



## Transitions for NCAS

*Report by: Dr. Karen Guzman, Campbell University*

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*What's going on in  
the North Carolina  
Academy of Science:*

- NCAS Transitions
- Bryden and Derieux Award Winners
- Photos from the Annual Meeting

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The 2018-2019 year has been one filled with transitions for the NC Academy of Science, some of which have been challenging. Although change can be difficult, it also forces us to learn and grow. In the long run we believe that these transitions will have a positive impact on the future of the Academy. Let me review some of the transitional events of this past year.

**2019 Annual Meeting:** After major damage and closures in the fall due to Hurricane Florence, UNC-Wilmington were true to their commitment to host the 116<sup>th</sup> Annual Meeting in March. We realize final information went out at the last minute, but we are grateful for the heroic feat they accomplished in pulling off an outstanding meeting.

**Squarespace:** We have a new website that has a new modern look, is easy to navigate, and contains a news feed that is meant to keep our members up-to-date. If you take a look, you will see that the site is now updated regularly. We have been regularly posting pertinent news. Since the first post on September 19, we have added nearly 20 posts! Our hope is that you will find the NCAS site relevant enough to check it out during your normal routine, perhaps when you sit down with your morning coffee to check the daily news.

**CVENT:** We have transitioned from our membership database and meeting management system with CVENT to using Jointit (for membership) and Eventbrite (for meeting management). *More about these new services below.* CVENT was not supplying us with the services promised and the cost was astronomical compared with that of the Jointit-Eventbrite combination. ***An important piece of information we want our members to know:*** CVENT wanted to continue to charge us for their service and sent out renewal notices to some of our members (even after we had discontinued their service in writing). If that happened and you renewed with them, let us know so we can add you to our Jointit membership free of charge. We want to be sure you realize that NCAS is no longer affiliated with CVENT, so please ***ignore any emails you get from CVENT.***

**Jointit-Eventbrite:** The change to these new service providers affords many benefits! Here are some benefits and changes:

With Jointit you can log in and access information about your membership. Jointit will recognize you by your email and allow you to create a password. You can also enter Eventbrite with your Jointit credentials to make changes if needed to your Annual Meeting registration.

Renewing your membership before the Annual Meeting will provide you with the simplest registration experience, but we will still offer a package deal to register and renew your membership at the same time. If you have questions about membership at any time, our new membership chair is glad to help you (Eric Anderson, andersone@ecu.edu).

To better serve you, we have made a slight modification in the membership year to follow a calendar year (Jan 1-Dec 31). We believe this will work better for the majority of our members. The new system is much more user friendly for both setup and use, so we expect after the initial phase of getting used to a new system, we will have a very smooth experience.

*(continued on p 2)*

# Transitions for NCAS (Continued from p 1)

**Leadership:** As we prepared for elections for a new board this March, open positions on the board required some rearrangements. We did not have a President-Elect, so bridging the gap, our current President and Past-President agreed to remain on while our President-Elect for 2019-2020, Lei Zhang, gets his feet on the ground and makes plans for the next year. As we look ahead, we see this as a minor bump in the road. The board has worked tirelessly toward ensuring future stability, including now (for the first time in years) having locations identified for the next three Annual Meetings and a fourth site almost confirmed! Over the next three years, we will be at Lenoir-Rhyne University, Campbell University, and East Carolina University.

**CANCAS:** Our Collegiate Academy has made some great transitions this year as well. Here are some highlights:

Group membership for CANCAS is now managed in Joinit, so for the first time we can have information on each of our undergraduate members... Yaay!!! This will allow us to distribute information to you more effectively and help us to better plan for the fall workshop and annual meeting because we will have individual information on attendees.

The Fall Undergraduate workshop is now FREE to members!

If you renew your group membership in the fall, you can bring as many students to the workshop as you want. They simply need to fill out their free registration.

Since group membership offers many benefits at an affordable price, you will want to be sure to renew. Remember, to be considered a group member, your name needs to be submitted by the group's advisor by the deadline. Group membership is not simply by institution, but by the student names submitted for that group.

The deadline for renewing your group membership, and fully updating your list of group members, will be due in advance of the annual meeting. The exact date will be announced this fall. Be sure to submit the full list of your group members before the deadline or you will need to pay and register undergraduates not on the list as individual members, even if an institution has paid for a group membership. Don't miss out!

We are excited about all of the many positive changes we have experienced this year and know they will serve you better, but as with all changes, we will experience a few growing pains. We hope you take advantage of all of the benefits these changes afford. Stay tuned to the website throughout the year and check out the newsletter quarterly so you don't miss any important information! We are looking forward to a great year for the Academy!!!

