



NEWSLETTER

October 2022

Chemistry and Physics Department, Oxendine Science Building – Room 3101, Pembroke, NC 28372
chem_phy@uncp.edu 910/521-6247

Toxicologist Expert: Michael Peterson to Speak at UNCP

On October 6, Dr. Meredith Storms hosted Mike Peterson, a principal scientist with Gradient Corporation, as a guest speaker as part of the ToxScholar program. The SOT ToxScholar Outreach Grants support toxicologists who make presentations to undergraduates in associate's and bachelor's programs to expand the awareness of toxicology and promote careers related to the discipline. Mr. Peterson specializes in human health risk assessment of cancer and non-cancer endpoints, critical analysis of human and animal toxicology and epidemiology studies, and multimedia assessment of exposure to chemicals. With over two decades of experience, Mr. Peterson shared about the need for more toxicologists to fill the current employment gaps. During his presentation, a historical context was provided with Paracelsus and then, the foundation of the toxicology field was addressed by discussing dose-response curves, exposure pathways, ADME, and chemical safety assessments. Toxicological example (Yushchenko poisoning, for example) and case studies (Prop 65, for example) were included in the presentation to provide relevance for the students.

The presentation had a warm atmosphere with breakfast snacks and t-shirt prizes for those who asked questions. Mr. Peterson was presented with a commemorative UNCP coffee mug as a "thank you" for his visit.

Great job, Dr. Storms. You have taken part in many committees and activities.

**TOXSCHOLAR
SPEAKER
PRESENTATION**

**MICHAEL
PETERSON**

Expertise in Occupational Health,
Product Safety, Human Health Risk
Assessment, Applied Toxicology

DATE
Thursday,
October 6

TIME
8 AM TO 9 AM

SCI #3235

**MORE
INFO** Contact Dr. Storms
stormsm@uncp.edu

GRADIENT®

SPONSORED BY THE FACULTY
UNITED FOR TOXICOLOGY
UNDERGRADUATE
RECRUITMENT AND EDUCATION
(FUTURE) COMMITTEE

SOT Society of
Toxicology
Creating a Safer and Healthier World by Advancing
the Science and Increasing the Impact of Toxicology

**YOU'RE
INVITED!**

SOT 62nd Annual Meeting & ToxExpo
Nashville, TN • March 19-23, 2023

Society of Toxicology Opportunities for Undergraduates

Apply for Undergraduate Awards www.toxicology.org/undergrad-awards

SOT Undergraduate Research Award—Deadline: October 17

- For students presenting their toxicology research at the SOT Annual Meeting

Undergraduate Diversity Program Travel Award—Deadline: October 17

- For students from diverse backgrounds, including those from groups underrepresented in the sciences
- Attend a program at the SOT Annual Meeting focused on career development and toxicology March 18-20

Regional Chapter, Special Interest Group, and Specialty Section Awards—Deadline: Varies

- Check the SOT "Awards" web page for undergraduate awards

Attend a Scientific Meeting www.toxicology.org/2023

Free SOT Annual Meeting Registration, including the Undergraduate Education Program March 19

- Learn about the science of toxicology
- Develop success strategies for graduate school
- Meet graduate school and internship program directors
- Connect with graduate students and toxicologist mentors
- Attend Annual Meeting scientific sessions and events

A Toxicologist...

- Advances the understanding of biological processes
- Writes health warnings and sets pollution limits
- Tests and evaluates drugs and consumer products for safety
- Conducts laboratory research to determine what exposures could be harmful and how to protect the environment, animals, and human health

Undergraduate Resources www.toxicology.org/undergraduate

- Sign up for the free SOT Undergraduate Affiliate program to receive SOT news and participate in web-based networking

EDUCATORS: SOT provides interdisciplinary resources to enhance courses as well as an online undergraduate educator community. Visit www.toxicology.org/educators.

SOT Society of Toxicology
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TOXICOLOGY MAKES THE WORLD A HEALTHIER AND SAFER PLACE.

“Being a Pfizer SOT Undergraduate awardee gave me a tremendous opportunity to network and experience not only toxicology, but also research, in an exciting new way at SOT. The experiences gained influenced me to be the scientist I am today.”

