

# School of Science Newsletter

Siena University  
Winter 2026



## Note from Dean McCarthy

An integral approach (pun intended!) within calculus is to assign values on a small scale and then assemble the pieces to understand the cumulative effect of a very large number of very small contributions.

Although the day-to-day can feel routine, our work educates others and advances learning one student at a time and one idea at a time. Many small actions contribute to a cumulative impact that has a lasting effect on our students, our colleagues, and scientific knowledge.

We guide students through a period of amazing transformation and growth by means of interactions and shared experiences as varied and ever-changing as our students themselves. Their success is truly inspiring, and aiding their development gives tremendous meaning to our work. As a community of scholars, we collaboratively engage in inquiry. Faculty and students alike develop skills, create new ideas, and apply the work toward improvements in education, environment, technology, health, and more.

With a wave of retirements, the School of Science is saying goodbye to many prized colleagues this year. Their storied careers demonstrate to us how continued incremental contributions lead to broad scale positive impact over time.

Warm Regards,  
Anne E. McCarthy, Ph.D.

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# Around the School of Science



## TEDDY BEAR CHECK UP CLINIC

In November, Siena's health professions students hosted a check-up clinic for teddies and other cherished stuffed animals for more than 250 kids and family members. The stuffed animals were immunized, bandaged, X-rayed, and had dental checkups. In addition to providing top-notch teddy health care, the event also reinforced for the children the concept of wellness and the importance of regular check-ups. Hopefully, some of these young minds may even consider a future career in health care. Special thanks to *Highmark Blue Shield of Northeastern New York* for sponsoring the event for the second year in a row



Also in Teddy Bear news...

The Teddy Bear Check-Up Clinic received a Bronze Award in the Alumni Relations|Alumni Relations Initiatives category of the 2025 CASE Circle of Excellence Awards! The Council for Advancement and Support of Education (CASE) bestows the award to recognize outstanding programs from institutions all over the world. It's a testament to the heart, creativity, and teamwork that goes into making the event such a meaningful experience for alumni, students, and families alike.

In September, the 2<sup>nd</sup> annual Cold Case Day was hosted at Siena. The event brought students, law enforcement, and community members together to explore new approaches to resolving long-unsolved crimes. The event explored the use of modern DNA technology which gives investigators tools to revisit unsolved cases. The involvement of the community as a crucial component in these cases was also discussed.



Siena hosted 10 area high school teachers this summer for a 3-day paid workshop on programming, physics, and data analysis. The Siena/IRIS-HEP Coding Camp was funded by a grant from the National Science Foundation (NSF) as part of its support for the Institute for Research and Innovation in Software for High Energy Physics (IRIS-HEP), a multi-institutional grant that is headquartered at the Princeton Institute for Computational Science and Engineering. Matt Bellis, Ph.D., professor of physics, coordinated the workshop.

The Chemistry and Biochemistry Club, participated in National Chemistry Day at the NYS Museum in Albany. The club did demos with hundreds of local kids involving pH and polymerization.



Dr. George Hassel organized a Nuclear Science Merit Badge program for Scouts on Nov. 1. They did activities including M&M decay and marshmallow molecules. Approximately 60 Scouts attended and completed a challenging badge.

Dr. Erin Dolen's Nursing Population Health clinical group partnered with the Capital City Rescue Mission and organized a "Pajama Party" fundraiser in the Paddock while simultaneously raising funds through a GoFundMe. Siena's nursing students raised over \$2500 for the Mission and were able to purchase everything requested on their wish list. Additionally, the students created patient education handouts offering every-day self-care tips essential for the homeless population in the winter months.





## Around the School of Science continued...

In November, Rae Holder, Rebecah Leonard, Jamie Martino, Sushmita Mandal, Ceana Potter, Lexi Randt and Sana Seth, attended the Grace Hopper Celebration (GHC) in Chicago. This event is the largest gathering in the world of women in the fields of technology. Women from across the globe came together to learn, network, and celebrate their achievements. A grant from *Boeing Corporation*, titled *Women in Leadership*, provided the funding for these students to attend the 2026 Grace Hopper Celebration.



John Armitage took 14 students to Rome, NY for the CNY Hackathon. This is the 3rd year Siena has participated and the largest group of students from Siena to attend. The students were placed on teams with students from other schools and assigned activities to “capture the flag” or hack into vulnerable systems to gain access to information assets. Additionally, they had to defend against other teams who were trying to hack their infrastructure. Isaiah Santamaria and Emilio Valdeon won awards for most improved for their teams and Matt Goldman was on the team that won the event.

