

# **Research at The University of Toledo**

**Presentation to the Graduate Council**  
November 29, 2016

**Frank Calzonetti, Ph.D.**  
Vice President for Research

# Leadership

- **Frank Calzonetti, Ph.D.**  
*Vice President for Research*
- **Connie Schall, Ph.D.**  
*Interim Associate VP for Research*
- **Amy Thompson, Ph.D.**  
*Faculty Fellow*
- **Rick Francis, Ph.D.**  
*Director of Research and Sponsored Programs*



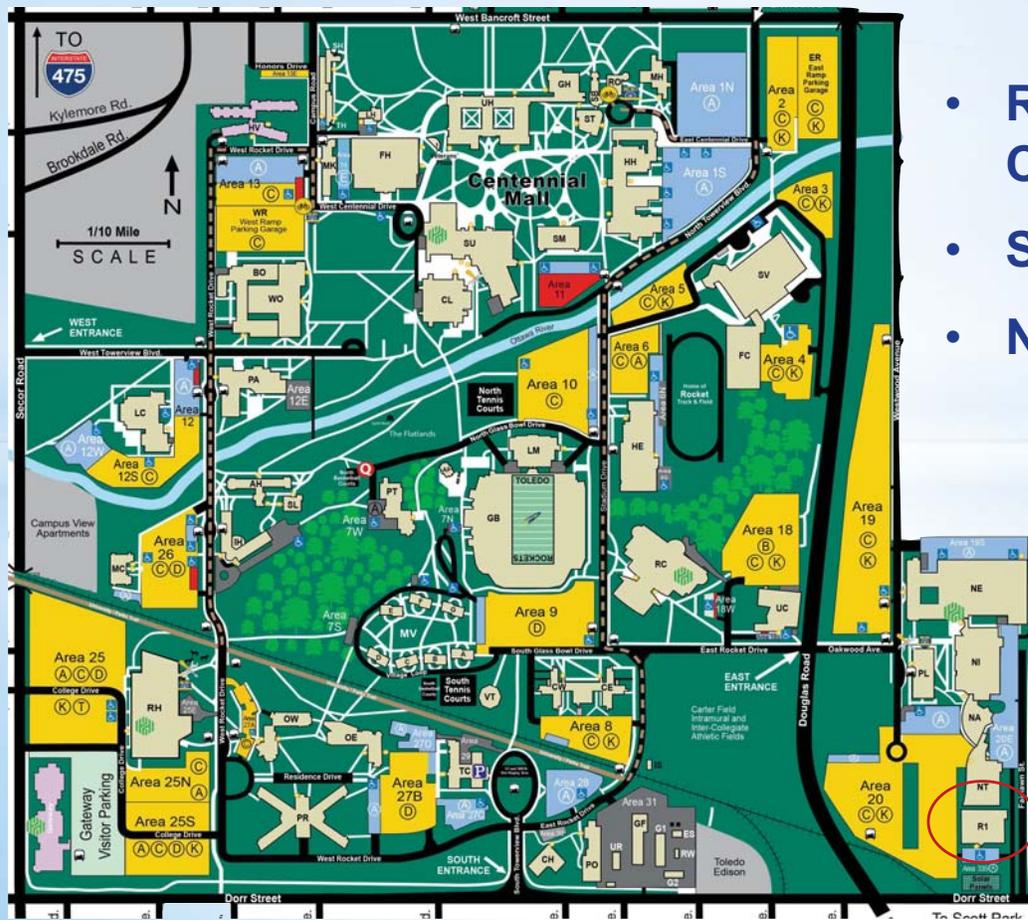
# Research Enterprise

Enhance UT's research enterprise to elevate the University on a national stage while increasing the level of externally-funded research.

