

## A Path Forward for Research Supporting Top 25

WORKING DRAFT

Top 25 Research Advisory Committee  
May 28, 2013

Dr. Taylor Eighmy

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## Agenda

- Brainstorming new areas:
  - Faculty development
  - Graduate student support
  - Undergraduate research
  - Outreach & engagement
  - Core facilities
  - Enterprise systems
  - Research space
  - Others TBD
- Review of prior framework
- Looking ahead

\* Maps to the current 12

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## Top 25 RAC Members

- Susan Ballentine (ORE)
- Chris Boake (ADR CAS)
- Alexandra Brewer (GSS/GSA)
- Bill Brown (UTIA)
- Chris Cimino (VCFA)
- George Dodds (COA)
- Bill Dunne (ADR COE)
- Nicole Fazio-Veigel (ONSF)
- Marc Gibson (UT Development)
- Lee Han (RAC)
- Dave Irvine (AVRFA)
- Tom King (CURENT/ORNL)
- Tony Mezzacappa (JICS)
- Paul Montgomery (ORE)
- Sally Morris (UT Development)
- Margie Nichols (VRCM)
- Stacey Patterson (UTS AVPR)
- Bob Porter (ORE)
- Greg Reed (ORE)
- Joel Reeves (AVCR IT)
- Sahba Seddighi (USRA)
- Charlie Senn (ORE)
- Tina Shepardson (RAC)
- Melissa Shivers (Chancellor's Office)
- Carol Tenopir (CMC)
- Dave Washburn (UTRF)
- John Zomchick (Provost's Office)
- Others TBD

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## Developing Consensus

### --- Work in Progress---

- Feedback from AVP Melissa Shivers (1/11/13)
- Feedback from Chancellor Cheek (1/18/13,2/1/13)
- Feedback from Cabinet retreat (1/31/13)
- Feedback from Top 25 ITL (2/15/13)
- Initial feedback from the new Top 25 RAC(2/20/13)
- Feedback from ORE SMT (2/20/13)
- Input from ORE Staff (3/13/13)
- Feedback from Cabinet (3/18/13)
- Working Session with Top 25 RAC (4/3/13)
- Working session with the Research Council (4/10/13)
- Working Session with Top 25 RAC (5/28/13)
- Planned session with the Top 25 ITL (5/30/13)
- Planned session with University System Relations Committee of the Faculty Senate
- Many additional working sessions planned with the Top 25 Research Advisory Committee
- Additional feedback from the Research Council if needed
- Will seek feedback from others, as appropriate

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## Brainstorming Faculty Development

- Annual awards incentive programs
- Microinvestment program in the creative arts, humanities and social Sciences (\$3k awards)
- Transdisciplinary scholarship venture fund
- AAAS Fellows to NAS/NAE program
- Corporate R&D program development
- Corporate fellows program
- IPA program at NSF
- Hill program
- Others?

\* Maps to the current 12

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## Brainstorming Graduate Student Support

- Federal agency doctoral fellowships
- GRAs in sponsored projects
- Transdisciplinary scholarship venture fund
- Others?

\* Maps to the current 12

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## Brainstorming Undergraduate Research Support

- NSF REUs
- Fall and spring research fellowships
- CUR/Hill presentations
- Focus on National Awards (like NSF Graduate Fellowships)
- Collaborative portal
- Research Week Mentor awards
- Research Week Student awards
- # of Research Week Participants
- # of undergrads participating
- # of faculty mentors

\* Maps to the current 12

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## Brainstorming Engaged Outreach

- Academy of Community Engagement Scholarship members
- McGrath nominations/recipients
- Number of formal two way partnerships
- Number of engaged individuals (by type)
- Student participation
- Staff participation
- Faculty participation
- Economic impacts
- Assessment

\* Maps to the current 12

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## Brainstorming Core Facilities

- Pilot program
- Amount supported
- Number of core facilities
- Others TBD

\* Maps to the current 12

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## Brainstorming Enterprise Systems (would like input from Stacey Patterson, Chris Cimino & Joel Reeves)

- TERA PAMS
- Data management
- RCR Training
- Others TBD

\* Maps to the current 12

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## Brainstorming Research Space (would like input from Chris Cimino, Deans, Stacey Patterson)

- New research SF?
- Laboratory renovations?
- JIAM fit out?

