WORLD WATER HUB
SUCCESS STORY

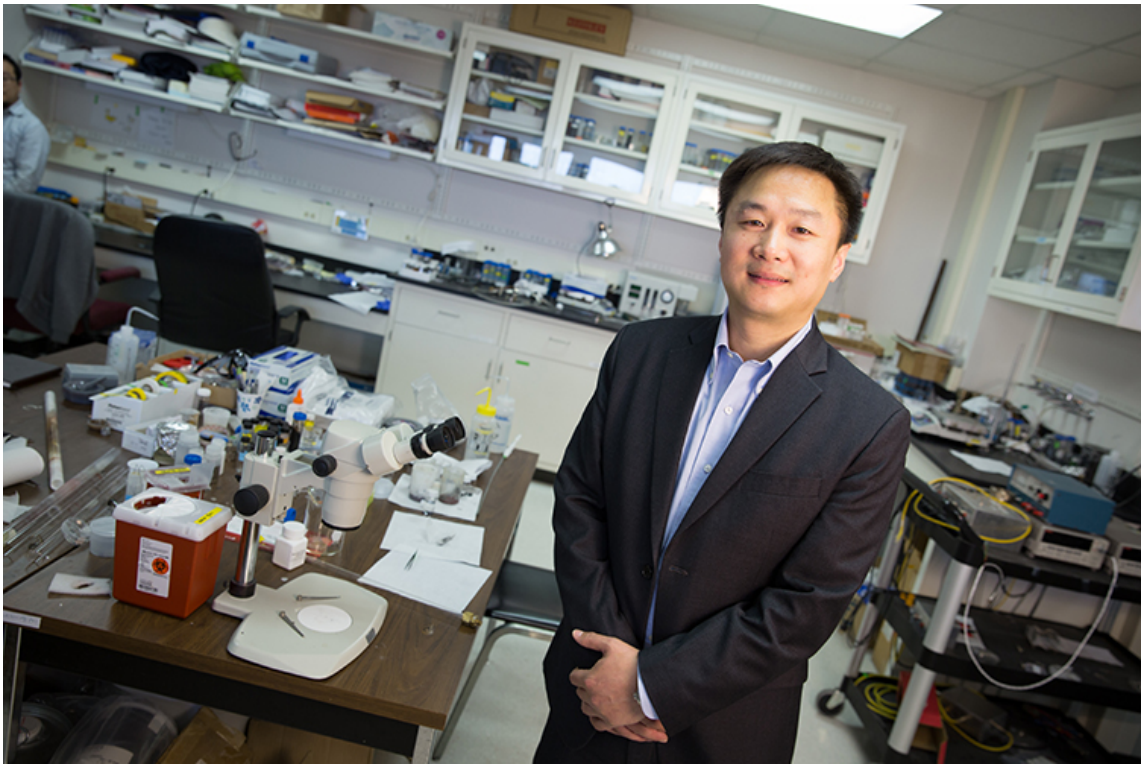
DR. JUNHONG CHEN
INDUSTRY, GOVERNMENT & ACADEMIC ROLES + ENTREPRENEUR

THE WATER COUNCIL

SEARCHING FOR SOLUTIONS

University of Wisconsin-Milwaukee (UWM) distinguished Professor Junhong Chen is no stranger to research. Chen has spent more than a decade dedicated to perfecting sensor technology and its function across a multitude of industry applications. But most recently, Chen devised a groundbreaking way to use his sensors for water technology.

He joined the faculty of UWM in 2003, and later took over as the Center Director of the Water Equipment & Policy Center, a nationally recognized Industry/University Collaborative Research Center (I/UCRC) dedicated to solving the world's pressing water problems. During this time Chen also launched NanoAffix Science LLC, a new company to commercialize his water sensor technology research.



BRINGING RESEARCH TO LIFE

Working with The Water Council (TWC), in collaboration with the I/UCRC, Chen was able to greatly expand the scope of his research with NanoAffix.

Dr. Junhong Chen named one of the most cited academic researchers in the world, November 2017. (Photo credit: UWM Photo/Troye Fox)

Chen's sensor technology allows for the rapid detection of contaminants in water sources, both commercially and in private residences. Once commercialized, Chen hopes families will be able to buy the sensors for their home water sources to easily test quality, and avoid potential widespread water contamination crises like that in Flint, Michigan.

Through partnerships with utilities, he says the technology could allow municipalities to monitor water quality for whole cities in real-time. This would help protect public safety on the drinking water side and allow wastewater utilities to use the exact amount of chemicals or energy needed to sanitize water, instead of the current system of guessing and testing again, enabling cities to save both money and energy.

"The Water Council has created a really unique platform to accelerate water technology commercialization. This type of commercialization itself takes an entire efficient innovation ecosystem: you need to have the manpower, the facilities and funding to enable this ecosystem. Creating the Global Water Center was a major step forward and now there are resources to further develop these technologies."

– Dr. Junhong Chen

NANOAFFIX

However, reaching this level of commercialization is often a tough journey, since connecting school labs with capital is notoriously difficult. Chen is grateful to work in space located within TWC's flagship Global Water Center, where he can utilize the labs and equipment and has access to industry experts to advance NanoAffix's important sensor research even further toward a launch into the marketplace.

Going forward, Chen hopes more companies will leverage the resources provided by TWC and the I/UCRC to create more technologies that have the ability to change the world and conserve our world's most precious resource: water.

UWM's Junhong Chen named one of the world's most impactful researchers

By Laura Otto | NOVEMBER 17, 2017 | SCIENCE & TECHNOLOGY | ENGINEERING

Junhong Chen is among 3,300 researchers from 900 institutions who have produced a high number of papers that rank in the top 1 percent most-cited in a field over an 11-year period. This recognition amounts to having "won peer approval in the form of high-citation counts," according to Clarivate Analytics, and it means the listed researchers' discoveries inspire and challenge colleagues in their field to further advance the work.