

THE UNIVERSITY OF TENNESSEE  
BOARD OF TRUSTEES

MINUTES OF THE  
RESEARCH, OUTREACH, AND ECONOMIC DEVELOPMENT COMMITTEE

February 26, 2014  
Martin, Tennessee

The Research, Outreach, and Economic Development Committee of The University of Tennessee Board of Trustees met at 1:00 p.m. CST, Wednesday, February 26, 2014, in the University Center Ballroom on the campus of The University of Tennessee at Martin.

**I. CALL TO ORDER**

Chair George Cates called the meeting to order.

**II. ROLL CALL**

Mr. Cates asked Dr. David Millhorn, Executive Vice President, to call the roll. The following members of the Research, Outreach and Economic Development Committee were present:

George Cates, Chair  
Tim L. Cross  
Joseph A. DiPietro  
Spruell Driver, Jr.  
J. Brian Ferguson  
Monice Moore Hagler  
Raja J. Jubran  
Bonnie E. Lynch  
Margaret A. Norris  
Don C. Stansberry, Jr.  
Victoria S. Steinberg  
David M. Stern  
Thaddeus A. Wilson

Kevin S. Huffman, Julius T. Johnson, Richard G. Rhoda, and Shalin N. Shah were not present at the meeting.

Dr. Millhorn announced the presence of a quorum of the Committee. Other Trustees, administrative staff, members of the public, and representatives of the media were also present.

### III. MINUTES OF LAST MEETING

Chair Cates asked for any corrections to the minutes of the October 17, 2013, meeting of the Committee. Hearing none the Chair called for a motion to approve the minutes as written. The motion was made, seconded and carried unanimously.

### IV. NEWS AND HIGHLIGHTS

Dr. Millhorn presented news and highlights of research and economic development initiatives (Exhibit 1). He stated the biggest news to report was the Department of Energy (DOE) award extension of the UT-Battelle (UT-B) management contract of Oak Ridge National Laboratory (ORNL), begun in April 2000, extended for five years in 2010, and now extended to 2020. The award extension was based primarily on UT-Battelle's strong management performance, Dr. Millhorn noted, recently receiving an overall Science & Technology rating of 3.6 out of 4.0 (A-) and a numerical score of 94 on the DOE scorecard. This grade is important, Dr. Millhorn stated, because the UT-B management fee is based on this rating.

Dr. Millhorn discussed other DOE news, relaying that the DOE Office of Science FY14 budget of \$5.07B included awards to the International Thermonuclear Energy Reactor (ITER) program (\$200M), the Advanced Scientific Computing Research (ASCR) program (\$478M), \$20M for ORNL nuclear infrastructure, and overall funding up \$100M for energy efficiency and renewable energy initiatives, among other programs. Dr. Millhorn elaborated on areas in which ORNL is well positioned in the near future with approximately two years of stabilized funding and what is being done proactively to maintain costs while accomplishing objectives.

Two new Governor's Chairs, Dr. Millhorn noted, have recently been appointed: Dr. Bob Davis, recruited from Kaiser Permanente and now at the UT Health Science Center in Biomedical Informatics, and Dr. Art Ragauskas, a biologist from Georgia Tech. One more Governor's Chair is currently being recruited, and this appointment will complete current funding for the program at 16 chairs.

Dr. Millhorn next gave information concerning numerous faculty and initiatives

receiving awards and recognition. A UT technology (humanized bacterial luciferase) named the Top Innovation of 2013 by *Scientist* magazine, Dr. Millhorn said, was created by Dr. Stacey Patterson (UT Assistant Vice President and Director of Research Partnerships) and several of her UT colleagues. Dr. Millhorn noted the growth within five years from one UT member in the National Academy (Dr. Jack Dongarra) to the present six members in this distinguished organization (two of these additional members coming through the Governor's Chair program, Dr. Millhorn added, Drs. Ramesh and Zinkle). Dr. Millhorn extended congratulations to the seven 2013 American Association for the Advancement of Science (AAAS) Fellows from UT campuses (including former Interim UT President, Dr. Jan Simek), as well as to the 2013 Fulbright Fellows and UT Martin faculty who had received recognition for recent accomplishments.

