



**NC STATE**

THINK AND DO  
THE EXTRAORDINARY

# **Administrative Leadership Meeting**

Randy Woodson

Chancellor

Tuesday, March 4, 2025

# Upcoming ALMs

## Next Meeting

May 13

TBD

Titmus

## 2025 Meeting Dates

- July 15, 2025
- September 9, 2025
- November 11, 2025

# Fall Admissions

- 36,000+ applications for early action deadline, over 49,000 total.
- Aiming to enroll 5,950 first-year students.
- Admitted students must confirm enrollment by May 1.





## Faculty Success and Awards

- BOG Award for Excellence in Teaching
- Sloan Research Fellow



# **Next Level Interdisciplinarity: Academies at NC State**

Rob Dunn, Senior Vice Provost for University Interdisciplinary Programs

# Interdisciplinarity at NC State



*Installation by Tomás Saraceno*

# Chancellor's Faculty Excellence Program Clusters

**20**  
interdisciplinary  
clusters

**~75**  
faculty hires

Bioinformatics

Emerging Plant  
Disease and  
Global Food  
Security

Geospatial  
Analytics

Leadership in  
Public  
Science

Sustainable  
Energy Systems  
and Policy

Carbon  
Electronics

Environmental  
Health  
Science

Global Environmental  
Change and Human  
Well-Being

Microbiomes  
and Complex  
Microbial  
Communities

Synthetic and  
Systems  
Biology

Data-driven  
Science

Forensic  
Sciences

Global Water,  
Sanitation and  
Hygiene

Modeling the  
Living  
Embryo

Translational  
Regenerative  
Medicine

Digital  
Transformation  
of Education

Genetic  
Engineering and  
Society

High-  
dimensional  
Integration of  
Biological Systems

Precision  
Medicine

Visual  
Narrative



Spanning Research Disciplines



# Chancellor's Faculty Excellence Program Clusters

One of Woodson's earliest big swings at N.C. State put scholarship front and center. The program to recruit top professors to [interdisciplinary clusters](#) focused on real-world challenges, such as the digital transformation of education and creating sustainable energy systems, and has become a national model.



