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**AGENDA**

**SPONSORED PROGRAMS COMMITTEE**

Wednesday, August 27, 2014

10:15 a.m.

The Claiborne Building

Louisiana Purchase Room 1-100

Baton Rouge, Louisiana

- I. Call to Order
- II. Roll Call
- III. Master Plan Research Advisory Committee (MPRAC) Task Force Reports: Request for External Review
- IV. Regents/NASA LaSPACE Program: Funding Recommendations for the Research Enhancement Awards (REA) Component
- V. Updates:
  - A. Recently Funded Federal Projects
    1. Smart Materials Design, Analysis, and Processing (SMATDAP) consortium (NSF EPSCoR Track 2)
    2. STEM Discovery Camps (NSF EPSCoR Track 3)
    3. Building Neutron Scattering Infrastructure in Louisiana for Advanced Materials (Department of Energy EPSCoR Implementation)
  - B. August 2014 NSF EPSCoR Track 1 Five-Year Proposal
- VI. Other Business
- VII. Adjournment

**Committee Members:** Roy Martin III, Chair; William Fenstermaker, Vice Chair; Maggie Brakeville; Raymond Brandt; Chris Gorman; Edward Markle; Albert Sam II

## AGENDA ITEM III

### **MPRAC Task Force Reports: Request for External Review, Leading to Recommendations to the Board**

#### **Staff Summary**

The Board of Regents' five-year master plan is organized around three major goals. Master Plan "Goal 2: Foster Innovation through Research in Science and Technology in Louisiana" focuses on the role of colleges and universities as leaders in helping to transition Louisiana into a 21<sup>st</sup>-century, science- and technology-driven economy. To help guide fulfillment of this goal, in 2012 the Board of Regents formed the statewide Master Plan Research Advisory Committee (MPRAC), comprised of representatives from public and private campuses with major STEM research activities.

The Chair and Vice Chair of MPRAC, Dr. Les Guice and Dr. Michael Khonsari, respectively, on August 4 requested an external review of MPRAC Task Force reports since MPRAC will soon reach a "critical crossroads" in efforts to attain the strategic vision of the Regents' Master Plan (see Attachment I). They will be present at the Committee meeting to explain and answer questions regarding their request.

The Staff agrees fully with rationales for the external review which the MPRAC Chair and Vice Chair explained in the August 4 communication to the Board. Approximately \$25,000 will be needed to complete the external review requested. Ms. Barbara Goodson assures us that these monies can be provided within the Regents' FY 2014-15 budget.

#### **Senior Staff Recommendation**

**Approval is granted for a review by external consultants, at a cost of approximately \$25,000, to: (a) assess research priorities identified in each Task Force report; and (b) recommend to the Board those action-oriented research priorities which represent the strongest opportunities for achieving economic development objectives consistent with Goal 2 of the Regents' 2012 Master Plan.**

# **ATTACHMENT I**



# LOUISIANA TECH UNIVERSITY

OFFICE OF THE PRESIDENT

August 4, 2014

Dr. Kerry Davidson  
Deputy Commissioner for Sponsored Programs  
Louisiana Board of Regents  
Office of Sponsored Programs  
P.O. Box 3677  
Baton Rouge, LA 70821-3677

RE: External Review for MPRAC Task Force Reports

After two years of productive work, the Board of Regents Master Plan Advisory Committee (MPRAC) is reaching a critical crossroads. In collaboration with the Louisiana Department of Economic Development (LED), and the statewide Battelle study which LED sponsored during 2012-13, five target areas for Louisiana investment in STEM-related commercialization have been identified: **Advanced Manufacturing and Materials, Clean Technology and Energy, Coastal and Water Management, Digital Media and Enterprise Software, and Life Sciences and Bioengineering.**

Within each of these areas, MPRAC Task Forces, in close collaboration with LED, are currently identifying priorities for investment which meet four criteria, rated below as follows:

1. Maintain and build strength in targeted foundational science and technology disciplines – 15%
2. Promote targeted multidisciplinary and multi-institutional collaborative research efforts – 15%
3. Demonstrate prospective alignment and competitiveness with national priorities, needs, and funding – 30%
4. Sustain and advance targeted research commercialization and translational activities that promote economic development in Louisiana – 40%

