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M E M O R A N D U M

To: VSoE Faculty and Staff

From: Maja J Matarić
Senior Associate Dean for Research



Date: September 27, 2007

Subject: VSoE Research Update

As we immerse ourselves in the academic year, it is appropriate to share with you the accomplishments of the previous year and the plans for the months ahead.

Last year's accomplishments in the area of research administration in VSoE include:

1) New programs for aiding research, including:

- A comprehensive research portal with updated funding opportunity listings, the school's research initiatives, proposal submission procedures, and other resources: <http://vsoe.usc.edu/research/info>
- A faculty research topics database aimed at facilitating collaboration: http://viterbi.usc.edu/research/research_topics.htm
- A research gist summarizing new funding opportunities and other research news, sent out to the faculty every other week.
- Faculty forums with members of the USC DC Office for Research Advancement: Steven Moldin (NIH expertise), James Murday (DoD expertise), and Miriam Heller (NSF expertise).
- Enhancement of research infrastructure: with Provost's support, major equipment purchases have been made to enhance CEMMA and the Keck Photonics Lab. New shared resources under development include the Rapid Prototyping Lab, Human-Centered Robotics Lab, and a student fabrication lab (Fab Lab). The faculty and the Dean's office are working toward sustainable business models for all research infrastructure centers and labs, including those listed above, the Machine Shop, and the RTH Clean Room.

2) A comprehensive mentoring program for tenure-track assistant professors and new faculty that includes:

- A fall mini-workshop on funding opportunities, navigating the proposal submission process, and utilizing the USC DC Office for Research Advancement, among many other topics, presented by the Sr. Associate Dean for Research.
- The assignment of one or more faculty mentors to all pre-tenure faculty, and tracking the effectiveness of the mentoring process.
- Coaching eligible faculty about the NSF Career Program and the establishment of an internal review process for faculty submitting NSF Career proposals.

3) A more streamlined research administration procedure, including:

- A new system for tracking faculty research involvement, allowing for the recognition of co-PIs, senior and key personnel, research supervision, etc.
- Streamlined procedures for submitting collaborative proposals involving faculty from multiple schools and setting up satellite accounts.
- Enabling faculty to submit USC proposals immediately after being hired.
- Simplified cost-share approval procedures.

Over the last year, the school has secured renewed support for all of its national centers of excellence, including the NSF BMES ERC, CREATE, and CiSoft. We have also embarked on the following major new Research initiatives:

- **Energy:** A dedicated faculty team has been working all year on a vision for the VSoE Energy Initiative. This vision is based on LA's unique geographic and demographic identity and VSoE's major relevant research strengths. It is focused on a megacities theme, and leverages our strengths in intelligent IT as a novel tool in the domain of energy and renewable resources. The VSoE Energy Initiative will be announced later this fall.
- **NSF Engineering Research Centers:** Four excellent teams submitted NSF ERC pre-proposals last May, covering a broad scope of research areas demonstrating broad strengths of the school. Two have been selected to proceed to the full proposal stage; and are receiving full support as they continue through the team-building, proposal writing, and early implementation process.
- **Engineering for Health:** With the new and growing funding opportunities in a variety of areas that connect engineering and health (including medicine, rehabilitation, and prevention, among others) from NIH, DoD, and NSF, we have been expanding our strengths in those areas, including forming new interdisciplinary teams and pursuing funding for centers of excellence.
- **Education and Outreach:** We have been pursuing funding opportunities (e.g., NSF REUs, RETs, IGERTs, foundations) that enhance broader impact of research at the school, department, and individual faculty level. Toward that end we have identified experts in education who can serve as collaborators to our faculty to provide expertise on assessment and standards-relevance. The newly

established Division of Engineering Education welcomes and will support faculty efforts toward larger proposals, including IGERTs and REU and RET sites.

Finally, in order to support the thriving research climate in the school, VSoE is announcing a new initiative, the **Research Innovation Fund**. This fund will be run by my office and will be available to the faculty through two proposal cycles, one in the fall and one in the spring. Faculty with novel ideas and collaborations are encouraged to apply for funds, which can cover organizing workshops at USC, sponsoring pilot projects, and any other innovative means of supporting new strategic research programs. A full announcement of this new program is forthcoming in October; it will include the first call for proposals, which will be due in November.

For more information about any of the above research programs and initiatives in VSoE, please do not hesitate to contact me. You can also reach me through my assistant, at: vsoe.research.admin@vsoe.usc.edu

We look forward to another productive year!