October was CyberSecurity Month and the Cybersecurity club sponsored these events:

- A panel of security experts spoke about common exploits and how people can protect themselves
- Students learned about career opportunities within cybersecurity and ways to find jobs within the cybersecurity field. Students were also treated to an actual hacking demonstration.

The Incident Response and Digital Forensics class went to the NYS Police and received a tour and presentation of the digital forensics lab. They learned about chain of custody and digital forensic capabilities. The presenters shared how a child predator was convicted based on information found on a car GPS and cell phone.

**Dr. Mary Beth Kolozsvary** was invited to be on an expert panel at the New York State Museum’s showing of the new documentary “*The Nature of Nature: Biodiversity in the Hudson Valley.*” The event was held on Dec. 17th, at the Huxley Theater at the New York State Museum.

The documentary was an ode to the remarkable variety of life in the Hudson Valley and celebrates the living fabric of this unique landscape. The 30-minute documentary captures the beautiful, the complex, the familiar, and the unknown... guided by the plants, animals, and people that call the Hudson Valley home.



The Nature of Nature was produced by Flicker Filmworks and the Hudson River Estuary Program with funding by the New York State Department of Environmental Conservation through the New York State Environmental Protection Fund in partnership with NEIWPC. [Watch the trailer](#)

**Dr. Adikes and Rithika Patnam '26** traveled to the Marine Biological Laboratories in Woods Hole MA in mid-August to conduct experiments with our collaborators to visualize and quantify how immune cells migrate in complex environments.



Rithika Patnam '26 learning how to inject human immune cells into zebrafish



Dr. Adikes and Rithika in front of the Novel Fast Line Scanning Confocal



**Dr. Adikes** was invited to the Allen Institute for Cell Science in Seattle to participate in a collaborative curricular development workshop called Teachstravaganza in August.

# What's Next for Our Students?

The School of Science prepares students with the necessary skills to succeed on their journeys after graduation. Below are updates on some of recent graduates. **Go Saints!**

## Environmental Studies and Sciences

The following are working on Master's Degrees:

**Lena Ehman '25**, King's College London  
**Charlie Gaffney '25**, Lehigh University  
**John Hogan '25**, University of Buffalo  
**Meghan Kelly '25**, King's College London  
**Justin Wolford '23**, SUNY Plattsburgh

**Aidan James '25** is enrolled in the Environmental Studies JD program at Pace University's Elisabeth Haub School of Law



## Biology

**Alyssa Lunman '25** will be going to PA school at Massachusetts College of Pharmacy and Health Sciences in Boston

## Computer Science

**Athena Varghese '26** received the ASIS International Albany Chapter Annual Scholarship. She is working towards becoming an investigator for the NYS Police in areas of digital forensics and cybercrime.

## Physics

**Ethan Jones** is pursuing a PhD in physics at the University of North Dakota  
**Josie Swann '25** is pursuing a PhD in Physics at the University of Tennessee-Knoxville  
**Jaime Cochran '25** is pursuing a PhD in Physics at Texas A&M

## Student Research



Astrophysics majors **Ella Treasure** and **Jackson Ingenito** presented the results of summer research they completed with **Dr. Rose Finn**.



The workshop was held at the Green Bank Observatory in West Virginia in June. The observatory is home to the largest movable single-dish radio telescope in the world.

**Ahmed Zegher** and **Samina Hanif** continue to work with **Dr. Leamy** at the RNA Institute. They are gaining experiences by using instruments available at this top research institute.



**Tiffany Chen '26** and **Ryan Strang '27** (Environmental Studies and Sciences) completed positions as Catskill Research Fellows. The positions were externally funded by a grant received by the Catskill Science Collaborative program coordinated by Cary Institute for Ecosystem Studies, and funded by the Environmental Protection Fund (NYSDEC). Both fellows presented a poster at the CERM Conference in October and assisted a Geospatial Analysis (GIS) to identify candidate sites for future ecological research forest in the Catskill Mountain region.

**Grace Branshaw '26** participated this summer at the SURF program at SUNY Upstate Medical University. She worked in the lab of **Jessica Henty-Ridilla** and studied cellular condensates impact on the cytoskeleton in neurodegenerative diseases.

This summer, **Eva Pflomm** (Math, '28) and **Grace Jones** (CSIS, '28), worked on a CURCA-funded project to develop math animation videos in the style of the popular 3Blue1Brown YouTube channel. The video shows how to convert from one unit to another, both conceptually and practically. Watch the video [here](#). It was entered into the 3Blue1Brown's "Summer of Math Exposition (SoME)" contest and although it did not win, received a positive response.

