Message from the Director

January at University Park marks the half-way point through another academic year. Another year full of opportunities to learn, grow, discover, and network.

The Forensic Science Program is taking full advantage of the resources available to us, and many new things are happening. New elective courses are being taught, new lab space has recently been added, new grant money and research experiences have been awarded, and smiling new faces have joined our team in the program office. While we welcome the new additions to our group, we also must reluctantly say goodbye to one of our long-standing faculty members. After many years of dedicated teaching and student research mentorship, Dr. Reena Roy has decided to retire at the beginning of 2023. Her rich experience and her deep devotion will be sorely missed and difficult to replace.

As we cross this half-way point, perhaps this is a good time to reflect on how thoroughly we’re taking advantage of all the opportunities available to us in a place as exceptional as University Park. I encourage you to be fully immersed in every chance to learn, grow, and discover the world here at Penn State, and spend some time networking with us in the program office. Stop into visit us in 329 Whitmore any weekday.

I wish you all a successful semester,

Dr. Brooks

Happy Retirement to Dr. Reena Roy
Join us in wishing Dr. Reena Roy a happy retirement after fifteen years of service to the Forensic Science program. During her time at Penn State, she taught several courses including Forensic Biology and Courtroom Testimony, in addition to ethics, seminar, and research courses. Dr. Roy mentored thirteen grad students and twenty-three undergrad students performing forensic biology and DNA research, in addition to countless others who have worked for her as Course Assistants.

Our students have often looked to Dr. Roy for advice and inspiration as they make their way through the program and out into the world. We thank her for all her contributions and wish her the best as she begins on this new path. Good luck, Dr. Roy! You will be missed!

Welcome to our New Staff Members!
From left to right: Cait Mossbrook, Dexter, Jess Hovingh, and Ashley Wilson

Jessica Hovingh - Assistant
Jess joined the program as a staff member in August 2022. She is an alum of our undergrad program and returned to the State College area after earning her MSc in Forensic Science – Chemical Criminalistics from the University of Lausanne, Switzerland. As a program assistant, Jess helps ensure the core class labs run smoothly. This involves everything from preparing reagents, to inventorying supplies, to assisting CAs with grading. You may also see her behind the wheel of the program van. Outside of work, Jess enjoys cooking, honing her barista skills to make the perfect latte, and trying to not kill members of her ever-growing houseplant family.

Cait Mossbrook – Administrative Support Assistant
Cait joined the program in November 2022. As admin support, she acts as the first point of contact for the Forensic Science program; provides academic administrative support for undergrads, grads, and faculty; schedules courses and exams, reserves general purpose classrooms/conference rooms; assists with award eligibility and process all award forms and special program events; and helps plan graduate recruitment, receptions, and award recognition ceremonies. Outside of work, Cait fancies cooking tasty food, listening to true crime podcasts, crossword puzzles, and quality time spent with family and friends.

Ashley Wilson – Administrative Support Coordinator
Ashley joined the program in December 2022. As our coordinator, she manages the program budget; reconciles expense reports; organizes student and faculty travel; assists with the ordering of classroom, lab, and research supplies and equipment; provides support for our FEPAC accreditation; and helps plan program events. Outside of work, Ashley enjoys spending time with family, taking her dog, Beau, on long walks, and watching cooking and organization videos on Tiktok.
Holland Research Group Awarded NIJ Grant for mtDNA Research

The Holland Research Group has been awarded a grant from the National Institute of Justice (NIJ) for research on the use of mitochondrial DNA (mtDNA) for forensic purposes. Using cutting-edge techniques that build upon previous research done by students and staff in the Holland lab, the research group will be working to address important interests of the criminal justice system and National Institute of Justice; specifically, providing the forensic community with better statistical power when considering mitogenome haplotype matches between evidence and reference samples in forensic cases, and providing a high-throughput, cost effective method for mitogenome sequencing.

Dr. Mitch Holland, leader of the Holland lab, said of this latest grant, “Our current work is focused on significantly expanding the forensic population database of mtDNA genomic sequences using an advanced approach that has never been attempted in the forensic community. This is an important piece of a forensic investigation, as it helps to assess the weight of a match between evidence samples and individuals of interest. With my colleague, Jennifer McElhoe, and the support of graduate students in the Forensic Science Program, we will generate more than 10,000 mtgenome sequences over the next 24 months. Our colleagues at the Hershey Medical School will provide the samples to be tested, and the laboratory work will be complete here on the University Park campus.”

Congratulations to the Holland Research Group! We wish you all the best of luck with this new endeavor!

Penn State at NEAFS

Congratulations to second-year grad students Taylor Maslin (left) and Paola Roldan-Arroyo (right) on their presentations at the Northeastern Association of Forensic Scientists (NEAFS) 2022 Annual Meeting in Niagara Falls. Both Paola and Taylor gave platform presentations.

Taylor’s presentation was entitled “Improved Quantitation for 15 Benzodiazepines using LCMS/MS with a 1.5 mm Internal Diameter Column” and focused on establishing a better method to identify benzodiazepine analogues using LC/MS/MS.

Paola’s presentation was entitled “Separation of Geometric Isomers (±)-11-nor-9-Carboxy-Δ9- THC and (±)-11-nor-9-Carboxy-Δ8-THC by LC-MS-MS” and focused on differentiating
two similar isomers of THC, delta 8 and delta 9, using LC/MS/MS. Both Taylor and Paola are students in the Campbell Lab.