# The Office of Research and Sponsored Programs

- RSP Grants Offices | Main & Health Science Campuses
  - Human Protections & Institutional Review Boards (IRB)
  - Animal Care and Research
  - Institutional Biosafety Committee (IBC)
  - Research Compliance & Institutional Export Control
- Technology Transfer & Intellectual Property
- LaunchPad Incubation

# New Location of Main Campus Office



- Research & Technology Complex 1 Building (R1)
- Suites 2200 & 2300
- New Mailstop: 218

# University Research Council

Membership is comprised of a combination of appointments by the President, Faculty Senate and Graduate Council Executive Committee, as well as through *ex officio* membership.

## Responsibilities Include:

- University Research Funding Opportunities (URFO)
- Centers and Institutes
- Centers of Research Excellence
- Research Misconduct
- Research Policies

# Dashboard Goals

## *Total Sponsored Awards*



FY16: \$38.3M

FY17: \$42M

# UT Total R & D Expenditure Ranking

Source: NSF Rankings by Total R & D Expenditures



# Ohio Universities Change in R&D Ranking

2014	2015
19—OSU	20—OSU (-1)
50—Cincinnati	51—Cincinnati (-1)
51—Case Western	55—Case Western (-4)
156—Dayton	145—Dayton (+11)
162—U. Akron	174—Ohio U. (+4)
175—U. Toledo	177—U. Akron (-15)
176—Cleveland St	182—Cleveland St. (-6)
178—Ohio U.	187—Wright St. (-1)
186—Wright St.	190—U. Toledo (-15)
238—Kent St.	214—Kent St. (+24)
256—Miami U.	279—NEOMED (+4)
283—NEOMED	284—Miami U. (-28)
328—BGSU	345—BGSU (-17)
432—Youngstown St.	437—Youngstown St (-5)

# Expenditures per Capita (2015)

## Major Universities Compared to UT

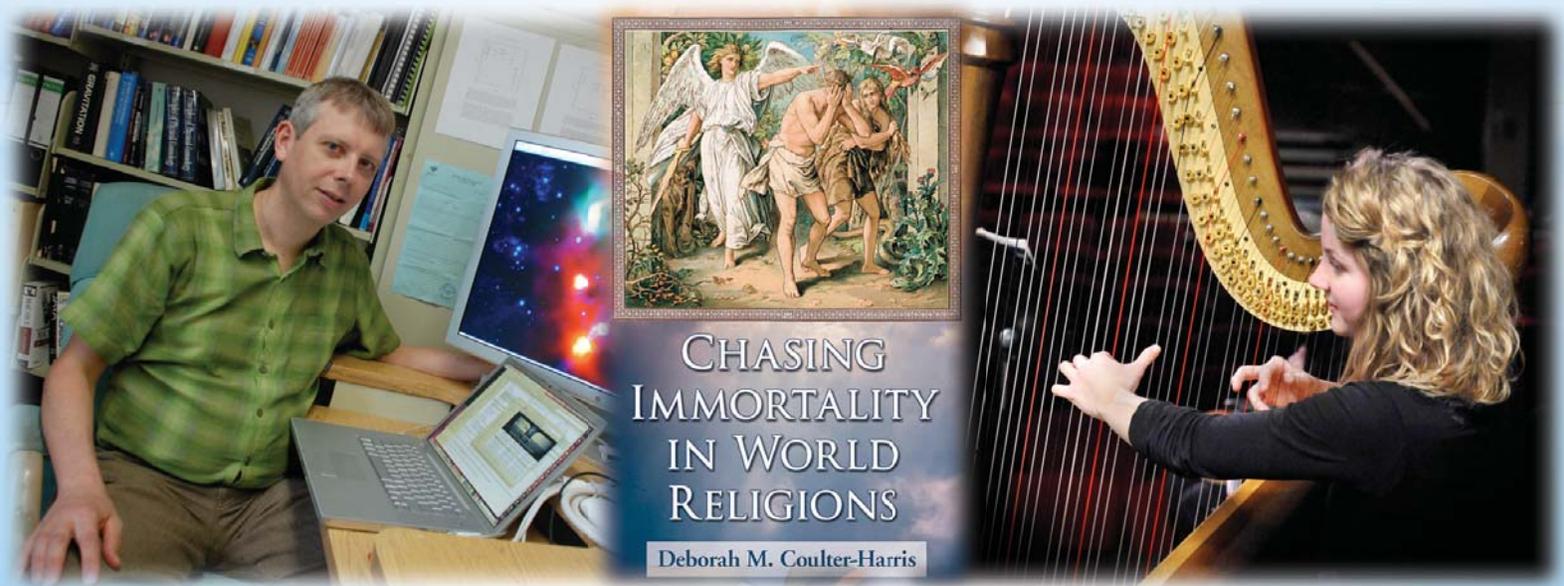
Rank	Institution	# FTTT	FY15 R&D (thousands)	\$ per FTTT
1	Johns Hopkins Univ*	2800	\$2,305,679	\$823,457
2	Univ of Michigan	3100	\$1,369,278	\$441,703
3	Univ of Washington - Seattle	1856	\$1,180,563	\$636,079
4	Univ of California, SF▲	2100	\$1,109,000	\$528,095
5	Univ of California - SD◆	2800	\$1,084,000	\$387,143
20	Ohio State Univ▼	2700	\$817,881	\$302,919
190	University of Toledo▼	800	\$52,354	\$65,443
345	Bowling Green State Univ▼	880	\$7,995	\$9,085

