



NC STATE UNIVERSITY

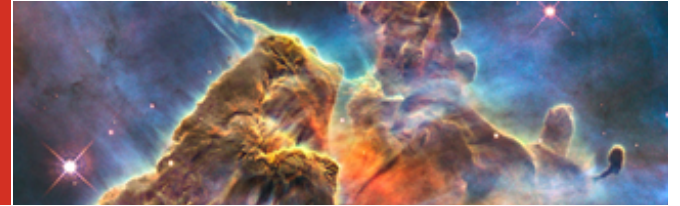
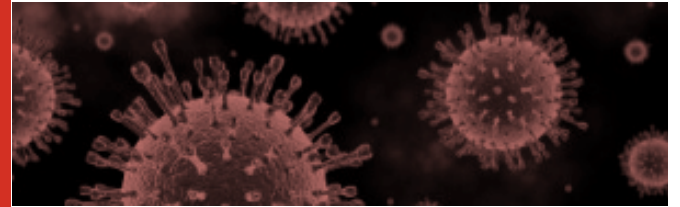
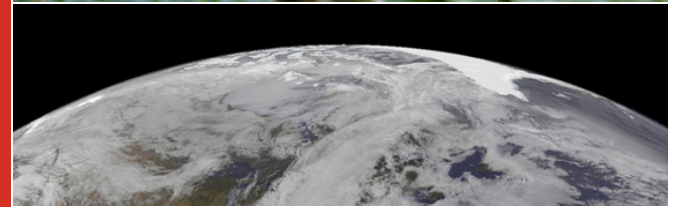
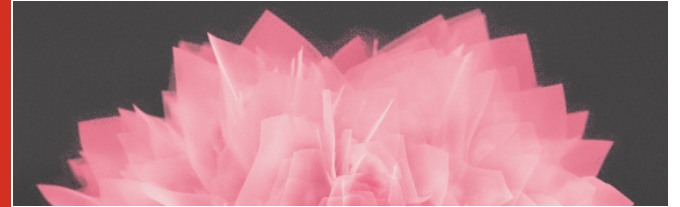
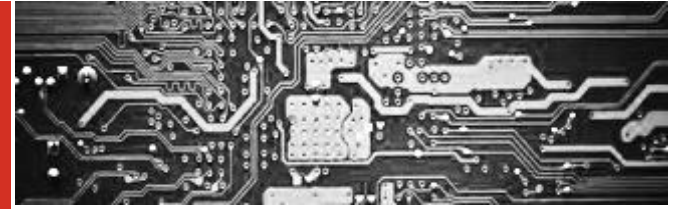
Centers & Institutes and Shared Research Resources

URC/ROC/RSC Meeting

October 21, 2013

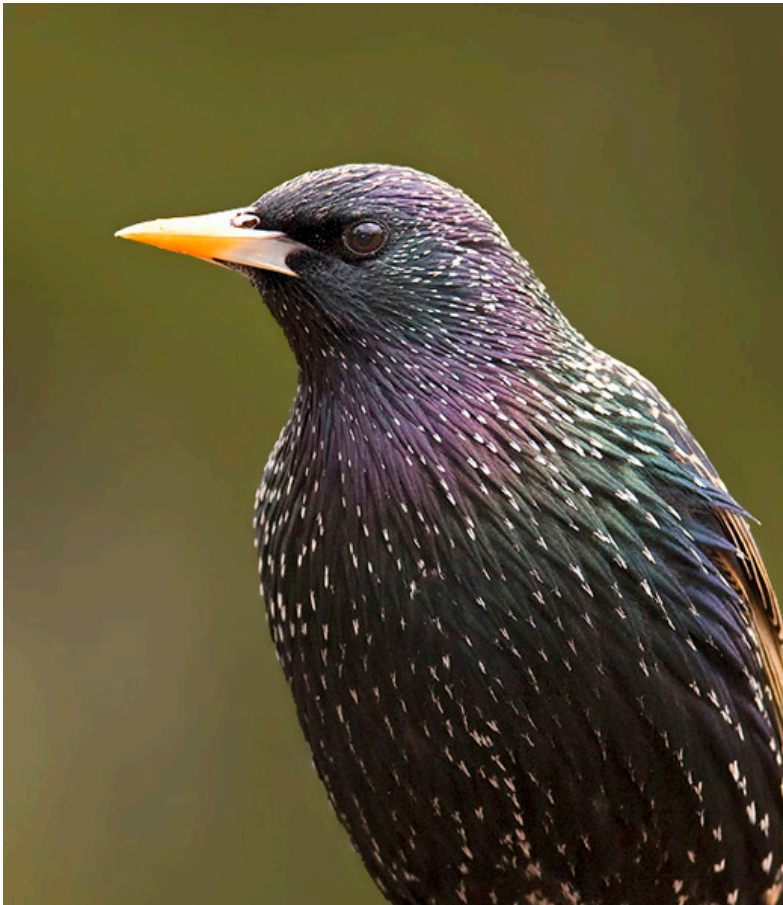
Jon Horowitz

*Assistant Vice Chancellor for
Research Development*





The Tale of the European Starling in the U.S. as a Metaphor for the History of Centers and Institutes at NC State



European Starling

- Several attempts were made to introduce the European Starling to the U.S. in the 19th century.