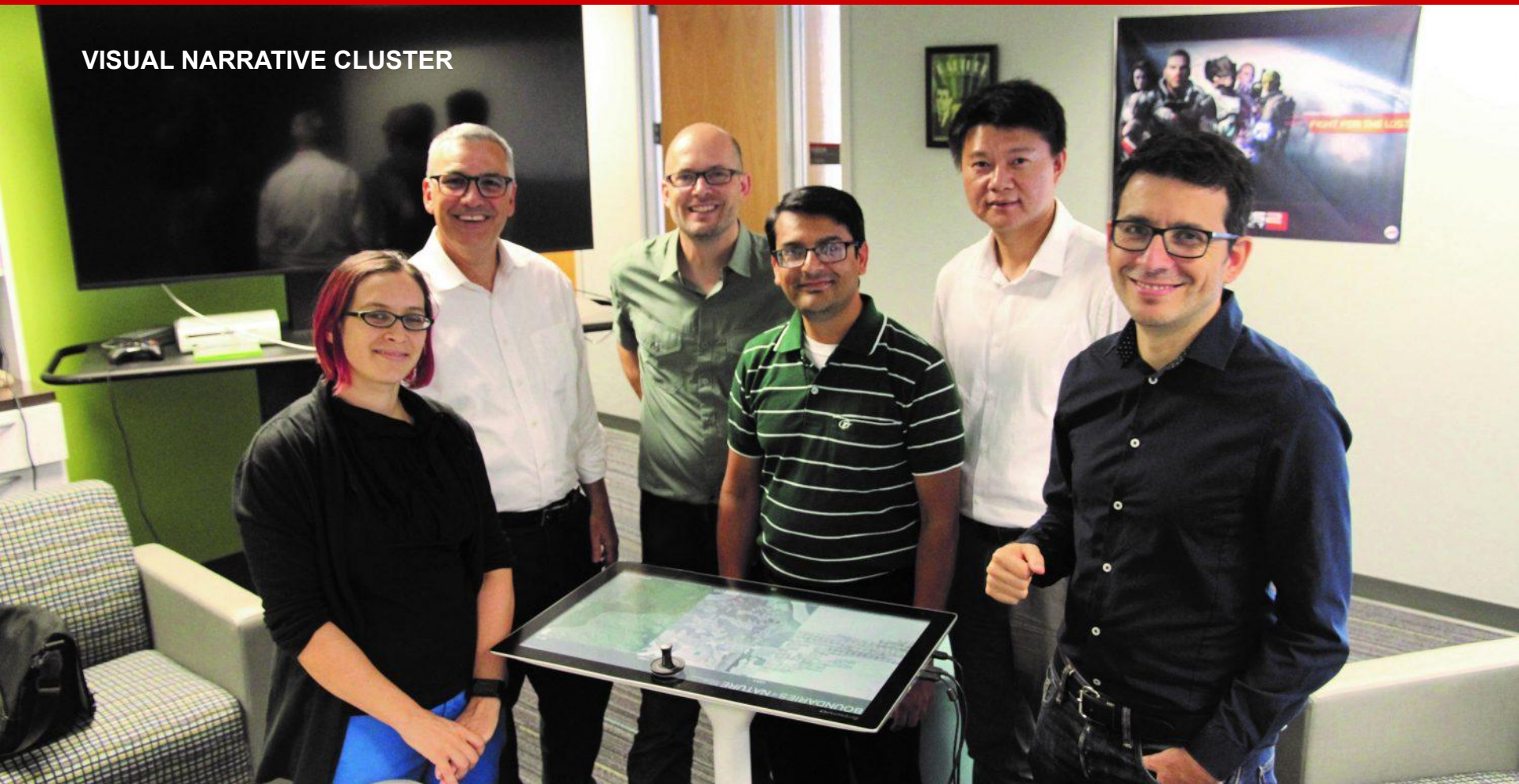


Spanning Missions





VISUAL NARRATIVE CLUSTER

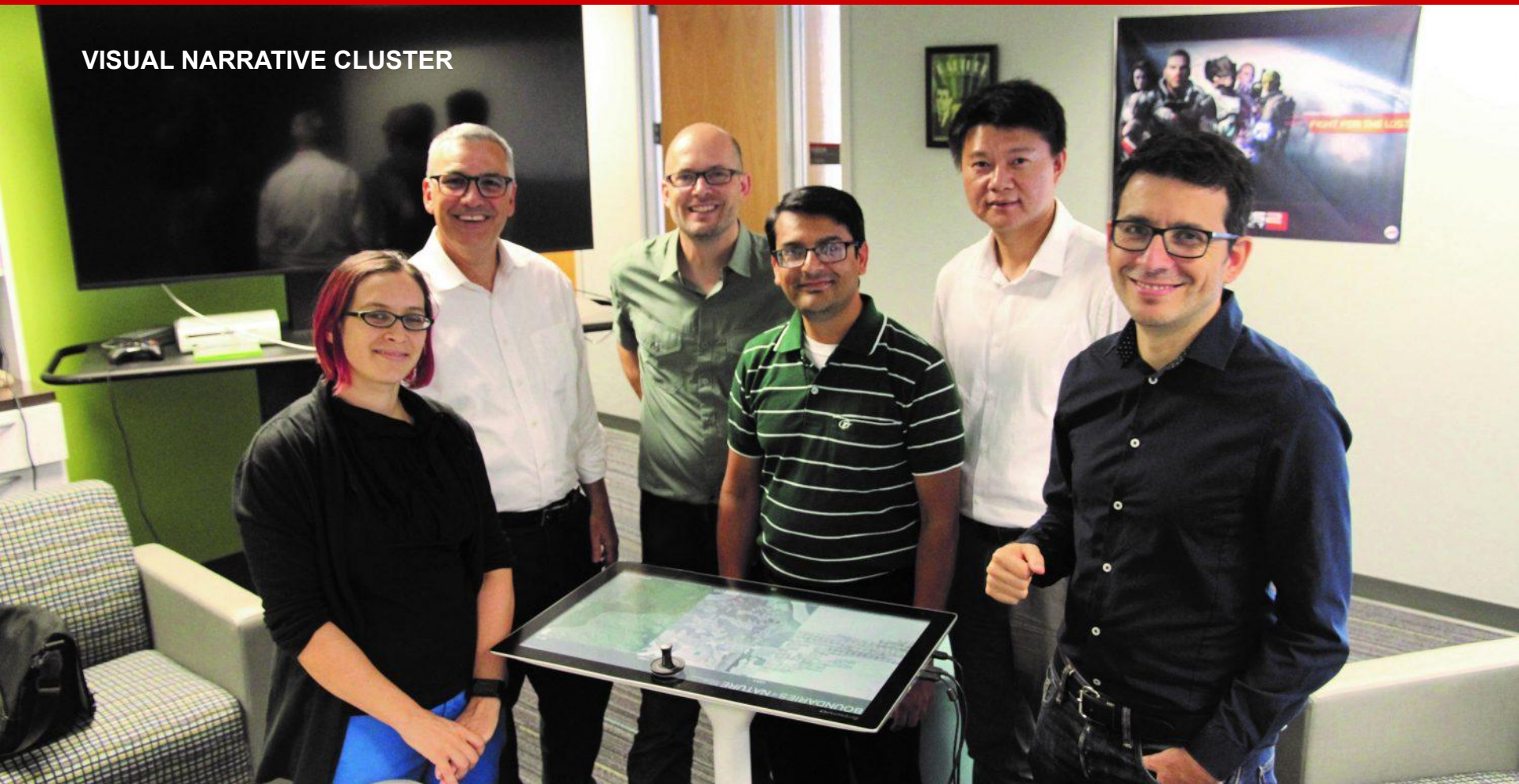




Associate Prof. Arnav Jhala,  
Computer Science



VISUAL NARRATIVE CLUSTER



# One of the Next Swings, The Academies





# ACADEMIES

From Akedemus, the name of Plato's garden/grove.<sup>1</sup>

<sup>1</sup>-which, in turn, was named for the hero, Akedemus, who negotiated a resolution to a complex tragedy.

# Academies: Interdisciplinarity Across the Mission



## Education

- Undergraduate curriculum
- Graduate training



## Research and Scholarship

- Addressing complex problems
- Creating interdisciplinary tools



## Engagement

- Includes outreach, extension, translation and tech transfer

# Academies in a sentence...

They represent areas of **signature capabilities**\* of the institution that transcend the missions and span the colleges.

\*Thanks to Alyson Wilson for this bit of language

# Academies in two sentences...

They represent areas of **signature capabilities**\* of the institution that transcend the missions and span the colleges.

They are centered on helping to better the lives of the people of NC and beyond in light of the wicked problems and wondrous opportunities of our time.

\*Thanks to Alyson Wilson for this bit of language

# Academies in three sentences...

They represent areas of **signature capabilities**\* of the institution that transcend the missions and span the colleges.

They are centered on helping to better the lives of the people of NC and beyond in light of the wicked problems and wondrous opportunities of our time.

They are centered on students, the ideas of students, the needs of students and the ability of students to be agents of extraordinary positive change.

\*Thanks to Alyson Wilson for this bit of language



DSA (The Data Science and AI Academy)

GGA (The Genetics and Genomics Academy)

GOHA (The Global One Health Academy)

CSA (The Climate and Sustainability Academy)

**DSA (The Data Science and AI Academy)**

GGA (The Genetics and Genomics Academy)

GOHA (The Global One Health Academy)

CSA (The Climate and Sustainability Academy)

# Data-Driven Science

Our models, tools, and analytics help researchers and industry experts use their data to solve problems.



DSA (The Data Science and AI Academy)

GGA (The Genetics and Genomics Academy)

GOHA (The Global One Health Academy)

CSA (The Climate and Sustainability Academy)

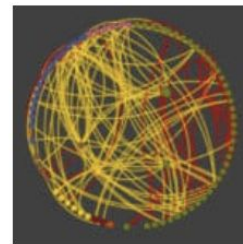
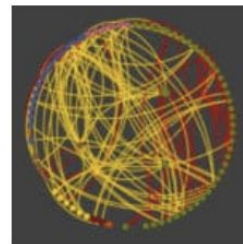
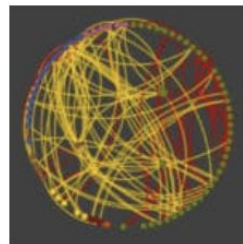
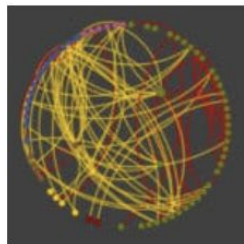
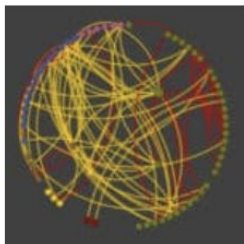
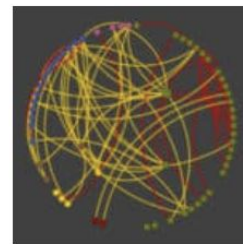
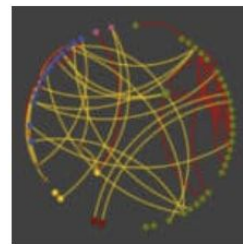
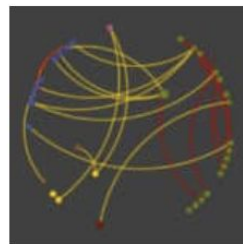
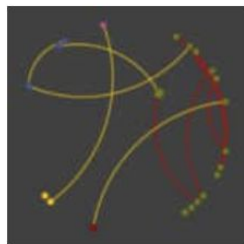
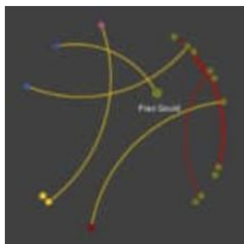
DSA (The Data Science and AI Academy)

**GGA (The Genetics and Genomics Academy)**

GOHA (The Global One Health Academy)

CSA (The Climate and Sustainability Academy)





# Now to the leaders

DSA (The Data Science and AI Academy)

GGA (The Genetics and Genomics Academy)

GOHA (The Global One Health Academy)

CSA (The Climate and Sustainability Academy)

