

INSTITUTES OF RESEARCH EXCELLENCE

CREATING UNIVERSITY-INDUSTRY PARTNERSHIPS THAT LEAD TO SOLUTIONS-BASED INNOVATIONS





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The Institutes of Research Excellence bring together a critical mass of knowledge and faculty collaborating on projects designed to create a stronger platform for interdisciplinary research and partnerships with industry to address problems, create solutions and further contribute to the North Texas region's economic growth.

WHY DID UNT CREATE INSTITUTES OF RESEARCH EXCELLENCE?

The institutes are another step forward in UNT's pursuit of achieving national prominence as a public research university. The institutes will help UNT marshal its talent, leverage its strengths and put its innovative research to work. They capitalize on the interdisciplinary research already occurring in key areas across campus. They also create a stronger platform for solutions-based research and industry partnerships that will help drive the North Texas region's economic growth.

Through these institutes, UNT will:

- Foster more interdisciplinary research
- Spur more partnerships with industry
- Create solutions-based knowledge to address industry and society needs
- Support the North Texas region's economic growth

HOW DO THESE INSTITUTES BENEFIT THE NORTH TEXAS REGION AND TEXAS?

Creating these institutes means UNT also is expanding its research infrastructure to better partner with industry and business, while enabling innovative faculty and student researchers to have a greater impact in their fields, to be more competitive as they seek federal funding and to become the go-to resources for public and private partnerships.

Innovative, solutions-based research naturally occurs in the university setting, which is one of the main reasons startups and high tech firms often form around universities and research parks. These institutes are poised to generate big ideas and innovative solutions to benefit the greater good.

UNT has 1,900 talented faculty members, many of whom are recognized in their fields and have earned numerous honors such as the National Science Foundation CAREER award, Fulbright scholarships and National Academy appointments.



WHY DOES INTERDISCIPLINARY RESEARCH MATTER?

Independent researchers have an impact. But a combination of researchers with widely differing backgrounds and fields of expertise coming together in an institute fosters new innovative ideas that more often than not lead to real and meaningful outcomes. The institutes will promote greater interdisciplinary research across UNT's campus — biologists working with engineers, and economists working with logistics experts, and environmental scientists partnering with philosophers, and so forth.

WHY SHOULD YOU CONSIDER PARTNERING WITH UNT'S INSTITUTES?

As UNT has expanded its research enterprise, the university has built exceptional research facilities and developed expertise in key areas to best develop its capability for fundamental and applied research, technology transfer, and ultimately business incubation. This is an important step in encouraging startups and partnering with industry to commercialize research that creates real-world solutions.

In addition, each of UNT's institutes has a dedicated laboratory. These laboratories give faculty researchers and industry leaders space to push the boundaries of science and technology. From UNT's Center for Advanced Research and Technology (CART) to the BioAnalytics Facility to living labs such as the Lewisville Lake Environmental Learning Area (LLELA), these labs allow for the exploration of solutions and serve as an industry testing ground.

WHY INVESTING IN SCIENCE MATTERS

America's global economic competitiveness depends on a strong foundation of basic scientific research.





Universities conduct the majority of basic scientific research essential to discovery and understanding that leads to innovation in the United States. Industry and business benefit from the university ecosystem, which provides critical expertise, tools, infrastructure and talent, as well as a creative environment that can help young companies thrive.



University technology transfer offices provide critical counsel and assistance in the patenting and licensing process. They also help researchers in other ways, from identifying potential applications of an innovation to making important introductions and business connections.



Source: The Science Coalition



ADVANCED ENVIRONMENTAL RESEARCH INSTITUTE

AERI features a thriving interdisciplinary research team exploring fascinating questions about our environment and uses basic and applied research to find solutions to the complex problems that we face. The team conducts ongoing research in a wide array of areas related to local, regional, national and international environmental problems. AERI is led by Samuel F. Atkinson, Regents Professor of biology. 940-369-5555 // AERI@unt.edu // 1155 Union Circle #310559, Denton, Texas 76203-5017

ADVANCED MATERIALS AND MANUFACTURING PROCESSES INSTITUTE

AMMPI brings together a diverse group of faculty members who are focused on structural materials, functional materials, computational tools and advanced manufacturing processes. The strength of the institute's members lies in designing high-performance materials for the aerospace, automotive and energy sectors. AMMPI is led by Rajiv Mishra, Distinguished Research Professor of materials science and engineering. 940-565-2316 // AMMPI@unt.edu // UNT Discovery Park, 3940 N. Elm St. #E132, Denton, Texas 76207-7102





BIODISCOVERY INSTITUTE

BDI delivers research solutions to underpin the utilization of plants, forest products and other biomass for production of biopolymers, new bio-based materials for construction and transportation, biofuels and bioactive small molecules with applications in both agriculture and health care. BDI is led by Richard Dixon, Distinguished Research Professor of biology, a member of the National Academy of Sciences and a fellow of both the National Academy of Inventors and the American Association for the Advancement of Science. 940-565-2491 // BDI@unt.edu // 1155 Union Circle #305220, Denton, Texas 76203-5017

JIM MCNATT INSTITUTE FOR LOGISTICS RESEARCH

The institute's research team provides the capability to develop effective solutions to complex problems confronting public and private organizations. Specialties include business logistics, economics, information technology, geographic information systems, transportation and operations research. The institute is led by Terrance Pohlen, Associate Professor of logistics and Director of UNT's Center for Logistics Education and Research.

940-565-2367 // JMI@unt.edu // 1155 Union Circle #311396, Denton, Texas 76203-5017



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"Our faculty are conducting innovative research and making important discoveries that can improve lives and make industries stronger."

Tom McCoy,
 UNT Vice President
 of Research and
 Economic Development

FOR MORE INFORMATION ABOUT INSTITUTES OF RESEARCH EXCELLENCE AT UNT, VISIT research.unt.edu/institutes.



Office of Research and Economic Development 1155 Union Circle #310979 Denton, Texas 76203-5017 940-369-7487 untresearch@unt.edu

Learn more about UNT research by visiting *research.unt.edu*.