-Pennsylvania 1850

-Ohio 1872

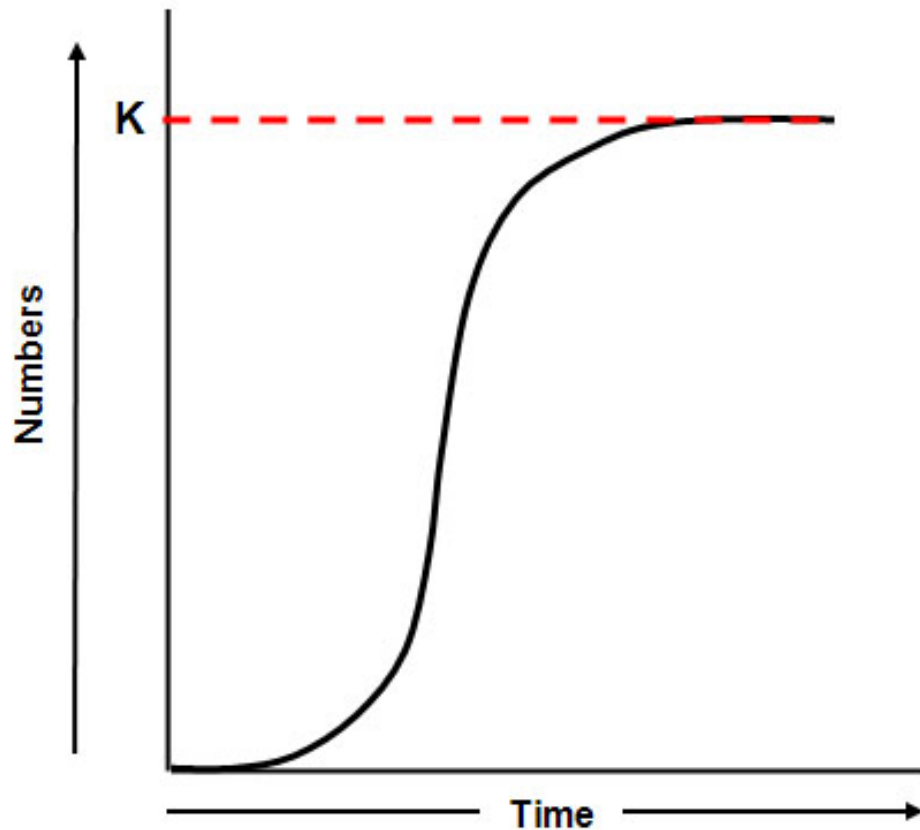
-Oregon 1889

All failed!

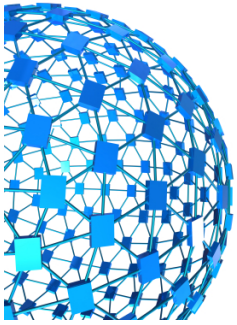
- Then, 160 birds were released in two waves in NYC's Central Park in April 1890 and March 1891.
- It took 10 years for the birds to establish themselves in NYC, but only 40 more years to spread throughout the country.
- There are 140-200 million in North America today.



The Tale of the European Starling in the U.S. as a Metaphor for the History of Centers and Institutes at NC State

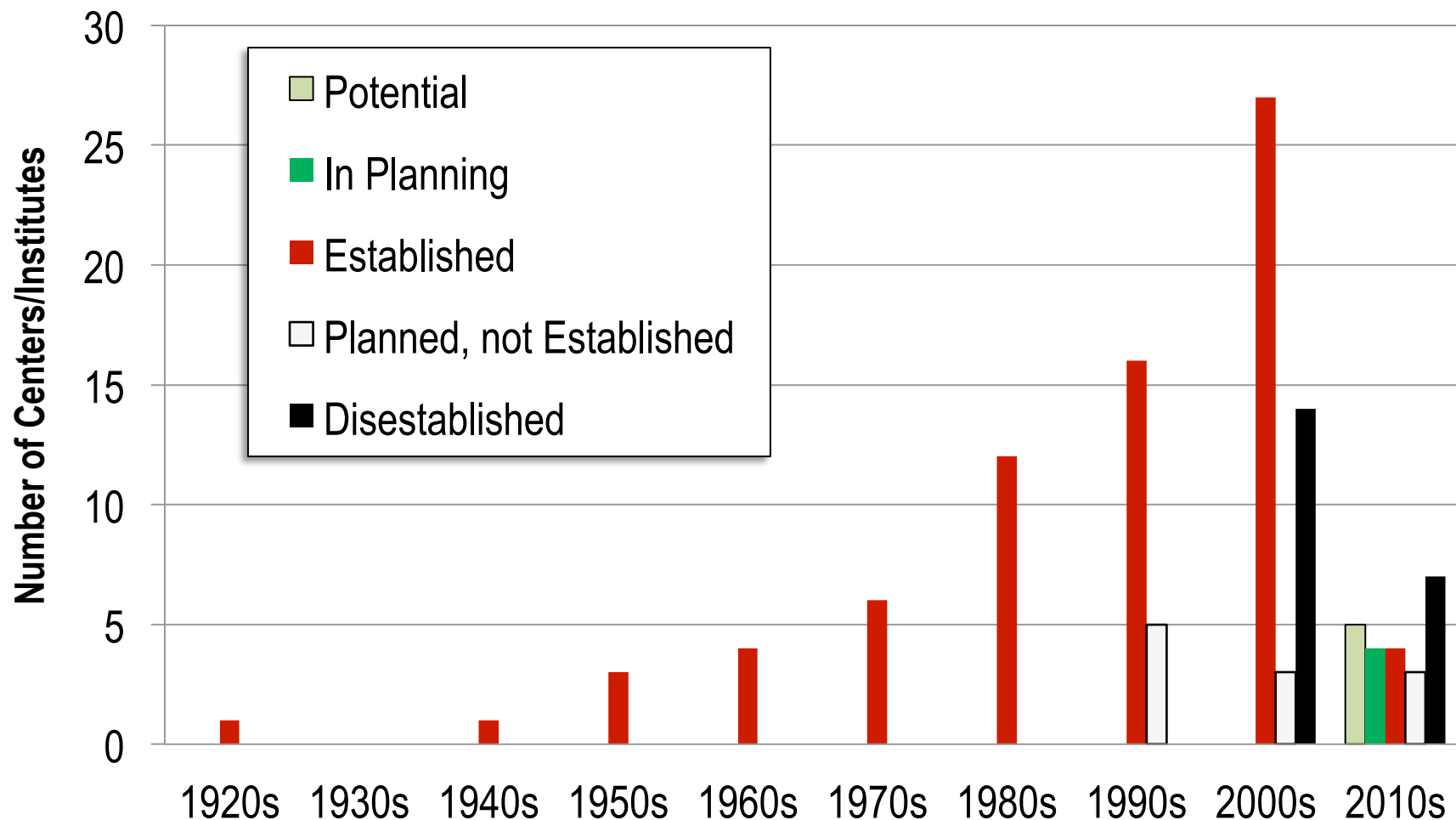


- The history of the Starling in the U.S. can be modeled as a sigmoid curve.
- Initially, their slow start is due to low population density and adaptation to a new environment. Their existence was threatened with extinction if conditions aren't just right.
- If conditions are right, the population expands exponentially until resources become limiting and/or other environmental effects reduce the size of the population.



