

## Research Program Overview

Dr. Barry L. Burks,  
Vice Chancellor for Research and Economic Development



North Carolina Agricultural and Technical State University



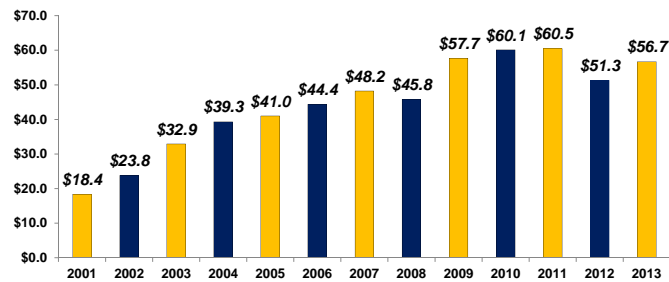
North Carolina Agricultural and Technical State University

### Sponsored funding

NC A&T has the 3rd largest research enterprise in the UNC system

- External funding increased 10.44% in FY2013

(in millions)





North Carolina Agricultural and Technical State University

## FY 2013 Comparison to Other UNC Universities

- 1. UNC Chapel Hill           \$774M
- 2. NC State                   \$229M
- 3. NC A&T                    \$56.7M
- 4. UNC Charlotte           \$36.1M
- 5. East Carolina            \$35.8M
- 6. UNC Greensboro        \$28.8M
- 7. NC Central                \$18.8M
- 8. Winston-Salem          \$16.3M
- 9. Fayetteville             \$11.4M
- 10. Appalachian            \$11.2M

3




North Carolina Agricultural and Technical State University

## Sponsored funding

FY 2013 awards, listed by funder category

Category	Amount	Percentage
U.S. Department of Agriculture	\$19,035,446.00	33.56
National Science Foundation	\$13,843,724.00	24.40
U.S. Department of Education	\$10,597,276.00	18.68
Department of Defense	\$4,984,807.12	8.78
Educational institutions	\$2,247,850.45	3.96
U.S. Department of HHS/NIH	\$1,433,590.00	2.52
NASA	\$1,317,710.00	2.32
9 other federal and private (all < \$1 million)	\$3,259,734.28	5.74
<b>Total</b>	<b>\$56,720,137.85</b>	<b>99.96</b>

4




North Carolina Agricultural and Technical State University

### FY 13 Distribution by schools & colleges

Unit	Total	Percentage
School of Agriculture & Environmental Sciences	\$22,307,350	39.32
College of Engineering	\$15,018,678	26.47
Division of Academic Affairs	\$11,172,247	19.70
College of Arts & Sciences	\$3,739,544	6.59
School of Education	\$1,638,608	2.89
Joint School of Nanoscience & Nanoengineering	\$812,209	1.43
School of Technology	\$791,540	1.39
Division of Student Affairs	\$718,856	1.27
School of Business & Economics	\$442,364	0.78
School of Nursing	\$48,743	0.08
Office of the Chancellor	\$20,000	< 0.01
Graduate School	\$10,000	< 0.01
<b>Total</b>	<b>\$56,720,137</b>	<b>99.92</b>

5



North Carolina Agricultural and Technical State University

### FY 14 status through December 31

Category	Total	Percentage
U.S. Department of Education	\$9,798,701.00	39.03%
National Science Foundation	\$6,427,874.00	25.60%
U.S. Department of Agriculture	\$3,318,821.00	13.21%
Department of HHS/NIH	\$1,404,685.00	5.59%
National Aeronautics & Space Admin.	\$1,067,211.38	4.25%
Educational & Research Institutions	\$847,834.50	3.38%
Department of Defense	\$734,500.00	2.92%
Department of Energy	\$519,600.00	2.06%
9 others (federal, state, local & private)	\$985,527.89	3.91%
<b>Total</b>	<b>\$25,104,754.77</b>	<b>99.95%</b>

6



North Carolina Agricultural and Technical State University

## FY 14 status through December 31

Unit	Total	Grants
Division of Academic Affairs	\$10,326,808.00	10
College of Engineering	\$7,624,713.00	31
School of Agriculture and Environmental Sciences	\$3,720,667.89	25
College of Arts & Sciences	\$1,322,118.00	13
School of Education	\$828,444.00	10
Joint School of Nanoscience and Nanoengineering	\$682,822.00	7
Division of Student Affairs	\$297,059.50	4
School of Business and Economics	\$227,718.00	3
School of Technology	\$44,404.38	2
Division of Research and Economic Development	\$30,000.00	1
<b>Total</b>	<b>\$25,104,754.77</b>	<b>106</b>

