GSoLS Insider

RIT Thomas H. Gosnell School of Life Sciences

Fall 2019

Dear GSoLS Faculty, Staff, Students and Alumni,

Welcome to another edition of our Thomas H. Gosnell School of Life Sciences (GSoLS) *Insider Newsletter*. I am delighted to share with you that we had a fantastic start to the academic year. Drs. Crista Wadsworth and Eli Borrego joined the GSoLS family as assistant professors along with Mrs. Larissa Barresi who is the new academic advisor for students enrolled in our environmental science program.

We are in the 5th phase of our teaching and research lab renovation initiative, and we are purchasing state-of-art equipment to enhance our teaching, research and scholarship.

One of the many highlights for this academic year is the newly implemented "*Georgia A. Gosnell Research Seminar Series*". This seminar series has been an excellent addition to our repertoire of GSoLS activities. Thank you to the Gosnell Family and to GSoLS faculty member, Dr. Elizabeth DiCesare for spearheading and leading this effort.

I would be remiss not to mention and acknowledge the passing of Dr. Irene M. Evans to cancer on December 11, 2019. For 36 years, Dr. Evans was the epitome of a teacher/scholar. She provided impactful teaching and research opportunities for countless GSoLS students over the years. She was also instrumental in designing, implementing and teaching some of our staple courses such as; tissue culture and cell physiology.

The future is very bright for GSoLS, we anticipate recruiting additional faculty and staff to enhance the breadth and depth of our teaching, research and scholarship. Thank you for your support as we continue our onward and upward trajectory towards another successful academic year.

Cheers and Regards

André O. Hudson- Head-Thomas H. Gosnell School of Life Sciences

In Memorium

RIT mourns the loss of Professor Irene Evans

Irene Evans, a professor in the Thomas H. Gosnell School of Life Sciences, passed away after a battle with cancer.

"Irene was known in our college for her cheerful personality, perseverance, dedication to student success, and her love for her discipline and working with students," said Sophia Maggelakis, dean of the College of Science. "She was a great colleague, student mentor, and faculty member who will be greatly missed."

Professor Evans earned her MS degree in cell biology from Wesleyan University in Middletown, Conn. and her Ph.D. in biophysics at the University of Rochester's School of Medicine and Dentistry. She joined RIT as faculty in 1983, was awarded tenure and promoted to associate professor in 1988 and was promoted to full professor in 2004.

A staunch proponent for offering undergraduate students opportunities to engage in research in her lab, Professor Evans taught courses including tissue culture and synthetic biology. Her research projects focused on topics including cancer biology, blood vessel growth, and the developing anti-angiogenesis drugs. Outside of her career, she enjoyed swimming and volunteering at the Jewish Home of Rochester.

"Irene was a valuable member of our community for 36 years," said Professor André Hudson, head of RIT's Thomas H. Gosnell School of Life Sciences. "She spearheaded a lot of our efforts to establish, implement, organize, and facilitate undergraduate research for our students. She was a passionate mentor to a lot of our students and we offer her family our deepest condolences."

RIT will hold a memorial service for Professor Evans in the spring of 2020. The RIT flag will be lowered to half staff in her memory on her birthday, Tuesday, Feb. 25.

Newsmakers

RIT Receives multiple accolades for promoting diversity and inclusion

RIT received the 2019 Higher Education Excellence in Diversity (HEED) Award from *INSIGHT Into Diversity* magazine, the oldest and largest diversity-focused publication in higher education, for the sixth year in a row. Also, for the third consecutive year, RIT is being honored as an institution committed to diversity for 2019 by Minority Access Inc. And Professor André Hudson, pictured above, is among the individuals Minority Access will celebrate at the National Role Models Conference this year.

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RIT gifted 177-acre estate to expand research, educational offerings

Rochester Institute of Technology is excited to announce that Rochester Real estate entrepreneurs Amy Leenhouts Tait and Robert C. Tait have gifted to RIT their 177-acre property on Irondequoit Creek in Penfield. This property, dedicated as the Tait Preserve of RIT, will be used as an excellent resource for environmental education and research programs, urban ecology research and training, and community engagement activities within The College of Science.

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Researchers turning to photodynamic therapy to beat cancer

Dr. Maureen Ferran, Associate Professor, was interviewed by RochesterFirst regarding her cancer research. Dr. Ferran is looking at ways to utilize photodynamic therapy to treat breast cancers. In collaboration with other researchers, she is looking at the use of a photosensitizer to treat infected cells (while keeping healthy cells alive).

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Dr Karl Korfmacher, a professor of environmental science was featured in a story by WXXI. In the story, Korfmacher discusses how asphalt creates “urban heat islands” and how vegetation can combat the effects of heat waves.

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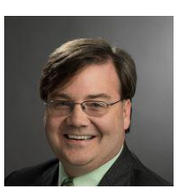

WROC-TV talks to **Nicole Cavanaugh**, a biotechnology and molecular bioscience student, and **Larry Buckley**, Associate Dean in the College of Science, about the impact of RIT’s genomics lab.