History of Center & Institute Establishment

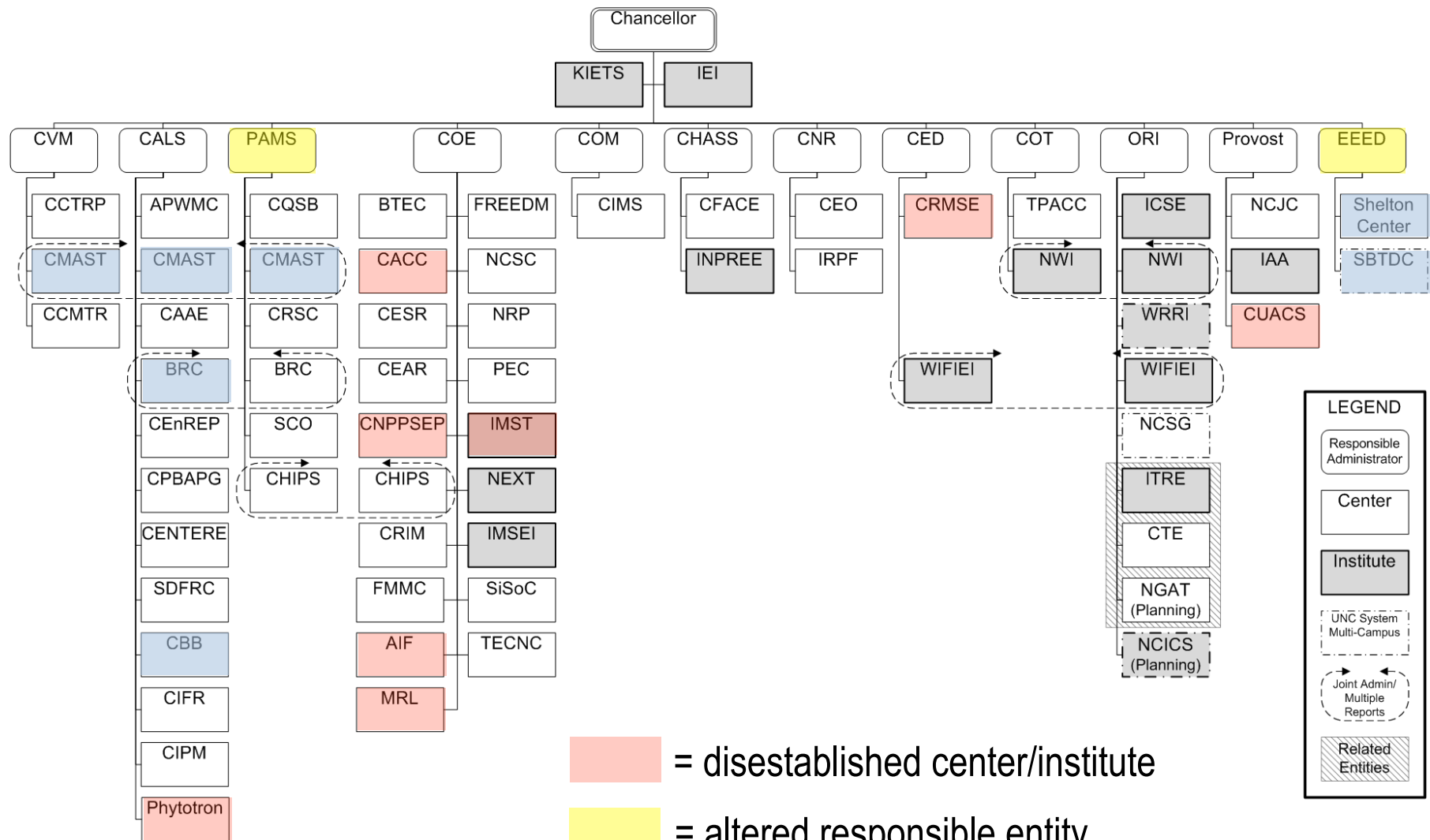
Currently Active: 41 Centers & 12 Institutes



Name	Acronym	Responsible Administrator	Date Disestablished	Tenure as Center or Institute	Notes
Analytical Instrumentation Facility	AIF	COE	6/24/2010	87 years	Service center
Applied Energy Research Laboratory	AERL	COE	8/14/2009	31 years	
Brandon P. Hodges Wood Products Laboratory	WPL	CNR	7/27/2009	51 years	Service center
Center for Advanced Computing & Communication	CACC	COE	7/1/2011	29 years	Placed under ITNG
Center for Computational Biology	CCB	CALS	7/30/2009	8.75 years	
Center for Excellence in Curricular Engagement	CECE	Provost	7/22/2009	2.3 years	
Center for Research in Mathematics and Science Education	CRMSE	CED	11/10/2010	26 years	Placed under WIFIEI
Center for the Biology of Nematode Parasitism	CBNP	CALS	7/22/2009	6.75 years	
Center for Urban Affairs and Community Services	CUACS	Provost	2/2/2012	46 years	Service center
Encore Center for Lifelong Enrichment	ECLE	EEED	7/29/2009	16.75 years	Service center
Engineering Research Center for Advanced Electronic Materials Processing	ERCAEMP	COE	7/27/2009	20 years	Service center
Institute for Maintenance Science and Technology	IMST	COE	4/1/2011	3 years	Service center
Institute of Statistics	IS	COS	7/27/2009	65 years	
Kenan Center for the Utilization of Carbon Dioxide in Manufacturing	KCUCDM	ORIED	7/31/2009	12 years	
Minerals Research Laboratory	MRL	COE	6/24/2010	56 years	Service center
Silicon Wafer Engineering and Defect Science Center	SiWEDS	COE	7/27/2009	6.3 years	
Southeastern Plant Environment Laboratories	Phytotron	CALS	7/14/2010	42 years	Service center



