



Position Specification

The University of Texas at Dallas

Vice President for Research

June 2017



POSITION SPECIFICATION

Position	Vice President for Research
Institution	The University of Texas at Dallas
Location	Richardson, Texas
Reporting Relationship	President
Website	https://research.utdallas.edu/

INSTITUTIONAL BACKGROUND / CULTURE

The University of Texas at Dallas is an innovative, doctoral-granting institution that has been recognized in the highest classification of research activity by the Carnegie Commission on Higher Education. UT Dallas is located in the suburb of Richardson, in the heart of North Texas.

About The University of Texas at Dallas

With more than \$120 million in anticipated 2017 research expenditures, The University of Texas at Dallas is among only 115 universities in the United States with an R1 Carnegie Classification. Since its founding in 1969, UT Dallas has grown to include 143 degree programs with cutting-edge curricula serving a variety of undergraduate and graduate student interests.

The University continues its original commitment to building some of the state's most-lauded science and engineering programs, and has also won prominence for a breadth of educational paths, from business to biomedical engineering to arts and technology. The wealth of resources available to UT Dallas students is the result of a concentrated effort to attract outstanding faculty. There are 592 tenured and tenure-track faculty hailing from the world's best colleges and universities, including a Nobel laureate and members of the National Academies. UT Dallas is home to numerous centers and institutes that facilitate research and hands-on learning.

With an enrollment of nearly 27,000 students, UT Dallas attracts leading scholars and faculty to the globally connected Dallas-Fort Worth area. Average SAT scores among entering freshmen — 1261 in fall 2016 — rank among the highest of public universities in Texas. UT Dallas has eight schools:

- [School of Arts and Humanities](#)
- [School of Arts, Technology, and Emerging Communication](#)
- [School of Behavioral and Brain Sciences](#)
- [School of Economic, Political and Policy Sciences](#)
- [Erik Jonsson School of Engineering and Computer Science](#)
- [School of Interdisciplinary Studies](#)
- [Naveen Jindal School of Management](#)
- [School of Natural Sciences and Mathematics](#)

In its 2016 edition of the top 100 “Best Value” colleges in the United States, Kiplinger’s Personal Finance ranked UT Dallas #32 for in-state students and #56 for out-of-state students. The Times



Higher Education ranks UT Dallas as #1 in the nation and #21 in the world among universities under 50 years of age.

The University has recently undergone a period of substantial growth including enrollment increases of 144% since the year 2000, a total of 3.5 million new or renovated square feet, and \$1 billion in development as of the year 2016. This progress provides a strong foundation for the University's rapidly evolving programs and research.

For more information, please visit <http://www.utdallas.edu>.

UT DALLAS RESEARCH

The University of Texas at Dallas is a young, rapidly growing university that fosters creativity, innovation, and discovery by providing a rich climate for interdisciplinary research. The University of Texas at Dallas is housed primarily in spacious facilities in suburban Richardson, with flourishing research centers adjacent to the UT Southwestern Medical School campus, and in close proximity to the thriving industry and economy in urban Dallas. Established in 1961 as the Graduate Research Center of the Southwest by the founders of Texas Instruments, UT Dallas has a history of strong ties to industry in Dallas.

The five-year *Realize the Vision: The Campaign for Tier One & Beyond* was instrumental to the University's goal of becoming a national research university. The University's first comprehensive campaign proved that increased giving from the campus community and its supporters creates substantial progress on many academic measures considered key to UT Dallas' achievement of "Tier One" status and the eventual assumption of its place among the nation's most highly regarded research universities. In 2017, UTD will have more than \$120 million in research expenditures, including over \$35 million in federal funding. From 2008 to 2016, UTD's research expenditures increased from \$59 million to \$106 million.

The recent elevation of UT Dallas to the highest research activity category in the Carnegie Classification of Institutions of Higher Education is a milestone in the University's commitment to research excellence. Sustaining and increasing the momentum from *Realize the Vision* will require continued commitment from campus supporters.

