LISTENING SESSIONS FOR HOW THE OFFICE OF RESEARCH (OR) SUPPORTS THE TOP 25 STRATEGIC PLAN AND PREPARES FOR THE FUTURE

Dr. Taylor Eighmy
January 14, 2013 Public Forum
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Continental breakfast</td>
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<tr>
<td>8:30</td>
<td>Introductions and Charge</td>
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<tr>
<td>8:45-9:45</td>
<td>Looking Ahead as a Great Public Research University: Thoughts on the Future, Top 25 Action Items, Charge to Breakout Groups</td>
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<td>9:45-10:45</td>
<td>Brainstorming Breakout Groups</td>
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<td>10:45-11:00</td>
<td>Break</td>
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<td>11:00-12:00</td>
<td>Reports from Breakout Groups</td>
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<tr>
<td>12:00</td>
<td>Wrap up</td>
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Listening Session 1 Invitees  
(October 23, 2012)

- UTK OR (entire division)
- UTK Centers & Institutes directors (reporting to the VCR)
- UTK Chancellor’s Cabinet
- UTK Associate Deans for Research
- UTK Research Council/Faculty Senate
- UTK Grad School
- UTK Grad School of Medicine
- UTK Graduate Council
- UTK Graduate Student Association
- UTK Undergraduate Research Student Advisory Committee
- UTK Student Editor of *Pursuit*
- UTK Employee Relations Team Leader
- UTK former VCRs
- Other guests

- UT Ag Institute
- UT Space Institute
- UT Institute for Public Service
- UT HSC
- UT VPR
- UT Research Foundation
- UT Audit
- UT General Counsel
- Other guests

- 121 invited
- 84 attended
Listening Session 2 Invitees (November 30, 2012)

- All Deans
- Center and Institute Directors reporting to the VCR
- Center and Institute Directors reporting to Colleges/Schools
- All department heads

- 144 invited
- 67 attended
Listening Session 3 Invitees (January 14, 2013)

Representative faculty from:

- All colleges
- New faculty
- Junior faculty
- Senior faculty
- GCs/Distinguished Scientists/JFUs
- Research Council
- Faculty Senate

- 225 invited
- 45
Background

• This is the third of three listening sessions with the UTK community
• The first session was largely with the OR division and representatives from our internal and external partners
• The second session was with Deans, Directors and Department Heads
• This third session is with a wide cross-section of faculty
• OR Strategic Action Plan (with delineated action items and responsibilities) will be drafted, with input from you all and the community, by February, 2013 to guide the strategic action plan
Some Background: Just a Few UTK Matters I Have Enjoyed Learning About

Living Light on the Mall in D.C.

Dr. Carol Tenopir, one of seven new AAAS Fellows

Dr. Dan Simberloff wins the 2012 Ramon Margalef Prize for Ecology

Undergraduate Research FB Page

Dr. Stefan Spanier and the CMS pixel tracker

Dr. Tom Burman, Our newest NEH Fellowship recipient
Overall Charge

• I would like to ask you to assist the UTK OR in preparing for the future: What do we need to be now in preparation for 2015? For 2020?
• How can we best position the UTK OR to support the UTK Top 25 research action plans?
• How can we best position the UTK OR to serve and support our internal and external partners?
• We want to develop an OR Strategic Action Plan (with delineated action items and responsibilities) by as early as February, 2013 to guide all of the above
My Passion for Teaching & Experiential Learning

My own undergraduate research experience

Dr. Jan Pechenik
Tufts University

My own graduate research mentoring

University of Utrecht

My own undergraduate research mentoring

ECN, Petten, the Netherlands

My own life-long passion for learning & discovery

SPring-8, Saitama, Japan
My Passion for Transdisciplinary Scholarship and Discovery

- **Many Disciplines Involved:** Environmental engineering, civil engineering, geotechnical engineering, geology, surface science, materials science, physics, microbiology, biochemistry
- **Many Collaborators:** Many departments, colleges, universities, corporations, federal governments
- **Many Institutions:** Kyushu University, Utrecht University, MIT, Bates College, ECN, U.S. EPA, U.S. DOE
- **Many Colleagues:** Faculty, graduate students, post-docs, undergraduates, research staff, governmental scientists
My Passion for Engaged Outreach: “Let Knowledge Serve the People”