# NC State Data Science and AI Academy

**Mission:**  
**Support NC State's growth**  
**as a Data Science and AI University.**



**First Generation and TRIO students**  
**Omry Brewster, Ap. Math BS '23; IAA MS '24 and**  
**Sophia Ma, Bus. Admin. BS, Int'l Relations BA '23; IAA MS '24**

**Located in D.H. Hill Library, the Data Science and AI Academy collaborates with campus partners to offer:**



**COURSES, CREDENTIALS  
& INTERNSHIPS**



**PARTNERSHIPS &  
CUSTOMIZED TRAINING**



**PROPOSAL SUPPORT  
& SEED GRANTS**



**ALL CAMPUS  
EVENTS**



**ANALYTICS  
CONSULTING**



**CS30: INTRODUCTION TO DATA  
SCIENCE (Middle/High School)**

Events network academia, government, and industry:

DATA SCIENCE AND  
AI WEEK @ NC STATE

March 31 - April 4, 2025





**In 4 years, approximately \$4M in funding. 4 times double or triple funded!**

2



ALFRED P. SLOAN  
FOUNDATION

1



2



National  
Science  
Foundation

1



National Institutes  
of Health

1

**data.org**

1

**Google.org**

1

**VONTIER™**

2

**„DataScience“<sup>4</sup>**  
everyone

3



NC DEPARTMENT OF  
**HEALTH AND  
HUMAN SERVICES**

## Our students have many Data Science and AI Learning Pathways:



**Dr. David Stokes, DSA Director of Education**  
(advisor Dr. Hollylynn Lee, College of Ed)  
**Evan Dadson, Math and Stats '24**  
**PhD student, Center for Geospatial Analytics**

**20** 1-credit classes each semester

**DSA students from 150 programs,**  
**non-degree studies, 12 colleges**

**30** majors/concentrations

**7** minors

**5** certificates

**3** graduate programs

# Students sharing stories of NC State as a Data Science and AI University:



**Ishita Pai Raiker, '25**  
Computer Engineering and  
minor in Philosophy  
**Kenzo Hubert, '27** Statistics







AI REVOLUTION:  
**ETHICS QUEST  
ACROSS  
DISCIPLINES**  
PANEL SERIES

*Strategized by Ishita Pai Raiker*











presented by NC State University's Chapter of the Grand Challenge Scholars Program in collaboration with Future World Alliance 501(c)(3), the authors of "AI Revolution in Customer Service and Support", the authors of "AI for the Rest of Us", Oaks Leadership Scholars and the Data Science Academy at NC State. This Initiative is supported by the Grand Challenge Scholars Network and has received endorsements from over 25+ groups, non-profits, departments, and institutions.

Monthly panel series commencing August, 2024

Poster by [moraodona.com](https://moraodona.com)



## **AI Advisory Group charged by:**

- Provost Arden
- Vice Chancellor Hoit
- Vice Chancellor Maimone
- Interim Vice Chancellor Wilson

## **Building a campus-wide strategy for use of AI in:**

- **EDUCATION**
- **RESEARCH**
- **BUSINESS USE**

**Campus AI Web Hub coming soon!**



**NC STATE UNIVERSITY**

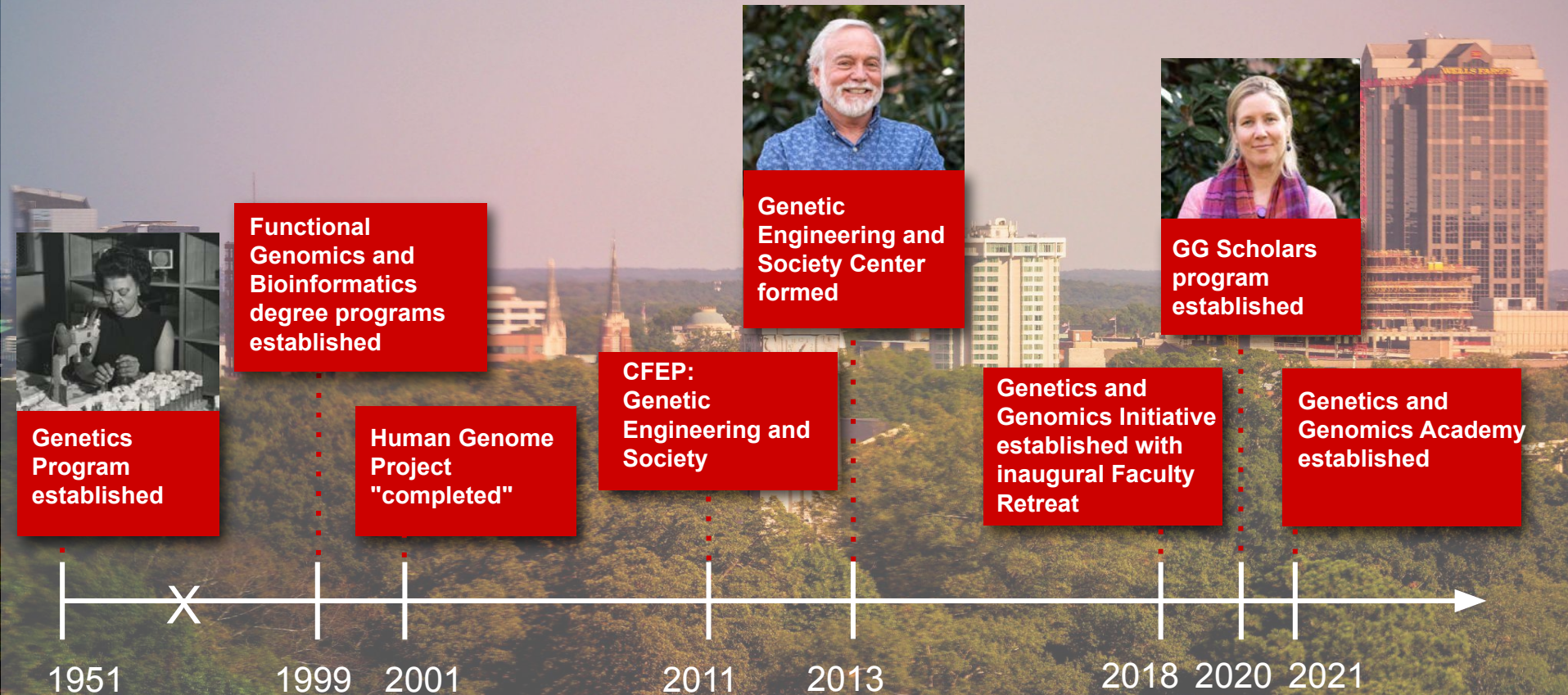
**We are a Data Science and AI University.**

# Genetics and Genomics Academy (GGA)

**Mission** — Integrate genetics and genomic research, education and outreach activities across campus to forge a more interdisciplinary understanding of the genetic and genomic underpinnings of life on earth in order to sustain global biodiversity and improve societal wellbeing.