\*JHU expenditure number reduced by \$1.2B of Applied Physics Lab funding.

▲Improvement in ranking. | ◆New to top 5 | ▼Reduction in ranking

# Not all academic achievements are sponsored projects.

Publications, recognition awards, performances,  
editorships, monographs and patents are  
measures of faculty productivity.



# UT Strength

- One of 27 universities in the nation with a breadth of academic offerings across many disciplinary areas.
- Provides greater opportunity for interdisciplinary research and scholarship.

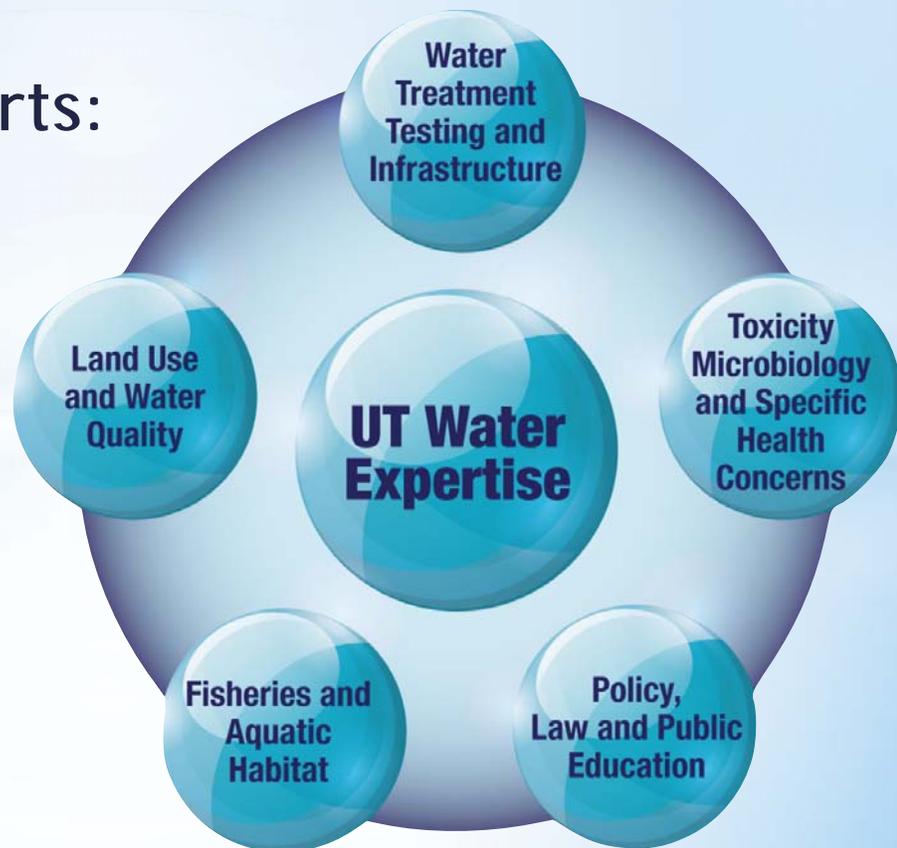


# Interdisciplinary Research Teams

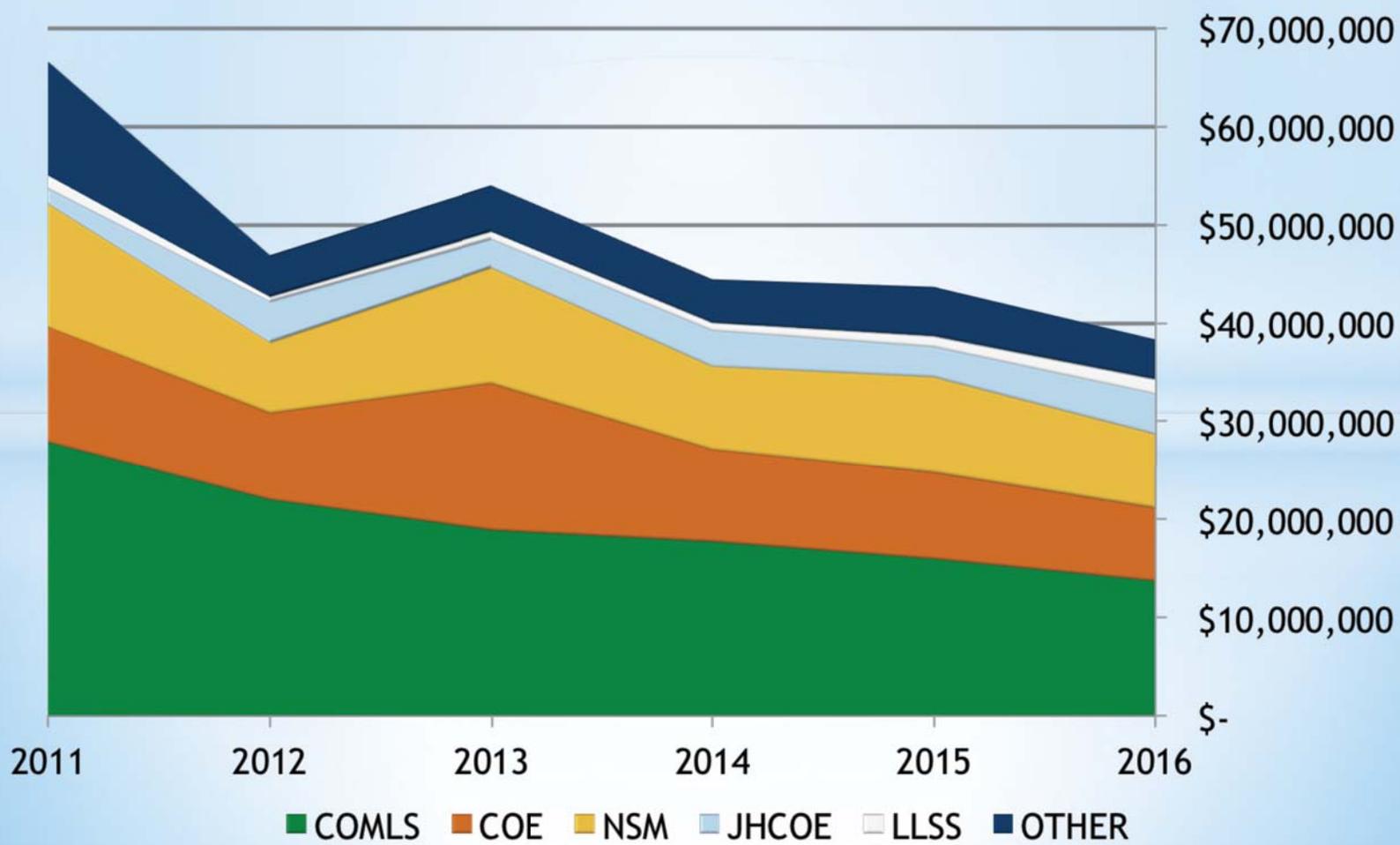
## Example: Water Research

### UT Colleges Leading Water Research Efforts:

- Natural Sciences & Mathematics
- Law
- Business
- Engineering
- Arts and Letters
- Medicine
- Nursing



# UT Research Funding *Awards by College*



## UT Research Funding *Success Rate Over Time*

Submitted FY	Total New Submissions	Awarded	Success Rate
2016	556	163	29%*
2015	536	167	31%
2014	529	160	30%
2013	626	191	31%
2012	666	223	33%
2011	616	200	32%

\*More awards expected

