Two Tulane research pioneers named National Academy of Inventors Fellows

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ayawn@tulane.edu
(504) 247-1443

Tulane University researchers Dr. Tony Hu (left) and Dr. David Coy (right) have been named National Academy of Inventors Fellows.

Tulane University researchers Tony Hu, PhD, and David Coy, PhD, have been named Fellows by the National Academy of Inventors, a prestigious distinction honoring the nation’s brightest and most impactful innovators.
The National Academy of Inventors (NAI) elected 162 academic inventors to its 2023 Class of Fellows. Of the 118 research universities and institutions represented, only six had more Fellow selections than Tulane, affirming the university’s standing as a research powerhouse where cutting-edge ideas meet real world implementation.

Hu, the Weatherhead Presidential Chair in Biotechnology Innovation at Tulane, is a pioneer in developing advanced diagnostics for personalized medicine. His research focuses on creating and validating highly sensitive blood tests that rely on nanotechnology-based strategies to find previously undetectable biomarkers of diseases.

Coy, the director of the Peptide Research Lab at Tulane University School of Medicine, is a leader in developing new drugs based on peptides, which are chains of amino acids that are biological mediators of cellular functions. Coy has approximately 100 patents and has brought three drugs to the market, including a peptide-based drug that lowers testosterone to help treat men with prostate cancer and another used in therapies for gastrointestinal cancers. He is also a Fellow of the American Association for the Advancement of Science.

“Using knowledge for good is a core value of Tulane University and is exemplified by these two remarkable researchers,” Tulane President Michael A. Fitts said. “Through hard work and innovation, Dr. Hu and Dr. Coy are improving the lives of patients around the world and helping to ensure a more healthful future for all of us.”

“Since our founding, Tulane faculty have brought an ambitious and creative approach to their commitment to addressing our community’s greatest challenges,” said Robin Forman, Tulane senior vice president for academic affairs and provost. “The extraordinary discoveries and inventions of Professors Hu and Coy provide wonderful examples of the power of this commitment, and I am very proud and pleased to see them receive this prestigious recognition.”

Coy, whose work also includes development of a peptide-based precursor to the weight-loss drugs Wegovy and Ozempic, said his NAI Fellow election affirmed the impact of more than 50 years of research.

“I’d say they don’t get an applicant with as many patents as I have,” Coy said with a laugh. “I filed my first patent in 1978 and have been filing new patents ever since, but it’s translating those patents into something valuable to society that is most
important and also the most difficult. It’s tremendously satisfying.”

Hu leads the Center for Cellular and Molecular Diagnostics at the School of Medicine, a multi-disciplinary biomarker lab focused on developing novel nanomedicine solutions. Most recently, the lab developed an antigen-screening method that can, for the first time, detect active tuberculosis, as well as a portable blood-screening device.

The lab currently has three products entering clinical trials, including the tuberculosis antigen-screening test and a new method of cancer detection in which a liquid biopsy is performed on extracellular vesicles. The procedure could be less expensive and invasive than traditional tumor biopsies, making it easier for patients.

Hu credited his NAI Fellow election to his lab’s success rate of translating research into products and its focus on unmet medical needs. Hu holds 25 patents, 14 of which are licensed.

“I think my contribution to this Academy is we know how to file useful patents,” Hu said. “We have a high success rate in grant and patent applications, because we don’t file any idea without validated data and without knowing that the idea will work for patients. This helps us quickly attract investors and industry partners and creates an incredible environment in our research lab.”

Since its inception in 2012, the NAI Fellows program has grown to include 1,898 exceptional researchers and innovators, who hold over 63,000 U.S. patents and 13,000 licensed technologies. NAI Fellows are known for the societal and economic impact of their inventions, contributing to major advancements in science and consumer technologies. Their innovations have generated more than $3 trillion in revenue and generated one million jobs.

The 2023 Class of Fellows will be presented with their medals by a senior official of the United States Patent and Trademark Office (USPTO) at the NAI 13th Annual Meeting on June 18th, 2024 in Raleigh, North Carolina.

The complete list of NAI Fellows is available here.

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