## Faculty Award

**Dr. Scott Greenhalgh** received the The Council of Undergraduate Research mentor award in Mathematical, Computing and Statistical Sciences. He was selected to receive the mid-career award by CUR division counselors, specifically for enabling student collaborations in infectious disease modelling.

## Alumni News

**Sam Hoff '20**, is a Lecturer in the Wildlife and Fisheries Biology Program, Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, VT,

**Kyra Griffin '21**, Biology, co-authored with Dr. Giarla & others in the *Journal of Mammalogy* (106: 832–858). She helped Dr. Giarla build biogeographic models to understand how rodents spread across parts of Southeast Asia and onto oceanic islands over millions of years.

**Tabitha Henriquez '25, Michael Frutschy '25 & Rebecah Leonard '26** co-authored Dynamics and persistence of a generalized multi-strain SIS model with **Dr. Greenhalgh**. *Bulletin of Mathematical Biology*. Vol 87, 147

**Tabitha Henriquez '25** is working for NYS as an analyst.

**Rebekkah Clauson '25** is an Environmental Data Management Specialist at Tighe & Bond

**Noah Blocher, '25** is a Farmstead Technician with Western New York Crop Management

**Matthew Columbia, '25** is an Environmental Specialist at Triumvirate Environmental

**Katharine Lindsay, '25** is a Source Water Protection Central Ambassador for the New Jersey Watershed Ambassadors Program

**Kendall LeVasseur '25** is an Environmental Health and Safety Specialist for USA Waste & Recycle

**Savannah Werblow '25**, is an Environmental Scientist I at Maviro

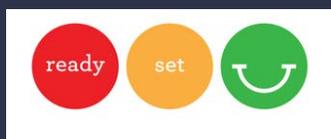
**Ashley Bonomi '25**, graduated with a student designed interdisciplinary major in forensic science and recently began her career with New York State

**Julia Abbatiello '25**, is a nurse on the oncology unit at St. Peter's Hospital in Albany.



**Alumni**  
Please let us know what you've been up to [here!](#)

How do trees get on the internet?



*They log in!*

## *In Memoriam*

**Dr. Mark Rosenberry**

December 16, 1971 – November 12, 2025

Dr. Rosenberry joined the Physics Dept in 2003. Mark developed and taught courses ranging from Energy and the Environment to advanced Experimental Techniques. A policy wonk, he served on curriculum, academic integrity and compensation committees. He mentored and inspired countless students' work in atomic physics, and was a highly cherished colleague.

Mark leaves behind his wife Andrea and three wonderful children: Miles, Astro, and Heather.



## 2025 - 2026 Retirements



**Dr. James Angstadt** - Professor of Biology  
**Dr. Emelie Kenney** - Professor of Mathematics  
**Eileen Martino** - Biology Admin. & AHP Advisor  
**Dr. Jean Mangun** - Professor of Environmental Studies & Sciences  
**Dr. Loretta Memmo** - Biology Faculty and Lab Manager  
**Dr. Rachel Sterne-Marr** - Professor of Biology  
**Dr. Scott L. Vandenberg** - Professor of Computer Science  
**Dr. Nina Zanetti** - Professor of Biology

## The Math Center is OPEN

This fall the new Math Center opened which is located in Kiernan Hall. The center serves students in quantitative courses across the entire university.

The Math Center facilitated:

- daily drop-in tutoring hours on weekday afternoons and on Tuesday, Wednesday and Thursday evenings
- learning strategies workshops
- a welcoming environment where students work together and with professors to explore mathematics



With 500+ visits from students in 22 different courses, it was a great 1st semester!

### Student feedback about the Math Center:

- "If anyone needs any help regarding any assignment or getting ready for an exam that involves mathematics, I definitely recommend consulting the Math Center."
- "The math center is undoubtedly one of the most important programs at this school."
- "The Math Center has helped me so much this semester and I hope even more students utilize it in the future!"

# Faculty Presentations

**Dr. Rebecca Adikes** led a workshop session “Scientific Research and Writing: A Semester Long CURE for Sophomores” at the Open Science and Authentic Research in Undergraduate Education Workshop in Philadelphia on December 5th

**Dr. Matt Bellis** presented at the Lepton-Photon 2025 Symposium in Madison, WI. He presented a new analysis of the B meson in a search for forbidden decays, any observation of which would imply new physics beyond our current understanding. No decays were observed and the first upper-limits were placed on this process. The data came from the BaBar experiment at Stanford, which stopped taking data in 2008, but continues to be mined for new results. This work came out of the senior-year capstone project of Physics major, Josie Swann ('25). The data was unblinded only weeks before the conference! A paper is currently in the works.