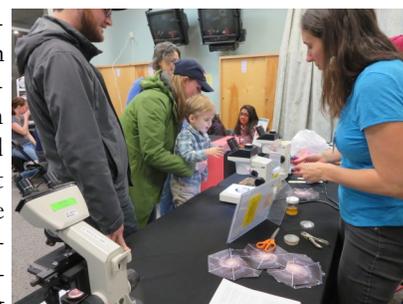
## *Institutions with CANCAS Group Memberships for 2018-2019:*

**Nash Community College**  
**UNC-Wilmington**  
**Campbell University**  
**Guilford College**  
**Elon University**  
**UNC-Pembroke**  
**Shaw University**  
**Wake Technical Community College**  
**East Carolina University**  
**NC Wesleyan College**

## Historian's Report

*Report by: Dr. Lisa Kelly, UNC-Pembroke*

The Academy engaged hundreds of children and their parents in science during Astronomy Days (January 26-27, 2019) at the North Carolina Museum of Natural Sciences in Raleigh. The Academy's booth (entitled "The Quest for Extraterrestrial Life") was located inside the Curiosity Classroom, where activities included microscopic examination of living water bears and vinegar eels, reflective activities involving the powering and colonization of the Mars surface, and games featuring extreme environments and that involved navigating the Mars surface. Like last year, the water bears were a big hit! We gave away roughly 150 Pinwheel Galaxy pinwheels, 200 miniature planters, and 50 draw-your-favorite alien sheets. The museum's visitor count was **14,959** people for the two-day event. Many thanks to everyone who volunteered or supported our booth, including a special thanks to Kari Wouk and to the museum for assigning our booth to the spacious Curiosity Classroom and providing several volunteers and to Maria Pickering and Shana McAlexander for their key roles in making the booth a big success.



# Annual Meeting Photos

Photo Credit to: Dr. Lisa Kelly



# Bryden Awards

Report By Dr. Lei Zhang, Winston-Salem State University

Congratulations to **Spero Gbewonyo** at NC A&T University for winning a 2018-2019 Bryden Grant! The project is overseen by Professor Lifeng Zhang and is entitled “*Low thermal conductive carbon fibrous matieral from electrospinning.*”

The following proposal received an honorable mention:

**Tyler J. Carrier, UNC-Charlotte** (Advisor: Dr. Adam Reitzel) for the project entitled “*Life as a larva in a microbial soup.*”

# CANCAS Derieux Award Winners

Report by: Dr. Daniel Stovall, NC Wesleyan College and Dr. Laura Reichenberg, Pfeiffer University

**Congratulations to the 2019 Annual Meeting’s Poster Winners!**

Ecology, Zoology, Botany, & Earth Science

Cell & Molecular Biology, Microbiology & Physiology  
Chemistry, Physics, Science Education, & Public Health

Award	Name	Institution	Title
3 <sup>rd</sup> Place (Tie)	Colton Crenshaw	UNC Pembroke	Quantity and anti-microbial properties of essential oil production in medicinally valued plants exposed to varying photoperiods
3 <sup>rd</sup> Place (Tie)	Samantha Fisher	UNC Wilmington	Developing a polar science curriculum
2 <sup>nd</sup> Place (Tie)	Nima Hajhashemi	UNC Greensboro	The cost of autogeny in sandflies: does egg production without blood-meal reduces fitness?
2 <sup>nd</sup> Place (Tie)	Samantha Gaskins	Nash Community College	Is 80 years enough time to display character displacement in salamanders?: A case Study
1 <sup>st</sup> Place	Connor Whiffen	Elon University	Copulation control in the squash bug ( <i>Anasa tristis</i> )
3 <sup>rd</sup> Place	Benjamin Britt	Campbell University	Overexpression and purification of carbonic anhydrase
2 <sup>nd</sup> Place	Kyle Weidner	East Carolina University	Comparing Siderophore Production in <i>Agrobacterium tumefaciens</i> and <i>Brucella abortus</i>
1 <sup>st</sup> Place	Micaela Robson	Campbell University	The microbiome that exists on the human skin in the axillary region contributes to malodor
3 <sup>rd</sup> Place	Marina Maddaloni	Campbell University	Pedagogical labs highlighting the connection between chemical processes and artistic applications
2 <sup>nd</sup> Place	Junior Babaloo-Davies	Shaw University	Creating a Realistic Membrane to be Used in Structural Studies related to Alzheimer’s
1 <sup>st</sup> Place	Jeremy Walker	Campbell University	Development of a pedagogical substitution reaction involving halogenation of alcohol substrates

