Date: October 25, 2013

From: Bonnie Pendergraft
Research Facilitation Manager

To: Dr. Marcio de Queiroz

Re: CIRS (Round 2) grant award

I am pleased to inform you that your proposal titled "*Engineering a Protein-Driven Robotic Nanoswimmer*" submitted to the CIRS Round II (2013) competition is being funded. As a reminder, the following conditions apply:

1. The award will be in the amount of $32,035
2. The project period will be 11/1/2013-10/31/2014
3. A final report is due to the Dean no later than December 30, 2014. The format and components of the Final Report were provided in the RFP, which is attached.
4. For three years following the end of the funding cycle, you will submit to the College information pertaining to (1) planned next steps of research results, (2) patent applications submitted, technology transfer agreements implemented, and/or commercial collaborations established and (3) plans for collaboration building. This data will allow tracking and estimation of the return on investment of the seed funds.

Questions regarding your account can be addressed to Mrs. Maureen Robertson.

You may address any other questions that may arise to me at 578-3339 or bpender@lsu.edu.

Louisiana State University and Agricultural and Mechanical College
Proposal Budget
Year One

Project Title: Engineering a Protein-Driven Robotic Nanoswimmer
Principal Investigator(s): Marcio de Queiroz

Dimitris E. Nikitopoulos Digitally signed by Dimitris E. Nikitopoulos DN: cn=Dimitris E. Nikitopoulos, o=LSU, ou=ME, email=medim@lsu.edu, c=US Date: 2013.07.11 14:12:16 -05'00'

	Requested Funds
A. Senior Personnel Salaries and Wages	
1. Marcio de Queiroz	$8,000
2.	$0
3.	$0
4.	$0
5.	$0
6. Other Investigators (list on justification)	$0
B. Other Personnel Salaries and Wages	
1. Postdoctoral Associates	$0
2. Other Professionals	$0
3. Graduate Assistants	$16,500
4. Student Workers	$0
5. Contingent Employees/Transients	$0
C. Subtotal Salaries and Wages	$24,500
D. Fringe Benefits	
Regular Employees @ 38%	$3,040
Graduate Assistants @ 3%	$495
Contingent Employee/Transients @ 7.65%	$0
E. Subtotal Fringe Benefits	$3,535
F. Total Salaries, Wages and Fringe	$28,035
G. Travel	$0
H. Supplies	$4,000
I. Operating Services	$0
J. Professional Services	
1. Subcontracts	$0
2. Consultants	$0
3. Other Services	$0
K. Other Charges	$0
L. Equipment	$0
M. Tuition Remission @ 30%	$0
N. Total Direct Costs	$32,035
O. Facilities & Administrative Costs	
@ 48.0% *Base for request = $32,035	$0
P. **Total Project Costs**	**$32,035**

**Base = MTDC = Total Direct Costs less Equipment - Each Subcontract in excess of $25,000 (only the first $25,000 of each subcontract is included) - Tuition Remission

Chevron Innovative Research Fund (CIRS)

Request for Proposals - Round II (2013)

Introduction

The College of Engineering strives to support faculty research at all levels, ranging from large-scale multidisciplinary efforts (Research Clusters) to high-risk single investigator ideas. The latter is made possible through the generosity of the Chevron Corporation.

Chevron Corporation made a philanthropic commitment of $3,950,000 to the Chevron Innovative Research Support Fund (CIRS). This fund is targeted at filling two particular gaps for LSU COE faculty in the funding lifecycle of an idea: early phase research and tech transfer. The first, is the infancy of an idea, when it may be considered too risky or exploratory for successful submission on the national scene without pilot data or preliminary groundwork completed. This provides the investigator an opportunity to "test drive" a new idea before formal submission for funding. The second is the so-called "valley of death" in technology development, where research is too mature for basic research funding, but not yet ready for sponsorship in the early commercialization phase.

Preference will be given to proposals focused on the two signature research areas of the College, energy and infrastructure, broadly defined.

Eligibility

College of Engineering tenured or tenure-track faculty members are eligible to submit research proposals to the Research Facilitation Office for consideration of this award. To apply, faculty should route proposals through their respective Department Chair who will verify availability of resources (facilities, equipment, and personnel) for the proposed work. These proposals will be reviewed by a Selection Committee for funding. Faculty members who previously received funding through this program may submit after one year has elapsed since conclusion of their previous award.

Amount and Duration of the Award

The College of Engineering will spend the available funds annually to the fullest extent possible, taking into consideration the number and quality of proposals submitted for funding evaluation. Funding available per proposal is approximately $32,500. The time period for work is a maximum of one year. Funds must be expended within the period.

