



J. David Martin

Like a gleaming ship setting sail for discovery, Two Partners Place is just one in a fleet of new research centers that anchor the University Research Campus. Weather forecasting, technology, social sciences, chemistry and biochemistry are but a few disciplines that call this campus home.



# *From* **Empty Field** *to* **Research Mecca**

*The assemblage of buildings rapidly filling  
OU's south campus is drawing national attention  
for all the wondrous developments going on inside.*

BY DEBRA LEVY MARTINELLI

**W**hen leaders of the University of Oklahoma began formulating a plan in the late 1990s to create a research campus that would help lead a knowledge-based economy for the 21st century, they had a hunch they were on to something big.

They had no idea just how big their plan, the “Millennium Initiative,” would become.

In less than 10 years, the 277-acre University Research Campus has been transformed from an empty field on Highway 9 and Jenkins Avenue into a thriving economic engine. Shaped by a community of public and private sector collaborations located in nearly 1 million square feet of occupied space, the campus represents nearly \$300 million in investment.

“During the past decade, research expenditures have more than doubled at OU and sponsored research has grown at twice the national growth rate,” OU President David Boren says. “Particularly successful University research programs, including weather, genomics, chemistry, health sciences, nanosciences, education and applied social research, as well as technology development and transfer, will continue to grow. I am extremely proud of the national recognition our research campus has earned. It seems like only yesterday when we stood in the middle of an open field to break ground for the first building on the research campus. The progress in



a single decade has been truly remarkable, and is a tribute to the excellence of our faculty.”

To date, 11 buildings have been constructed: The National Weather Center, Stephenson Research and Technology Center, Stephenson Life Sciences Research Center, Partners Place 1, 2, 3 and 4 (a series of multi-use facilities that co-locate private industry, government and academic entities that share research, business and economic development interests), Joseph K. Lester University of Oklahoma Police Department, Theta M. Dempsey Transportation Operations Center, Chilled Water Facility and Norman Fire Station 3. The two newest facilities, the Radar Innovations Laboratory and Partners Place 5, are expected to open in early 2014 and fall 2015, respectively.

Some 1,700 workers across academic, federal, state and industrial organizations work on the Research Campus. The private and government entities located there have created more than 750 jobs in Oklahoma.

“The OU Research Campus is a truly unique place because it not only physically and strategically co-locates private companies, University organizations and state and federal agencies, but it also actively facilitates interaction among them in the dynamic, stimulating environment of a comprehensive research university,” states Kelvin Droegemeier, OU vice president for research on the Norman campus.

As Boren points out, the world is taking notice.

In 2011, the Carnegie Foundation for the Advancement of Teaching awarded OU the highest tier of research activity, the “Very High Research Classification,” one of the most important measures that distinguish among institutions of higher education.

The Higher Learning Commission of the North Central Association of Colleges and Schools, which recently reaccredited the University, called OU “one of the country’s leading public research universities that is committed to quality in its research, instructional and service missions.”

This past September, the Association of University Research Parks named the OU Research Campus the nation’s top research park in 2013. Past recipients of this prestigious award include some of the biggest names in university-based research centers: the Research Triangle Park in North Carolina, Purdue Research Park in Indiana and University City Science Center in Pennsylvania.

In October, in recognition of a strong commitment to economic engagement, the Association of Public and Land-grant Universities designated OU and 15 other public institutions as Innovation & Economic Prosperity Universities. The new designation acknowledges universities working with public and private sector partners in their states and regions to support economic development through a variety of activities, including innovation and entrepreneurship, technology transfer, tal-



Hugh Scott

Looking north from the National Weather Center plaza, one can see two of the first buildings that helped shape the research campus: the Stephenson Research and Technology Center, and behind, the Stephenson Life Sciences Research Center.

ent and workforce development, and community development. Among the other institutions recognized are the University of Michigan, Ohio State University, State University of New York and Washington State University.

“These are universities that get a lot of recognition for their economic development efforts,” says Cameron McCoy, executive director of OU’s Corporate Engagement Office, which executes the research campus’ strategic plan, integrates industry relationships across the University and grows others with Oklahoma economic development organizations. “Being in their company has a lot to do with what’s happening on the Research Campus and how we engage in innovative spaces.”