\* Maps to the current 12

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## Updated Prior Metrics/Action Items

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## Some Proposed Top 25 Research-Related Action Items

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase TRE State + Local (E)	GCs (E)	Fully hire 10 Remaining GC Slots (SAC, Deans, Provost, VCRE)	+5	+3	+2	-
Increase TRE State + Local (E)	GCs (N)	Seek additional 10 new GC Lines (UTK, UT System, ORNL)	-	-	-	+10
Increase TRE State + Local (E)	Research Infrastructure	State support of HPC (UT System)	+\$10 M	+5M	+5M	-
Increase TRE Corporate (E)	Partnerships (E)	New annual substantive corporate partnerships (Gibson & Eighmy) *	+2	+3	+4	+5
Increase TRE Corporate (E)	Partnerships (E)	New annual large corporate R&D grants/contracts (Ballentine & Eighmy) *	+5	+7	+10	+20

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items NEW

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase TRE State + Local (E)	Research Infrastructure	Strong Hall	?	?	?	-
Increase TRE State + Local (E)	Research Infrastructure	Cherokee Farm	?	?	?	-
Increase TRE State + Local (E)	Research Infrastructure	UTK capital projects	?	?	?	-
Increase TRE State + Local (E)	New faculty	New COE faculty lines	?	?	?	?
Increase TRE State + Local (E)	State support	Increase Science Alliance budget	?	?	?	?

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## Some Proposed Top 25 Research-Related Action Items

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase TRE Corporate (E)	Gifts (N)	Increase gifts for research, including R designated capital projects (Gibson & Deans)	+2	+3	+4	+5
Increase TRE Corporate (E)	Licensing (N)	Increase R&D funding from licensing partners (Washburn & Eighmy) *	+\$1M	+\$2M	+3M	+\$5M
Increase TRE Corporate (E)	Licensing (N)	Increase annual royalty for R&D (Washburn & Eighmy) *	+\$1M	+\$1M	+2M	+\$3M
Increase TRE Institutional (E)	Accounting (N)	NCUBO Separately budgeted (Cimino & Eighmy)	?	?	?	?

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase TRE Foundation (E)	Partnerships	New annual substantive foundation partnerships (Morris & Eighmy) *	+2	+3	+4	+5
Increase TRE Foundation (E)	Partnerships	New annual substantive foundation projects for research (Morris & Eighmy) *	+2	+3	+4	+5
Increase TRE Foundation (E)	Partnerships	New foundation gifts for research (Morris & Eighmy) *	+1	+2	+3	+5

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items NEW

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase TRE Corporate (E)	Chairs	New Corporate endowed chairs (Rabenold, Gibson & Deans) *	?	?	?	?
Increase TRE Corporate (E)	Centers of Excellence	New centers of excellence* (Gibson, Deans, Eighmy)	?	?	?	?

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase FRE DOD	DOD (N)	New annual DOD R&D grants/contracts (Montgomery & Eighmy)	+10	+15	+20	+30
Increase FRE DOD	DOD (N)	UARC Designation (Eighmy)	-	+1	-	+1
Increase FRE NNSA/DHS	NNSA/DHS	Joint Faculty with Y-12 (COE, Eighmy)	+2	-	-	-
Increase FRE NNSA	NNSA/DHS	Joint Institute with Y-12 (COE, COB, Eighmy)	1	1	-	-
Increase FRE NSF	NSF	ERC/STC/MRCT/IUCRC (Deans, RDT & Eighmy)	+2	+3	+4	+5
Increase FRE NSF	NSF	AGEP-like Awards (Deans, RDT & Eighmy)	+2	+3	+4	+5
Increase FRE NSF	NSF	Increase basic awards (Deans, RDT & Eighmy)	+10	+20	+30	+50

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items

Primary Metric (E or N)	Secondary Metric (E or N)	Action Item (Leads)	2013	2014	2015	2020
Increase FRE NIST/DOC (N)	NIST/DOC	NNMI IMI (COE, RDT, Eighmy)	-	+1	-	-
Increase FRE USDA (N)	USDA (N)	New R&D Collaborations with UTIA (Brown & Eighmy)	+2	+2	+2	+2
Increase FRE HHS (N)	HHS (N)	New R&D collaborations with UTMC (TBD) *	+2	+3	+5	+10
Increase FRE HHS (N)	HHS	New R&D collaborations with UTHSC GSM (TBD) *	+2	+3	+5	+10
Increase FRE HHS (N)	HHS	New NIH Center Initiatives (TBD) *	+1	+1	+2	+5
Increase FRE DOE (N)	DOE	New EFRC (TBD)	-	+1	-	-

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items

Area Of Focus	Metric	Action Item (Leads)	2013	2015	2020
Grad Ed/ Research	Increase Ph.D.s graduated	Increase RAs on grants & contracts (Hodges)	+25	+50	+100
Faculty/ Research	Undergraduates/Faculty	New faculty hires (Zomchick)	+10	?	?
Faculty/ Research	Undergraduates/Faculty	Hire National Academy Members (TBD)	+1	+2	+3
Faculty/ Research	Awards	New CAREER Awards (Porter & Reed) *	+5	+10	+15
Faculty/ Research	Awards	New NEH Fellowships (Rutenberg, Porter & Reed) *	+3	+4	+5

\* Maps to the current 12

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## Some Proposed Top 25 Research-Related Action Items

Area Of Focus	Metric	Action Item (Leads)	2013	2015	2020
Faculty/Research	Awards	New Fulbright Fellowships (Rutenberg, Porter & Reed) *	+5	+5	+5
Faculty/Research	Awards	New Guggenheim Fellowships (Rutenberg, Porter & Reed) *	+1	+1	+1
Faculty/Research	Other	Faculty Professional Development * (Porter & Reed)	+?	?	?
Undergraduates /Research	Research Fellowships	New AY Fellowships (Pound & Eighmy)	+10	+10	+10
TBD	TBD	TBD	?	?	?