Centers & Institutes Circa 2010



Disestablished center/institute

Altered responsible entity

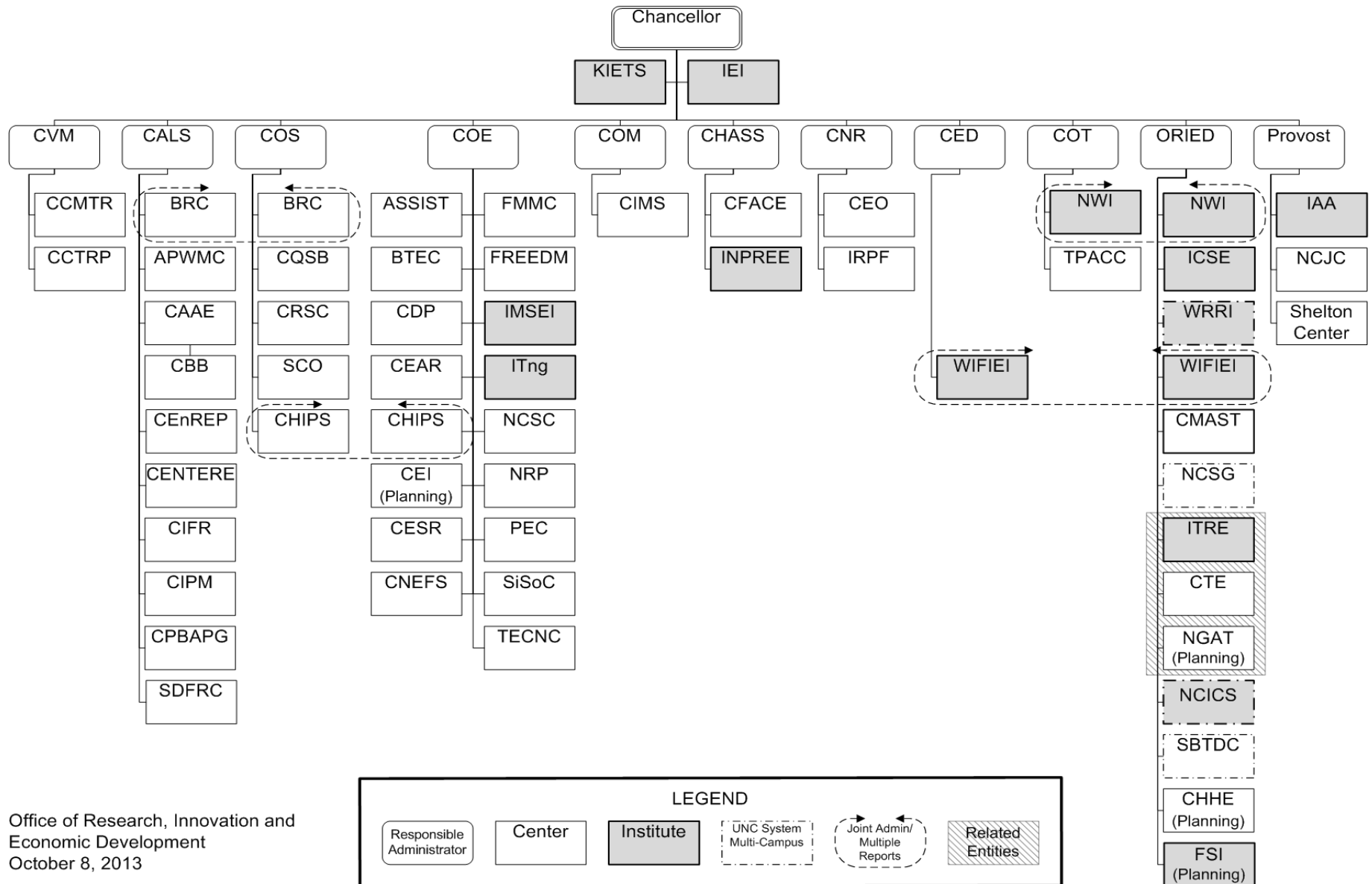
Altered reporting line

LEGEND

- Responsible Administrator
- Center
- Institute
- UNC System Multi-Campus
- Joint Admin/ Multiple Reports
- Related Entities



Centers & Institutes Today



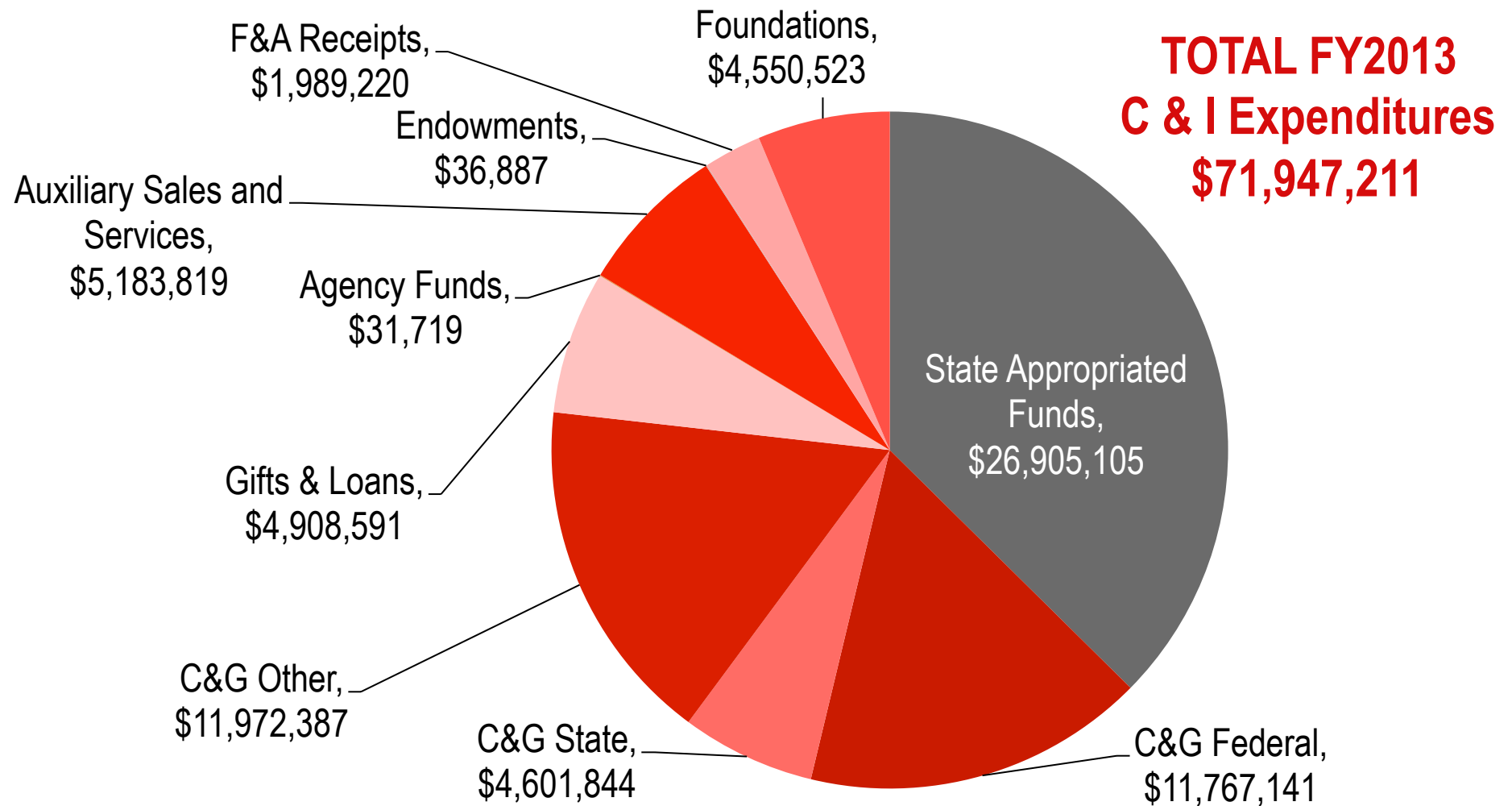
Center/Institute In Planning	Request to Establish Expected	Responsible Administrator
Center for Educational Informatics (CEI)	May 2014	COE
* Center for Human Health and the Environment (CHHE)	Feb 2014	ORIED
* Forensics Sciences Institute (FSI)	Imminent	ORIED
NextGen Air Transportation Center at ITRE (NGAT)	Oct 2013	ORIED

