TRAVEL	$ -	$ -	$ -
D. OTHER COSTS			
1. MATERIALS AND SUPPLIES			
2. PUBLICATION AND COMMUNICATION COSTS (including telecommunication, copying, etc.)			
3. SERVICE / MAINTENANCE AGREEMENTS			
4. COMPUTER SERVICES			
5. OTHER (PLEASE EXPLAIN)			
TOTAL OTHER COSTS	$ -	$ -	$ -
E. TOTAL REQUEST (A THROUGH D)	$ -	$ -	$ -