



RESEARCH & INNOVATION NEWS

Wichita State University

June 2024



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Latest News



WSU and KU host Wichita Biomedical Campus groundbreaking ceremony

Hundreds of people gathered May 8 to celebrate the start of phase one construction on the new Wichita Biomedical Campus, a \$300 million, 471,000-square-foot health sciences center in the heart of downtown Wichita.

The Wichita Biomedical Campus is a joint project between Wichita State University and the University of Kansas. Once complete, the campus will combine WSU's College of Health Professions programs, WSU Tech's health care program and the Wichita campuses of KU School of Medicine and KU School of Pharmacy — all into one location.

"The Wichita Biomedical Campus is a tangible expression of our dedication to advancing health care through collaboration and innovation," said Wichita State President Rick Muma. "By bringing together researchers, health care professionals and industry leaders, we're creating an environment where groundbreaking discoveries can thrive and where collaboration sparks innovation. This campus will be at the forefront of transforming health care, ultimately improving the lives of countless individuals."

[Learn more about the Wichita Biomedical Campus](#)



NIAR receives \$10 million NASA funding for high-temp advanced materials

Wichita State University's National Institute for Aviation Research (NIAR) will receive more than \$10 million from NASA for research related to the development and implementation of advanced materials for hypersonic applications.

The funding will enable continued research aimed at developing and maturing high temperature advanced materials for use in hot structures and thermal protection systems for hypersonic vehicles.

Development of advanced materials and structures that meet these requirements is a key driver in advancing the hypersonic systems industry. There are currently several technological gaps for novel high-speed materials and structures, including the selection of materials that are capable of withstanding extreme temperatures and extended flight times, as well as the development of reliable design databases.

[Read more about the funding](#)



Wichita State team one of 10 remaining in NASA SUITS design challenge

Wichita State is one of 10 teams that advanced to the spring semester competition in the NASA SUITS (Spacesuit User Interface Technologies for Students) challenge. Teams are tasked to design and build an augmented reality heads-up display for astronauts on missions to Mars, as well as a web browser user interface for local mission control.

Yumi Kikuchi attended an information session in Devlin Hall for the NASA SUITS design challenge last fall. She considered passing on the opportunity.

“I was like, ‘Wow, this sounds like a lot of work,’” she said. “I’m glad that didn’t discourage me.”

Kikuchi, a graduate student in Wichita State University’s Master of Innovation Design (MID) program, is now co-leader of the nine-student group. She considers the experience an essential part of her time in the MID program.

[Read more about NASA SUITS team](#)



NIAR adds test capability for electric aircraft

Wichita State University's National Institute for Aviation Research is adding a new capability to its portfolio aimed at growing the electric vertical take-off and landing (eVTOL) market and attracting new business to the region and state.

Recently, NIAR broke ground on a new restrained flight test facility, which will include out-of-ground and in-ground effect test rigs.

The facility will provide eVTOL developers with a controlled environment for conducting restrained operation of test vehicles for research and testing to assess thrust characteristics, aerodynamics, system performance and failure conditions.

[Read more about the new facility](#)



Wichita State professor and student earn NASA grant to explore harmful cosmic radiation

As humanity begins to return to the moon and farther beyond, new technologies will need to be invented to assist in sustainable, long-term human-helmed missions. To help develop this technology, NASA has awarded a \$133,342 grant to Wichita State University to research a more cost-effective detector for harmful radiation from space.

The grant is part of a nearly \$1.5 million program that is funding 24 projects across 21 organizations and institutions. Awardees will also work with NASA's Marshall Space Flight Center in Huntsville, Alabama as part of the grant.

The one-year study from WSU, conducted by Dr. Nick Solomey, professor of physics, and graduate student Tyler Nolan, in the Master of Science in physics program, will explore the use of a new detector of harmful cosmic radiation, including an ionization detector of charged particles; a gamma detector for X-rays and gamma rays; and a neutron detector.

[Learn more about the study](#)



Partnership results in development of new advanced materials structures technology

Wichita State University's National Institute for Aviation Research recently partnered with A&P Technology and Fiber Dynamics to build a composite inlet duct for a combat drone aircraft using a novel overbraiding technology.

Researchers with NIAR's Advanced Technologies Lab for Aerospace Systems (ATLAS) designed the inlet duct as a part of a manufacturing demonstrator called Frankenstein (FS-19), which is a 30-foot unmanned combat aircraft. The project, part of the Air Force Research Laboratory's (AFRL) Manufacturing for Affordable Sustainable Composites (MASC) program, is a proof-of-concept for low-cost, high-rate production worthiness.

"This manufacturing demonstrator is intended to generate a cost model based on manufacturing data that includes various materials and manufacturing and assembly methods, allowing manufacturers to use the information for on-demand flexible manufacturing and assembly of composite structures based on volume, cost, weight, and mission requirements," said Waruna Seneviratne, ATLAS director.

[Read more about the partnership](#)

University announces organizational changes; Tomblin to head

research at WSU

Wichita State University is updating its organizational structure to better support its vision and mission.

Academic research and industry and defense research will once again be united in one office under the leadership of Dr. John Tomblin, who will be the executive vice president for research, industry and defense programs. This change will allow the university to reunite its academic and industry research efforts, as was the case prior to 2020.

To support Tomblin in his new role, a new associate vice president for research position will be added to the university research office. This position will specifically focus on faculty-led academic research, aiming to enhance applied research efforts and align both with the university's vision for applied learning. Pierre Harter has been appointed to this position as interim AVP for research.



WSU in the News

- [A Fallen Bomber Faced Disaster on the Ground—Until a Boneyard Miracle Rescue](#) - *Popular Mechanics*
- [NIAR receives \\$10 million NASA funding for high-temp advanced materials](#) - *Composites World*
- [Wichita Market Continues to Show Signs of Substantial Growth](#) - *Rebusiness Online*
- [The FAA Reauthorization Act is good news for accessible air travel](#) - *Aircraft Interiors*
- [US Army Contracts 3YOURMIND & Phillips Corp. for 3D Printed Tank Parts Identification](#) - *3D Print*
- [Textron eAviation's Nexus eVTOL Aircraft Could Fly in 2025](#) - *Aviation Online*
- [NIAR, KraussMaffei cooperation enables efficient aerospace aircraft conversion](#) - *Composites World*
- [NIAR adds flight test facility for eVTOL aircraft testing](#) - *Composites World*

Research at Wichita State



With yearly funding topping \$400 million, research at Wichita State ranges from bioscience, chemistry and engineering to mathematics, physics and ancient civilization.

Learn more at wichita.edu/research.

Innovation at Wichita State



Innovation is more than just talk at WSU. It permeates everything we do, all we aspire to become and reaches far beyond our campus boundaries.

Learn more at wichita.edu/innovation.

Student-centered. Innovation-driven.

About Wichita State University

Wichita State University is Kansas' only urban public research university, enrolling more than 23,000 students between its main campus and WSU Tech, including students from every state in the United States and more than 100 countries. Wichita State and WSU Tech are recognized for being student centered and innovation driven.

Located in the largest city in the state with one of the highest concentrations in the United States of jobs involving science, technology, engineering and math (STEM), Wichita State University provides uniquely distinctive and innovative pathways of applied learning, applied research and career opportunities for all of our students.

The [Innovation Campus](#), which is a physical extension of the Wichita State University main campus, is one of the nation's largest and fastest-growing research/innovation parks, encompassing more than 120 acres, and is home to a number of global companies and organizations.

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