**Jeff Yoder**  
**Executive Director of the**  
**GGA**



# The Four Commitments



**Interdisciplinary  
Research**



**Graduate  
Training**



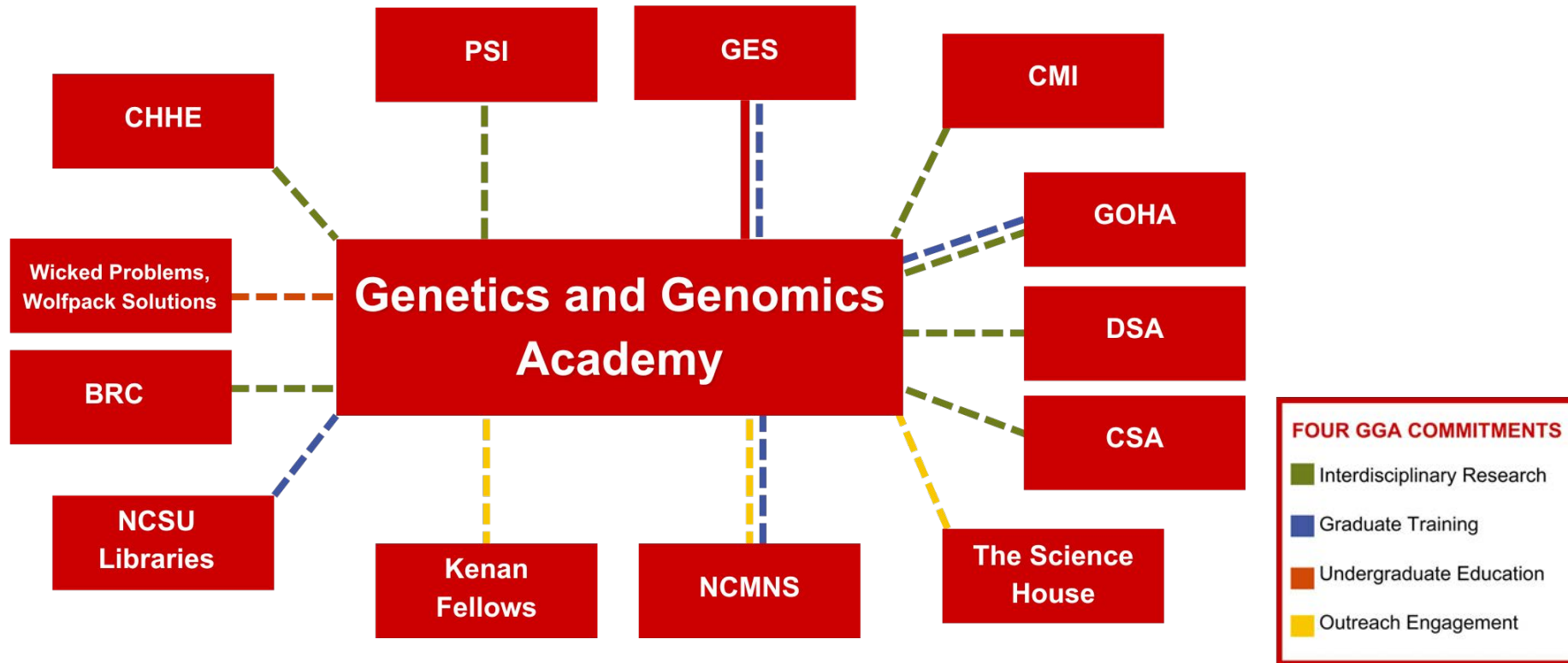
**Undergraduate  
Education**



**Outreach  
Engagement**



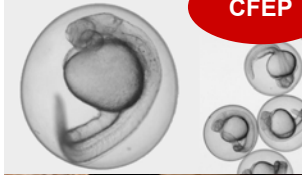
# GGA Campus Connections



# Interdisciplinary Research - Research Interest Groups (RIGs)



**Plant Sciences**  
(INTRINSyC)



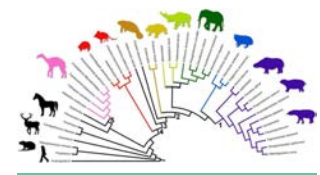
**Developmental  
Biology**



**Plant and  
Animal Breeding**



**Genes and  
Society**



**Evolutionary  
Genetics**



**Education**



**Pest  
Management**



**Neurogenetics**



**Emerging  
Technologies**



**Microbiomes**

# Interdisciplinary Research - Funding and PDU



CALS



COS



CVM



COE



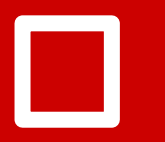
CNR



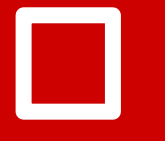
WCT



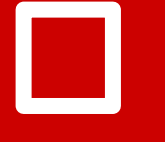
PCM



CHASS



CED



COD



GGA Seed Grant awardees received \$5M ARPA-E grant.



3 funded projects totalling \$10 million



Amanda Krentzel  
Grants Coordinator/Proposal Developer

# The 2024 - 25 Genetics & Genomics Scholars Cohort



Anne Lindbergh



Kiran Daulla



Kassidy Robinson



Meghan Dillon



Noor Zamamiri



Sarah Jeffers



Zach Zagan



Erin Logan



Rob King



Shirley Jacquet



Alex Johnson



Jaylin Knight



Audrey Fahey



Cameron Grey



Anuja Pimlapure



Zehta Glover



Jessica Ding



Trip Brooks



Ty Bradley



Edeline Anthoniraj



Tomo Adams



John Witherspoon



**Madison Moore,**  
2020-2021 Cohort

After completing her Ph.D. in Functional Genomics, Madison Moore went on to work in microbiology and bioinformatics at Novonosis.