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Faculty and Staff News

Dr. Susan Smith-Pagano, Associate Professor, was recently nominated to become a Fellow of the American Ornithological Society (AOS). She was elected as one of twenty-seven new AOS fellows based on her exceptional and sustained contributions to ornithology and/or service to AOS.

Dr. Jeff Lodge and colleagues, Drs. Carlos Diaz, Christopher Lewis (CET) and Tom Trabold (GIS) were awarded a ~1.6M grant entitled, "*Degradable mulching films for sustainable agriculture*". The project fills research gaps in understanding the properties of bioplastic materials that enable microbial degradation under aerobic conditions. The goal is to enhance degradation with the appropriate microbial triggers to facilitate degradation of mulch to create soil in an effort to circumvent deleterious environmental impacts of landfilling and incineration.

Dr. **Gary Skuse**, Professor, along with Professor Paul Tymann from the Department of Computer Science and others from outside RIT, hosted a workshop aimed at helping more than 50 educators from throughout the north east prepare competitive applications for NSF funding through their Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) program. Dr. Skuse is continuing to mentor teams from three colleges as they develop their applications for the March 2020 deadline. This project is funded by a $377,000 grant from the NSF on which Dr. Skuse is the Principal Investigator

Dr. Andre Hudson, Thomas H. Gosnell School of Life Sciences School Head, was featured on an episode of Intersections with Kit Mayberry, RIT Vice President for Strategic Planning and Special Initiatives. Hudson talks about his mentoring work with high school students and their discovery of a rare bacterium that kills E. coli

Listen Here

Dr. Dina Newman, Associate Professor, and recent biology graduate Gretchen Horst talk about The Center for Advancing STEM Teaching, Learning and Evaluation and the Learning Assistant Program which trains undergraduate students for positions in the classroom to facilitate active learning.

Listen Here

RIT Celebrated its "Appreciation of Employees Celebrating a Milestone Year at RIT in 2019". Congratulations to **Dr. Robert Rothman,** for 35 years of service and staff member, **Rosanne Klinger** for 30 years of service.

Student News and Achievements

Environmental Science Masters Student featured on Student to Student
Abby Rolston (Environmental Science-MS) was featured in the College of Science Student to Student Feature. In the story, Abby discusses her research focused on the degradation of blended polymers and plastic waste.

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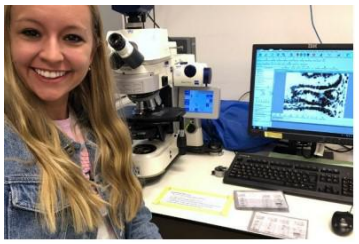
Environmental Science students measure impact of bioretention areas

Environmental Capstone students Alyssa Schoenfeldt, Alana Hughes and Emily Harris were at Rochester Museum and Science Center installing native plants in a bioretention area that is part of the RMSC's Regional Green Infrastructure Showcase. RIT students are monitoring the performance of green infrastructure, like these bioretention areas, in reducing stormwater overflow and participate in outreach to encourage homeowners to create similar gardens at home.



Bioinformatics Student Featured in Student Spotlight

Alexandria Shumway was selected to do research abroad over the summer through the Deutscher Akademischer Austauschdienst (DAAD) RISE program, or German Academic Exchange Service. Through this program, the fifth-year bioinformatics and computational biology (BS) and bioinformatics (MS) student from Delray Beach, Fla., traveled to Kiel, Germany, to complete her research at the Christian-Albrecht University of Kiel. Shumway stayed in Kiel from May to August 2019 conducting research on intestinal inflammation with a particular focus on ulcerative colitis, Crohn's disease and other chronic disorders

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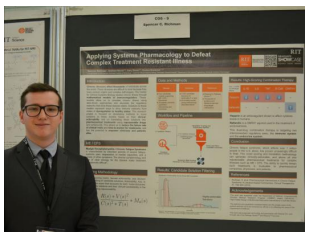
Congratulations to the following Life Sciences students for their 2018-19

Dean's List Honors:

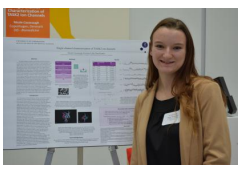
Sofie Christie, Aditya Gupta, Seryna Krencik, Jennifer Pfaff, Erica Delles, Safiya Gazali, Maryah Glover, Jacob Horn, Taylor Rund, Camila Silvera, Emily Trainor, Alaa Abdelmageed Ahmed, Karl Brylow, Nicole Cavanaugh, Vincent Darmohray, Megan Hallenbeck, Michelle Mailhot, Jade Mullen, Kristen Murray, Trevor Penix, Aaron Pennington, Lexi Pyke, Yara Rose, Alexis Rudesil, KayLee Steiner, Lucille Tomin, Joyce Yang, Briana Burt, Erika Fernandez, Danielle Mailhot, Jenifer Rosete Garcia, Amanda Van, Sydney VanWinkle



Life Sciences would like to congratulate the following students for their honors and achievements:

