

RESEARCH:

The Annual Report

2016: Building the future

RESEARCH
KNOWLEDGE. RESEARCH. INNOVATION.

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UNT[®]

UNIVERSITY OF NORTH TEXAS[®]

YES!

The UNT Research Enterprise is Driving Innovation.

WHERE WE ARE.

Since 1890, the University of North Texas has been a catalyst for discovery and innovation. Today, UNT is ranked a top-tier research university by the Carnegie Classification — a recognition that speaks to its quality and impact.

UNT creates leaders and doers — giving them a world-class education. UNT helps create bright, entrepreneurial graduates who lead the way to change in the workforce — and society. Through research support that drives innovation, students and researchers are discovering new solutions, technologies and perspectives.

DEVELOPMENT: UNT RESEARCH HISTORY

Building on more than 125 years of excellence, UNT is leveraging key assets strategically, thus efficiently and effectively.

The history of UNT is one of a strong reputation primarily in education and the arts. The strength of these programs has helped the institution grow into one of the state's top five attended universities. In just the last two decades, UNT has been able to better support the demands of a technology-led marketplace, including the introduction of UNT's College of Engineering in 2002.

Within the last eight years, UNT has made additional investments in key research areas that have helped the university earn top rankings, and place it at the forefront of innovation and market-centric solutions. In 2008, a “research cluster” initiative launched that led to numerous key investments in personnel and facilities. With additional strategic planning and support, the university is just now beginning to see the payoff from this investment.



Innovation is collaborative; the future of research.

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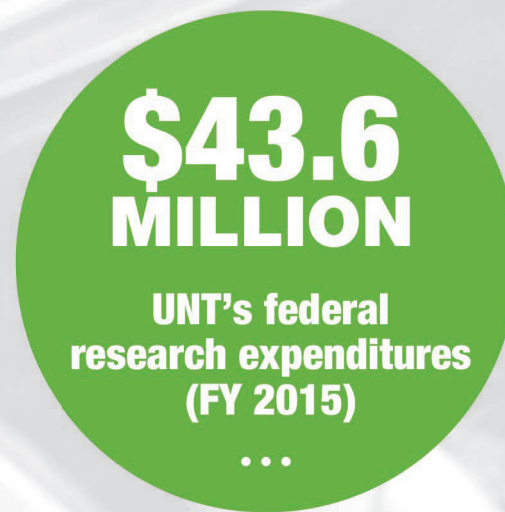
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BUILDING.

2016. The history of research at UNT is still *in the making*. UNT has a great combination of excellence and potential. The university has begun to capitalize on its long-held strengths in the sciences, including a 100-year-old chemistry program, a nearly 90-year-old biological sciences program and a 75-year legacy in the environmental sciences.

2015 was "The Year of Development" for research at UNT, under the leadership of a nationally recognized leader as vice president. Building on this momentum, 2016 has been "The Year of Building" — building infrastructure, launching the Institutes of Research Excellence, hiring talent and recruiting top-notch faculty.

900 ACRES. UNT's 900-acre campus features research facilities, maker spaces and laboratories of all types, where we push the boundaries of science, technology and creativity and provide students with hands-on, future-ready experience. This is 900 acres where industry is welcome for product development, beta testing, modeling and simulation.



UNT RESEARCH IMPACT

- **\$20.5 MILLION:** The total amount of research and development grants awarded in FY2015.
 - **\$2 MILLION+:** The amount invested in FY2016 to create the Institutes of Research Excellence, which build on key research areas with an emphasis on *collaborative, applied research*.
 - **Hiring of IMPACT FACULTY:** UNT is focusing on key areas to recruit faculty that will bring national research funding to UNT.
 - **Office of Research and Innovation:** A name change that indicates the expanding role and reach of the office.
 - **Office of Innovation and Commercialization:** This new — and key — area had two new hires and new programming that reinforces the support of innovation in ALL colleges and departments at UNT.
- **\$2 MILLION+:** The amount secured in multi-user, university-managed equipment to increase capabilities.
 - **4:** The number of members in the National Academies — one in Engineering, one in Sciences and two Inventors.
 - **3:** The number of prestigious NSF Industry/University Cooperative Research Centers and Sites.
 - **\$15 MILLION:** The amount spent to renovate the Science Research Building, which will be complete in January 2017.
 - **\$18 MILLION:** The amount proposed for the new biomedical engineering facility.
 - **13:** The number of UNT researchers who have been awarded a National Science Foundation CAREER award — the most prestigious recognition offered by the NSF for young researchers.

WHERE WE'RE GOING.

TOP-TIER RESEARCH INSTITUTION. UNT is building its research enterprise to improve the university and its offerings in order to more meaningfully impact the world. UNT is strengthening the research and innovation culture by investing in its people, collaborative programs and spaces.

Achieving status as a top-tier research university is an important milestone, but it is not a "mission accomplished." Rather, it makes UNT: MISSION READY. The Tier One ranking provides momentum, helping attract top students and faculty from around the world.

AN 'INNOVATION' MINDSET

"To be stewards of the public's trust, universities must find ways to ensure that new ideas, new solutions — music to materials technology — find a way to market..." — Michael Rondelli, Associate Vice President for Innovation and Commercialization

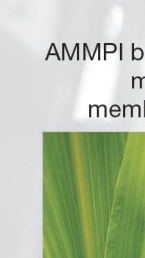
THE INSTITUTES OF RESEARCH EXCELLENCE

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



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.



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.

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.

JIM MCNATT INSTITUTE FOR LOGISTICS RESEARCH

The JMI research scholars provide the capability to solve complex problems confronting public and private organizations. Specialties include business logistics, socio-economics, information technology, transportation, emergency response, and health care.



BENCHMARKS

PHILOSOPHY

UNT's Office of Research and Innovation places an emphasis on the "search" in research — a new material, app, specimen, fabric, algorithm, musical score — and the intersection of search and discovery. UNT encourages and supports the "search," discovery and INNOVATION.

STRATEGY

To reach all who would DISCOVER and INNOVATE, programming is directed to ALL schools and colleges. An internal and external marketing campaign was deployed to drive collaborative teams of faculty and students and to include industry.

OPERATIONS

"Lean and mean" operations now include support for intellectual property, technology transfer, licensing, trademark, and copyright, with three key INNOVATION-focused hires; the Institutes have dedicated support staff and industry advisors now are in place.

INVESTMENT

Investment is prioritized to key assets and facilities. The Institutes received seed funding to leverage outside investment; multi-user equipment has been secured; funds support innovation programming; three new, experienced leaders are hired.

METRICS

The investment must pay off. Institutes will be self-funded. Intellectual property deals must generate royalties and fees; an increase in the number of collaborative grant awards sought and a 15 percent year-over-year increase in research expenditures must occur.

GROWTH

Looking ahead, 2017 will be **"The Year of Growth."** The strategy and investment must net a 15 percent year-over-year increase in research expenditures with a 25 percent increase in grant awards sought. 2015 = Development. 2016 = Building. 2017 = Growth.

THE RESEARCH ENTERPRISE

THE ART OF INNOVATION. In 2016, UNT "pushed the envelope," challenging people to embrace the "complete mind" to connect disciplines — and COLLABORATE.

“The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it.”

— Michelangelo

Learn more about partnering with UNT:

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EST. 1890

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