# CANCAS Derieux Award Winners

Report by: Dr. Daniel Stovall, NC Wesleyan College and Dr. Laura Reichenberg, Pfeiffer University

**Congratulations to the 2019 Annual Meeting's Oral Presentation Winners!**

Award	Name	Institution	Title	
Botany, Zoology, & Ecology	3 <sup>rd</sup> Place	Beverly Anael	NC Wesleyan College	Can a natural plant product, such as the American beautyberry, repel and alter mosquito behavior?
	2 <sup>nd</sup> Place	Alina Iwan	Elon University	Studying the functions and contexts of vibrational communication in Neotropical katydids
	1 <sup>st</sup> Place	Sydney Solomon	Elon University	The impact of early adult diet on the reproductive development of two hybridizing species of insect
Cell & Molecular Biology & Physiology	3 <sup>rd</sup> Place	Kaitlan Smith	UNC Pembroke	Testing natural extracts to treat early indicators of dementia in a rat model
	2 <sup>nd</sup> Place	John Amodeo	Lenoir-Rhyne University	Influence of Reactive Oxygen Species on the Fibrillation Rate Beta-Amyloid Peptide
	1 <sup>st</sup> Place	Jawuanna McAllister	NC Wesleyan College	Effect of Caffeine on <i>PALLD</i> Expression and GBM Cell Invasion
Microbiology, Chemistry, Physics, & Mathematics	3 <sup>rd</sup> Place (Tie)	Madelyn Suddreth	Lenoir-Rhyne University	The effects of brewing technique on caffeine and chlorogenic acid content in Starbucks' Sumatra coffee
	3 <sup>rd</sup> Place (Tie)	Amanda Ritz	Campbell University	Electrochemical detection of methylisothiazolinone in dish soaps
	2 <sup>nd</sup> Place	Josh Marek & Daisy Fry-Brumit	N.C. State University	Influences of the SERT gene-environment interaction on stress recovery in <i>Drosophila</i>
	1 <sup>st</sup> Place	Spencer Winspear	Campbell University	Preliminary mechanistic study on the halogenation of vanillin using bleach and sodium halide salts

## Thank You Judges & Moderators!

Undergraduate presenters put on outstanding poster and oral presentations at the Annual Meeting this year! We are so grateful to the diligent, expert judges and moderators that donated their time and feedback to help make the Annual Meeting such a success for our students. Without these volunteers, the annual meeting would not be a success! Thank you all for what you do for our CANCAS presenters.

### *CANCAS 2017–2018 Officers*

**President:**

Trina Phan, N.C. State University

**Vice-President:**

Daisy Fry-Brumit, N.C. State University

**Secretary:**

Sarah Leon, Lenoir-Rhyne University

**Historian:**

Oswaldo Rodriguez, Wake Tech C.C.



Meet the 2019-2020 CANCAS Officers! From left to right, Trina Phan, Daisy Fry-Brumit, Sarah Leon, & Oswaldo Rodriguez



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Check us out on the web!  
<http://www.ncacadsci.org/home.html>

The **objective** of the North Carolina Academy of Science is to "encourage the advancement of science within the state of North Carolina by promotion of scientific research and by the fostering of education in the sciences". The North Carolina Academy of Science meets these objectives by...

- Publishing a peer reviewed scholarly journal, the *Journal of the North Carolina Academy of Science*.
- Fostering and encouraging student involvement in the sciences through support of the Collegiate (CANCAS) and Student Academies (NCSAS).
- Promoting interactions among scientists and students throughout North Carolina.
- Providing a forum for exchange of ideas for solving issues important to North Carolina.

The Academy members include individuals from academia, industry, government, and all others who support the objectives and goals of the Academy.

## North Carolina Academy of Science

### Our Mission

The North Carolina Academy of Science promotes public appreciation of science, science education, scientific research and a meaningful role for science in public policy.

### Our Goals:

#### Promote public appreciation of science

- Partnership with Science Centers
- Public Lecture Series
- Newsletter

### Promote science education

- NCAS Webpage
- Academic Lecture Series
- NCAS Publications: Journal, Educational Publications
- Student Academy - Middle & High School

### Promote scientific research

- Yarbrough and Bryden Research Grants
- CANCAS Undergraduate Research Workshop
- Presentation Opportunities at Annual Meetings
- Journal of the North Carolina Academy of Science

### Promote science in public poli-

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- Symposia
- News Releases
- Position Statements
- Interactions with Public Officials