**Dr. Dan Bogan** presented at the Catskill Environmental Research and Monitoring Conference (CERM), <https://cermconference.org> on A Revised Geospatial Analysis to Identify Candidate Sites for Designation as a Catskill Research Forest



**Dr. Dan Bogan** spoke on “Seeking First Growth and Old Growth Forests of the Catskill Region through a Process of Elimination and Evaluation” at Science on Tap! Brown's Brewing Company

**Dr. Branden Eggan and Valerie Rivera** presented at the Northeastern Association of Advisors for the Health Professions (NEAAHP) conference in Baltimore in June. The presentation was titled: *Navigating Barriers: Examining Premedical Pathways of Undergraduate First Generation and Low-Income Students.*



**Dr. George Hassel, Dr. Rose Finn and Natasha Collova '18**, presented at the fall meeting of the Science Teachers Association of New York State. The goal of the workshop was to introduce a research-based astronomy curriculum that can be used in high schools.



**Dr. MaryBeth Kolozsvary** was invited to be on an expert panel at the New York State Museum's showing of the new documentary “The Nature of Nature: Biodiversity in the Hudson Valley.” This event was held on Wed., Dec. 17th, at the Huxley Theater at the New York State Museum.

**Dr. Jim Teresco** attended CCSC Eastern at Arcadia University in October as a conference partner. He gave a brief overview of his research group's project to support innovative curricular design in liberal arts-based computing programs.

## Faculty Grants

**Dr. Jon Bannon**, Professor of Mathematics, received the American Mathematical Society-Simons Research Enhancement Grant for Faculty at Primarily Undergraduate Institutions (PUIs). This prestigious 3-year grant titled “Correspondences of von Neumann Algebras” supports continuing work on the mathematics of quantum mechanics, as well as formalizing the foundations of the theory in the Lean 4 programming language.

**Dr. Jim Teresco** received an NSF grant for a Project Title: Collaborative Research: Transforming Computer Science Curriculum Design at Liberal Arts Institutions Managing Division Abbreviation in the amount of \$146,426. This is part of a collaborative project, with the other PIs at Washington & Jefferson College and Trinity Christian College.

The **Adikes lab** was awarded a 3-year collaborative NSF grant entitled: "Cytoskeletal regulation of single cell migration in complex environments" for \$1,132,274. This is a collaborative project between the Adikes lab at Siena, the Mace lab at Columbia University and Matthew Parent from the Imaging Innovation Center at the Marine Biological Laboratories. The project will focus on proteins named septins, which can act like a girder to protect cells as they crawl through constrained environments. The primary aim is to understand how evolutionarily conserved septin proteins function similarly or differently under varied conditions, including in the human immune system and in migrating worm cells.

**Dr. Brandy Eggan** received a \$7,500 grant from the American Association of Medical Colleges, Northeast Group on Academic Affairs in support of a project entitled: "Understanding the Experiences of Medical Students who take an Academic Leave of Absence from Medical School: An Exploratory Study"

**Dr. Mary Beth Kolozsvary** received an award of \$8,991 from Cornell Cooperative Extension to develop an educational learning module targeted towards undergraduate environmental majors and non-majors. Students will role-play invasive species environmental decision-making using data from iMapInvasives.

# Publications

**Dr. Thomas Giarla** recently co-authored:

- The phylogenetic relationships and taxonomic status of the single-striped opossum *Monodelphis unistriata* (Didelphimorphia: Didelphidae). *American Museum Novitates* 4040:1–12.
- A multigene phylogeny for *Oecomys* (Rodentia, Cricetidae, Sigmodontinae) with descriptions of new and revalidated taxa and a partial species-group classification. *American Museum Novitates* 4038:1–40.
- Systematics and historical biogeography of *Crunomys* and *Maxomys* (Muridae: Murinae), with the description of a new species from Sulawesi and new genus-level classification. *Journal of Mammalogy* 106: 832–858.