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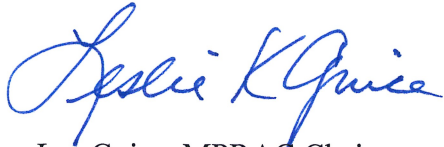
The Task Force reports are due for completion by October 31, 2014. An external review by out-of-state experts is needed to pinpoint and recommend to Regents the most meritorious among these priority areas. In formulating recommendations, external consultants would be charged to:

**First, identify and recommend Louisiana priorities among research commercialization areas identified by each of the five Task Forces; and secondly, identify and recommend Louisiana priorities across research commercialization areas covered by all five Task Forces.**

The report of external consultants will be transmitted to the Board of Regents for action; the report will also be made available to the Louisiana Department of Economic Development and other interested stakeholders.

As Chair and Vice Chair of MPRAC, we strongly urge and request the Board of Regents to support this external review.

Sincerely,



Les Guice, MPRAC Chair



Michael Khonsari, MPRAC Vice Chair

Cc: Members, Board of Regents  
Tom Layzell, Senior Consultant

## AGENDA ITEM IV

### **Regents/NASA LaSPACE Program: Funding Recommendations for the Research Enhancement Awards (REA) Component**

#### **Background Information**

Initiated in 1991 and jointly supported by the Board of Regents and the National Aeronautics and Space Administration (NASA), the Louisiana Space Consortium (LaSPACE) seeks to strengthen aerospace research and education in Louisiana. The Board has approved the provision of \$250,000 per year (FY 2010-11 through FY 2014-15, for a total of \$1,250,000) as a match for the funding from NASA for the continuation of the LaSPACE award.

#### **Staff Summary**

As indicated in the memorandum from the LaSPACE Project Director in Attachment I, a total of seven (7) Research Enhancement Awards (REA) proposals requesting a total of \$270,541 were submitted in response to the Round 25 LaSPACE REA request for proposals. All proposals were evaluated by out-of-state experts, who have submitted their report with funding recommendations to the LaSPACE Project Director. (Copies of the consultants' report are on file in the Board's office.)

Four proposals were deemed "very meritorious" and recommended for funding. Funding is available in the current fiscal year (FY2014-15) to support three proposals (see the list of recommended projects in Table 1 of Attachment I); the remaining proposal (see Table 2 of Attachment I) will be supported if additional funds become available.

#### **Senior Staff Recommendation**

**Approval is granted for the LaSPACE consultants' report and funding recommendations relative to the four LaSPACE Research Enhancement Award (REA) projects recommended for funding. Three projects, totaling \$95,460, will be contracted with Support Funds allocated to the LaSPACE program in FY2014-15; the remaining project, totaling \$75,000, will be contracted if additional funds become available. All projects shall be funded in the amounts recommended in the consultants' report.**

# **ATTACHMENT I**



# Louisiana Space Consortium (LaSPACE)

USPS: 364 Nicholson Hall □ Department of Physics and Astronomy □ Louisiana State University  
Federal Express: Tower Drive □ 202 Nicholson Hall □ LSU Physics and Astronomy  
Baton Rouge □ LA □ 70803-4001  
<http://laspace.lsu.edu> □ telephone: 225-578-8697 □ fax: 225-578-1222

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From: T. Gregory Guzik  
Director-Elect

Date: July 25, 2014

To: James E. Gershey  
Sponsored Programs  
Louisiana Board of Regents

Re: LaSPACE - Board of Regents Project  
Research Enhancement Awards

The Louisiana Space Consortium (LaSPACE) has continued its program of research stimulation with Round 25 of the LaSPACE Research Enhancement Awards (REA) Program. The most recent competition was open during spring 2014. The proposals have now been evaluated by out-of-state consultants. This memo summarizes the response to this competition and the recommendations for funding under the LaSPACE REA program.

Each year a new RFP for the REA program is prepared and distributed to all campus coordinators, to research offices, to department chairs, to individual researchers who had responded to previous solicitations, plus it is posted on the LaSPACE Website. Subsequent memos from the LaSPACE office are sent to remind the campuses of the date for the closing of applications. For Round 25, we received 7 reviewable proposals for projects in the Research Facilitation and Initiation (Single Institution) (6) and Multi-Investigator (1) categories. The proposals reviewed for this round requested a total of \$270,541.00.