- **Many Partners:** Cities, states, federal agencies, federal labs, state agencies, corporations, EDAs, benefactors, non-profits, NGOs, the public
- **Many Public Benefits:** Life cycle costs, renewable energy, sustainability, new knowledge, cultural development, city-university development
The Evolving National Public Higher Education Dialogue

White House Summit 12/11, Dr. Rita Krishstein

Thoughtful focus on reinvention

Intense national political debate

Real time transparency

Intense scrutiny and rebuttal

National Academy & academic analysis
Backdrop: Some of What is Happening in Tennessee

- Lumina Foundation’s Degree Gap Analysis for Tennessee
- Jack McElroy’s 2011 Value Proposition Editorial
- Governor Haslam’s 2012 Workforce Roundtable
- Chancellor Cheek’s 8/29/11 Tuition & Appropriation per FTE Comparison
- THEC New Funding Model
- Delta Project’s Cost Analysis for Tennessee
What is a Great Public Research University?

“But what has made our universities the greatest in the world is not the quality of our undergraduate education--- as important as that is---but our ability to fulfill one of the other central missions of the leading universities: the production of new knowledge through the discoveries that change our lives and the world.”

Why A New Public Research University for the 21st Century is Needed!

- Association of Public And Land Grant Universities (APLU)
- Association of American Universities (AAU)
- National Research Council (NRC) of the National Academies,
- National Science Board (NSB) of the NSF
Why A New Public Research University for the 21st Century is Needed!
Why A New Public Research University for the 21st Century is Needed!
Federal Funding, Sequestration, and Future Budget Realities

- Most of our sponsored research funding is federal
- We really rely on DOE and NSF
- DOD is a growing portion of our portfolio
- When sequestration hits in March, we will likely see:
  - Limits on new awards
  - Limits to new awards to PIs
  - Capping number of awards to PIs
  - Capping salary support to faculty/post docs
  - Capping post docs
  - Limiting graduate student support
- Independent of sequestration, discretionary R&D spending is likely to remain flat or decrease
- Other sources of support are needed (e.g., state, corporate, foundation, philanthropic, commercialization)
Looking to the Future: A New Public Research University for the 21st Century

Agora
*Agora: “market,” commercial district, place for debating and voting*

Acropolis & Parthenon
*Acropolis: “(high) city on the extremity,” sacred to Athena (Goddess of Wisdom), close to Aristotle’s Lyceum*

City Center
Knoxville, TN 2012

*Clark Kerr (1988) “Mostly it (higher education) lived in tension, at one in the same time at the bottom of the hill, at the top of the hill, and on many pathways in between.” Perhaps things do come full circle…*
Looking to the Future:
The New Public Research University for the 21st Century

- Place-based mission
- Mission-based discovery
- Basic and applied discovery research
- Experiential learning
- Life-long learning
- Knowledge hubs
- More than just Land- and Sun-Grant... we are a “City-Grant” institution
- This right critical mass* of opportunity
- Diverse learning environment
- Culture and knowledge economies
- Social and global engagement

*Critical mass: prospective students, alumni, employers, K-12 school systems, community colleges, neighborhoods, communities, fine art space, non-profits, NGOs, culture, venture capital, corporations, foundations, hospitals, federal R&D, corporate R&D, transit systems, IT infrastructure
UTK Top 25 Strategic Plan

JOURNEY TO THE TOP
Action Plan – June 2011
UTK Top 25 Strategic Plan

Research
Current Position

- UTK demonstrated strong year-over-year growth in research expenditures and has made progress towards closing gaps to Top 25 Target peers. Growth can be attributed in part to winning major federal research grants, development of new centers and joint institutes, and expanded proposal support for faculty.

- Top 25 research expenditure metrics are not normalized, but many of the Top 25 Target peers are larger than UTK, and some have medical schools, which can account for a large portion of research expenditures. When compared to peers with no medical schools and normalized by tenure-line instructional faculty, UTK is ahead of three (Purdue, Clemson, and the University of Georgia).

- To close the gap in federal expenditures, UTK will need additional faculty. Top 25 Target peers with no medical schools have, on average, 40% more tenure-line faculty than UTK.