**Dr. Dan Bogan** recently co-authored:

- Urban coyotes as a source of conflict with humans: an evaluation of common management practices. *Human–Wildlife Interactions Monograph* 5:1–54.
- Rooney et al. 2025. SNAPSHOT USA 2019–2023: The First Five Years of Data From a Coordinated Camera Trap Survey of the United States. *Global Ecology and Biogeography*, 2025; 34:e13941



**Dr. Rebecca Adikes** recently co-authored:

- Proteome remodeling in the zoospore-to-vegetative cell transition of the stramenopile *Aurantiochytrium limacinum* reveals candidate ectoplasmic network proteins. *PLOS ONE*. July 2025
- A Multimodal Adaptive Optical Microscope For In Vivo Imaging from Molecules to Organisms. *Preprinted on bioRxiv* June 2025

**Dr. Scott Greenhalgh** co-authored Dynamics and persistence of a generalized multi-strain SIS model. *Bulletin of Mathematical Biology*. Vol 87, 147.

**Dr. Scott Greenhalgh, Dr. Ashley Provencher** and alum **Ahmani Roman** '22 co-authored Wonder drugs and where to use them: a forecast on ivermectin's impact on malaria in Africa. *Infectious Disease Modelling*. Vol 10, 4, 1229–1237.

**Dr. Robin Flatland** co-authored "The Log Function Means Everything in Computer Science: Teaching Logs with Meaning," in the *NYS Mathematics Teachers' Journal*. 74:3:98–105, 2025

**Dr. Dan White and Donnean Thrall** published a paper in the *Journal of American Herbalists Guild* entitled "Introducing young adults to herbalism: The medicinal plants."

**Dr. Rose Finn** published *Virgo Filaments. V. Disrupting the Baryon Cycle in the NGC 5364 Galaxy Group*. Published in the *Astrophysical Journal with collaborators from the Virgo Filament Survey*.

The following were published in the *The Thirty-Fourth Annual Text Retrieval Conference Proceedings*. Gaithersburg, Maryland, December 11th–12th, 2025.

- **Dr. Sharon Small, Daniel Seredensky '26 and Dylan Iddings '27**, published CITADEL – Citation-Driven Draft-Evaluate Loop
- **Dr. Ting Liu, Jack Cheverton '26, and Oliwia Majtyka '27** published Intelligent News Comprehension through Query Expansion and LLM-Augmented Generation
- **Dr. Darren Lim, Andrew Sauer '26 and Max Vanderbeek '26** published Leveraging Language models for Textual Retrieval in the TREC 2025 DRAGUN Track

**Dr. Brandy Eggan** co-authored:

*Professional Wisdom: What a College Student's Brain and Career Need – The book is a vision for higher education to prepare students for both career and life. "True 'professional wisdom' comes from blending academic knowledge with hands-on learning. The publication received an excellent Kirkus review for non-fiction. Check it out here!*

"Neurodevelopmental Outcomes Following Open and Endoscopic Repair of Isolated Sagittal, Coronal, Metopic, and Lambdoid Craniosynostosis". Published in the *Annals of Plastic Surgery*

**Dr. Mary Beth Kolozsvary** co-authored an overview of current education efforts within the Ecological Society of America. *Bulletin of the Ecological Society of America* 106(4): e70040. [click here for article](#)

## ICYMI!

Nursing Students respond to a need: [Here](#)  
The Intern Journal: Capital Region Environmental Lab: [Here](#)  
The Untold Story of... Tobi Kirschmann: [Here](#)  
Sustainability Studies is Open to all Saints: [Here](#)  
The Untold Story of Eric Breimer, Ph.D.: [Here](#)  
Saints Share the Gift of Music: [Here](#)  
Every Saint Has a Story: Rae Holder '26: [Here](#)  
A Saint Professes His Solemn Vows: [Here](#)  
Passing the Knowledge On: [Here](#)  
With SPIN, Saints are Making WAVES: [Here](#)  
Every Student Has a Story: Charlize Villanueva '26: [Here](#)  
The Untold Story of... Rebecca Clark, Ph.D.: [Here](#)  
The Untold Story of... Patrick Maxwell, Ph.D.: [Here](#)  
Siena researchers lead effort to clean up in Colonie: [Here](#)

## Roger Bacon Gets Upgrades

Following the opening of Nobel Hall, several vacated rooms in Roger Bacon are renovated and repurposed to meet additional instructional needs of the university.

Every department in the School of Science is enjoying some upgraded space in 2025.

Thanks to the Siena Communications team for helping us with great design work.

## Roger Bacon 222 Showcase Computer Lab



## Roger Bacon 132 General Use Classroom



## Roger Bacon Lobby



## Roger Bacon 122 Applied Physics Lab