## UT Research Funding

### *Per Capita \$ by Faculty Rank*

Per Capita \$ Per Rank	\$ per Assistant Professor	\$ per Associate Professor	\$ per Professor	\$ per FTTT
2011	\$40,023	\$59,069	\$94,207	\$65,303
2012	\$24,539	\$29,690	\$73,014	\$42,729
2013	\$27,666	\$40,197	\$90,122	\$53,407
2014	\$23,552	\$25,504	\$71,379	\$40,564
2015	\$21,603	\$28,817	\$66,008	\$41,049
2016	\$17,215	\$25,694	\$65,527	\$36,152

## UT Research Funding *Faculty Numbers by Rank*

FY	Assistant Professor	Associate Professor	Other	Professor	Total FTTT
2011	238	314	12	303	867
2012	251	319	13	306	889
2013	232	314	3	280	829
2014	225	314	1	279	819
2015	235	290	4	269	798
2016	261	302	1	277	841

# UT Research Funding

## *Top Investigators by \$ (6 years)*

Investigator	Individual	Cumulative	% of total
1	\$ 9,656,097	\$ 9,656,097	3.29%
2	\$ 7,465,822	\$ 17,121,919	5.83%
3	\$ 7,239,978	\$ 24,361,898	8.29%
4	\$ 6,209,471	\$ 30,571,369	10.40%
5	\$ 5,929,729	\$ 36,501,097	12.42%
6	\$ 5,574,797	\$ 42,075,894	14.32%
7	\$ 5,486,349	\$ 47,562,243	16.19%
8	\$ 5,469,203	\$ 53,031,446	18.05%
9	\$ 4,780,434	\$ 57,811,879	19.67%