- Similar to graduate education, progress in research will require a long-term, multi-year commitment and new resources. While there are productivity gains to be made with current resources, maintaining growth in the long run will require additional investments. The amount and quality of research space is an emerging constraint, as well as the number of faculty.
UTK Top 25 Strategic Plan

Research

Federal Research Expenditures; UTK vs. Top 25 Peers with No Medical School; 2004 - 2009

Source: NSF Survey of Science and Engineering Expenditures, 2009; UTK NSF Survey Submission
Note: UTK Data Include: Agricultural Experiment Station, College of Veterinary Medicine, Extension, Knoxville, Space Institute
Wedge Concept

We will need to grow many wedges simultaneously...

Baseline Metric Must be “Advancing Scholarly Excellence”
(e.g., Fulbright Fellowships, Guggenheims, Faculty Annual Awards, National Academy members, faculty FTEs, Federal Research Expenditures, Total Research Expenditures, strategic partnerships)
Top 25 Strategic Plan

Dramatic Increase

Plateau?
Some Ideas to Ponder

- Embracing “Excellence in Scholarship”
- Growing undergraduate research as a primary form of experiential learning
- Expanding corporate & foundation R&D
- Developing “Big Idea” large strategic initiatives
- Focusing on transdisciplinary scholarship
- Expanding strategic partnerships
Some Ideas to Ponder

National Academies’ Government University Industry Round Table (GUIRR)

National Organization Of Research Development Professionals (NORDP)

University of Minnesota

White House/DOC event

Network of Academic Corporate Relations Officers (NACRO)

NSF EPSCoR
Some More Ideas to Ponder

Expansion of the Boyer Commission Principles and Undergraduate Research?

Carnegie Foundation and Community-Engaged Classification in 2015?
The Absolute Need for Engagement

• How do we reclaim our essential purpose?
My Value System and Expectations

• OR is a client- or partner-service organization
• OR is highly solution-oriented
• OR values ethics, diversity, inclusivity
• OR is proactive
• OR is collaborative
• OR shares your ambitions and aspirations
• If it is needs improvement, OR will work with you to fix it
• OR will especially delight in your success!
Some Essential Questions for Your Consideration:

E1: How can the Office of Research help expand and support excellence in scholarship?

E2: How can the Office of Research help expand and support corporate & foundation R&D?

E3: How can the Office of Research help expand and support “Big Idea” large strategic initiatives?

E4: How can the Office of Research help expand and support transdisciplinary scholarship?

E5: How can the Office of Research help grow and support strategic partnerships?

E6: How can the Office of Research define and support engagement & outreach serving the research and scholarly enterprise?

E7: What others essential questions can you contemplate and provide input on?
### Backdrop:
**UTK Action Plan (See Handout)**

<table>
<thead>
<tr>
<th>INITIATIVE</th>
<th>OBJECTIVE(S)</th>
<th>LEAD</th>
<th>ACTION PLAN STEPS</th>
<th>TARGET DATE</th>
<th>STATUS AT A GLANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1 Research Services</td>
<td>Modify existing University support services to explicitly support increasing research and provide additional support to faculty for proposal success. Provide compliance support commensurate with future growth in expenditures.</td>
<td>Greg Need</td>
<td>(a) Formulate funding for hiring opportunities search engine.</td>
<td>Ongoing</td>
<td><strong>Complete:</strong> reviewing progress</td>
</tr>
<tr>
<td>R2 Communications</td>
<td>Develop a more effective external communication strategy to increase UTK research awareness. Develop a more effective internal communications strategy to get more faculty involved in funded research.</td>
<td>Greg Reed Margie Nicholas</td>
<td>(a) Identify and manage key assets and target messages.</td>
<td>Ongoing</td>
<td><strong>Complete:</strong> planning with communication and set out plans that are in the action plan document. Branding campaign was released.</td>
</tr>
<tr>
<td>R3 Government Relations</td>
<td>Develop practices to connect researchers with UTK's government relations firm. Improve researcher knowledge of government relations. Strengthen relationships between faculty and agency program offices.</td>
<td>Wal Hines Paul Montgomery</td>
<td>(a) Formulate policy to connect researchers with UTK's government relations firm.</td>
<td>Ongoing</td>
<td><strong>Complete:</strong> developing a policy to connect researchers with UTK's government relations firm.</td>
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<td>R4 IP and Innovation</td>
<td>To increase the conversion of intellectual property generated through research into patents, economic growth, institutional revenues, and business startups.</td>
<td>David Wachsmann</td>
<td>(a) Formulate policy for efficient transfer of intellectual property.</td>
<td>Fall 2012</td>
<td><strong>Complete:</strong> task force delayed as new VP NDDO was added. Task force for UTK intellectual property was created.</td>
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The University of Tennessee, Knoxville
Backdrop: UTK Action Plan Status (See Handout)