Recent research highlights include:

UTD's Cyber Security Research and Education Institute (<http://csi.utdallas.edu/>), an interdisciplinary group including scholars from Engineering and Computer Science as well as the Jindal School of Management, has generated over \$34 million in research funding and has established important research collaborations with commercial corporations such as Raytheon, IBM, VMware, Cisco, Nokia, Texas Instruments, and Intel. They established both the annual TexSAW (Texas Security Awareness Week) that organizes hands-on workshops to students across Texas universities and NSA's GenCyber in 2016 that provides summer camps for K-12 students in cyber security.

Through collaborations with UTD engineers, speech, hearing, and language, scientists in the **School of Behavioral and Brain Sciences** (www.utdallas.edu/bbs) have established a nationally-recognized program for cochlear implants and developed virtual world systems for aiding communication skills. Cognitive neuroscientists are studying how humans and machines recognize faces so that the strength of both can be combined to improve accuracy in security and law



enforcement, and neuroscientists have translated animal studies of vagus nerve stimulation (VNS) effects on brain plasticity to clinical trials designed to test efficacy of VNS-assisted rehabilitation for a variety of neurological disorders.

The Center for Vital Longevity (<http://vitallongevity.utdallas.edu/>) has pioneered a wide variety of innovative neuroimaging approaches to the study of the aging brain in health and disease. The Center's six principal investigators hold between them more than \$12 million in competitively awarded research grants.

With more than 60 fully funded research projects, scientific exploration at the **Center for BrainHealth®** (www.brainhealth.utdallas.edu) translates groundbreaking discoveries into practical clinical application. Examples of this pioneering research include using neuroimaging to examine interactions between genetic and environmental factors that lead to addiction across the lifespan with the hope of discovering predictors for individuals that might be at risk, conducting two DOD-funded clinical trials investigating rehabilitation of reasoning strategies after traumatic brain injury in veteran and civilian populations, and examining the role of expertise in information processing by comparing the perceptual and memory abilities of chess Grandmasters and novices.

In the **School of Arts and Humanities**, a literary studies professor is co-editing Digital Yoknapatawpha, a project based at the University of Virginia that is mapping all of the fictions set in Faulkner's mythical county (which is almost everything he wrote) by breaking the narrative facts in each text into Locations, Characters, and Events and entering the information into a database that creates maps of what happens, where, and to whom. The project is fully searchable and contains archival material. The **Ackerman Center for Holocaust Studies**, an interdisciplinary center comprised of scholars of history and literature, has created www.thecurioproject.com, a continually evolving digital archive to cultivate and curate ordinary objects related to a time of great conflict, war, and displacement.

Researchers in the **Advanced Polymer Research Lab (APRL)** (<http://voitlab.com/>) hail from a variety of disciplines and explore fundamental and applied problems in polymer science and engineering with a special focus on shape memory polymers. Research thrusts include efforts in flexible electronics, neural interfaces, radiation processing of materials, energy harvesting, homeland security, biomedical devices, triple shape polymers, acoustic metamaterials, and electromagnetic metamaterials. Development efforts include ultra-comfortable earpieces (with Syzygy Memory Plastics), cortical brain probes (wired and wireless), multi-electrode arrays, cell-culture dishes, nerve-cuff electrodes, RFID antennas, temperature indicators, strain and pressure gages, smart orthotics and prosthetics, and cochlear implants.

In the **School of Economics, Policy, and Political Sciences** (www.utdallas.edu/epps), Professor Doug Kiel's research on political and corporate leadership partners with leading neuroscientists to use the latest brain imaging tools to study how leaders think and do their jobs. Professor Jennifer Holmes, in partnership with Dr. Alvaro Cardenas in Engineering and Computer Science, investigates how utility and pipeline networks can be made safer from terrorist attacks in Colombia, with support from the National Science Foundation. Political scientists, Dr. Patrick Brandt, Dr. Jennifer Holmes, and Dr. Vito D'Orazio have built a strong partnership across multiple research grants with leading computer scientists Dr. Latifur Khan and Dr. Vincent Ng to build tools to automatically extract information about political events from streaming news reports.

In the **School of Arts, Technology, and Emerging Communication** (www.utdallas.edu/atec/), students collaborate to connect the dots between the disciplines of art, science, design, and



engineering to address real world challenges. Under the guidance of a faculty advisor, students apply their research skills in User Experience design, animation, game design, critical media studies, and virtual and augmented reality to work on short/long term projects. Previous projects include using animation and virtual and augmented reality in healthcare, game design in higher education, and User Experience in auto manufacturing and home improvement retail.