\* Maps to the current 12

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## Appendix A Current Top 25 Research Action Items

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## UTK Action Items for Research Within the Plan

Action Item	Initiative (Lead)	R1 Specific Action Plan Steps
R1	Research Services (G. Reed)	<ul style="list-style-type: none"> <li>(a) Formalize funding for search engine</li> <li>(b) Prepare more faculty with advanced proposal writing skills</li> <li>(c) Formalize funding for Director of Foundation and Corporate Relations position</li> <li>(d) Establish and publish performance metrics</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative (Lead)	R2 Specific Action Plan Steps
R2	Communica- tions (G. Reed, M. Nichols)	<ul style="list-style-type: none"> <li>(a) Identify key external audiences and target messages</li> <li>(b) Advertise in targeted publications</li> <li>(c) Increase support for professional design and content creation for research web sites</li> <li>(d) Enhance UTK's image at high profile conferences through branding</li> <li>(e) Build on the power of social media and continue relationships with traditional media</li> <li>(f) Implement a "research success awareness" campaign</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative (Lead)	R3 Specific Action Plan Steps
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

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## UTK Action Items for Research Within the Plan

Action Item	Initiative (Lead)	R4 Specific Action Plan Steps
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

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## UTK Action Items for Research Within the Plan

Action Item	Initiative (Lead)	R5 Specific Action Plan Steps
R5	Partnerships (W. Hines, P. Montgomery, S. Ballentine)	<ul style="list-style-type: none"> <li>(a) Identify potential partnerships with local companies and federal agencies</li> <li>(b) Identify potential strategic partners and recruit them to Cherokee Farm</li> <li>(c) Develop basic ordering agreements and joint appointment agreements with new partners</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R6 Specific Action Plan Steps
R6	Multi-disciplinary Research (B. Dunne, Top 25 Team)	<ul style="list-style-type: none"> <li>(a) Revise UTK distribution of institutional resources (e.g., ORU)</li> <li>(b) Institute faculty hiring practices where appropriate</li> <li>(c) Revise faculty performance and promotion review</li> <li>(d) Revise academic program review criteria and metrics</li> <li>(e) Institute a Chancellor's Award for Research</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R7 Specific Action Plan Steps
R7	F&A Distribution (W. Hines, C. Cimino)	<ul style="list-style-type: none"> <li>(a) Developing F&amp;A policies for University-level centers and institutes</li> <li>(b) Remove the three-year rolling average for RIF (F&amp;A) return</li> <li>(c) Disburse F&amp;A quarterly for high growth cases</li> <li>(d) Revise RIF (F&amp;A) carry over policy to increase flexibility</li> <li>(e) Implement a plan to increase Office of Research distribution as F&amp;A grows</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R8 Specific Action Plan Steps
R8	Administrative Efficiency (C. Tenopir, C. Cimino)	<ul style="list-style-type: none"> <li>(a) Task force to review procedures and recommend changes</li> <li>(b) Staff members assigned responsibility to streamline research procedures with legal constraints</li> <li>(c) Initiate streamlined procedures</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R9 Specific Action Plan Steps
R9	Research Incentives (W. Hines, B. Dunne)	<ul style="list-style-type: none"> <li>(a) Implement research incentive plan</li> <li>(b) Institute a Chancellor's Award for Multidisciplinary Research</li> <li>(c) Coordinate with Communications Team to highlight faculty research success stories</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R10 Specific Action Plan Steps
R10	Infrastructure - Core Facilities (C. Boake, Core facilities Committee)	<ul style="list-style-type: none"> <li>(a) Establish a standing core facilities committee, including a responsible chair</li> <li>(b) Conduct an inventory of current core facilities and other expensive multi-user equipment</li> <li>(c) Work to evaluate business models for core facilities at peer institutions</li> <li>(d) Develop business models that include organizational and funding considerations (coordinate between VCR and VCFA)</li> <li>(e) Develop written procedures for creating, funding, and closing core facilities</li> </ul>

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R11 Specific Action Plan Steps
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

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## UTK Action Items for Research Within the Plan

Action Item	Initiative	R12 Specific Action Plan Steps
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

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