UT’s Quest for Research Eminence

The UT campus is on the verge of its biggest building boom in 40 years. But where the huge expansion of the 1960s was driven primarily by the need for more classrooms and dormitory space to absorb Baby Boomers reaching college age, the impetus for much of the new construction now is to support UT’s quest to become one of the nation’s top-tier research universities.

Work is due to start within the next two years on more than $100 million worth of new or totally renovated buildings that will primarily give sustenance to the scientists and engineers who are expected to beget a quantum jump in UT’s research endeavors.

Facilities now on the drawing boards include: a $37.5 million new building to house the university’s department of electrical and computer engineering; $19 million for ground-up reconstruction of the civil and environmental engineering department’s Estabrook Hall; and perhaps as much as $40 million for a Joint Institute of Advanced Materials that will extend UT’s collaboration with the Oak Ridge National Laboratory into hot-button new realms such as nanotechnology. On top of that, the state has committed $26 million to build three other joint institutes for biological, computational and neutron sciences located on ORNL’s campus to take advantage of its piece de resistance, the Spallation Neutron Source, and the civilian world’s most powerful computer.

But amid all the bricks and mortar and world-class equipment, the question arises: Where are the world class researchers to populate and energize these new facilities?

In his budget request to Gov. Phil Bredesen for this year, UT President John Petersen sought $10 million “to recruit at least 15 national academy-level faculty members” to spearhead the university’s collaborative research endeavors—with ORNL committed to matching that amount. Bredesen came through with a $2.5 million first installment with the expectation of more to follow in subsequent years. Yet as the season for setting next year’s budget approaches, not a penny of the $5 million (counting the ORNL match) has been spent. How come? “We haven’t had anybody take our offers yet,” says Petersen, while quickly adding that, “It’s so hard to move world-class people…and the most important part of it is getting the right people, and it’s a painstaking process.” An offer to head the Joint Institute of Neutron Sciences has been outstanding since last spring to renowned German scientist, Dieter Richter, but Petersen is no longer sanguine that Richter will accept. “Hiring people from different countries is difficult because the cultures are different. So I’m not sure we’ll see him, but there are a couple of others we’re talking to,” he says. While Petersen won’t quite give confirmation, it’s understood that an offer to head the Joint Institute for Biological Sciences has recently been made to Robert Tabita, a distinguished professor of microbiology at Ohio State who would bring a team of junior faculty and doctoral students with him. But Ohio State is trying hard to keep him. Two years ago, UT recruited Thom Dunning from the University of North
Carolina to head the Joint Institute for Computational Sciences, and a big part of his mission was to attract others to flesh out JICS’ ranks. But last fall Dunning abruptly left to take the helm of a more-established computational research center at the University of Illinois. Reportedly contributing to his departure was a clash with ORNL’s high-powered associate director for computational sciences Tom Zacharia, which was perceived by some as symptomatic of a broader culture clash between the two institutions.

Petersen acknowledges that “maybe we hadn’t set up the joint institute’s management as well as we could have at that time.” And he goes on to say that “it isn’t easy to take two bureaucracies that are very different types of bureaucracies and get the machinery to work as well as you would want it to.” But Petersen believes that biweekly meetings between UT and ORNL hierarchies are contributing to a meshing. ORNL officials, in turn, credit Petersen with bringing a commitment to the joint research enterprise that was sorely lacking during the failed presidencies of his predecessors, John Shumaker and Wade Gilley.

Petersen is now looking to his newly on-board vice president for research, David Millhorn, to head joint institute recruitment efforts in collaboration with ORNL’s deputy director for science and technology, Jim Roberto. Millhorn had close ties to ORNL in his prior post as director of the Genome Research Institute at the University of Cincinnati. The ever upbeat UT president predictably professes optimism about the prospects for success. “We have an awful lot to offer: our faculty, enlightened leadership in the state, and the lab is just a tremendous partner,” he says. Even if joint institute recruitment has been faltering to date, it’s not as if UT’s research efforts have been at a standstill. Grants received in the fiscal year ended June 30 rose to an estimated $126 million from $109 million the preceding year. A near doubling of physics and materials science grants accounted for much of the increase. Physics professor Ward Plumer, who heads a Tennessee Advanced Material Laboratory, has been a driving force in all of this, including procurement of National Science Foundation grants and recruitment of other physicists who brought their grant funding with them to TAML. Getting $20 million in federal funding for the new Joint Institute for Advanced Materials was a major coup. Bredesen, Petersen, and ORNL’s director Jeff Wadsworth joined forces in seeking inclusion of the funding in the recently enacted transportation bill, with Bredesen pledging a matching contribution from the state. It’s also a coup for UT to have the facility on its campus, in proximity to faculty and students, instead of being located in Oak Ridge.

“Partners” is Petersen’s favorite word, and he now appears to have plenty of them as he tries to elevate UT’s stature, albeit slowly.

—Joe Sullivan