Become a Toxicologist to

- Discover how chemical, biological, and physical agents affect living organisms
- Evaluate drugs and consumer products for safety
- Help develop regulations and policies to protect public health and the environment
- Become an innovator using and developing new approaches, from computational methods to the latest omics technology and organs-on-a-chip

Career Potential

- Diverse and increasing job opportunities available every year
- Excellent and competitive starting salaries with career advancement opportunities
- Global opportunities
- Work in teams solving complex problems
- Professional growth through conferences, continuing education, certifications

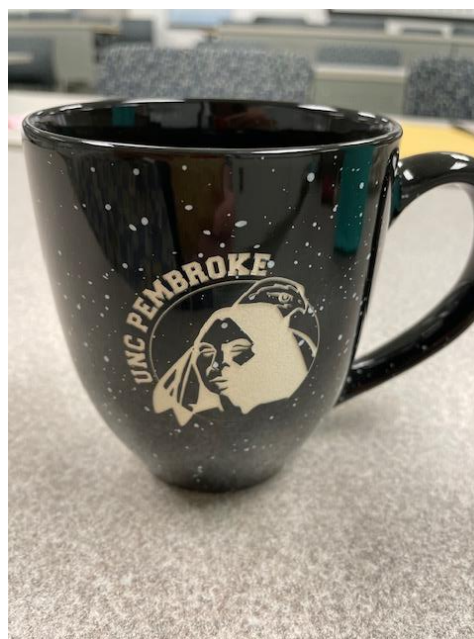
Toxicologists work in

- Colleges and Universities
- Industry
- Government
- Consulting
- Nonprofits

SOT Society of Toxicology
www.toxicology.org/undergraduate
educators@toxicology.org







Dr. Andrew Morehead's Visit on October 6, 2022



ECU Chemistry Department Chair – Dr. Andrew Moorehead, ECU Chancellor - Dr. Phillip Rogers, UNCP Chemistry & Physics Chair - Dr. Siva Mandjiny, and Mrs. Kellie Blue

Dr. Andrew Morehead, ECU Chemistry Department Chair, visited UNCP on October 6. He met with faculty and students in our Department and visited the labs from 11:00 am until 12:30 pm. His purpose was to see if any of our Chemistry students are willing to go to ECU for their master's program in Chemistry.

NASA Press Release

Dr. Steven Singletary states the UNCP Rocket Team’s proposal to compete in the NASA Student Launch Challenge was accepted. A team will be going to Marshall Space Flight Center in Alabama next April. In a kickoff meeting, the teams were told that NASA will be notifying congressional representatives of the respective home districts of each school that we are competing. Two NC Senators and our local congressional representative will be notified.

Press release:

<https://www.nasa.gov/centers/marshall/news/releases/2022/nasa-announces-teams-for-the-2023-student-launch-challenge.html>

If you click on student teams, you’ll see who we are competing against. There are four teams from North Carolina: NC State, NC A&T, UNC Charlotte, and UNC Pembroke.

Congratulations, Dr. Singletary, and team. Great job!

(continued...)

The NASA University Student Launch Initiative for the NASA team is shown below. The group is still running a team for the First Nations Launch in Kenosha. It will be the week after the NASA USLI competition. It is going to be a busy year all around – actually, it is already a busy year.

NASA	Role
Alex Velarde	Structures
Billy Ray Pait (III)	Systems/Payload
Micah Ferguson	Structures/Payload
Ethan Phillipi	Structures/Recovery
Xander Amores	Systems/Recovery/Structures
Jose (Ed) Hernandez	Business/PMP
Hector Felix	Captain/PMP
Taegyun Im (TG)	Systems

Last year, Dr. Singletary started with only three team members and ended with eight (and only one of the original three remained). I had to push/prod/cajole to get them to meet the deadlines. I guess winning some money/awards changed that. This year, Dr. Singletary has twenty-three active participants (with more students everyday asking if they can participate), a full NASA USLI team, a full FNL team, a dedicated social media team, a dedicated safety team, and a dedicated STEM outreach team.

The NASA USLI team are the veterans from last year’s FNL team for the most part and are making good progress in all phases of the competition right now. It’s feeding the motivation for the FNL team also. Dr. Singletary is excited for both teams as he thinks they are going to perform well. This is big because it is concrete proof that UNCP students can compete with the ‘big boys’. You can get the same education and experiences here as you can at NCSU, Ohio State, pick any name from that press release – we can compete.



The Team members are **Alex Velarde** (Applied Physics); **Sydney Allen** (Biology); **Micah Ferguson** (Applied Physics); **Caleb Locklear** (Applied Physics); **Bryan Martinez** (Chemistry); **Benjamin Savage** (Applied Physics); **Eric Schwarz** (Biology); and **Mace Velarde** (Applied Physics).