Paola said of her experience, “NEAFS was a gratifying experience for me, given it was my first time presenting. I was very nervous but after I listened to other talks and then gave my own, I felt confident in the research I have been doing and all the things that I have learned since coming to Penn State!”

Way to go, Paola and Taylor! You make us so proud!

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**Penn State at ACVP**

Program Assistant Jess Hovingh and Program Director Jason Brooks presented as part of a workshop for the American College of Veterinary Pathologists (ACVP) 2022 Annual Meeting in Boston. The title of the workshop was “Trace Evidence Collection in Veterinary Forensic Pathology.”

Jess led the section “The Use of Alternative Light Sources to Identify Biological Fluids and Trace Evidence,” in which workshop participants were taught how to use alternative light sources to examine different types of fur and skin surfaces to attempt to detect biological fluids. Program undergrads Kiera Windsor and Abby Northeimer also attended to assist Jess with the workshop and demonstrations.

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**Congratulations Again to All Our 2022 Graduates! We Are...So Proud of You!**
BS in Forensic Science - Fall 2022
Desire Barriga
Anam Jafri
Kiera Windsor
Abigail Wasko
Jenna Schindler
Allison Guss
Iyana Peterson

BS in Forensic Science - Spring 2022
Adam Badinger
Arielle Brown
Brianna Dinh
Ella Herrmann
Carly Koutouvidis
Madeline Lee
Christopher Manou
Megan Morris
Samantha Muller
Nicole Olsen
DavyAnna Phosouvank Chamroeunphorn
Yuen Yan Ingrid Poon
Corryn Prince
Avarie Rembert
Shannon Rowsey
Taylor Schultz
Claire Schweitzer
Lauren Stenger
Emily Stillwell

MPS in Forensic Science - Fall 2022
Luke Hartmann

MPS in Forensic Science - Spring 2022
Alyssa Addesso
Veronica Cappas
Samantha Castle
Katherine DeHeer
Harini Isoda
Natalie Kelly
Shannon Palladino
Ashley Smith
Ryki Vance
Medicolegal Death Investigation Course Newest Elective Offering for FRNSC Students

Forensic students Paola Roldan-Arroyo and Karah Dickson practice notifying next of kin about the death of their husband. The wife was played by forensic staff member Cait Mossbrook.

Forensic students Haley Lemke and Morgan Jones practice notifying next of kin about the death of their daughter. The mom and dad were played by forensic staff member Ashley Wilson, and friend of the program, Andrew Gutberlet.

A new elective course in Medicolegal Death Investigation is being offered for students in the Spring semester. The course is being taught by Dr. Jason Brooks, the Forensic Science Program Director. In addition to his years of work as a Veterinary Pathologist, Dr. Brooks is also a Deputy Coroner with the Centre County Coroners Office, a volunteer firefighter, and EMT.

This course introduces students to the basic concepts of medicolegal death investigation and the operations of a medical examiner or coroner’s office. Topics include determining cause and manner of death, issuing a death certificate, making death notification, forensic autopsy, typical postmortem findings in common natural and unnatural deaths, mortuary procedures, cultural differences in death rituals, mass casualty events, and others. An optional Saturday field exercise will be conducted in which students can have the opportunity to practice many of the skills learned in class including scene assessment, witness interviewing, family death notification, and transport of the body to the morgue. This may also include a visit to the morgue and/or funeral home.

Virtual Open House for Prospective Grad Students
Our second annual Virtual Open House took place on November 9th, 2022. Attendees enjoyed a program consisting of Welcome and overview from program Director, Dr. Jason Brooks; remarks from faculty members Mr. Mike Kusluski, Dr. Mitch Holland, Dr. Bill Campbell, and Dr. Reena Roy; virtual tour of program facilities and instrumentation by Katie Mantz-Weller; and remarks from current Grad students Kerry McCann, Zoe Timothy, Jade Korber, Erin Brownfield, Mei Smyers, Taylor Maslin, and Paola Roldan-Arroyo; followed by a question-and-answer session. You can watch the Open House on our website at https://science.psu.edu/bmb/forensics/gradopenhouse.

Announcements

Summer Section of FRNSC 415 Being Offered
A section of FRNSC 415W is being offered this coming summer during the Summer I session, May 15, 2023 - June 23, 2023. The course will meet in the Cottages on Mondays, Tuesdays, Thursdays, and Fridays from 8:00a-12:00n. Jess Hovingh, a forensic staff member and program alum with over 7 years experience with the FRNSC 415W course, will be teaching the class. Interested students can register beginning next week on Lionpath. If you have any questions about the course, contact Jess at jzh5138@psu.edu. For scheduling questions, reach out to Noelle in academic advising.

Graduation Send-Off Celebration Scheduled for April 27th
The Forensic Science Program will be holding a send-off celebration for our spring and summer graduates on Thursday, April 27th, from 6:00p-7:30p on the 3rd Floor Huck Life Sciences Bridge. All forensic students are encouraged to attend the celebration!

Forensic Science Club Symposium
The annual Forensic Science Club Symposium will be on Saturday, March 25th from 8:00am-3:00pm. Location TBD. Registration information will be available soon.