Those spaces—or “innovation districts,” as McCoy calls them—are dedicated to particular areas of research strength within the University.

## WEATHER AND CLIMATE

At the heart of the most well-known innovation district—weather—is the National Weather Center. The six-plus story facility, which opened in 2006, unites OU’s world-class education and research programs in those areas. Included are the College of Atmospheric and Geographic Sciences, Center for Analysis and Prediction of Storms and Center for Spatial Analysis, with the Norman-based research and operational programs of the National Oceanic and Atmospheric Administration that include the Storm Prediction Center.

A number of private companies engaged in weather-related endeavors are just steps away in the Partners Place buildings. Weathernews Americas Inc., a subsidiary of Weathernews Inc., the largest publicly traded private weather company in the world, anchors One Partners Place, which opened in 2004. Other current weather-related tenants are Atmospheric & Environmental Research, whose scientists and engineers help businesses and governments better anticipate and manage climate- and weather-

related risks; Atmospheric & Technology Services Co., which offers resources for government-operated weather stations, instrumented sites, research support, consulting, technical and business management of government contracts; Weather Decision Technologies, a global provider of state-of-the-science weather detection, nowcasting and forecasting systems; and Weather Services International Corp., which develops innovative weather solutions for industries ranging from media, insurance and aviation to energy and utilities.

## RADAR

Located east of the National Weather Center, the Radar Innovations Laboratory, scheduled to open in early 2014, will serve as the core for the radar innovations district. Features include a large microwave laboratory, high-bay garage, prototype fabrication facilities, and isolated anechoic chambers for the characterization and experimentation of radiating systems. Its “shared rooms” are designed to enhance collaboration among researchers and students to move ideas from conception through early research and development to full prototyping and product creation.

“The lab will be a destination showcase for radar researchers from around the country—not to mention the public—a facility for performing world-class radar research, educating the next generation and demonstrating the practical value of both to the citizens of Oklahoma and the nation,” says Robert Palmer, associate vice president for research on the Norman campus and professor and Tommy C. Craighead Chair in the School of Meteorology.

“The Radar Innovations Laboratory will be the base for investment in radar research and technology,” McCoy adds. “Like the National Weather Center, it will create a neighborhood that pulls companies to locate in close proximity to it.”

One of those companies, Alabama-based Enterprise Electronic Corp., already has a presence on the research campus. EEC and OU’s Advanced Radar Research Center have developed a portable radar system that features dual-polarity accuracy, solid-state transmitters and low power consumption.

Tian-You Yu, AARC interim director and Tuma Presidential Professor in the OU School of Electrical & Computer Engineering, expects the lab to be a catalyst for more such activity. “This lab is designed to promote collaboration, enhance communication and inspire new ideas,” he says.

## BIOSCIENCE, ROBOTICS, SUPERCOMPUTING

Directly north of the National Weather Center, the Stephenson Research Complex houses research programs in robotics, genomics, bioengineering, biosciences and supercomputing, as well as the OU Department of Chemistry and Biochemistry. The complex comprises two facilities, the Stephenson Research and Technology Center, completed in 2004, and the Stephenson Life Sciences Center, completed in 2010. Both are named in honor of longtime OU donors Peggy and Charles Stephenson in recognition of their lead gifts for construction of the buildings.

The SRTC contains both private and communal laboratory, office and general gathering space for more than 300 faculty and student researchers working in a wide variety of disciplines that include chemistry, zoology, microbiology, botany and engineering.

The adjacent SLSRC, the new home of the OU Department of Chemistry and Biochemistry, provides similar space for researchers in chemistry and biochemistry, genomics and integrative life sciences.

## SOCIAL SCIENCES AND HUMANITIES

Social science and the humanities are represented on the Research Campus by, for example, the K20 Center for Educational and Community Renewal and the OU Center for Applied Social Research, both located in Two Partners Place. The K20 Center is a statewide education research and development center which promotes innovative learning through school-university-community collaboration. The interdisciplinary CASR merges such sciences as anthropology, industrial organizational psychology, communications, economics, geography and sociology to develop creative solutions to real-world problems.

McCoy notes the potential for expansion of these disciplines on the Research Campus as the hard sciences continue to grow.

