

Tulane professor elected to National Academy of Inventors

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Chenzhong Li, PhD, is a pioneer in the development of biosensors for cancer, neurological diseases and infectious disease diagnosis and treatment. He holds 16 U.S. and international patents with several more pending. Photo by Paula Burch Celentano.

Tulane University professor [Chenzhong Li](#), PhD, has been named a 2021 fellow by the [National Academy of Inventors](#) (NAI), an honor that is the highest professional distinction accorded solely to academic inventors.

Li, professor of Biomedical Engineering and Biochemistry at Tulane University School of Medicine and the School of Science and Engineering, leads advances in biochemistry and biomedical engineering research at the [Center for Cellular and Molecular Diagnostics](#). He was one of [164 prolific academic innovators](#) from across the world elected as an NAI Fellow this year.

The NAI Fellows Program highlights academic inventors who have demonstrated a spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on the quality of life, economic development and the welfare of society.

“I am delighted to be selected for a fellowship with the National Academy of Inventors,” Li said. “This is an amazing moment and one of the most important in my professional career. While I have only been a part of the Tulane family for a relatively short amount of time, this recognition gives me the inspiration to improve my work even more in translational research and entrepreneurship education for our faculty and students.”

Li is a pioneer in the development of biosensors for cancer, neurological diseases and infectious disease diagnosis and treatment. He holds 16 U.S. and international patents with several more pending.

Li developed a carbon fiber micro biosensor array — only a few micrometers in size — to find Beta-amyloid proteins, a critical biomarker for Alzheimer’s disease. The needle-like nano biosensor can measure the biomarker at the single neuron level to help better understand Alzheimer’s progression and to fast screen potential drug treatments. He has also invented new technology using nanoparticles to find markers for cancer tumor growth.

Li has also worked as a professional research associate at the startup company Adavance Technologies, Inc. in Canada where he led an entrepreneurial effort in developing DNA biosensors for the detection of DNA mutations and DNA binding drug screenings.

Since joining Tulane in February, Li has worked with Tony Hu, PhD, the Weatherhead Presidential Chair in Biotechnology Innovation, and his lab to develop advanced diagnostics for infectious diseases including COVID and tuberculosis.

"The caliber of this year's class of NAI Fellows is outstanding. Each of these individuals are highly-regarded in their respective fields," said Dr. Paul R. Sanberg, FNAI, President of the NAI. "The breadth and scope of their discovery is truly staggering. I'm excited not only see their work continue, but also to see their knowledge influence a new era of science, technology, and innovation worldwide."

The 2021 Fellow class hails from 116 research universities and governmental and non-profit research institutes worldwide. They collectively hold over 4,800 issued U.S. patents. Among the new class of Fellows are 33 members of the National Academies of Sciences, Engineering, and Medicine, and three Nobel Laureates, as well as other honors and distinctions. Their collective body of research and entrepreneurship covers a broad range of scientific disciplines involved with technology transfer of their inventions for the benefit of society.

To date, NAI Fellows hold more than 48,000 issued U.S. patents, which have generated over 13,000 licensed technologies and companies, and created more than one million jobs. In addition, over \$3 trillion in revenue has been generated based on NAI Fellow discoveries.

The National Academy of Inventors is a member organization comprising U.S. and international universities, and governmental and non-profit research institutes, with over 4,000 individual inventor members and Fellows spanning more than 250 institutions worldwide. It was founded in 2010 to recognize and encourage inventors with patents issued from the United States Patent and Trademark Office, enhance the visibility of academic technology and innovation, encourage the disclosure of intellectual property, educate, and mentor innovative students, and translate the inventions of its members to benefit society.