



## South Texas Technology Management Awards \$164,000 to UT Researchers for Proof of Concept Grants

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SAN ANTONIO (June 23, 2009) — South Texas Technology Management (STTM), the regional technology transfer office that serves four University of Texas institutions — UT Brownsville (UTB), UT Pan American (UTPA), UT San Antonio (UTSA) and the UT Health Science Center at San Antonio — today announced eight new award recipients of the *Proof of Concept: Short Proposals to Accelerate Research Commercialization (POCsparc)* Grant Program.

The *POCsparc* program provides awards of up to \$25,000 to faculty of the four STTM-served institutions to advance UT inventions toward successful commercialization. The grants are intended to support short-term, tightly focused projects to help bridge the gap between promising inventions and market-ready innovations.

Of proposals submitted by the April 17, 2009 deadline, eight projects were funded at a total of \$164,000. *POCsparc* grant awards included:

- \$9,490 to Murat Digicaylioglu, M.D., Ph.D., assistant professor in the Department of Neurosurgery at the UT Health Science Center at San Antonio, whose project will allow development of devices to most effectively apply neuro-protective drugs for acute treatment of ischemic stroke;
- \$14,651 to John P. Stokes, M.D., assistant professor in the Department of Ophthalmology at the Health Science Center, to construct a "gamma spiral irradiating device." This device is expected to improve delivery of therapeutic irradiation to intracranial and intraorbital tumors while reducing radiation damage to adjacent normal tissues;
- \$16,300 to Hansheng Lei, Ph.D., assistant professor in the Computer and Information Sciences Department at UTB, for development of a prototype sensor that can be incorporated into emergency telephones to allow for sound event detection and automatic communication with security personnel in the event of an emergency situation;
- \$25,000 to Thomas Zgonis, D.P.M., associate professor in the Department of Orthopaedics at the Health Science Center, to develop an internal-external fixation system for treatment of bone and joint deformities common in diabetic patients, and to test the performance of the device;
- \$23,750 to Ethan Rosenberg, M.D., and Samuel Klem, M.D., assistant professors in the Department of Anesthesiology at the Health Science Center, to construct a device to improve the delivery of anesthesia during ultrasound-guided nerve block procedures;
- \$25,000 to Brent Nowak, Ph.D., associate professor in the Mechanical Engineering Department at UTSA, and Jonathon Jundt, D.D.S., graduate of the Dental School at the Health Science Center, to develop an implantable ultrasound-guided device for distraction osteogenesis, a surgical process to correct skeletal deficits through inducement of natural healing to generate new bone.

Additionally, \$50,000 was awarded through two *Proof of Concept: Roadrunner (POCrr)* grants. *POCrr* grants are available to UTSA faculty through a supplement to the Emerging Technology Fund award that established the UTSA Institute for Cyber Security with Professor Ravi Sandhu as founder and executive director. The two *POCrr* grant awards are:

- \$25,000 to Sos S. Agaian, Ph.D., professor in the Electrical Engineering Department at UTSA, to develop a novel data compression algorithm that can compress digital data while simultaneously encrypting the data. The technology will resolve shortcomings of current data compression and encryption protocols;
- \$25,000 to Brent Nowak, Ph.D. associate professor in the Mechanical Engineering Department at UTSA, and Mary Jacks, M.S., R.D.H., assistant professor in the Department of Dental Hygiene at the Health Science Center, to develop a dental training device that will include computer feedback to teach dental students how to properly grasp and accurately position and control dental instruments.

Since the inception of the *POCsparc* Grant Program in April 2008, STTM has awarded more than \$559,000 to fund 24 projects in three rounds of funding, including \$459,000 awarded to fund 20 projects through *POCsparc* grants and \$100,000 awarded to fund four projects through *POCrr* grants. Five awards, including two in the current round, have supported multi-institution collaborations.

The grants provide an important source of funding to enhance the commercial potential for UT inventions. *POCsparc* funds can be used to validate commercial feasibility, perform *in vitro* or *in vivo* studies, develop prototypes or produce biological materials. STTM encourages faculty to publish *POCsparc* project results and use the results as a basis for exploring additional funding, sponsored research and commercial licensing opportunities.

STTM plans to announce the *POCsparc* Fall 2009 solicitation in September and the solicitation will close in October 2009. For additional information about the *POCsparc* program, including a complete list of award recipients, please visit the STTM [POCsparc website](#) or contact Claude Longoria by e-mail at [longoriacc@uthscsa.edu](mailto:longoriacc@uthscsa.edu) or by telephone at 210-567-2147.

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South Texas Technology Management is the regional technology transfer office serving the UT Health Science Center at San Antonio, UT San Antonio, UT Brownsville and UT Pan American. STTM provides comprehensive intellectual property services for technologies developed by faculty, staff and students. STTM is dedicated to the protection and licensing of these technologies in order to further research and development, protect the interests of the faculty and the University, enhance economic development and provide humanitarian value to the community. By facilitating the development and commercialization of UT inventions, STTM is fostering and encouraging the creation of new and cutting-edge technologies.