Potential Center/Institute Name	Permission to Plan Expected	Responsible Administrator
Plants for Human Health (PHHI)	TBD	CALS
* Digital Games Research Center (DGRC)	TBD	?
Institute for Human Protection & Comfort Sciences (IHPCS)	Imminent	?
* NCSU Genetic Engineering & Society Center	Imminent	ORIED
* Data Sciences Institute	Imminent	ORIED

** Associated with Faculty Excellence Cluster*



FY2013 Expenditures of Centers & Institutes



Center /Institute with Direct State Support	Responsible Entity	Expenditures from Direct State Support	Expenditures from External Funds	Approx. Leverage Ratio
Golden Leaf Biomanufacturing Training & Education Center (BTEC)	COE	\$5,735,821	\$6,018,655	1
Center for Comparative Medicine and Translational Research (CCMTR)	CVM	\$347,459	\$700,657	2
Center for Earth Observation (CEO)	CNR	\$22,000	\$659,042	30
Center for Quantitative Sciences in Biomedicine (CQSB)	COS	\$128,221	\$446,606	3
Center for Integrated Pest Management (CIPM)	CALS	\$153,954	\$2,294,129	15
Center for Research in Scientific Computation (CRSC)	COS	\$112,788	\$2,497,565	22
Nonwovens Institute (NWI)	COT	\$337,400	\$5,739,303	17
Future Renewable Electric Energy Delivery and Management Systems Center (FREEDM)	COE	\$326,848	\$7,090,310	22
Institute for Advanced Analytics (IAA)	Provost	\$1,206,591	\$1,843,817	2
Institute for Nonprofit Research, Education and Engagement (INPREE)	CHASS	\$269,721	\$1,043,457	4
Small Business and Technology Development Center (SBTDC)	ORIED	\$957,090	\$13,078,229	14
William and Ida Friday Institute for Educational Innovation (WIFEI)	CED	\$1,771,423	\$5,647,985	3
Subtotal for these selected C/Is		\$11,369,316	\$53,122,425	5