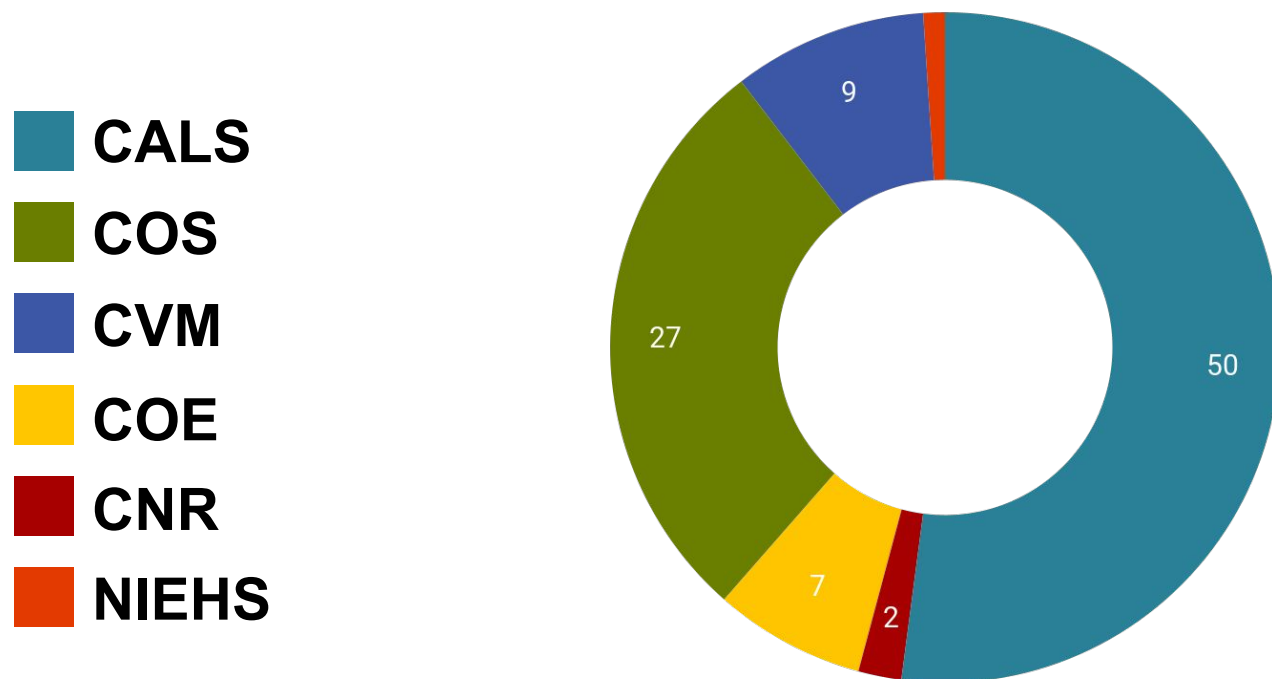


**Nicole Choquette,**  
2020-2021 Cohort

Nicole Choquette now works as a breeder at Benson Hill, an ag company in St. Louis MO having graduated with her Ph.D. in Crop Science.



## Graduate Training - GG Scholars, first-year program



GGS has trained **87** graduate students through the 1st year program over 5 years

PIs from 19 different departments

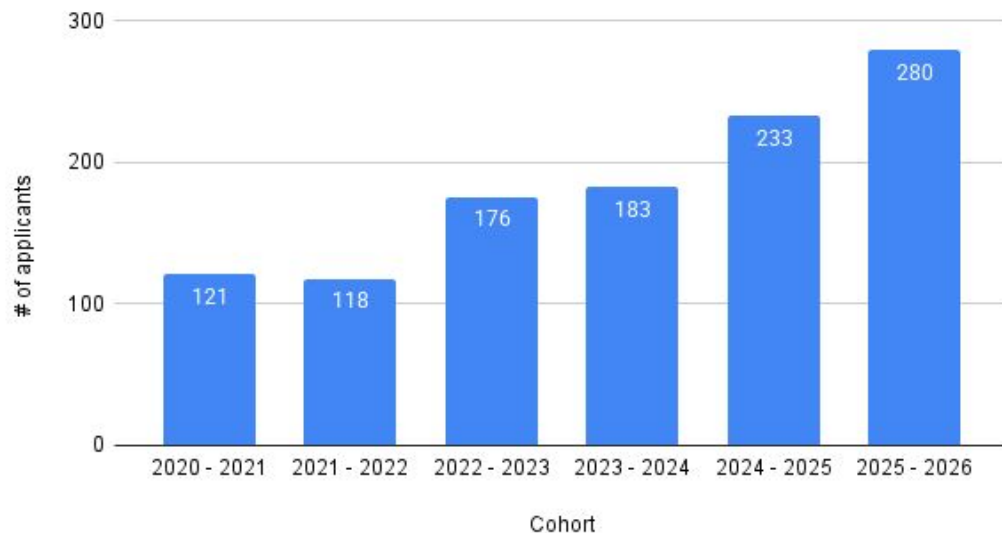
# GG Scholars



**Sydney Harned,**  
**2021-2022 Cohort**

“I chose the GG Scholars program because of the emphasis on **professional development**. GGS is committed to making sure their students are **prepared for their chosen career**, and I believe the **hands-on, cohort-based training** will lead to success in my future endeavors.”

**Growth in number of GG Scholars applicants**



# GLOBAL ONE HEALTH ACADEMY

Engaging faculty, staff, undergraduate and graduate students in *improving the health of plants, animals, biodiversity, and human society* in North Carolina and beyond.

Learn more  
[go.ncsu.edu/goha](https://go.ncsu.edu/goha)



# UNDERGRADUATE MINOR OF GLOBAL ONE HEALTH

*15-credit program exploring the interconnections between **human, animal, plant, and environmental** health.*



**Kristen Sullivan**

Director of Undergraduate Programs  
Global One Health Academy  
College of Veterinary Medicine

SPRING 2025 ENROLLMENT

**48** students enrolled across  
**19** majors/**6** colleges



LEARN MORE



GO.NCSU.EDU/  
GOH-MINOR





# GLOBAL ONE HEALTH SCHOLARS PROGRAM



*Developing undergraduate students into the next generation of **One Health** leaders*

**2024-2025 COHORT**    **7** students across **5** majors

**LEARN MORE**

[GO.NCSU.EDU/GOH-SCHOLARS](https://go.ncsu.edu/goh-scholars)



**ABIGAIL FINCH**  
College of Sciences



**SASCHA GODFREY**  
College of Sciences



**CRISTINA PAYST**  
College of Sciences



**VALERIA  
RAYO-SOLANO**  
College of Sciences  
College Humanities &  
Social Sciences



**AVA SMITH**  
College of Sciences



**RIDA TARIQ**  
College of Sciences



**KARA VOLD**  
College of Sciences



# GLOBAL ONE HEALTH FELLOWS

*Bringing together an interdisciplinary cohort of graduate students from across the university.*

Through **courses**, **networking**, and opportunities for **professional development**, fellows broaden their knowledge in multiple domains of **One Health**.



## Program Contacts



### Michael Reiskind

Director of Graduate Programs  
Global One Health Academy  
College of Agriculture & Life Sciences



### Meredith Spence Beaulieu

Program Manager  
Global One Health Academy

Learn more  
[go.ncsu.edu/gohf](https://go.ncsu.edu/gohf)



## 2023-24 Cohort

83 applicants/8 Colleges



**EMILY FLOESS**

College of Engineering

**Research:** energy access and transitions in countries, and the intersection of WaSH & air pollution interventions



**JADE LYONS**

Genetics & Genomics

**Research:** genetic mechanisms controlling plant responses to environmental cues



**CAITLIN NIVEN**

College of Natural Resources

**Research:** impact of climate change on levels of fecal contamination and pathogen presence in water, soil, and food



**SAVANNA SMITH**

College of Engineering

**Research:** applications of environmental biotechnology to improve global water and sanitation solutions



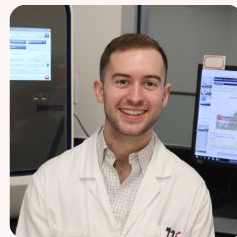
**CHENXING XIE**

College of Humanities & Social Sciences

**Research:** rhetoric of health and medicine, intercultural communication, technical communication

## 2024-25 Cohort

63 applicants/10 Colleges



**BENJAMIN CLARK**

College of Engineering

**Research:** wastewater surveillance for pathogens, and antimicrobial resistance source tracking



**ANDREA LANDAVERDE**

College of Sciences

**Research:** impacts of contaminants and climate change on innate immune responses and disease in stony corals



**HOLLY MCINNES**

College of Agriculture & Life Sciences

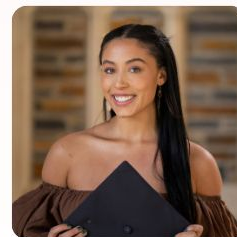
**Research:** exploring tomato spotted wilt virus (TSWV) interactions with its hosts to understand disease dynamics