In 2016-2017, the **Biological Sciences** (www.utdallas.edu/biology) faculty and trainees authored 40 publications in journals including Cell, Nature, and Science featuring interdisciplinary research within UT Dallas and in collaboration with national and international institutions. With the strong support of the administration, biology faculty helped spearhead interschool efforts among the Schools of Natural Sciences and Mathematics, Behavioral and Brain Sciences, and Engineering and Computer Science to establish the University's new, state-of-the-art genomics, proteomics, histology, imaging and cell characterization core facilities housed in the University's new 220,000-square-foot interdisciplinary Bioengineering and Sciences Building that was opened in 2016.

Faculty scholars in the **Jindal School of Management** (<http://jindal.utdallas.edu/>) are conducting world-class interdisciplinary research in every fundamental area of management ranging from entrepreneurship, strategy, operations, marketing, to accounting and finance. They study high-impact business-relevant research and develop rigorous methodologies to solve management problems faced by today's global organizations. Faculty research has been funded by various industries ranging from apparel to healthcare, such as Neiman Marcus and University Hospitals of Ohio (in addition to funding agencies such as the NSF).

Researchers in the **Alan G. MacDiarmid NanoTech Institute** (<http://nanotech.utdallas.edu/>) explore carbon nanotube applications in smart materials and energy harvesting. The Institute is led by National Academy of Engineering member Ray Baughman and consists of an interdisciplinary team of faculty and students from both the School of Engineering and Computer Science and the School of Natural Sciences and Mathematics. The group actively creates and participates in international teams with Australia, South Korea, Canada, Russia, Turkey, and China. Best known for creating artificial muscles by twisting and coiling high-strength polymer fishing line and sewing thread, this group explores additional applications for this technique. They were recently part of a group creating smart clothing that monitors the wearer's movements, senses strain, and adjusts the garment accordingly. In energy research, they explore perovskite materials as an alternative power supply.

The **William B. Hanson Center for Space Sciences** (www.utdallas.edu/research/spacesciences) was present from the founding days of the university and has sustained a vigorous research program in space atmospheric sciences for over 50 years. Supported by NASA and the Department of Defense and the National Science Foundation, experimental studies are regularly carried into Earth orbit to investigate the dynamics of the Earth's atmosphere. In addition, the Center has carried out investigations at Mars and Venus. Ground-based radio probing of the Earth's atmosphere with applications to communication and navigation are increasing in both capability and effectiveness and together with state of the art development of computer models of the near and far space environment of the Earth, the Center contains expertise and generates research projects that attract students with many different skill sets.

OFFICE OF RESEARCH

The Office of Research fosters the advancement of cutting-edge interdisciplinary research and technology at UT Dallas. The Office of Research provides faculty and staff with a variety of



specialized information and training to help efficiently navigate funding opportunities, proposal development, post-award fiscal and effort advising, and guidance in commercial partnerships. Inventors and entrepreneurs benefit from specialized commercialization support from Office of Research staff with industry knowledge who can assist with startup incubation, negotiations, and licensing.

Leadership at UT Dallas understands that the most fertile research often lies at the intersections between traditional disciplines, where the insights of people approaching problems from different perspectives can produce surprising and valuable results that impact society.

As one of the largest metropolitan regions in the country, the Dallas-Ft. Worth Metroplex provides multiple opportunities to collaborate with a broad range of industries. UT Dallas has long-standing collaborations with Texas Instruments, with efforts most recently focused on developing analog circuit technologies. UT Dallas is also an active partner with UT Southwestern Medical Center with strong collaborations in medical devices and in brain disorder research.

The Office of Research supports an active entrepreneurial ecosystem at UT Dallas. The Office of Technology Commercialization (OTC) assists faculty with evaluating, protecting and licensing technologies developed at UT Dallas. The Blackstone Launchpad at UT Dallas and the Institute for Innovation and Entrepreneurship provide education and mentoring to students, faculty and staff interested in transforming their ideas into businesses. Finally, the Venture Development Center provides incubation services, including wet lab space, for up to two dozen UT Dallas affiliated companies to grow from launch to revenue.