The UNCP Rocket Team members are: **Mace Velarde** (left), **Bryan Martinez**, **Caleb Locklear** (co-captain), **Sydney Allen**, **Alex Velarde** (captain), **Micah Ferguson**, **Benjamin Savage**. Not pictured is **Eric Schwarz**.

NASA Student Launch Challenge

The UNCP Rocket Team has been selected, along with 50 other universities to participate in the 2023 NASA Student Launch Challenge:

<https://www.nasa.gov/centers/marshall/news/releases/2022/nasa-announces-teams-for-the-2023-student-launch-challenge.html>

We have some stiff competition with three other schools from North Carolina. *Bragging rights are on the line.* The team will be travelling to Marshall Space Flight Center in Huntsville, AL for the competition in mid-April. The team worked hard on the initial proposal to be selected and are diving in on the next set of tasks, tests, and reports. If you see any of the team members, a high-five/good job would be greatly appreciated.



Manuscript Accepted



Tikaram Neupane, Ph.D.
Assistant Professor of Physics

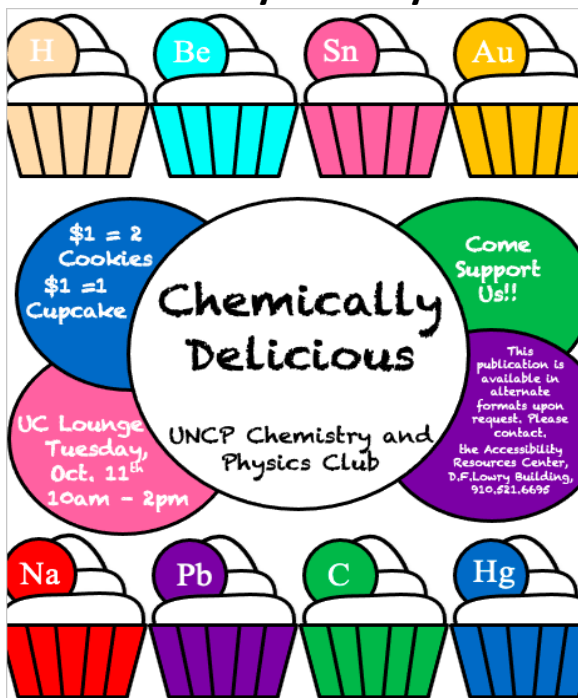
Congratulations, **Dr. Neupane**, **Caleb W. Locklear**, and **Billy Ray Pait**, on your publication with Nepal Physical Society. The research article, "*Crossover from Reverse Saturable to Saturable Absorptions in Two-Dimensional Tungsten Disulfide*" is attached in the file below.

Great Job, everyone!



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pdf

UNCP Chemistry and Physics Club



The Chemistry and Physics Club had a great turnout for their first and second fundraiser on Tuesday, October 11, and Wednesday, October 26, in the UC Lounge. Assorted cookies, cupcakes, oreo cookie balls, and cake pops were sold at the events. Many visitors made donations. Monies raised was over \$400 for both events. *Great job!* There will be upcoming meetings for students to come and join the club on November 10 and 17, and December 1. The Faculty Advisor: **Dr. Benjamin Killian**, President: **Haleigh Grace**, Vice President: **Trey McDonald**, and Treasurer and Secretary: **Blossom Edoh** “thank you” for coming and supporting the department club.

Visiting Students from Bladen County

Dr. Steven Singletary will be hosting a visit for seven students from Bladen County on Friday, October 21, from 9 am – 1:30 pm on campus. The students are all high school juniors/seniors, interested in STEM majors. They are enrolled in CCP courses at Bladen Community College. If you are not familiar with CCP (Career and College Promise), any high school juniors/seniors in NC with the appropriate GPA can take any curriculum course at a NC Community College for free. So, these are motivated high school students already working on college credit. The group of students will meet with Dr. Singletary and tour the department. They will meet with Dr. Siva Mandjiny, Chair, and the Admission Office. They will tour the campus and have lunch.

The UNCP Rocket Team will be launching rockets from noon until they depart. Faculty, if you would like a few minutes to talk with the students about your research, show them your labs, etc., please let Dr. Singletary know.