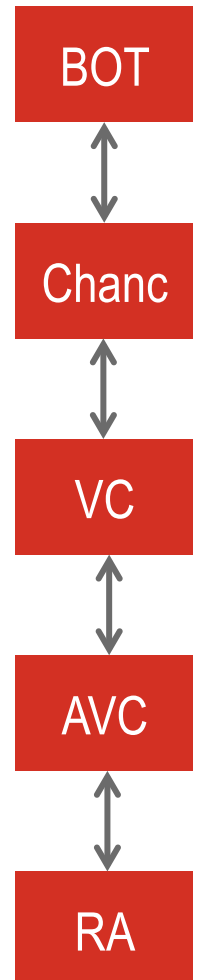


Center & Institute Oversight Reg 10.10.04

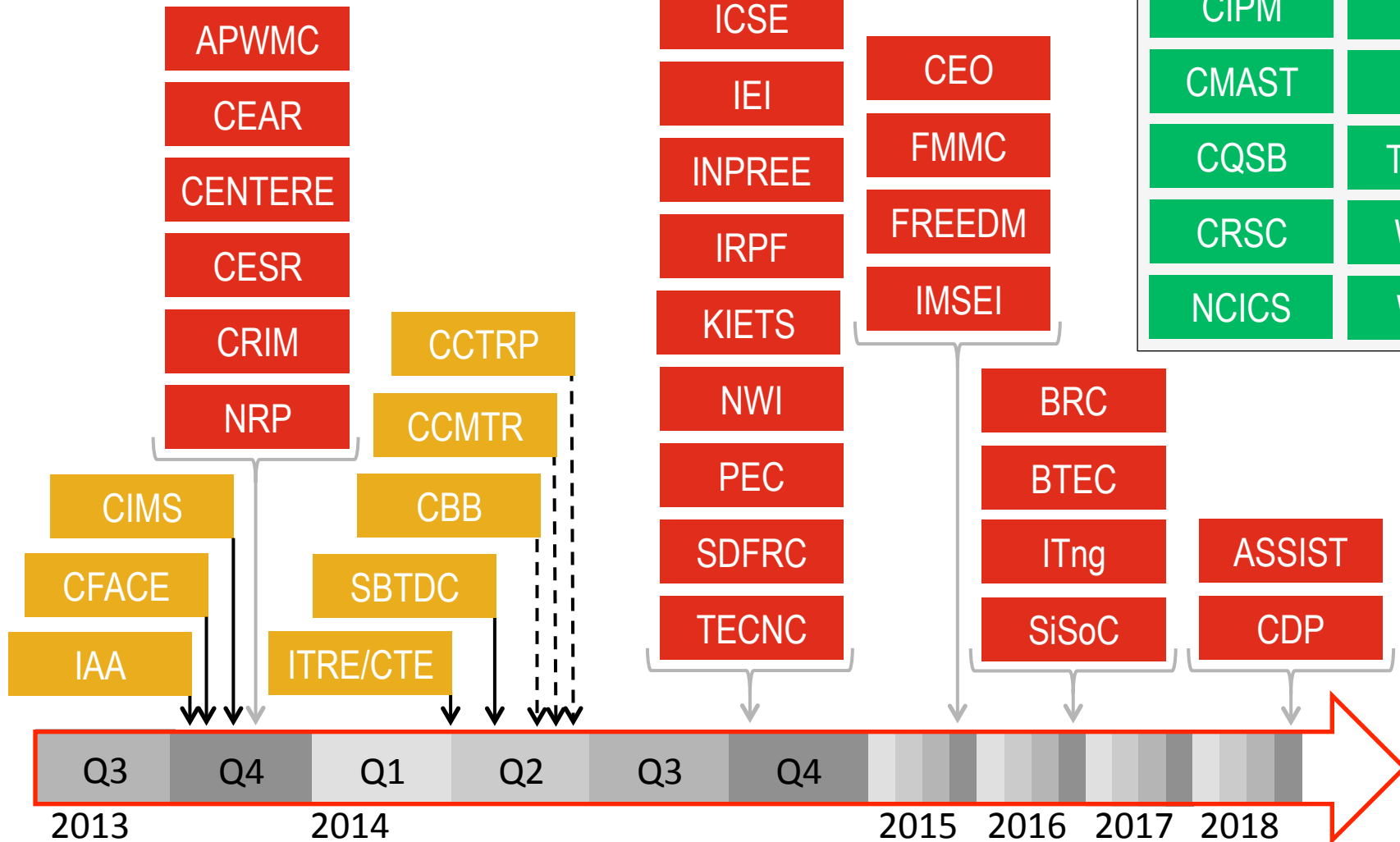
NC STATE
UNIVERSITY



- Responsibility for all administration and oversight delegated by Chancellor to VCRIED
- Each Center/Institute has sole responsible administrator (RA = EO or dean) to facilitate oversight process
- **Biennial reports** to ORIED, then BOT (March). Includes goals, metrics, activities, accomplishments, etc.
- **5-yr. evaluations** by professional panel assembled by RA or VCRIED. RA recommendation to ORIED/Chancellor, then to BOT for action. Includes comprehensive report on:
 - Goals
 - Faculty
 - Students
 - Staff
 - Space
 - Needs
 - Funding
 - Accomplishments
 - Sustainability



Master Schedule of Reviews



Recently Reviewed	
CAAE	NCJC
CHiPS	NCSC
CIFR	NCSG
CIPM	SCO
CMAST	SLC
CQSB	TPACC
CRSC	WIFEI
NCICS	WRRI

SPONSORED PROGRAMS + REGULATORY COMPLIANCE

SEARCH



Home » [Centers + Institutes](#)

Centers + Institutes

- About Us ▣
- Policies & Forms ▣
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- Systems Portal ▣
- Centers + Institutes** ▣
 - NC State Centers
 - Multi-Campus Centers, Institutes and Partnerships
 - Centers + Institutes in Planning
 - Off-Site Centers
 - NC State Service Centers
 - Centers Database
- Committees ▣
- Training ▣
- Research Contacts ▣

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Negotiator

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Data

- » NC State's Centers
- » Multi-Campus Centers
- » Centers in Planning
- » NC State Service Centers
- » Centers Database

Guidelines

- » CI Regulation
- » CI Management Guide
- » Consortium Management Guide
- » NSF I/UCRC Membership Agreement

▣ Purpose

The fabric of academe is in a state of constant change demanding the continuous evolution of traditional disciplines. Interdisciplinary centers and institutes are one catalyst for marrying traditional disciplines and spawning new, cutting-edge bodies of knowledge. At NC State University, our commitment to interdisciplinary scholarly pursuit, including research, instruction and service to the public is rich in history and quality as evidenced in the links on this website. Here, we provide the outside world a window into these frontiers of intellect and provide the leadership of these cutting-edge organizations a portal of helpful materials, procedures and policies necessary to manage their efforts responsibly, equitably and with the highest integrity necessary to maintain public trust and admiration.

- ▣ Check out the latest version of NC State's research highlights – [Results](#)



ORIED | Funding | Proposals | Manage Award | Compliance | Invent/Publish | Closeout | Collaboration | C + G

Home » Centers + Institutes » NC State Centers

<http://research.ncsu.edu/sparcs/centers/ncsu-centers/>

NC State Centers

- About Us ▣
- Policies & Forms ▣
- Compliance ▣
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- Centers + Institutes ▣
- NC State Centers**
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The following is the list of centers and institutes ordered by administrative unit. The center name is a link to its web site. Links to its org chart and charter are also provided where available.

Center/Institute Name	Acronym	Link to Org Chart	Link to Charter
Office of the Chancellor			
Institute for Emerging Issues	IEI	Org Chart	Charter
Kenan Institute for Engineering, Technology & Science	KIETS	Org Chart	Charter
Office of the Provost			
General H. Hugh Shelton Leadership Center	SLC	Org Chart	Charter
Institute for Advanced Analytics	IAA	Org Chart	Charter
North Carolina Japan Center	NCJC	Not Available	Charter
Office of Research, Innovation and Economic Development			
Center for Marine Sciences and Technology	CMAST	Org Chart	Charter
Center for Transportation and the Environment	CTE	Org Chart	Charter
Institute for Computational Science and Engineering	ICSE	Org Chart	Charter
Institute for Transportation Research and Education	ITRE	Org Chart	Charter
Nonwovens Institute	NWI	Org Chart	Charter
North Carolina Institute for Climate Studies	NCICS	Org Chart	Charter
North Carolina Sea Grant College Program	NCSG	Org Chart	Charter
Small Business and Technology Development Center	SBTDC	Org Chart	Charter
Water Resources Research Institute	WRRRI	Org Chart	Charter
College of Agriculture and Life Sciences			
Animal & Poultry Waste Management Center	APWMC	Org Chart	Charter
Bioinformatics Research Center	BRC	Org Chart	Charter
Center for Applied Aquatic Ecology	CAAE	Org Chart	Charter
Center for Environmental and Resource Economic Policy	CEnREP	Org Chart	Charter
Center for Integrated Fungal Research	CIFR	Org Chart	Charter
Center for Integrated Pest Management	CIPM	Org Chart	Charter
Center for Plant Breeding and Applied Plant Genomics	CPBAPG	Org Chart	Charter

SPONSORED PROGRAMS + REGULATORY COMPLIANCE

SEARCH



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Sponsored Programs and Regulatory Compliance Research, Innovation & Economic Development

Browse By:

[Seek Funding](#)

[Compliance](#)

[Manage Award](#)

[Invent/Publish](#)

[Project Closeout](#)

Centers & Institutes Database: [Home](#)

[<< Centers & Institutes Home](#)

[<< Logout from Centers & Institutes Database](#)

https://www3.acs.ncsu.edu/CI_PROD/StatusServlet

Quick Reports

[> GENERAL INFORMATION](#)

[> BUDGET & FUNDED POSITIONS](#)

[> STAFF PROFILE](#)

[> SPACE ALLOCATION](#)

[> PERIODIC REVIEW](#)

[> COMPREHENSIVE FINANCIAL REPORT](#)

