

Research Growth Initiative

Applicant Workshop

September 4, 2009

Program Description and Goals

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General Program Guidelines

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Using the budget spreadsheet and the online application

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Project Narrative

Kathleen Koch

Lessons Learned: Areas for Improvement and Successful Proposals

Kathleen Koch

Q & A

Web site: www.rgi.uwm.edu

What is the RGI?

- Internal seed funding program
- Intended for early stage projects
- External referees evaluate the proposals
- Open to all disciplines
- Goal: Increase research productivity, scholarship, and creative endeavors
- Goal: Increase external funding – research grants, fellowships, university/industry partnerships
- ~\$4M available for awards this year

RGI Years 1-4

School/College	Apps	Awards	Award Amt	Success Rate
School of Architecture & Urban Planning	17	2	\$133,522	12%
Peck School of the Arts	11	5	\$411,006	45%
Lubar School of Business	7	0	\$0	0%
School of Education	35	4	\$398,019	11%
College of Engineering & Applied Science	136	16	\$2,177,240	12%
WATER Institute	47	7	\$802,042	15%
College of Health Sciences	68	8	\$1,112,371	12%
School of Information Studies	16	2	\$36,108	12%
L&S Humanities	23	7	\$422,645	30%
L&S Natural Sciences	259	78	\$13,960,008	30%
L&S Social Sciences	78	18	\$1,809,281	23%
College of Letters & Science	360	103	\$16,191,934	29%
College of Nursing	32	7	\$1,051,891	22%
Helen Bader School of Social Welfare	14	1	\$70,174	7%
ALL SCHOOLS AND COLLEGES	741	155	\$22,384,306	21%

General Program Guidelines

Eligibility

- All faculty and staff with PI status are eligible for this program.
- Lead PIs are limited to submission of two proposals per application cycle.
- Each application must have a UWM PI as the lead. Co-PIs can be non-UWM employees or eligible UWM employees. Non-UWM employees as Co-PIs cannot receive salary from RGI funds, but other payment-for-service options are possible.
- PIs who have had previous funding from the RGI and who have not made significant progress in completing their objectives and/or meeting the milestones in the earlier proposal will need to make a compelling case for any additional awards.

Proposals Appropriate for Program Support

- Projects that lead to submission of competitive proposals for externally funding;
- Projects that lead to self-sustaining research;
- Projects that have a one-year time frame. A second year may be available;
- RGI does not fund projects where the emphasis is infrastructure; however, infrastructure may be included in a research proposal;
- Projects of a more entrepreneurial nature will be considered, but they must include a business plan that supports the return on investment

RGI Evaluation Criteria:

- Quality of Proposal: Excellence and novelty of concept, appropriateness of approach or methodology; clarity of project plans; degree of scientific/intellectual merit.
- Risk of Failure: Availability of necessary skills and experience, likelihood of completing the project plan within the given timeframe.
- Return on Investment: Probability of securing extramural funding (federal, state, foundations) or engaging in commercialization; potential for self-sustainability after the seed investment phase. The expected return is three times the requested seed funding.

2009 Application Submission Deadline:

Monday, October 5, 9:00 a.m.

Project Narrative:

What you must cover in four pages

- What is the research question?
- Why is this important?
- How are you approaching the question?
- How does this project differ from or build on previous studies or creative works?
- What is the potential impact on the field?
- Provide a brief description of the next steps for this project, beyond the RGI funding period.
- Provide sufficient detail that a knowledgeable person in your field can evaluate it.

This year, you have one separate page for the bibliography.

Four pages for the narrative and figures + up to one page for the bibliography.

Sample comments on needed improvements

“A diagram showing the relationships between the theories and models would be helpful.”

“The PI should include more detail as to how the objectives will be achieved and more explicitly state the benefits of this work. Specific funding sources should be named.”

“One shortcoming regarding this proposal is that it contains no details about the methods to be used, and also very little information about the properties to be explored.”

“This is an intriguing idea, but is not described in sufficient detail to give confidence in the outcomes.”

