

Tulane researchers named Senior Members of National Academy of Inventors

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Eight Tulane University researchers have been named Senior Members by the National Academy of Inventors: From top left, Matthew E. Burow, PhD; John D. Clements, PhD; Scott M. Grayson, PhD; Michael J. Moore, PhD; Lisa Morici, PhD; Kim C. O'Connor, PhD; Noshir S. Pesika, PhD; and James E. Zadina, PhD.

Eight Tulane University researchers have been named Senior Members by the [National Academy of Inventors](#) (NAI), a designation that recognizes rising stars who drive a culture of innovation on campus and help develop the next generation of inventors.

NAI senior members are active faculty, scientists and administrators who have successfully produced, patented and commercialized technologies that bring real impact on the well-being of society and spur economic progress.

“These eight faculty members, whose pioneering research ranges from lifesaving vaccines and cancer therapies to advanced materials and breakthrough approaches to pain management and neurological disease, exemplify the depth and breadth of innovation across our campuses,” said Tulane University President Michael A Fitts. “Their work reflects our commitment not only to making discoveries, but to translating those discoveries into real-world solutions that advance health, drive economic growth and improve lives.”

Senior Vice President for Academic Affairs and Provost Robin Forman said the group continues Tulane’s foundational mission of improving lives.

“We are so proud to see this wonderful recognition for a cohort of exceptional Tulane researchers. Their work continues Tulane's legacy, which extends back to our very founding, of translating path-breaking basic research into inventions that advance science and address some of society's most pressing challenges.”

Tulane honorees are an interdisciplinary group that includes:

[Matthew E. Burow, PhD](#), associate professor of Medicine and Surgery in Hematology & Medical Oncology at Tulane University School of Medicine, who advances translational research in hormone-responsive breast cancer and metabolic disease. His work focuses on developing therapeutics derived from plant-based compounds, including glyceollins, that target estrogen signaling and tumor growth pathways. By bridging molecular discoveries with patented treatment strategies, Burrow aims to improve outcomes for patients while addressing the connection between obesity, metabolism and cancer progression.

[John D. Clements, PhD](#), professor emeritus of Microbiology and Immunology at Tulane University School of Medicine, is a global leader in vaccine development and mucosal immunology. His research pioneered the development of the double mutant heat-labile toxin (dmLT) adjuvant, a technology designed to strengthen immune responses and improve vaccine effectiveness. His work has advanced next-generation vaccines for infectious diseases affecting vulnerable populations worldwide.

[Scott M. Grayson, PhD](#), professor of Chemistry at Tulane University School of Science and Engineering, designs and synthesizes complex polymer materials with precisely controlled nanoscale structures. A number of his patents involved a set of exact calibration standards that can determine the molecular weight for peptides, proteins, and other biomacromolecules.

[Michael J. Moore, PhD](#), professor and chair of Biomedical Engineering at Tulane University School of Science and Engineering, develops advanced neural tissue engineering technologies to improve the study and treatment of neurological disorders. His research focuses on creating human-relevant laboratory models of nerve tissue, including “nerve-on-a-chip” platforms, as improved methods for testing drugs and studying neurological diseases. His work aims to accelerate development of safer, more effective therapies for patients with nerve damage and neurodegenerative disease.

[Lisa Morici, PhD](#), professor of Microbiology and Immunology at Tulane University School of Medicine, develops next-generation vaccines to prevent emerging and re-emerging infectious diseases. Her research has pioneered the use of outer membrane vesicle (OMV) technology to create vaccines against dangerous pathogens such as *Burkholderia pseudomallei* and *B. mallei*. She also co-developed an OMV-based adjuvant, T-vant, designed to boost immune responses and improve vaccine effectiveness through multiple methods of delivery, including oral, intranasal and intramuscular administration.

[Kim C. O'Connor, PhD](#), professor of Chemical and Biomolecular Engineering at Tulane University School of Science and Engineering, is a stem cell engineer focused on advancing regenerative medicine. Her research explores why adult stem cells differ in their ability to repair tissue and control inflammation. By developing tools to identify the most therapeutically effective cells, her work aims to improve the safety and reliability of stem cell-based treatments for conditions such as heart disease, fibrosis and arthritis.

[Noshir S. Pesika, PhD](#), associate professor of Chemical and Biomolecular Engineering at Tulane University School of Science and Engineering, designs nature-inspired materials that control how surfaces stick, slide and interact at the micro- and nanoscale. His research spans advanced adhesives and catalytic materials and includes development of a biomimetic meniscal implant designed to better replicate natural cartilage and improve treatment options for knee injuries.

[James E. Zadina, PhD](#), professor of Medicine, Pharmacology and Neuroscience at Tulane University School of Medicine and Director of the Neuroscience Laboratory at the Southeast Louisiana Veterans Health Care System studies the neurobiology of opioids and the mechanisms of pain and addiction. His research led to the discovery of endomorphins, naturally occurring opioid peptides in the brain, and focuses on developing new pain medications that provide powerful relief with fewer side effects and lower risk of addiction than traditional opioids.

The 2026 class of NAI Senior Members includes 230 emerging inventors — the group's largest new cohort to date. The new members hail from 82 institutions across the globe and collectively hold over 2,000 U.S. patents.

“This year’s Senior Member Class is a truly impressive cohort. These innovators come from a variety of fields and disciplines, translating their technologies into tangible impact,” said NAO President Paul R. Sanberg. “I commend them on their incredible pursuits, and I’m honored to welcome them to the Academy.”

In total there are 945 NAI Senior Members holding over 11,000 U.S. patents.

The 2026 class of Senior Members will be honored during the Senior Member Induction Ceremony at NAI’s 15th Annual Conference taking place June 1-4, in Los Angeles, California.