## V. RESEARCH SUCCESS

Dr. Millhorn and Dr. Patterson made a presentation of research success taking place at UT (Exhibit 2). Dr. Millhorn noted UT research is growing significantly despite tight national agency budgets. Dr. Millhorn discussed the importance of university research and noted that universities, since the end of World War II, have provided most of the basic research taking place in the country. Dr. Millhorn stated great emphasis is placed on UT's mission to continue and build upon this tradition to create new knowledge for development of commercial opportunities and applications to enhance standards of living for Tennessee citizens and all of society. Dr. Millhorn discussed the practical side of the UT research program in bringing in substantial educational and general revenues, and he elaborated on what 2012 sponsored research revenues provided for within the University (36 percent of faculty salaries FTE system wide, 19 percent of staff salaries FTE system wide, graduate education, equipment and operations). Trustee Driver asked how graduate education was supported by these revenues and Dr. Millhorn noted support involved graduate student stipends and tuition fees.

Dr. Stacey Patterson gave an overview of research success and described how UT is growing its research across the system. She discussed how university research differed from private-sector research and the respective focus of both areas, including how these areas are funded and the outcomes and primary measures of success within these areas. Dr. Patterson used data to illustrate the sources of funding and noted the federal government is UT's primary source of funding with 80 percent of its funding coming from this source. She discussed the

realities of competing for federal funds within agencies such as the National Science Foundation (NSF) and the National Institutes for Health (NIH), noting awards from all federal agencies are now in a period of decline due to sequestration and shrinking federal budgets. Dr. Patterson provided an overview of how well UT faculty are doing by providing FY11 and FY12 statistics for federal research expenditures, the number of research proposals submitted, UT research proposal success, and success by federal agency. These data show, Dr. Patterson stated, UT faculty are working hard to maintain (and in some cases to increase) the number of proposal submissions despite funding issues and are remaining nationally competitive for awards. Dr. Patterson noted this information followed up on a question at the fall meeting from Trustee Gregg concerning the success rate of UT faculty in the proposal submission process. Faculty submitted over \$1.2B in funding proposals in FY11 & 12 and 29.3 percent or just under \$400M were funded; of this total 27.7 percent or approximately \$350M of federal funds were awarded. System-wide in FY11-12, UT faculty had a 24.6 percent success rate in their proposal submission to the NSF and the national average was 23.6 percent. For NIH awards during the same period, UT faculty had a success rate of 17.23 percent and the national average was 17.6 percent. Dr. Patterson presented other data showing, among other things, UT's Research & Development expenditures grew by 1.8 percent in FY12 while the national R&D expenditures declined by 1.1 percent, indicating UT is maintaining national competitiveness.

Dr. Patterson outlined ways UT is growing its research success and discussed the UT-ORNL Joint Faculty University (JFU), Joint Faculty Oak Ridge (JFO) and the UT Governor's Chairs (GC) programs and the important roles in leveraging the assets of both the University and ORNL. Dr. Patterson showed data from 2010-2012 which indicated the significant impact of the UT-ORNL JFU program, GC program and the relatively new JFO program. With 112 JFOs now in the program, Dr. Patterson said, it is exciting to anticipate even greater growth opportunities.

Dr. Patterson concluded her presentation with a discussion of areas in which UT research can further improve and develop to take its program to the next level.

Vice Chair Ferguson thanked Dr. Patterson for the responsiveness to previous meeting questions and asked Dr. Patterson how funding sources and the revenue mix might change over the next five years and whether there is a large enough stream of federal funding to continue "as is." Dr. Patterson noted the revenue mix had not changed significantly since the 1970s; however, UT research, she

said, must expand its portfolio and partnerships, particularly with industry and the private sector, to accomplish its mission and to grow its programs. The federal government will likely remain the largest source of research funding, at least for the foreseeable future, Dr. Patterson noted.

Trustee Tanner asked about the percentage of basic vs. applied research in UT's portfolio. Dr. Millhorn noted 70-80 percent of UT research is basic, funded by the federal government to generate knowledge rather than specific application. Funding from the federal government is declining, Dr. Millhorn stated. UT must be more competitive than ever to win more than its share of awards, and this is where the UT-ORNL partnership, among others, can be utilized to leverage competitiveness for research funding. A discussion took place concerning these opportunities, within both higher education and the private sector.