“The weaknesses include a rather poorly presented rationale and the omission of critical information related to data acquisition and analysis.”

“A major weakness of the proposal is that there are zero technical details provided to support how much improvement in efficiency can be achieved.”

“The proposal is risky mainly because so many important pieces of information are missing from the proposal. The general idea of the proposal is intriguing, but it does not tell the reader enough to fairly evaluate the likelihood of success.”

“The timeline and budget are feasible, but there are a few issues to consider. A power analysis was not included - it may be possible to do this with fewer than 30 subjects per group. Also, the budget justification lists an equipment purchase, but no equipment is included in the budget. For the timeline, it might take longer than projected to screen potential participants to achieve the necessary sample size.”

“One concern is that it is difficult to assess the adequacy of the sample size since no power analysis was given.”

“While it is assumed that this does not represent a large clinical population, the applicant should at least address the issue through a power analysis and/or effect size calculation.”

“Another concern is that there is no control group. It is a within subject design and thus without a control group, it is difficult to determine if any change is due to the experimental variable or a test re-test effect.”

“There are flaws in the study design relating to control groups that should be addressed and remedied to ensure the likelihood of measurable outcomes.”

“How will missing data be handled?”

“To strengthen the pragmatic aspect of the proposal, a discussion of robustness should be added.”

“The proposal would be strengthened by a description of how [the research outcome] would be evaluated.”

Comments on Areas for Improvement (Con't)

"The presentation suffers from making too many generalizations without considering alternative models and limitations of the proposed model."

"A main concern is the lack of description or inclusion of the assessment instrument."

"It would be helpful to state how the intervention will test the underlying theory and what the implications are."

"One weakness is that the proposal does not acknowledge the limitations of this [existing] data set."

"The topic is timely, but the project is not innovative."

"The proposal also is missing some important references."

"The bibliography is missing a number of references, including those by the PI."

"This objective is interesting and worth pursuing, but there is a extensive literature precedent for similar work that is not presented in the proposal."

"It is unclear what the broader impact of this research would be. Hence it is rated in the top 40%, but not a top ranked proposal because the importance of this work, if successful, was not stated or explained."

"The technical aspects of the proposal are solid. What is missing is the rationale for using this particular system - what makes it a good model?"

"The application can be strengthened by the inclusion of specific aims, detailed analysis and information about the experimental design and methods. It is unclear why the proposed methods would be particularly effective for the problem under study."

"As currently described, it is unlikely that the author would be able to answer the research questions."

"The timeline is ambitious and it is not clear that the team has the required skills and experience."

"The risk factor is rather high for this team to achieve these goals in a one-year period; rather this project is more in line with a 5-year timeline."

**Areas for Improvement in RGI Proposals
Cycle 3 and 4 combined (273 proposals)**

	Types of Comments	Frequency of comments
GENERAL PROPOSAL WRITING	Lacks a focused research plan	13
	Does not have a logical flow	9
	Lacks internal consistency	9
	Grammatical/typographical errors	3
	Concepts are not adequately defined	13
	Premise is not supported by the literature	7
SIGNIFICANCE	Does not make a convincing argument for significance of topic/issues	37
	Results need to be placed within a broader context	11
SCOPE	Highly doubtful that aims can be accomplished by proposed personnel within RGI timeframe	32
RESEARCHERS	No evidence of necessary background or technical skills	24
	Roles of research team members are unclear	9
	Weak publication record	6
RESOURCES	Availability of/access to needed resources (equipment, lab space, data sets, archives) is uncertain	8
DEVELOPMENT	Lacks discussion of potential obstacles/complications and how these might be overcome	13
	Does not discuss limitations of approach	10
	Does not discuss other viewpoints or approaches	8
	Lacks discussion of expected results and/or alternate interpretations of results	5
BIBLIOGRAPHY	Missing current/related/significant studies in the field	33
RELATIONSHIP TO CURRENT PROJECTS	Does not explain connection to or departure from PI's current research	6
FUNDING	Does not identify specific and/or appropriate funding sources	5

