



FOR IMMEDIATE RELEASE

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News Release

UW System's Regent Scholar grant recipients to be honored for research, innovation, entrepreneurship

MADISON, Wis. – The University of Wisconsin System Board of Regents will recognize recipients of the 2019 Regent Scholar grants at its March 7 meeting in Madison.

The Regent Scholar program provides prestigious, one-time grants of \$50,000 to individual faculty or campus programs that undertake undergraduate research projects having the potential to foster innovation, entrepreneurship, and talent development. The program, which was introduced in 2014, is designed to stimulate faculty-student collaborative research.

“Our vision for the Regent Scholar program is to encourage the continued growth of a culture of innovation and entrepreneurship across the UW System,” said Dr. Eve Hall, a UW System Regent and chair of the Board’s Research, Economic Development and Innovation (REDI) committee, which administers the Regent Scholar grants.

Eligibility is open to all UW System campuses, supporting entrepreneurial ideas and innovative projects, with goals of:

- Providing summer funding support for faculty to engage in research and other scholarly activities;
- Promoting stellar research and internship experiences for students, thus preparing a high-quality workforce;
- Stimulating innovation across all UW System campuses, ultimately driving regional economic development; and
- Recognizing superior and undergraduate research in the STEM disciplines and creative arts field at the Board of Regents level.

“UW System’s faculty and students are engaging in significant undergraduate research projects each day on every campus. The Regent Scholar program recognizes the importance of discovering new pathways to commercialization and highlights the power of partnership with business and industry, which is key to Wisconsin’s economic vitality,” said UW System President Ray Cross.

The 2019 UW System Regent Scholar grant recipients are:

- **Dr. Yijun Tang, Associate Professor of Analytical Chemistry, UW-Oshkosh**
Enzyme-Free Glucose Sensors Composed of Molecularly Imprinted Polymers and Nanosized Metal Particles

Project description: Dr. Tang’s new glucose sensors have greater stability and effectiveness than the standard enzyme-based blood testing strips. They also last longer, are more accurate and more durable than current strips. Additionally, this product could be used to monitor glucose in other

bodily fluids that would be too harsh for enzyme strips, or to test samples in food production.

- **Dr. Gokul Gopalakrishnan, Assistant Professor of Engineering Physics, UW-Platteville**
A Rapid Customizable Technique for Pathogen Separation and Biomolecular Detection

Project description: Dr. Gopalakrishnan's work is focused on developing a new technology for the rapid and simultaneous separation and concentration of different types of microscopic biological materials, by size and shape, such as proteins, viruses, and bacteria. Such a system, comprised of multi-filter stacks of silicon porous nanomembranes, could be used for field testing of groundwater contamination as well as separation of nanoscale biological samples in the lab.

- **Dr. Saleh Alnaeli, Assistant Professor of Computer Science, UW-Stout; and
Dr. Zaid Altahtat, Assistant Professor of Computer Science; Director of the App Factory, UW-Parkside**
Empirically Examining the Source Code Security and Vulnerabilities in General-purpose Software Systems

Collaborative project description: This collaborative research project helps software instructors better design and plan training courses and curriculum that provides secure coding practices for undergraduate students and software developers. Dr. Alnaeli's research focuses on software security and addresses source code vulnerabilities through the application of automatic parallelization and multicore programming, the Internet of Things, and static analysis approaches. Dr. Altahtat's research is focused on embedded software, software engineering, mobile and web apps, and agile methodologies.

Regent Scholar grants are awarded competitively based on recommendations by a selection committee which included entrepreneurs, technical experts and academic specialists in a variety of fields:

Dr. Tracy Davidson – Director of STEM and Applied Research Initiatives, UW System (Madison)
Amy Furreness – Field Sales Engineer, Shimadzu Scientific Instruments (Kenosha)
Aaron Hagar – Vice President of Entrepreneurship & Innovation, Wisconsin Economic Development Corporation (Madison)
Zach Halmstad – Co-Founder of JAMF and Co-Founder of Pablo (Eau Claire)
Peter Romenesko – Director, TitleTown Tech Innovation Lab (Green Bay)
Tom Still – President, Wisconsin Technology Council (Madison)
Mark Tyler – President/CEO, OEM Fabricators; UW System Regent and selection committee chair (Woodville, Wis.)

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The University of Wisconsin System serves more than 170,000 students. Awarding 36,000 degrees annually, the UW System is Wisconsin's talent pipeline, putting graduates in position to increase their earning power, contribute to their communities, and make Wisconsin a better place to live. More than 80 percent of UW System graduates stay in Wisconsin five years after earning a degree. The UW System provides a 23:1 return on state investment. UW System institutions also contribute to the richness of Wisconsin's culture and economy with groundbreaking research, new companies and patents, and boundless creative intellectual energy.

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