**BRADLEY SCHOLTEN**

College of Sciences

**Research:** understanding the spread of antibiotic resistant bacteria in songbirds



**LYDIA SELLERS**

College of Natural Resources

**Research:** intersections of resilience education and environmental justice in diverse communities

## PROPOSED PROGRAM

# MASTER OF SCIENCE IN GLOBAL ONE HEALTH

*36 credit hours, non-thesis and thesis options available*



*supporting the **NC State University mission** by taking interdisciplinary approaches to emerging issues that connect **plant, animal, ecosystem, and human health***



*equipping students with the skills to translate **One Health** research into real-world action for societal benefit*



*producing the next generation of interdisciplinary global health leaders and scholars*



**Helen Chen**

Senior Vice Provost for Instructional Programs  
Executive Vice Chancellor and Provost



**Peter Harries**

Dean  
Graduate School



**Pierre Gremaud**

Associate Dean  
Graduate School





# GRAND CHALLENGES

## ADDRESSING PROGRAM

*Addressing wicked problems that demand an interdisciplinary approach*

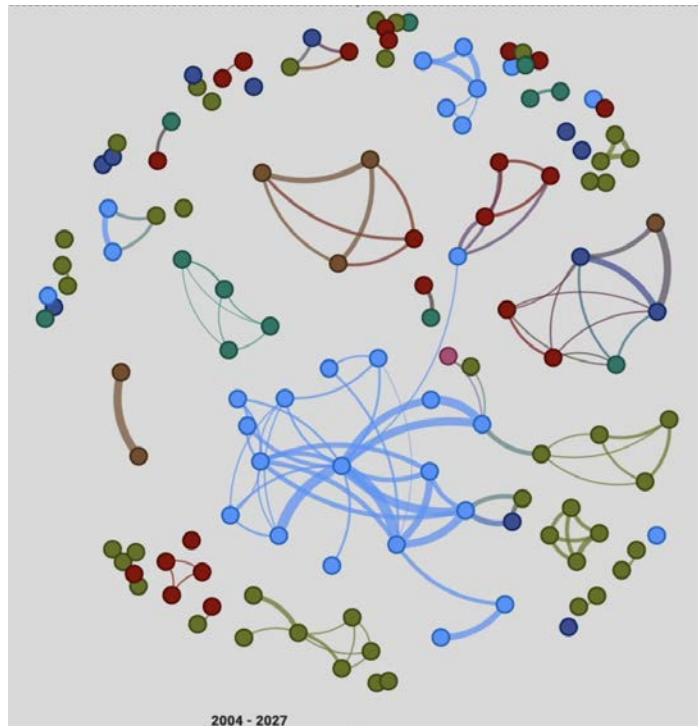
Learn more  
[go.ncsu.edu/gcap](https://go.ncsu.edu/gcap)



Collaborating Center  
"Global One Health &  
Antimicrobial Resistance"

# GCAP Antimicrobial Resistance

## Faculty Funded Grants



College	Count
College of Agriculture and Life Sciences	45
College of Veterinary Medicine	29
College of Engineering	22
College of Sciences	13
Wilson College of Textiles	12
College of Natural Resources	6
NC State Administration and Offices	1

# Future GCAP

## Coordinate efforts with ORI

### Food & Water

*Launching Fall 2025*



**Francis de los Reyes III**

College of Engineering  
CFEP Lead: Global Water,  
Sanitation and Hygiene



**Anna Whitfield**

College of Ag & LS  
CFEP Lead: Emerging Plant  
Disease and Global Food  
Security



# LOCAL ENGAGEMENT SEED GRANTS

Enhancing walkability in rural NC counties



**AARON HIPPI**

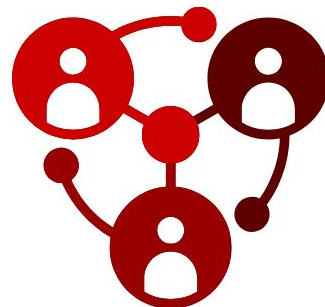
College of Natural Resources

Engaging in microbiome stewardship through heirloom collard cultivation



**MALLORY CHOUDOIR**

College of Ag & Life Sciences



Impacts of trace metal pollution and gene flow in the Cape Fear River Basin



**ALEXANDRA DUFFY**

College of Sciences

Piloting coproduced resilience education system



**KATHRYN STEVENSON**

College of Natural Resources

A mobile produce market approach to address food insecurity in rural NC



**BASHEERAH ENAHORA**

College of Ag & Life Sciences

# Research Proposals Under Review



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL

NC STATE  
UNIVERSITY



Collaborative Research: NRT: LEEP One Health: Leveraging  
Evolution, Ecology, and Public Discourse within the One  
Health Framework

T32: Interdisciplinary Mentoring Program for Antimicrobial  
Resistance Training (IMPART)

Egypt-NC State Higher Education Partnership (ENHEP):  
Collaborating for Sustainable Futures in Food, Water, & Energy

NC STATE

Global One Health Academy



**USAID**  
FROM THE AMERICAN PEOPLE

# Building Community

## North America One Health Universities Network

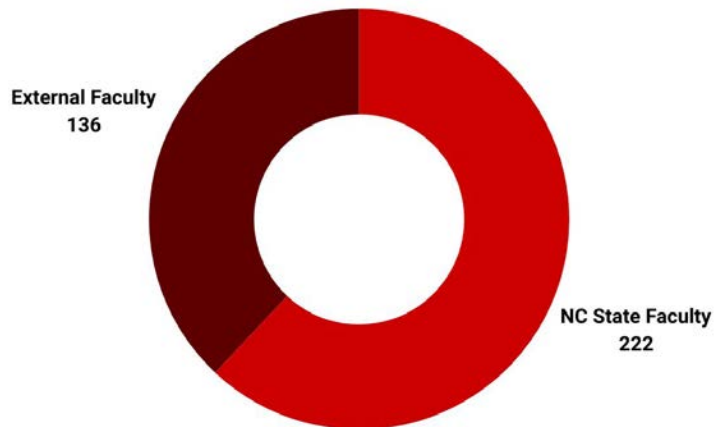
- 66 Universities (USA-55, Canada-8, Mexico-3)
- First meeting-CSU (August 2024)
- Next meeting NC State (July 31-Aug 1<sup>st</sup>, 2025)



## GOHA Affiliate Membership

*Global One Health Academy Affiliate Membership provides an opportunity for faculty, staff, and professionals to join a One Health-focused community of researchers and educators at NC State.*

**358 total members**



## CORE TEAM



**Sid Thakur**  
Executive Director



**Meredith Spence Beaulieu**  
Program Manager



**Michael Reiskind**  
Director of Graduate Programs



**Kristen Sullivan**  
Director of Undergraduate Programs



**Kristen Fontana**  
Program Specialist

## EXECUTIVE LEADERSHIP



**Debbie Acker**  
Shelton Leadership Center



**Susan Barcinas**  
College of Education



**Jose Cisneros**  
College of Ag & Life Sciences



**Francis de los Reyes III**  
College of Engineering



**Aaron Hipp**  
College of Natural Resources



**Celen Pasalar**  
College of Design



**Jeff Pollack**  
Poole College of Management



**Jen Runkle**  
NC Institute for Climate Studies



**Anna Whitfield**  
College of Ag & Life Sciences



**Qingshan Wei**  
College of Engineering



# Climate and Sustainability Academy at NC State

## MISSION

Unite existing and emerging interdisciplinary research, teaching, engagement and operations efforts to promote sustainable and resilient solutions to climate change and other global challenges, connecting people and places to imagine and catalyze transformative change.



