UNIVERSITY OF FLORIDA

'SO WHAT IS YOUR MOONSHOT IDEA?'

The challenges and opportunities currently facing our planet are multi-faceted and extremely complex. Finding solutions to the world's most significant challenges has required scientists, educators, practitioners and others to work in a collaborative team environment, and to think outside existing paradigms to find innovative and creative approaches to overcome barriers. The innovative solutions leverage the techniques, approaches, and perspectives in multiple disciplines. In consequence, collaborative approaches result in advances and the ability to overcome existing barriers. Crossing such barriers require innovations and advances that are typically not possible for faculty member working in isolation.

The UF Office of Research, in partnership with the Office of the Provost, has launched a new competition to identify and fund select Moonshot projects designed to help solve critical problems affecting people, places, or the planet. The moonshot proposals will describe ambitious, exploratory and ground-breaking projects and will likely have transformative ideas that represent an opportunity for a significant shift in fundamental knowledge with a great potential for a long term impact on national needs or a grand challenge. It is expected that moonshot proposals targeting significant grand challenges will require the assembly of expertise involving participation of multiple colleges or units.

The goal of the Moonshot program is to propel UF to the forefront of research in that area. A moonshot proposal may either address a significant problem; articulate a novel, radical solution to a significant problem, or describe the use of cutting-edge technology in uncharted areas.

ELIGIBILITY

To qualify, proposed projects must address a recognizable grand challenge that requires a multi- investigator approach.

A moonshot proposal may either address a significant research problem; articulate a novel, radical solution to a significant research problem; or describe the use of cutting-edge technology in uncharted areas. Applicants must identify the research frontier they are proposing to cross, and provide a reasonable estimate of the potential outcomes from crossing these frontiers. Competitive proposals will articulate the barriers associated with implementing the solution, and the approaches needed to successfully cross these frontiers. Fundable proposals will be cross-disciplinary, meaningful, verifiable, and feasible.

The proposing team should identify an external sponsor with potential interest and means to further advance the project after the initial UF investment, thus providing for sustainability. It is recommended that projects leverage existing resources including those of the relevant centers/institutes on campus.

Faculty with administrative appointments, including deans at all levels are not eligible to apply.

NUMBER OF PROPOSALS

The number of proposals submitted by each college is based upon each college's extramural award performance in FY19. **The maximum number of proposals allocated for submission each college are:**

# Proposals Allocated	Colleges
1 per college	Florida Museum of Natural History; Health & Human Performance; Design, Construction & Planning, Business; Fine Arts, Journalism & Communications, Law, Nursing, Education; Dentistry; Pharmacy; Veterinary Medicine; Public Health and Health Professions; Medicine-Jacksonville
2 per college	Liberal Arts and Sciences; HW College of Engineering; IFAS; Medicine-Gainesville

BUDGET

The Office of Research anticipates supporting up to 3 meritorious projects in this round of proposals. Resources for each project will not exceed $250,000 per year for 3 years – for a total investment of $750,000 per project.

Up to $25K can be provided, as necessary, to selected teams for team building activities– after external reviews and before the oral presentations are made.

Allowable costs include, but are not limited to:

- Funding for graduate students or post-docs
- Materials and supplies necessary for preliminary activities for acquisition of preliminary data
- Support for organizational activities required to develop and submit a large, multi-investigator proposal
- Travel to technical meetings and/or federal agencies
- Administrative/consultant support during the planning process
- Equipment that is necessary to compete for the targeted sponsored program

  The following costs are not allowable:

  - Faculty salaries
  - Subcontracts to non-UF investigators

There are no indirect costs associated with these awards.
Desired faculty release time will need to be provided by the unit.
Additional support of the effort from the participating units is strongly encouraged.

PROJECT PLAN

Page 1 – Quad chart as described below:

Objective What is the problem/challenge you are addressing? Provide a bulleted list of the challenges you are attempting to address. What are the current limits that cause the problem to exist? What is your proposed solution/innovation/technology? **Barriers to success:** What are the major challenges to achieving your solution? **Benefits:** Who cares about this problem? Who will benefit from solving this problem? Why now?	**Team members (include in this list the 5 most critical persons for the success of the project)** **Projected cost** Cost projected by year – money, resources, faculty effort
Graphic (optional) A picture, diagram, flow chart, data figure or other visual that illustrates the concept behind the research	**Milestones for achievement of goals** Bullet list of goals by project year What are the key performance indicators/milestones that indicate you are making progress towards your objective? Target dates for submission of proposals for extramural funding

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QUALIFICATIONS OF THE TEAM (200 words)
Explain the role of each of the participating faculty, and why they are the best qualified to lead/accomplish the team goals. Why does this problem need a team approach?

OBJECTIVE
Problem Statement (300 words)
Describe the specific problem/challenges that your solution will address, using non-expert lay language (do not cite papers or studies). Demonstrate that you understand these challenges without using any jargon. As part of your description address:
- Why does the problem exist in the current environment?
- What is the best approach/technology/solution that will break the barrier to progress? Where are the leverage points where the smallest change can have the biggest impact?
- Why does this problem need a team approach?
- Focus on setting the stage for your solution (versus describing how you intend to solve it).