As in the previous rounds of competition, the review process consisted of obtaining independent out-of-state reviewers to evaluate the proposals using the review procedure, and utilizing the evaluation form, given in Attachment 1. The three evaluators were located in Arkansas, Oregon, and Texas (Attachment 2). All are members of the Research and Education community and are familiar with the goals and objectives of the Space Grant program.

## **Recommendation**

We were pleased to see that many of the Round 25 proposals were of high quality and that several re-proposed from a previous round taking into account reviewers comments. We are grateful to the consultants who were able to provide reviews of the proposals on a relatively short time scale. Four of these projects were rated as very meritorious and were recommended for award as funds are available.



Funds available to support REA proposals during FY2015 were allocated first to the three Round 24 projects scheduled to start in July 2014 (Round 24 Report, January 10, 2014). The remaining funds can then be allocated to the three Round 25 projects listed in Table 1 and are recommended for a 8/15/2014 start date. The project listed in Table 2 is meritorious enough to warrant an award if funding becomes available.

**Table 1: Round 25 - Projects Recommended for Funding with Start Date 8/15/14**

NAME/UNIVERSITY	TITLE		REQUEST	MATCH
		<b>TOTAL:</b>	<b>\$95,460.00</b>	<b>\$96,968.00</b>
Arden Moore Louisiana Tech University	<i>Three Dimensional Hexagonal Boron Nitride Networks for High Temperature, High Thermal Conductivity Ceramic Composites</i>		\$34,750.	\$36,141.
Suniti Karunatillake Louisiana State University	<i>Remote Sensing, Ground Infrared and Neutron Spectroscopy to Support Planetary Analog Exploration</i>		\$32,009.	\$32,125.
William A. Hollerman University of Louisiana at Lafayette	<i>Feasibility of EuD4TEA-Based Sensors to Detect Space Radiation</i>		\$28,701.	\$28,702.

**Table 2: Round 25 - Projects Recommended for Award if Funding is available**

NAME/UNIVERSITY	TITLE		REQUEST	MATCH
		<b>TOTAL:</b>	<b>\$75,000.00</b>	<b>\$75,274.00</b>
Zhiqiang Deng Louisiana State University	<i>Modeling and Mapping of Norovirus Outbreak Risks in Louisiana</i>		\$75,000.	\$75,274.

The three projects in Table 3 are being declined. The reviewers' comments have been transmitted to the PIs, who will be encouraged to improve their proposals for submission to a subsequent competition.

**Table 3: Round 25 - Projects Not Recommended for Funding**

NAME/UNIVERSITY	TITLE		REQUEST	MATCH
		<b>TOTAL:</b>	<b>\$100,081.00</b>	<b>\$96,121.00</b>
Wanjun Wang Louisiana State University	<i>A Novel Lab-on-CD Liquid Chromatography-Mass Spectrometry for Space Applications</i>		\$35,351	\$36,686

Shengmin Guo Louisiana State University	<i>Solidification of Alloys with Uneven Temperature Field</i>		\$33,880.	\$34,566.
David K. Mills Louisiana Tech University	<i>Self-Sterilizing Surfaces Using Doped Clay/Polymer Nanocomposites</i>		\$30,850.	\$24,869.

The three awards in Table 1, are from LaTech, LSU and ULL which provides a reasonable geographic distribution of awards across the state.

We have notified the proposers of the results. Each proposer received a transcription of the consultants' evaluations of their proposal.

We remain indebted to the Board of Regents for providing this vital support and thank you for your continuing commitment to the Space Grant program in Louisiana.

ATTACH.

TGG/ae

## AGENDA ITEM V.A

### Update: Recently Funded Federal Projects

#### Background Information

Since 1987 Louisiana's Experimental Program to Stimulate Competitive Research (EPSCoR) has received \$362.6 million from six Federal funding agencies (National Science Foundation, National Aeronautics and Space Administration, National Institutes of Health, Department of Energy, Department of Defense, Environmental Protection Agency, and Department of Commerce) in return for \$56.9 million in Board of Regents matching funds. The direct return on investment across all Federal awards totals \$6.37 for each Support Fund dollar invested; other direct and indirect benefits to Louisiana's institutions, faculty, students, and economy are incalculable.