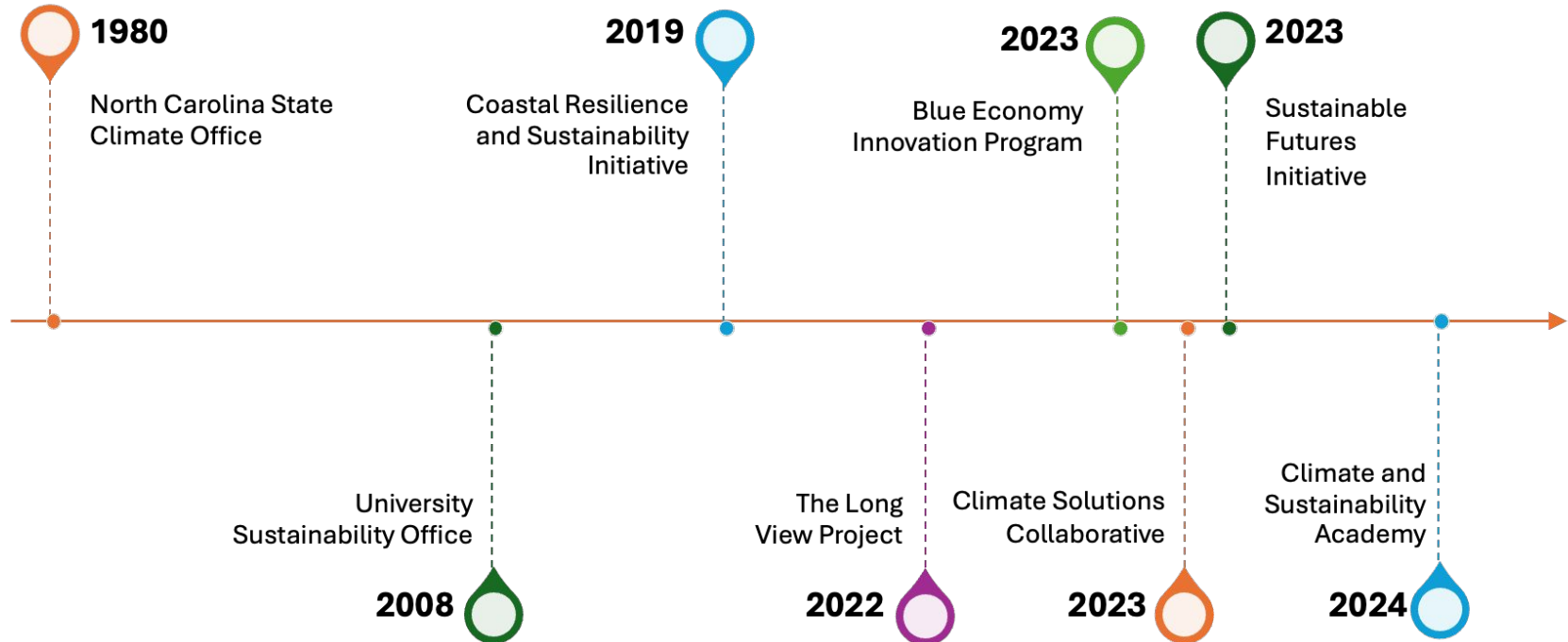
Erin Seekamp  
Executive Director



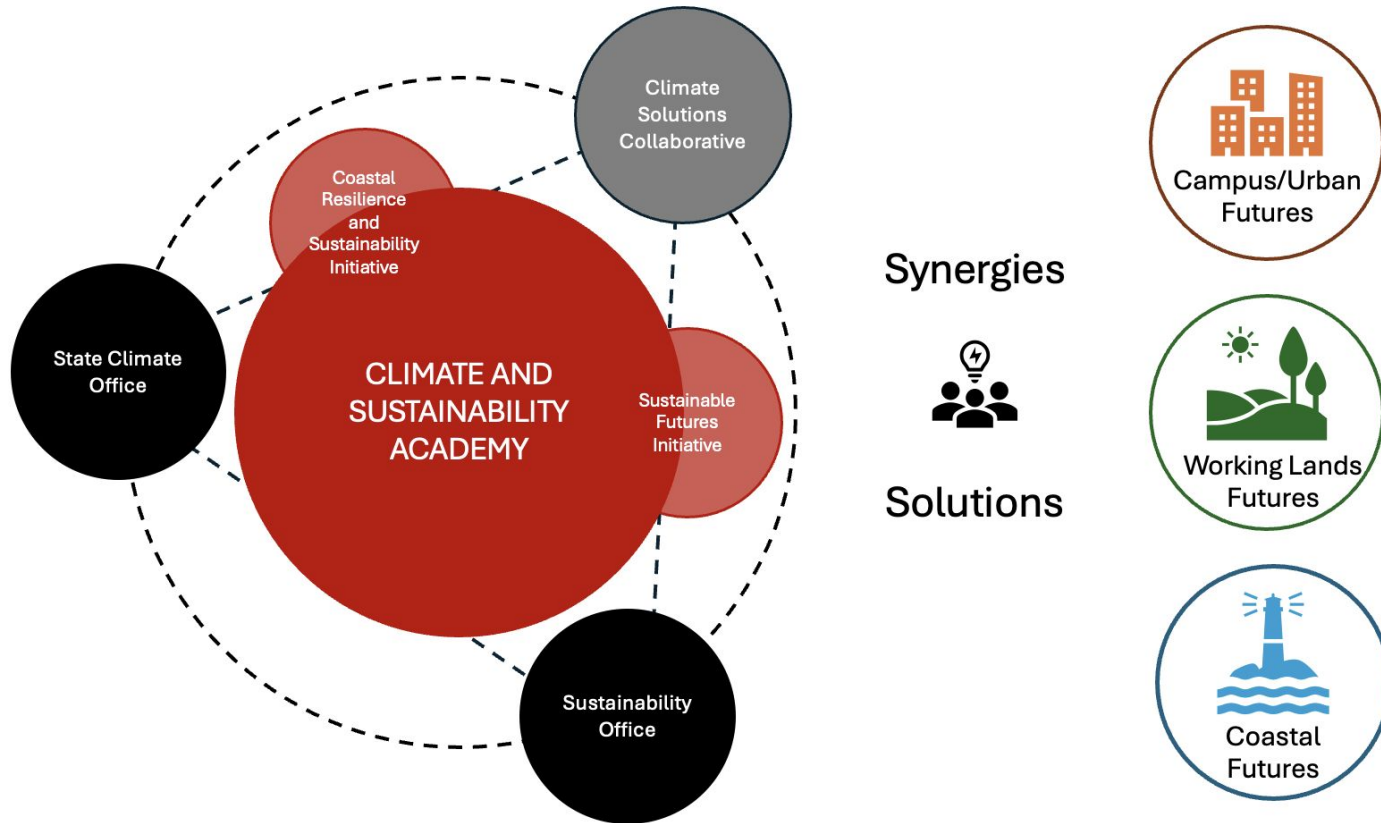
Christopher Galik  
Deputy Executive Director