	Types of Comments	Frequency of comments
DESIGN	Lacks sufficient detail for reviewer to assess likelihood of success	61
	Lacks convincing rationale for specific approach/choice of materials/survey instrument or assessment tool	43
	Approach is not feasible	14
	Lacks information on and rationale for inclusion/exclusion criteria	8
	Survey instrument is not specified or has not been developed	3
	Is not innovative	18
	Lacks theoretical grounding	7
	Aims/hypotheses are not clearly stated or well integrated	17
	Aims are not testable by the design	16
	Sample size is not appropriate, does not include power analysis; does not take into account attrition	20
	Appropriate control/control group is not included	9
	Effects may not be large enough/frequent enough to be measurable	8
	Variables are not sufficiently isolated	6
	Age range is not appropriate	2
	Lacks method/tool for assessing whether aims have been achieved	12
	IRB/Animal care protocols are absent	1

Lessons Learned

Successful Proposals...

Are cutting edge: seek answer to significant question, take innovative approach

- *State explicitly why the research matters, both from a broad perspective, and the contribution of your project.*
- *With the right background, expertise, and research design, you/your team can take some risks. We recognize, and the reviewers recognize, that with innovation comes risk.*

Are placed in the context of the discipline

- *Do your homework. Need to know who's doing what in closely related research, and who is funding what, especially if you are taking your research in a new direction -*
- *Seek collaborators who have the expertise you lack.*

Have a clearly articulated and integrated research plan

- *Objectives are connected to your hypothesis and to one another.*
- *Be ambitious, but realistic in the scope of work, it's a one-year proposal.*
- *For young researchers, it is important that the RGI project fits within your overall research interests and serves to advance your career*

Are methodologically sound

- *Include control groups, inclusion/exclusion criteria, and/or a power analysis where appropriate*
- *Approach is feasible*
- *Aims can be accomplished by the proposed approach*

Show attention to detail

- *Make sure that the citations match the references in the narrative.*
- *Make sure figures are properly labeled.*
- *Have someone proofread your proposal.*

What we like to hear:

"This is a very well structured and argued proposal with a high likelihood of success and excellent funding potential."

"This is an excellent idea, one that should compete well in the pool of proposals before national funding agencies. The best two sources of external funding have been identified by the PI. This project idea is very strong, very innovative. The potential benefit for the university in terms of positive publicity, for developing international collaborations, and for drawing attention to the developing strength of this academic program greatly exceeds any income to be generated later by external support."

"This is a well-developed proposal appropriate in scope for the award mechanism. The study is highly feasible within the proposed time frame and likely to yield meaningful results that will contribute to the scientific literature. There is high probability that the findings will result in publications, presentations, and subsequent grant applications."

"This is an excellently-written proposal with great promise. The probability of ROI is excellent given the funding record of the researchers and the importance of the topic."

"The rationale, aims and methods are outstanding."

"The proposed research is very timely and of high quality. The approach is novel. The research team includes two PIs with complementary expertise. In particular, both PIs have outstanding external funding track record and a long history of collaboration. The proposed tasks are creative and transformative. The proposed project will increase the national competitiveness of UM-Milwaukee in this field."

"The plan is good, is milestone gated, and is supported by excellent researchers."

"This proposal has all the key elements for a successful NSF grant, including an important scientific question, innovation and superb education elements."

"The proposal was well thought through-including goals and intent, design, production, the roles of the PIs, timeline and budget."

"The strongest part of the proposal is the statement on its significance which not only justifies the project fully, but renders it compelling on a national level."

"Overall, this is an exciting and very well written proposal from a talented new faculty member. The research team has done some promising preliminary studies. Funding support from RGI will maximize this project's potential for success. Great potential for a R01 proposal!"

"The chief strengths of the proposal are the clarity of thought, and the use of both theoretical and empirical methodologies to strengthen a new line of research. The objectives are clearly stated."

"It is difficult to identify a particular change that would improve the quality of the proposal."