Proposal Evaluation Criteria (in order of importance)

1. Innovation –Explain in your proposal what is truly innovative and novel. On the marketing side - if you were trying to get a venture capitalist to provide funds for this idea, what would you tell him/her?

2. Relevance and Benefit – Of key importance is the impact of your research project. The proposal should clearly articulate the relevance of the subject to industry and/or region and address the Strategic Plan of the College.

3. Deliverables – clearly list and describe the tangible deliverables that will result from the funding and probability of implementation in the near term. This category seeks deliverables that show the research, if successful, will move along the development line towards either a significant proposal submission or something that can be commercially implemented.

4. Next Steps – If the proposal is in the tech transfer category, clearly indicate industrial sectors that may be interested in the results of this research, along with a plan to work with the College's Director of Corporate Relations and Economic Development to identify corporate/industrial entities for future collaboration. If your proposal is early research, indicate your plan to pursue the next step in research sponsorship. Additional/future funding that may be applicable should be

identified – agency, program, etc. It is recommend that the proposal is more specific than just indicating an agency – define the source program, RFP, etc.

Proposal Format

The proposal is limited to 4 pages (10 pt or larger font, 1" margins) plus a one page bio (up to one page per PI) and a one page budget and one page budget justification. The proposal should be formatted as follows:

- Title, PI and contact info
- Problem statement and rationale for work. Make sure items 1 and 2 from the Proposal Evaluation Criteria are clearly and succinctly described and discussed.
- Approach – Methodology and Tasks to perform (including milestones for each task).
- Deliverables and future work - Make sure items 3-4 are clearly delineated and discussed.
- Expertise and Facilities – Describe PI expertise/facilities available to conduct proposed work. No facilities/equipment can be requested.
- Budget – Estimate for effort, provide justification of items. Cost sharing is not required.
- Department Chair's approval should be indicated by signature on the budget.

The funds requested may include supplies, travel related to research activities (not conferences), graduate student salaries, and up to one month of summer salary. This fund is not intended to support administrative functions or build research infrastructure (equipment should be already available). The nature of the funding carries an exemption from indirect (F&A) costs and a waiver of graduate student tuition remission. The budget should include, however, fringe benefits calculated at the prevailing LSU rate. To optimize the use of the fund, PIs are encouraged to limit budget items subjected to fringe benefits.

Please submit your proposals to your Department Chair by July 15, 2013. Proposals from more than one department should be submitted through the chair of the lead PI's department. Proposals must be submitted to the College by the PI by July 31, 2013. It is anticipated that awards will be made by September 15, 2013. PIs should submit each proposal package electronically in PDF with the following file name format: last name_first name_CIRS_2013.pdf. Submit proposals through the following website https://researchawards.eng.lsu.edu/cirs. The PI should log into the website using their PAWS ID and password. Select CIRS. Under the program menu, select apply for this program and then Round 2. If you have any questions regarding the submission process, please contact the Research Facilitation Office.

Final Reporting Requirements

The PI will submit, to the Dean of Engineering, a final report no longer than 5 pages within 60 days of the end of the funding period. The report will include:

- Major research findings
- Planned next steps of research results
- Patent applications submitted, technology transfer agreements implemented, and/or commercial collaborations established
- Plan for collaboration building

For three years following the end of the funding cycle, the PI will submit to the College information pertaining to the last three bullets to allow tracking the return on investment of the seed funds.

Date: October 28, 2013

From: Bonnie Pendergraft
Research Facilitation Manager

To: Dr. Jin-Woo Choi

Re: CIRS (Round 2) grant award

I am pleased to inform you that your proposal titled "*Energy Scavenging from Ambient Motion for Wearable Electronics and Biomedical Implantable Devices*" submitted to the CIRS Round II (2013) competition is being funded. As a reminder, the following conditions apply:

1. The award will be in the amount of $32,500
2. The project period will be 11/1/2013-10/31/2014
3. A final report is due to the Dean no later than December 30, 2014. The format and components of the Final Report were provided in the RFP, which is attached.
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6. BUDGET

Item	Year 1
A. Senior Personnel	
Summer Salary (PI)	$ 4,979
Fringe Benefits (PI)	$ 1,892
B. Other Salaried Personnel	
Graduate Assistant	$ 15,000
Student Worker	$ 1,500
Fringe Benefits (GA)	$ 450
C. Tuition Remission	
Tuition Remission	$ -
D. Supplies	
Supplies and materials	$ 6,679
E. Travel	
Travel	$ 2,000
Total	**$ 32,500**

Department Chair's Approval: P.V. Ajmera Date: 7/15/2013

Chevron Innovative Research Fund (CIRS)

Request for Proposals - Round II (2013)

Introduction

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