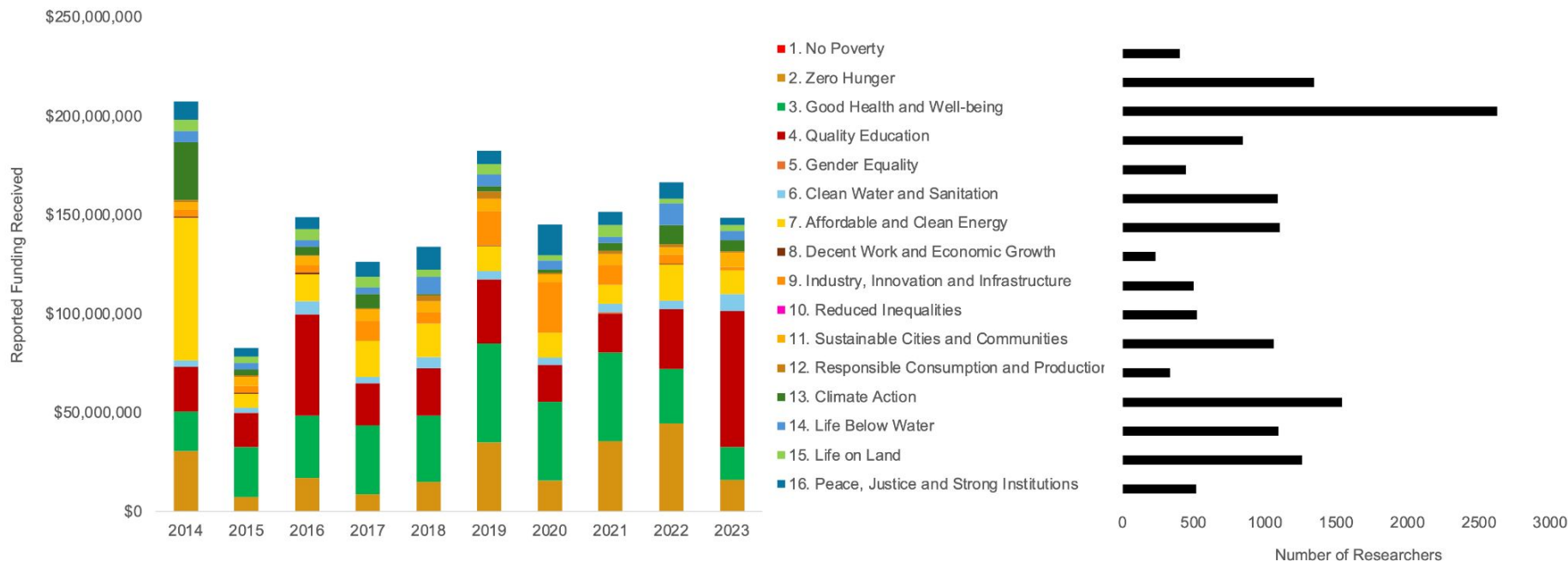
# Legacy



# New Connections: Provost Arden and EVC Maimone



# Sustainability-Related Funding & Scholarship

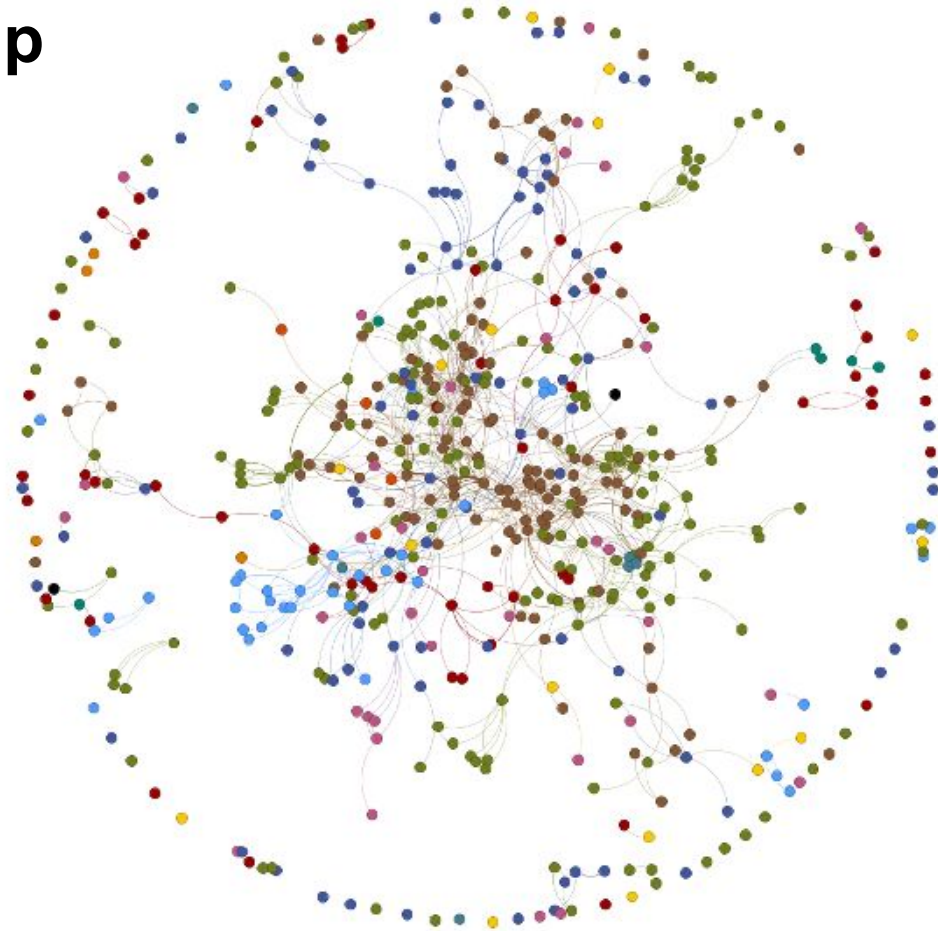


Search functionality courtesy of Jason Ronallo (Libraries)

# Climate Change Scholarship Publications Network

	College of Agriculture and Life Sciences
	College of Design
	College of Education
	College of Engineering
	College of Humanities and Social Sciences
	Poole College of Management
	College of Natural Resources
	College of Sciences
	Wilson College of Textiles
	NC State Administration and Offices
	College of Veterinary Medicine

Sanjana Ponnappalli (Campus as a Classroom)  
Jason Ronallo (Libraries)



# Imagine and Implement (Think and Do)

Sustainable Futures Fellows



Creating Solutions for the  
Global Blue Economy



C-CRIT Program  
AmeriCorps Assessment  
Coordinators





# Evolving Structure Growing Capacities



**#14 U.S.**

2025 QS World  
University Rankings:  
Sustainability



## Climate and Sustainability Academy Open House

Monday, March 3, 9:00 - 11:30 a.m.

Thursday, March 6, 9:00 - 11:30 a.m.

Duke Energy Hall



# Questions