[> BIENNIAL REPORT SUBMISSION STATUS](#)

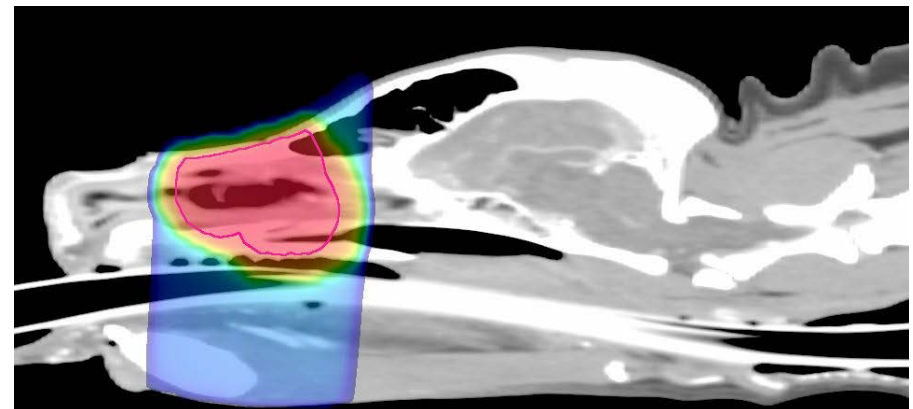
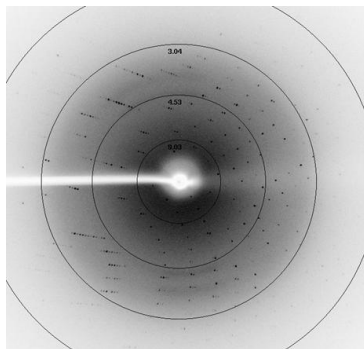
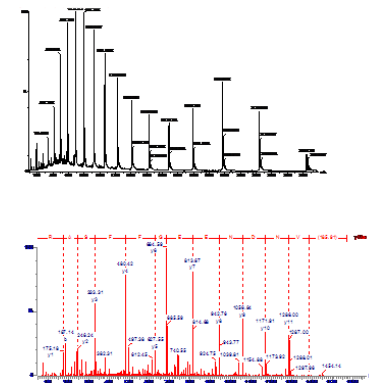
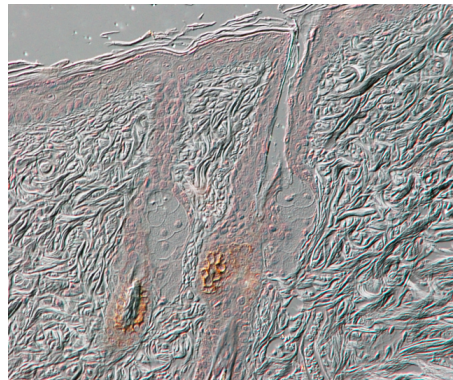
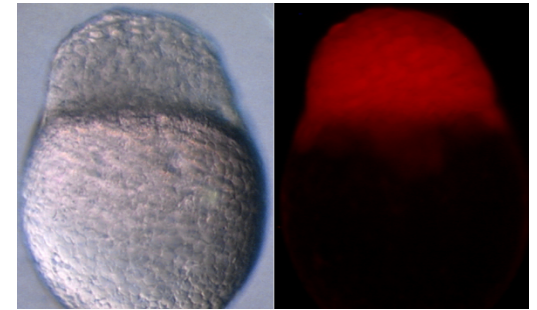
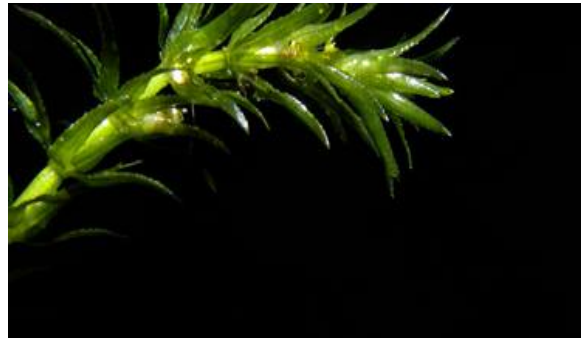
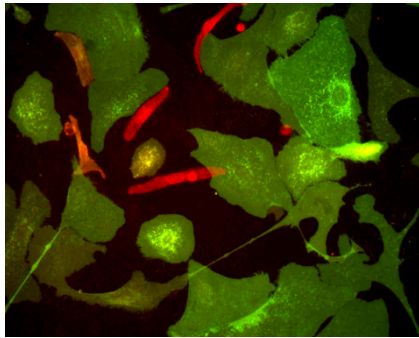
Table of Centers & Institutes

View Centers with following Status:

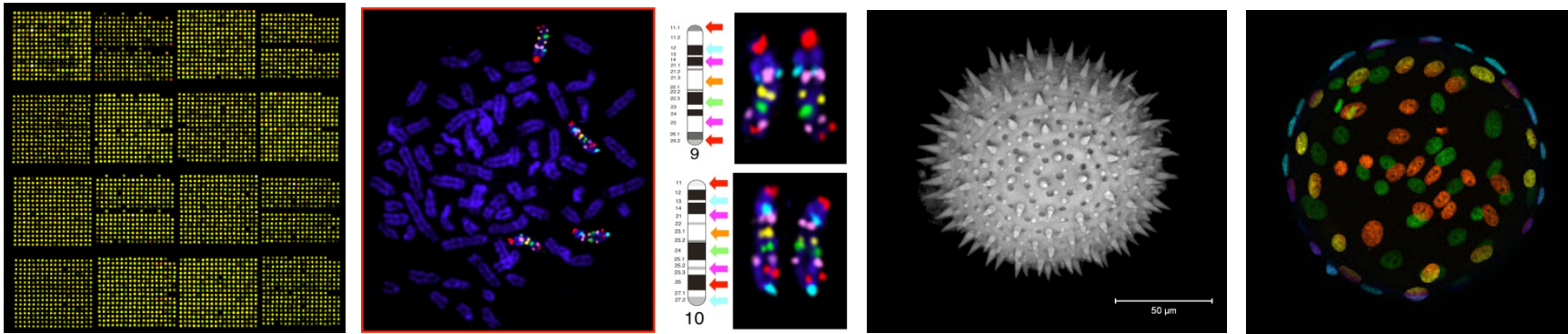
Status: [A: Active/Established](#) [I: Inactive/Disestablished](#) [P: Planning](#) * = Date Disestablished for Status=I