Orange = action step completed, target date met

Green = action step not completed but in progress; target date not passed

Yellow = action step not initiated; target date not passed

Red = action step not initiated, dependent on completion of a function outside of Top 25, OR dependent upon funding stream (note this in Status at a glance); target date passed

Blue = long-term, ongoing action OR no target end date
# UTK Action Items for Research Within the Plan

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Initiative (Lead)</th>
<th>R1 Specific Action Plan Steps</th>
</tr>
</thead>
</table>
| R1          | Research Services (G. Reed) | (a) Formalize funding for search engine  
(b) Prepare more faculty with advanced proposal writing skills  
(c) Formalize funding for Director of Foundation and Corporate Relations position  
(d) Establish and publish performance metrics |
# UTK Action Items for Research Within the Plan

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Initiative (Lead)</th>
<th>R2 Specific Action Plan Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>R2</td>
<td>Communications</td>
<td>(a) Identify key external audiences and target messages</td>
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<td></td>
<td>(G. Reed, M. Nichols)</td>
<td>(b) Advertise in targeted publications</td>
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<td></td>
<td>(c) Increase support for professional design and content creation for research web sites</td>
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<td>(d) Enhance UTK’s image at high profile conferences through branding</td>
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<td>(e) Build on the power of social media and continue relationships with traditional media</td>
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<td>(f) Implement a “research success awareness” campaign</td>
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<tr>
<th>Action Item</th>
<th>Initiative (Lead)</th>
<th>R3 Specific Action Plan Steps</th>
</tr>
</thead>
</table>
| R3          | Government Relations (W. Hines, P. Montgomery) | (a) Develop policy to connect researchers with UTK’s GR firm  
(b) Arrange visits in DC for discussions with agency program officers  
(c) Assist with appointments to agency advisory boards |
# UTK Action Items for Research Within the Plan

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Initiative (Lead)</th>
<th>R4 Specific Action Plan Steps</th>
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</thead>
</table>
| R4          | IP and Innovation (D. Washburn and A. Miller) | (a) Form a task force of the UT System, UTRF and the campus to evaluate alternatives and adopt a model for T2  
(b) Build close ties among OR, UTRF, the Anderson Center, and other entities  
(c) Identify and adopt best practices for patent application and business incubation  
(d) Identify practices to track and report related data through the STAR metrics program |
## UTK Action Items for Research Within the Plan

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<tr>
<th>Action Item</th>
<th>Initiative (Lead)</th>
<th>R5 Specific Action Plan Steps</th>
</tr>
</thead>
</table>
| R5          | Partnerships (W. Hines, P. Montgomery, S. Ballentine) | (a) Identify potential partnerships with local companies and federal agencies  
(b) Identify potential strategic partners and recruit them to Cherokee Farm  
(c) Develop basic ordering agreements and joint appointment agreements with new partners |
# UTK Action Items for Research Within the Plan

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Initiative</th>
<th>R6 Specific Action Plan Steps</th>
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</table>
| R6         | Multi-disciplinary Research (B. Dunne, Top 25 Team) | (a) Revise UTK distribution of institutional resources (e.g., ORU)  
(b) Institute faculty hiring practices where appropriate  
(c) Revise faculty performance and promotion review  
(d) Revise academic program review criteria and metrics  
(e) Institute a Chancellor’s Award for Research |
## UTK Action Items for Research Within the Plan

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Initiative</th>
<th>R7 Specific Action Plan Steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>R7</td>
<td>F&amp;A Distribution</td>
<td>(a) Developing F&amp;A policies for University-level centers and institutes</td>
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<td>(b) Remove the three-year rolling average for RIF (F&amp;A) return</td>
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<td>(W. Hines, C. Cimino)</td>
<td>(c) Disburse F&amp;A quarterly for high growth cases</td>
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<td></td>
<td>(d) Revise RIF (F&amp;A) carry over policy to increase flexibility</td>
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<td>(e) Implement a plan to increase Office of Research distribution as F&amp;A grows</td>
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# UTK Action Items for Research Within the Plan