UNC PEMBROKE OPEN HOUSE

SCHEDULE

- 8-9:15 a.m.
Early Bird Arrival
- 9-10 a.m.
Check-in/Registration
- 10:15-11:15 a.m.
Welcome to UNCP
- 11:30 a.m.-2:30 p.m.
Explore, Lunch, Tours
- 2-3 p.m.
Chat with Admissions



OPEN HOUSE DATES

OCTOBER 22, 2022

FEBRUARY 25, 2023

APRIL 29, 2023

The Office of Undergraduate Admissions will host an Open House on Saturday, October 22, 2022, from 11:30 am to 2:30 pm. Prospective students and their guests are invited to participate in the Department and Student Organization Fair, which will take place on the Quad (lawn between the library and Old Main). Students will walk the campus, visit tables, speak with departmental representatives, and receive material. There were many interested students who stopped the Chemistry and Physics table and spoke with Drs. Neupane and Mandjiny. Special “thanks” to Dr. Tikaram Neupane and Dr. Siva Mandjiny in representing the Chemistry and Physics department during the open house and meeting our prospective students and helping recruit future Braves.

Thank you very much, Drs. Neupane and Mandjiny, for all you do for both the University and the department. We greatly appreciate your service in helping recruit future students.



Tikaram Neupane, Ph.D.
Assistant Professor of Physics



Sivanadane Mandjiny, Ph.D.
Professor of Chemistry and Chair

UNCP Homecoming Parade – 2022: Chemistry and Physics Club

On Thursday, October 27th, many of our students in Chemistry and Physics participated in this year's homecoming parade. There were 15 students on the float. Everyone had fun and representing our department before the community. It was a great day for a parade. Good job, everyone. Thank you.





Go Braves!

New Arrival



Naomi CoraRose Houser
October 6, 2022, at 12:23 p.m.
9 lbs. and 5 oz.
Parents: Tiffany and Monty Houser
Grandparents: Felicia and Eugene Scott

Congratulations to the proud parents,
brother Noah, and grandparents.



Student News

PRINCIPAL OF THE YEAR: DR. JASMINE NIXON

Harnett County Schools



Dr. Jasmine Nixon, UNCP alum, (center: cream-colored dress) was caught by surprise when she was called to the gym to address an important matter. It was a very important matter indeed. In a room filled with Overhills Middle School students, staff, and her family... HCPAPA and HCS district leadership announced that Dr. Jasmine Nixon has been selected the 2023 Principal of The Year for Harnett County Schools!

Congratulations, Dr. Nixon!!! You are an amazing leader! Thank you for all you do!

Click link for her story:

https://nam10.safelinks.protection.outlook.com/?url=https%3A%2F%2Fm.facebook.com%2Fstory.php%3Fstory_fbid%3Dpfbid02g76v22PUgwYn2GQiiKRwZ4hYXfNa38pUpbJo1RKmCzhzqHuFoPUN8YLDh85H9qJtl%26id%3D100064495067517&data=05%7C01%7Chope.bullock%40uncp.edu%7C54c24cacf59f46cafbb508daa8b6d3fa%7C1aa2e3287d0f4fd19216c479a1c14f9d%7C0%7C0%7C638007800593306350%7CUnknown%7CTWFpbGZsb3d8eyJWljoicjoiMC4wLjAwMDAiLCJQIjoiV2luMzliLCJBTiI6Ikl1haWwiLCJXVCi6Mn0%3D%7C2000%7C%7C%7C&sddata=rLZWUSrykGkA53D8JDdshZ8IGC9Ilg%2BMUVfLjEJq%2FyGs%3D&reserved=0

UNCP Recognizes Distinguished Alumni, Hall of Fame Inductees

Four distinguished UNC Pembroke Alumni were honored at the 54th annual Alumni Awards & Athletic Hall of Fame ceremony Friday evening, October 28, 2022.

This year's recipients are Vanessa Gonzalez, Paul Willoughby Jr., **Dr. Ethan Sanford**, and **Dr. Kennedy Stewart Henry**. The ceremony was held at the Upchurch Auditorium at James A. Thomas Hall.



UNC Pembroke proudly recognizes recipients of the annual Alumni Awards and 2022 Hall of Fame inductees



Dr. Ethan Sanford is a senior scientist at Q2 Solutions, a leading global clinical trial laboratory services company in New York. One of the youngest graduates in UNCP history, he completed his Ph.D. in biochemistry, molecular and cell biology from Cornell University in May 2022. At 19, he earned a biology degree from UNCP in 2016.

A native of Hamlet, N.C., **Dr. Kennedi Stewart Henry** earned a bachelor's degree in chemistry in 2016, graduating summa cum laude. She graduated from ECU School of Dental Medicine in 2021 and completed an advanced education in general dentistry residency at ECU with distinction. She currently practices in her hometown with Dr. Marshall Brown.