Name	Acronym	Type	Responsible Admin	Date Established*	Status	Member CI	No. of members
<p style="text-align: center;"> <input type="button" value="▲"/> <input type="button" value="▼"/> Click on the Center or Institute name for detailed information. </p>							
Advanced Self Powered Systems of Sensors and Technologies Center	ASSIST	Center	COE	02-21-2013	A	Y	0
Animal & Poultry Waste Management Center	APWMC	Center	CALS	01-08-1999	A	N	0
Bioinformatics Research Center	BRC	Center	CALS	08-11-2000	A	N	0
Center for Applied Aquatic Ecology	CAAE	Center	CALS	06-22-2000	A	N	0
Center for Chemical Toxicology Research and Pharmacokinetics	CCTRP	Center	CVM	03-10-1989	A	N	0
Center for Comparative Medicine & Translational Research	CCMTR	Center	CVM	02-17-2006	A	N	0
Center for Dielectrics and Piezoelectrics	CDP	Center	COE	02-21-2013	A	Y	0

Maximizing Research Potential: NCSU Shared Research Facilities



Research Infrastructure Updates: GSL and CMIF Move to ORIED



- In concert with the creation of the College of Sciences, two long-standing CALS-administered research core facilities were transferred to ORIED:

Genomic Sciences Laboratory: <http://research.ncsu.edu/gsl>

Cellular and Molecular Imaging Facility: <http://www.ncsu.edu//project/cmif-micro/>

- To ensure quality and continued growth of capabilities offered by each core facility, each is overseen by an advisory board of 8-10 faculty from five colleges that is chaired by Jon Horowitz.
- Faculty advisory boards meet at least once per semester to review operations within each facility, bring faculty concerns to the Director/Board/Chair, and propose new equipment for acquisition.

Research Infrastructure Updates: New Shared Research Facilities



Perspective from Moore Drive

NCSU Centennial Biomedical Campus
Flex Lab Building
16 April 2007

NC STATE UNIVERSITY Jenkins • Peer Architects CAPITAL ASSOCIATES*

- 2. The new digital and electrical infrastructure, including facilities that will house the Flex Building, Faculty (Core) and S.B.M. medical Center provided by CMIF and LAELOM (CVM EM facility).

Research Infrastructure Updates: Access to UNC Shared Research Facilities

- A memorandum of understanding has been signed that enables users at UNC-CH and NCSU to use each other's shared research facilities at **internal service rates**.
- As a consequence, all **82 UNC-CH shared research facilities** will be available to NCSU researchers at rates paid by UNC faculty.
- Animal model cores, biochemistry cores, clinical and translational cores, genomics and imaging cores, research support cores.

<http://www.med.unc.edu/corefacilities>

RESEARCH INSTRUMENTATION + EQUIPMENT SYSTEM



Welcome to the Research Instrumentation + Equipment System

- Start New Recommendation
- My Recommendations
- Review + Endorse Recommendations
- FAQs
- Recommendation Template (.docx)

The Research Instrumentation + Equipment System (RIES) allows members of NC State's research community to make recommendations for specialized equipment acquisitions for shared facilities. While no specific funds have been identified for equipment acquisitions, RIES will provide data to support strategic decisions regarding the allocation of resources.

Recommendations and Endorsements

By clicking *Start New Recommendation* on the left, faculty can enter recommendations using online forms. Data is saved after each session and can be entered over multiple sessions. The originator of a recommendation can allow other faculty to edit their recommendations by entering the UnityID of their collaborators on the *My Recommendations* page. Faculty can review all finalized recommendations on the *Review + Endorse Recommendations* page and endorse up to three recommendations. Recommendations and endorsements can be entered into RIES year-round, but the list of recommendations will be prioritized annually in December.

Prioritized List of Equipment Needs

Associate deans for research, faculty excellence cluster leaders, and center and institute directors will help prioritize all recommendations submitted by November 30, 2013. Service center directors will provide additional input as needed. The prioritized list of equipment needs will be used by the Provost, Vice Chancellor for Business & Finance, and Vice Chancellor for Research, Innovation and Economic Development to make strategic investments in research infrastructure.

RESEARCH INSTRUMENTATION + EQUIPMENT SYSTEM



About the Equipment

**indicates required field*

Start New
Recommendation

About the Equipment

Rationale

Oversight

Funding

Verify + Submit

My Recommendations

Review + Endorse
Recommendations

FAQs

Recommendation
Template (.docx)

Name of Equipment*

Please include make and model or any other specifying information.

What is the function of this item? What can be accomplished with it?*

Please use language that can be understood by non-experts.

In general, what type of equipment are you requesting?*

i. e. scanning electron microscope, flow cytometer, spectrometer, etc.

Please provide comma-separated keywords/phrases that refer to this equipment.*

RESEARCH INSTRUMENTATION + EQUIPMENT SYSTEM



Review + Endorse Recommendations

- Start New Recommendation ▣
- My Recommendations ▣
- Review + Endorse Recommendations ▣**
- FAQs ▣
- Recommendation Template (.docx) ▣

Recommendations you have endorsed

PCR Machine

Sharon Smith (ssmith4)



Tissue Cold Storage Unit

Joseph Ellison (jdeliso)



You may endorse a maximum of three proposals.

Search Completed Proposals

Completed recommendations

Earthquake Sensor Array

Liana Fryer (lffryer)



Mass Spectrometer

Margaret Hudacko (huck)



Nanoscale 3D Printer

Liana Fryer (lffryer)



Nanscale 4D Printer

Nathan Thyme (nothyme)



Scanning Electron Microscope

Margaret Hudacko (huck)



X-Ray Telescope

Carl Sagan (csagan1)



RESEARCH INSTRUMENTATION + EQUIPMENT SYSTEM



Your Recommendations

- Start New Recommendation ▣
- My Recommendations** ▣
- Review + Endorse Recommendations ▣
- FAQs ▣
- Recommendation Template (.docx) ▣

Your Recommendations

Mass Spectrometer

unityID

Add Collaborator



Collaborators:

- ✗ Marc Hoit (mihoit)
- ✗ Randy Avent (rkavent)

Scanning Electron Microscope

unityID

Add Collaborator



Your Collaborations

Earthquake Sensor Array

Owner: [Liana Fryer](#)



Semiconductor Voltage Tester

Owner: [Liana Fryer](#)



Nanoscale 3D Printer

Owner: [Liana Fryer](#)



Your Endorsements

PCR Machine

Owner: [Sharon Smith](#)



Tissue cold storage unit

Owner: [Joseph Ellison](#)