## **VI. UT MARTIN COMMUNITY ENGAGEMENT RESEARCH INITIATIVES**

Chair Cates recognized Dr. Tom Rakes, Chancellor of the University of Tennessee at Martin (UTM), to give a presentation (Exhibit 3) on UTM community engagement and undergraduate research initiatives. Dr. Rakes introduced Dr. Richard (Rich) Helgeson, Dean of the College of Engineering and Natural Sciences, who facilitated the presentation, and described the role Dr. Helgeson played in bringing a new company ("9 to 5") to the Union City area which will create about 200 new jobs for the region. Dr. Helgeson described economic development activities taking place in the Martin area and recognized four UTM faculty members (Profs. Michael Gibson, David Coffey, Nancy Buschhaus, and Robbie Montgomery) who gave research and outreach updates, including the Discovery Park of America.

Dr. Helgeson noted recent successful recruitment of several new companies for the Martin area, including the work Dr. Todd Winters (Prof. and Dean, UTM College of Agriculture and Applied Sciences) has done in collaboration with the USDA for the state-funded Next-Farm Ag Innovation Accelerator program and assistance faculty in the College of Business and Global Affairs have given to two new start-up companies in the area. Dr. Helgeson noted the excellent experience UTM students receive through internships with these and numerous other business and research entities with which UTM is associated in the region and across the state, including the Regional Entrepreneurship and Economic Development (REED) Center in downtown Martin. The presenters echoed Dr. Helgeson's comments in elaborating upon the invaluable experience UTM students gained through these internship programs and research activities.

## **VII. IPS AND UT MARTIN: "PARTNERS IN CRIME"**

Chair Cates recognized Dr. Mary Jinks, Vice President of Public Service (IPS), who briefly gave the background of the National Forensics Academy (NFA) collegiate program developed in collaboration with the UT Law Enforcement and Innovation Center (LEIC) and UT Martin. The NFA program is a condensed three-week summer in-residence school in Oak Ridge mirroring the ten-week LEIC nationally-recognized established crime scene investigation program. Due to the reputation of LEIC and the network of faculty members across the state, Dr. Jinks said, 24 students from across the country enrolled the first summer of the program (2012) and the maximum cap of 26 students enrolled in the summer of 2013. These students receive hands-on field experience under oversight of national experts and they learn what real crime scene investigation is all about, Dr. Jinks stated. The program has expanded LEIC outreach to new students all across the country and it has been a tremendous partnership with UTM, Dr. Jinks noted, in developing the next-generation of crime scene investigators.

Dr. Jinks introduced Dr. Brian Donavant, UTM associate professor in the Criminal Justice Program and President-Elect of the UTM Faculty Senate, to provide additional insight of the initiative (Exhibit 4). Of special note, Dr. Donavant said, is the increased opportunity the program provides for students to engage in their academic endeavors in new ways and to have practical, hands-on experience in environments not available within the classroom. Dr. Donavant discussed the breadth of the program and various criminal justice accolades it has received since its creation. Another benchmark of its success, Dr. Donavant noted, is the 81 percent job placement success of NFA students who graduated from the program and obtained employment in criminal justice fields. Dr. Donavant discussed other benefits of the program to meet real-world professional needs.

## **VIII. CHEROKEE FARM UPDATE**

A written one-page report was provided to the Committee by Mr. Cliff Hawks, President and Chief Executive Officer of Cherokee Farm Development Corporation (Exhibit 5).

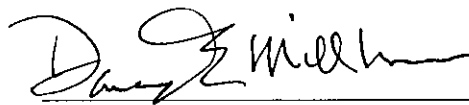
## **IX. OTHER BUSINESS**

There was no other business to come before the committee.

## **X. ADJOURNMENT**

There being no other business, Chair Cates adjourned the meeting.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read "David E. Millhorn". The signature is written in a cursive style with a horizontal line underneath it.

David E. Millhorn  
Executive Vice President/ Vice President for  
Research and Economic Development