10	\$ 4,360,060	\$ 62,171,939	21.16%
11	\$ 4,152,558	\$ 66,324,497	22.57%
12	\$ 3,997,770	\$ 70,322,268	23.93%
13	\$ 3,954,646	\$ 74,276,914	25.28%
14	\$ 3,914,980	\$ 78,191,893	26.61%
15	\$ 3,645,902	\$ 81,837,795	27.85%
16	\$ 3,500,081	\$ 85,337,876	29.04%
17	\$ 3,238,700	\$ 88,576,576	30.14%
18	\$ 3,194,829	\$ 91,771,404	31.23%

13 Investigators account for 25% of our funding.



# Technology Transfer

## Analysis of Data | FY2011-2014

Criteria *Per \$10M Research Expenditures	UT	UA	OSU	UC	UD
Invention Disclosures <sup>+</sup>	10.0	10.9	3.3	4.6	1.5
Licenses/Options <sup>+</sup>	2.2	0.7	0.5	1.1	0.3
License Income <sup>+</sup>	\$128,629	\$36,101	\$21,293	\$19,487	\$13,935
Reimbursement Rate	56%	4%	14%	16%	7%
Startups Formed <sup>+</sup>	0.40	0.47	0.09	0.15	0.00
Criteria *Per \$10M Research Expenditures	WSU	CWU	Cleve. Clinic	Cinci Child's Hosp	OU*
Invention Disclosures <sup>+</sup>	2.8	6.1	9.6	5.2	6.1
Licenses/Options <sup>+</sup>	0.3	1.1	1.3	0.5	0.3
License Income <sup>+</sup>	\$2,724	\$113,099	\$560,461	\$59,731	\$1,960,186
Reimbursement Rate	0%	40%	14%	55%	44%
Startups Formed <sup>+</sup>	0.00	0.13	0.22	0.01	0.39