“As OU invests in the innovation districts, social science gets built in,” he explains. “That’s part of the unique vision for the Research Campus, which has been embraced by the University’s administrators, deans and faculty. We don’t have the typical barriers between disciplines or between academics and administration. That allows us to work together to grow together.”

## FUTURE DISTRICTS


The next innovation district planned for the Research Campus will be centered on the world’s most precious commodity: water.

The Water Innovative Research Center will unite OU water research programs scattered across the Norman campus, including the Corix Institute for Water and Sustainability, Oklahoma Climatological Survey, and Water Technologies for Emerging Regions (WaTER) Center. Vieux & Associates Inc., an engineering technology firm specializing in rainfall/runoff software, products and services, already is located on the Research Campus.

Other districts under consideration are education outreach, anchored by the K20 Center, and oil and gas.

Droegemeier and McCoy have no doubt the Research Campus will sustain and build on its dramatic upward trajectory as it enters its second decade.

“The OU Research Campus is a center of economic vitality for Oklahoma and now a role model for the nation,” Droegemeier says.

McCoy couldn’t agree more. “This is a great time to be in Oklahoma, especially at OU,” he declares. 

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## ◆ PARKS, GARDENS & FOUNTAINS


- 40 Andrew M. Coats Hall Fountain
- 41 Sam Noble Oklahoma Museum of Natural History  
Native Gardens and Pond
- 42 Reaves Park (City of Norman)
- 43 National Weather Center Fountain






# RESEARCH CAMPUS

## KEY

 Visitor Parking

 Park/Garden Marker

 Building Marker



## CAMPUS BUILDINGS - NUMERICAL

- |  |   |
|--|---|
| 90 Coats Hall, Law                                   | 105 Sam Vierson Gymnastics Center             |
| 91 University of Oklahoma Foundation Building        | 106 Kinder Care @ OU                          |
| 92 Sam Noble Oklahoma Museum of Natural History      | 107 L. Dale Mitchell Baseball Park            |
| 93 Softball Complex/Marita Hynes Field               | 108 Traditions Square West                    |
| 94 Traditions Square East                            | 109 Soccer Complex/John Crain Field           |
| 95 Kraetli Apartments                                | 110 Headington Family Tennis Center           |
| 96 Reaves Park Building (City of Norman)             | 111 Soccer Practice Field                     |
| 97 Jimmie Austin University of Oklahoma Golf Course  | 112 Al Velie Rugby Football Complex           |
| 98 Bruce Drake Golf Club House                       | 113 Gregg Wadley Tennis Pavilion              |
| 99 Charlie Coe Golf Learning Center                  | 114 Lloyd Noble Center                        |
| 100 Joseph K. Lester OU Police Department            | 115 Landscaping Department                    |
| 101 Theta M. Dempsey Transportation Operation Center | 116 Ceramics Department                       |
| 102 Fears Structural Engineering Lab                 | 117 Chilled Water Plant                       |
| 103 Biological Survey                                | 118 Stephenson Life Sciences Research Center  |
| 104 Archeological Survey                             | 119 Stephenson Research and Technology Center |
|  | 120 Three Partners Place                      |
|  | 121 Four Partners Place                       |
|  | 122 One Partners Place                        |
|  | 123 Two Partners Place                        |
|  | 124 Radar Innovations Laboratory              |
|  | 125 National Weather Center                   |

## CAMPUS BUILDINGS - ALPHABETICAL

- |   |   |
|---|---|
| 112 Al Velie Rugby Football Complex                 | 125 National Weather Center                           |
| 104 Archeological Survey                            | 122 One Partners Place                                |
| 103 Biological Survey                               | 124 Radar Innovations Laboratory                      |
| 98 Bruce Drake Golf Club House                      | 96 Reaves Park Building (City of Norman)              |
| 116 Ceramics Department                             | 92 Sam Noble Oklahoma Museum of Natural History       |
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| 90 Coats Hall, Law                                  | 111 Soccer Practice Field                             |
| 102 Fears Structural Engineering Lab                | 93 Softball Complex/Marita Hynes Field                |
| 121 Four Partners Place                             | 118 Stephenson Life Sciences Research Center          |
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