KEY RESPONSIBILITIES OF THE VICE PRESIDENT FOR RESEARCH

The University of Texas at Dallas seeks an exceptional leader to serve as its next Vice President for Research (VPR). Reporting to, and working with, the President, and in coordination with the Provost and Deans, the VPR will have responsibility for the integration and enhancement of research activities across the University's colleges and research centers.

The Vice President for Research will also:

- Work with leadership to shape the research vision and policies consistent with the mission of UT Dallas;
- Work strategically to support schools and other units in building their research programs by investing in research infrastructure, developing support services, and identifying funding opportunities;
- Promote and enhance a strong, collaborative research agenda with a balanced portfolio of research programs;
- Inspire excellence in best research practices at all levels;
- Work collaboratively with each of the schools to define and execute a strategic vision for their research programs, while aligning research interests with the mission of the University;
- Take a lead role in attracting external funding from federal agencies, corporations, foundations and interested donors to support the research missions of UT Dallas;
- Identify opportunities in emerging areas of research for programs and interdisciplinary initiatives;
- Leverage space and technology for the advancement of faculty, students, and staff;
- Partner closely with University leadership to develop and execute successful research and innovation in the competitiveness and economic growth of the Dallas-Fort Worth region;



- Develop relevant industry and professional partnerships; and
- Serve as a public voice for the research mission at UT Dallas, bringing a heightened level of visibility.

PROFESSIONAL EXPERIENCE / QUALIFICATIONS

The successful candidate will have relevant administrative and leadership experience with a proven track record of advancing research at a research-intensive doctoral university. He or she will also have a distinguished record of scholarship / funded research and an understanding of the need to promote and foster research interests at UT Dallas and collaborations with important research partners.

Competitive candidates will also possess:

- The ability, with the faculty and other administrative leaders, to voice a strategic research vision for UT Dallas and to develop and realize a plan to achieve it;
- Significant leadership, management, and financial experience in higher education or similar research environments;
- Experience in building research relationships in federal, industrial, and institutional environments;
- Awareness of diverse forms of scholarship and creative activity – including non-STEM and management-related fields, and a willingness to develop innovative support for them;
- An understanding of multi-dimensional metrics that support research missions across a variety of disciplines;
- Experience in planning, growing, and diversifying research, while fostering and promoting women and historically underrepresented groups;
- A demonstrated capacity to create interdisciplinary partnerships, develop infrastructure with multiple constituencies to support research aspirations and initiatives;
- Experience promoting and implementing policies and procedures to ensure compliance with Federal and State regulations governing research;
- Respect for, and engagement with, faculty, coupled with a commitment to attract the strongest of them, preserving and extending their diversity;
- The ability to provide creative and distinctive leadership, exercising good judgment, and continually seeking opportunities to advance research excellence;
- The intellectual leadership and curiosity to provide guidance to enhance a robust research program;
- Outstanding communication skills and an engaging style with strong interpersonal skills;
- Demonstrated ability to lead by consensus and with a level of transparency and discretion;
- The ability to articulate the University's research vision, goals, accomplishments, and needs to a broad range of external constituencies, including alumni, academic, government representatives and the business and industrial communities;
- A high level of responsiveness and adaptability with a focus on the big picture – the advancement of high quality research;
- Impeccable personal and professional integrity.

EDUCATION

The Vice President for Research should possess an earned doctoral degree and a record of recognized achievement in academic research.



COMPENSATION

The University of Texas at Dallas offers an attractive compensation and benefits package, commensurate with the successful candidate's background and experience.

NOMINATIONS AND APPLICATIONS

For priority consideration, please apply by **Friday, September 15, 2017**. Applications should include 1) a detailed curriculum vitae and 2) a letter of interest that addresses the responsibilities and requirements described above, as well as the applicant's motivation to apply.

To ensure full consideration, inquiries, nominations, and applications should be submitted electronically, in confidence, to:

utdallas-vpr@KornFerry.com

KORN FERRY CONTACTS

Paul Chou

Co-Managing Director
Global Education Practice
Philadelphia, PA

Josh Ward, Ph.D.

Senior Associate
Global Education Practice
Philadelphia, PA

The University of Texas at Dallas is an affirmative action/equal opportunity employer.