Louisiana EPSCoR utilizes federal/state partnerships to effect lasting improvements in Louisiana's infrastructure, R&D capacity, and R&D competitiveness. NSF has developed three (3) EPSCoR funding "Tracks." Due largely to the overall strength of initiatives based on continued matching from the Regents, Louisiana has been successful in acquiring funds through each Track. In the past year, Louisiana EPSCoR submitted proposals to two EPSCoR Tracks at the National Science Foundation (NSF) and a single proposal to the U.S. Department of Energy (DOE); all were successful. Total federal funding for the projects is nearly \$9 million. The two NSF proposals, totaling \$4 million, did not require a State match; Regents provided a \$500,000 match for the three-year DOE proposal.

#### Staff Summary

The three successful projects are:

**NSF EPSCoR Track 2:** This collaborative award, between Louisiana and Mississippi, establishes the **Smart MATerials Design, Analysis, and Processing (SMATDAP)** consortium. The goal of this project is to address the scientific, engineering, and educational training needs of the multibillion-dollar chemical and polymer industries in the Gulf Region and across the nation by creating a regional research and education program focused on developing new stimuli-responsive 'smart' polymers and accelerating their manufacture. The duration of the project is three years, with \$3.251 million in NSF funding (Louisiana's portion) and no matching commitment from the Board of Regents.

**Participating Institutions:** Tulane (lead), LSU-Baton Rouge, UNO, Xavier.

**NSF EPSCoR Track 3:** The goal of this project is to develop and implement Science, Technology, Engineering and Mathematics (STEM) discovery camps for students and teachers

that can be replicated across the State. New high school STEM curricular models will be created and shared. By focusing on teachers, the program will ultimately have a broad impact on significant numbers of students as years go by. The duration of the project is five years, with \$749,000 in NSF funding. While there was no matching commitment from the Board of Regents, the success of this proposal builds on the EPSCoR proposals the Regents have matched since 1987.

**Participating Institutions:** Louisiana Tech, high schools and universities throughout the State.

**DOE EPSCoR:** This award provides funding for a project entitled **Building Neutron Scattering Infrastructure in Louisiana for Advanced Materials**, which seeks to build a regional base of users of the Spallation Neutron Source (SNS) and the High Flux Isotope Reactor (HFIR) at the Oak Ridge National Laboratory. This will enable the training of highly talented students and postdocs in synthesis and neutron scattering techniques, who will become the next generation of neutron users. Research pursued under this grant will be utilized in the guided design of advanced materials with desired properties. The project duration is three years, with \$4.949 million in DOE funding and a \$500,000 matching commitment from the Board of Regents.

**Participating Institutions:** LSU-Baton Rouge (lead), Louisiana Tech, Tulane, UNO.

### **Senior Staff Recommendation**

**No action required.**

## **AGENDA ITEM V.B**

### **Update: August 2014 EPSCoR Proposal**

#### **Background Information**

Louisiana's Experimental Program to Stimulate Competitive Research (EPSCoR) submits a major proposal every five years to NSF EPSCoR's Research Infrastructure Improvement (RII) Track 1 program. RII Track 1 awards provide up to \$4 million per year for up to 5 years to support physical, human, and cyber infrastructure improvements in research areas selected by the State's EPSCoR Committee as having the best potential to improve future R&D competitiveness.

#### **Staff Summary**

Following the highly successful Louisiana Alliance for Simulation-Guided Materials Applications (LA-SiGMA) Track 1 award, Louisiana EPSCoR submitted a new proposal on August 4, 2014. The new proposal seeks to establish the Consortium for Innovation in Manufacturing and Materials (CIMM) to strategically direct existing and projected statewide investments in experimental facilities, computational resources, and intellectual assets toward research, education, and workforce development relevant to manufacturing. CIMM will focus on two principal areas: multiscale metal forming and replication and laser-based 3D metal printing. Following a rigorous review process, NSF is expected to announce results of the competition in Spring 2015.

#### **Senior Staff Recommendation**

**No action required.**