7



North Carolina Agricultural and Technical State University

## Intellectual Property Development

- Total patents owned by NC A&T = 23
- After 4 FYs with no new patents issued university inventors were issued 2 patents in FY 2013 and another 2 in first half of FY 2014
- Currently 12 patent applications pending at the US Patent Office and several foreign patent applications in progress
- From FY 2005 through FY 2013 an average of 12.6 preliminary ideas or invention disclosures were submitted by researchers
  - » Thirteen have been submitted to date in FY 2014
- University spin-off company Bio-Adhesive Alliance, Inc. founded by Dr. Fini and Dr. Mellat-Parast with student Daniel Oldham has won numerous business plan competitions – holds great potential for technology commercialization

8



## What's new at DORED

- Office of Contracts and Grants moved from Business and Finance to DORED effective July 1, 2013, relocated to Fort IRC 3<sup>rd</sup> floor in February 2014
- Many policies developed – For example, overhead distribution policy that rewards investigator contributions from all schools, colleges and centers.
- Dr. Tonya Hargett named Interim Director of Undergraduate Research and Lando Little hired as Undergraduate Research Coordinator
  - » Web site developed for listing undergraduate research opportunities
- Technical writing subcontract in place with Hanover Research
- Technical Writer hired - Dr. Aaron Keith McCullough.
- Research staff in DORED unaffiliated with School or College
  - » Dr. Ilki Kim, formerly of the Physics Department, funded by the Army Research Office as a full-time Research Associate.

9



## Proposal Submittal Policy – Performance

- DORED policy requires a “notice of intent” be submitted for all proposals and that proposals be submitted a minimum of three days before due dates
  - » NOI gives grant administrator advance warning so they can review requirements of the solicitation, prepare the associated institutional documents, schedule time to review and submit the proposal
  - » Proposals received 3 days before due date get reviewed for completeness, budget reviewed, also reviewed by technical writer if requested
- From July through December 2013, 209 proposals were submitted
  - » 136 were submitted without a NOI – 65%
  - » 153 were submitted to DORED on the due date – 73%
  - » 100 were submitted on the due date and without a NOI – 48%
  - » 9 were submitted 3 days or more before due date and with a NOI – 4.3%
- If more NOIs were received and/or proposals were received several days before due date proposal quality would improve

10



## Points of Emphasis

- Competition for grants has increased – higher quality is needed for improved success – need better compliance with policy
- Deans, Department Chairs etc. – review before you approve
- Only the Institutional Official can make commitments on behalf of the University
- Every proposal to an external organization requesting funds for scholarly activity must generate an NOI and be submitted to RAMSeS, even if the proposal will be submitted to the funding organization by another university or company
  - » Every proposal represents a commitment of faculty, staff or student time and/or other institutional resources

11



## How are we doing this year?

- Compare July – December 2013 to same period in 2012
  - » Submitted 24 more proposals (+13%) requesting \$2.62M fewer dollars (-3.5%)
  - » Received 3 more awards (+2.9%) totaling \$2.51M fewer dollars (-9.1%)
  - » Awards averaged \$268K in 2012, \$237K in 2013, reduction of 12%
- For the 209 proposals submitted in FY 2014 there were 113 different PI's
  - » NC A&T employs somewhere between 643 and 710 faculty (16-18% participation rate as a PI)
  - » 85% were submitted by a single Department
  - » 9.7% listed investigators from two Departments
  - » 5.3% listed 3 or more Departments
- Compare to UNC Chapel Hill where 48% of FY 2013 proposals listed multiple UNC Departments, 27% listed multiple colleges/schools

12



## Notable Recent Grants and Contracts

- Many examples of researchers that have multi-year awards who have received renewals or added funds because of excellent performance.
- Also received funding from some new sources and planning grants with potential for large follow on funding.
  - » Electrical and Computer Engineering Department contract from Scientific Research Corporation for DOD autonomous systems project.
  - » Biology Department grant from NIH for building the minority pipeline for Biomedical PhD graduates
- More Good News - First week of February notified of 2 DOD major equipment grants totaling almost \$1M – both for equipment that will benefit multiple Schools/Colleges

13



## Conclusions

- We need to increase faculty participation in proposal writing
- We need to submit high quality, complete, competitive proposals
- We need to develop more multi-disciplinary project teams
- We have much to be proud of, many “wins” to celebrate, but can’t rest on past successes
- We have the tools and people to be successful, but it takes daily action to “be the best we can be”

14