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<th>Action Item</th>
<th>Initiative</th>
<th>R8 Specific Action Plan Steps</th>
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</thead>
<tbody>
<tr>
<td>R8</td>
<td>Administrative Efficiency</td>
<td>(a) Task force to review procedures and recommend changes</td>
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<td>(C. Tenopir, C. Cimino)</td>
<td>(b) Staff members assigned responsibility to streamline research procedures with legal</td>
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<td></td>
<td>constraints</td>
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<td>(c) Initiate streamlined procedures</td>
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# UTK Action Items for Research Within the Plan

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<tr>
<th>Action Item</th>
<th>Initiative</th>
<th>R9 Specific Action Plan Steps</th>
</tr>
</thead>
</table>
| R9          | Research Incentives (W. Hines, B. Dunne) | (a) Implement research incentive plan  
(b) Institute a Chancellor’s Award for Multidisciplinary Research  
(c) Coordinate with Communications Team to highlight faculty research success stories |
# UTK Action Items for Research Within the Plan

<table>
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<tr>
<th>Action Item</th>
<th>Initiative</th>
<th>R10 Specific Action Plan Steps</th>
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</table>
| R10         | Infrastructure - Core Facilities (C. Boake, Core facilities Committee) | (a) Establish a standing core facilities committee, including a responsible chair  
(b) Conduct an inventory of current core facilities and other expensive multi-user equipment  
(c) Work to evaluate business models for core facilities at peer institutions  
(d) Develop business models that include organizational and funding considerations (coordinate between VCR and VCFA)  
(e) Develop written procedures for creating, funding, and closing core facilities |
## UTK Action Items for Research Within the Plan

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<tr>
<th>Action Item</th>
<th>Initiative</th>
<th>R11 Specific Action Plan Steps</th>
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</table>
| R11         | Infrastructure-Space (W. Hines, C. Cimino) | (a) UTK Space Committee includes research leadership  
(b) Plan for research space on Cherokee Farm Campus for collaboration with private and government entities |
## UTK Action Items for Research Within the Plan

<table>
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<tr>
<th>Action Item</th>
<th>Initiative</th>
<th>R12 Specific Action Plan Steps</th>
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| R12         | Research Information Technologies (W. Hines, Top 25 Infrastructure Team) | (a) Coordinate with Faculty Implementation Team on metrics and data gathering needs related to research productivity (see Faculty Plan)  
(b) Engage OIT in a review of current state of research enterprise software support, including TERA |
UTK Action Items for Other Areas Within the Plan

The Office of Research may be able to support initiatives under (see the action plan handout):

- Faculty Team
- Graduate Team
- Undergraduate Team
Input From Listening Session 1

- See pages I through 10 for some responses from Listening Session 1
- Refinement of prior input is welcome
- All new input is welcome
Specific Research Questions for Your Consideration:

For the R1-R12 specific action plans for research assigned to your group:

R__: How can the Office of Research assist in supporting and realizing R__?

For action items associated with the other (faculty, graduate and undergraduate components) of the plan:

O1: Are there Office of Research activities that can support initiatives associated with the other (faculty, graduate and undergraduate) components? Please define.
Charge for Breakout Groups

• Your input is valued, please share your constructive ideas
• There are four breakout groups (see handout in your packet for your group’s composition)
• Each breakout group has a facilitator and rapporteur
• Each group has around nine to eleven questions to address during the breakout, plan to talk for five minutes on each while in your group
• Some questions are common to all groups
• After the breakout, each group’s rapporteur will report out about its group’s five most important recommendations (five minutes total for each report)
• Each facilitator will then assemble and share all of the output from their group with the group, your additional input will be requested, this all will be captured within the next three weeks and help guide subsequent conversations with the DDDHs and faculty
• A Strategic Action Plan for the OR will be drafted and shared broadly over the next few months
• The final Strategic Action Plan for the Division will be issued early next semester (ideally, as early as February 2013)
Reports from Breakout Group Rapporteurs
Looking Ahead
Thank You for Your Interest, Input and Energy!

If you have questions, then please contact me:

My email is teighmy@utk.edu
My office phone is 4-8701
My cell is (806)252-6444