\* FY2012-2014

# Incubation Facilities

Research & Technology Complex I



Nitschke Technology Commercialization Complex (NTCC)



Laboratory Incubation Center



# Immediate Steps to Support Research

## ✓ **Interim Associate Vice President**

*Connie Schall*

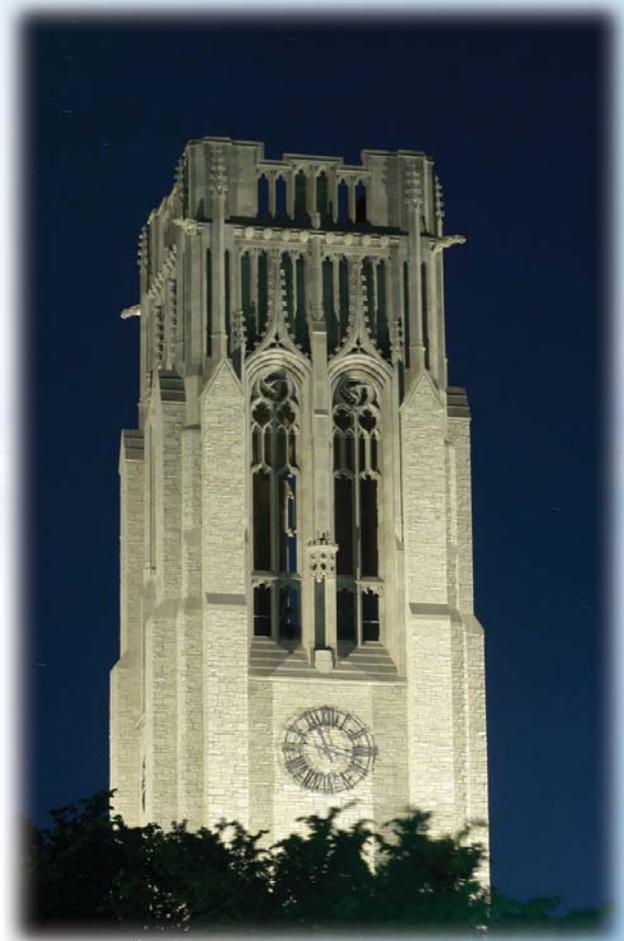
## ✓ **Faculty Fellow**

*Amy Thompson*

- Grant Writing Assistance | *Search in progress*
- Grants Offices Staffing and Centralization | *Move to R1 and search in progress for Grants Coordinator for MC*
- Evaluation of Electronic Grants System (KC) | *Underway*
- Evaluation of Commercialization and Investment Programs (Rocket Innovations)
- Targeted Mentoring of Newly Hired Faculty
- UT ProMedica Academic Affiliation Opportunities
- Promote Research Statewide
- Targeted Federal Agencies

# Strategic Planning Goals

- Empowering the Faculty
- Enhancing Research Level and Significance
- Promoting Research and Scholarship to Enhance UT's Reputation
- Resources and Infrastructure



# Empowering the Faculty

**As a research university, faculty members are expected to establish a research program (externally-funded research program in some fields, such as in STEM fields) and to ensure that these efforts will lead to scholarship and/or creative activities (for example, publications in well recognized peer-reviewed journals). Department chairs, deans, and the provost will monitor and reward faculty productivity in this area.**

# Any Questions?

*Thank you to Rick Francis and  
Marcie Ferguson for their  
assistance with preparing this  
presentation.*