Demand to Address the Problem (100 words)
Who or what is affected by the problem/challenge you have identified – society, governments, scientific community? What are the benefits of your approach?

YOUR PROPOSED SOLUTION/APPROACH/TECHNOLOGY
Solution Overview (250 words)
In layman's terms, please address the following:
- Why is your proposed approach/technology best suited to address the challenge you have identified? What other alternate approaches have you considered?
- How will you know that you are making progress?
- Describe who will benefit from your solution and the benefits or outcomes of your solution.

Technical Process Description (500 words)
Provide a detailed explanation of the methodology/scientific approach/technology you feel is best suited to address the challenge you have identified.
What makes this the most valid approach at this time? Are there any other possible alternate approaches? Why will the alternate approaches not help solve the same technical challenge?
Why now?

Potential barriers to success (150 words)
What are the potential risks of the approach you have chosen? Describe any barriers to the short and long-term success of the project. How will you address them? Are there any deal breakers?

Outcomes of this project (150 words)
Describe the outcomes and impact of your project on the discipline(s), the team, UF and society at large. Will this moonshot launch UF into a new capability as a world leader? Describe the expected contribution of this team project towards the growth of the research enterprise at the College and UF. In other words, why should we care?

Milestones and Timelines (150 words)
What are the key milestones that indicate you are making progress towards your objective?
Provide a timeline on the accomplishment of the goals that will help reach your objective. Describe how this award will allow you to reach your milestones.

Sustainability plan (100 words)
What are the plans to ensure sustainability of this area of investigation/research beyond the initial seed funding? Provide specifics and as many details as possible. Provide target dates for submission of proposals for extramural funding. How will this initial funding propel the team into a competitive position on a global level?

REFERENCES
Maximum of 4 pages.

COST (1 excel sheet)
Provide a tentative budget with approximate estimates in the standard categories.

Biosketches of collaborating faculty (2 pages each). Focus should be on the contribution to the project and prior funding history.

Email Approval (pdf) of Associate Dean of Research of respective college

SUBMISSION DETAILS

Proposals should be uploaded into InfoReady Review (IRR) as a word document, following the word limits and contents described above.

Formatting requirements: Proposals must be single spaced; font size no smaller than 11 point, 0.75 inch margins all around.

Proposals must be submitted to the Office of Research by the lead PI through the IRR on or before Nov 1st, 2019. PIs should attach an email (pdf) from Associate Dean for Research of their College, indicating that their proposal has been selected by the college.

Proposals must **ALSO** be submitted through the UFIRST system. Please ensure that ALL faculty contributing time to the project, as well as their chairs and deans sign off on the proposals in UFIRST.

REVIEW

Proposals received will be reviewed by an internal committee to select the best 50%. These will be sent out to external reviewers from a variety of fields, and evaluated according to a strict set of criteria (listed below) designed to favor proposals that maximize measurable impact in their chosen areas.

Based on these written reviews, a approximately 5-6 proposal teams will be invited to make an oral presentation to a selected panel and Office of Research personnel. From this, final selections for funding will be made.

CRITERIA

The panel members will score the proposals in the following categories (20 points each):

1. Theme/Research Area: Does the scientific theme address a Grand Challenge/research frontier? Does this area represent an existing strength at UF, or a field in which UF has the potential to become a leader?

2. Potential for significant impact: Will the proposed collaborations launch new programmatic efforts/directions at UF? What is the potential to produce and sustain long term collaboration among the participants? Are the benefits to science/society in general well-articulated? What would be risks involved if this is NOT funded? Is there a compelling argument made for the timeliness of the project?

3. Quality of proposal: Are the research goals and objectives well-articulated? Are these the most appropriate to address the grand challenge? How will failures and setbacks be addressed? Are the milestones appropriate and achievable in the time proposed? Are the existing strengths of the departments/colleges/core resources leveraged sufficiently? What is the length of time required to make this team research proposal extramurally funded?

4. Relevance of faculty background experience and interest: Does the team represent the best available expertise in the required fields? Do the faculty members involved have a sufficient level of commitment to the project? Does the PI have sufficient leadership experience?

5. Leadership and team cohesiveness: Does the team possess the leadership required to carry the project to a competitive multi-investigator proposal at the federal level? Does this team have a prior history of garnering extramural support as a collaborative? Is there cohesiveness among the participants?

For bonus points (10): Are there any resources committed by the departments and colleges towards the success of the program?

Final award decisions will be made by the Office of Research. The earliest anticipated start date for the award is April 1st, 2020.

REPORTING REQUIREMENTS

The Principal Investigator and the leadership team will provide quarterly reports with details on key performance indicators and meeting goals in accord with the proposed timeline to the Office of the Vice President for Research.

The Office of Research will meet with the all awardee teams one year from the date of the award. Continued funding for the projects will depend on the progress made. It is anticipated that at least one team will be eliminated from the second year of funding.