***Spencer Richman** was awarded Best Presentation Winner for his poster session entitled, " applying Systems Pharmacology to Defeat Complex, Treatment Resistant Illness" at the Graduate Education week and Showcase (summer 2019)

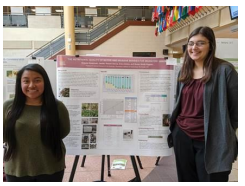
***Emalee Wrightstone** won first place in the Advanced Poster Category at the 5th Annual Honors Research and Creativity Symposium (fall 2019)



*On November 20th, The 6th Annual Global Learning Symposium featured over 20 interactive exhibits detailing students' academic achievement while on a study or work abroad program. Tthe following students representing Life Sciences: **Lucas Barber, Nicole Cavanaugh and Alexandria Shumway**

*Environmental Science Capstone students, **Hannah Saxena and Rachel Taylor** participated in an educational workshop on the spotted lantern fly at the Seneca Park Zoo. They conducted a training on how to use iMapInvasives to report invasive species. The spotted lantern fly is a new invader to NYS that threatens many agricultural crops including peaches, apples and grapes.

*Multiple Life Sciences students and their mentors participated in the following summer and fall events: **The Science 46th Annual Paper Session Rochester Academy of Science**, **The Honor's Research Symposium and RIT's Fall Graduate Showcase.**



Environmental Science BS/MS student and Student Government Vice President, **Liam Megraw** helped host Brick City speaker, Anderson Cooper. Liam had the opportunity to share his research with Mr. Cooper during their conversation. Liam's thesis research uses artificial intelligence to detect invasive plant species. He works with GSOLS faculty **Christy Tyler** and CIS faculty Chris Kanan.

Alumni Updates and News

Heather Moe '08 (Biology, BS) discusses her career path since graduating from Rochester Institute of Technology, and how she has found the job that has really inspired her.

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Jessica Salamone '99 (biotechnology) director of Genetic Counseling and Cancer Risk Assessment at Elizabeth Wende Breast care in Rochester talks about her work with women in the Rochester Area.

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Breanne Kisselstein (Molecular Bioscience and Biotechnology), a doctorial student at Cornell University, discusses her research on Plant Pathology.

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Life Sciences Events

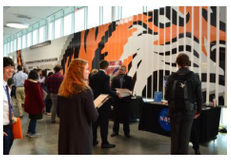
Brick City Weekend
The campus was abuzz with activity on Brick City Homecoming Weekend, October 18-20. The College of Science hosted a variety of events to appeal to all visitors: Classes without Quizzes were led by our COS faculty, including topics such as Navigating Pseudoscience, What do Black Holes Sound Like, and The Art of Nanotechnology: Beautiful Structures with Complex Functions. Student groups hosted a variety of hands-on activities in the atrium, while other alumni, faculty and students gathered for a networking brunch. More than 200 alumni were in attendance to share memories and see where the center is heading in the next 30 years. Save the date to join us for Brick City Homecoming next year: October 23-25, 2020.

The inaugural **Georgia Gosnell Seminar Series** was an incredible success! We had speakers from a variety of disciplines and research areas come and give an hour seminar to our students, staff and faculty. Many speakers had standing room only! We are looking forward to another full set of seminars to come this spring. Thank you to all the speakers who came to share their research with us!

Dr. Kizzmekia Corbett, Post Doctoral Research Fellow with the National Institute of Allergy and Infectious Diseases/Vaccine Research Center National Institutes of Health, came to College of Science to discuss The Power of Diversity: Protective Immunity Against MERS Coronavirus by Targeting Multiple Sites of Vulnerability.

Dr. Racquel Collins, Assistant Dean at St Jude's Children's Hospital, came to Life Sciences to give an information session about the school's biomedical sciences phd programs. During the presentation, she went over the program and the admissions process.

2nd annual Online Show 'N' Tell
Faculty gathered in the Bruce & Nora James Atrium in Gosnell Hall in early September to share knowledge about online teaching. Presenting faculty showcased what they do in their online courses and gave advice for utilizing online technology in the classroom with the goal to collectively enhance the online presence of COS classes. The event was organized by **Sandi Connelly**, Leader Faculty in Online Learning.



National Labs Career Fair
The Office of Career Services & Cooperative Education hosted fourteen National Labs at **the National Labs Career Fair** on October 16 to recruit COS students for co-op or intern, research, and full-time opportunities. Prior to the event, panelists who have worked at a national lab in the past year met with students to talk about their experiences and to offer tips for student success at the fair.

More than 250 student projects, representing all nine colleges, were on display at the 28th annual Undergraduate Research Symposium on August 1 at RIT. Research findings were featured in a series of oral and poster presentations throughout the day.

Coming Soon...

Did you enjoy the GSOLS Seminar Series this fall??? Mark your calendar for these upcoming
Spring 2020 Seminar Series and COS Event dates!

January 15 – No Seminar Scheduled
January 22 – David Yule, University of Rochester, Cellular and Molecular Pharmacology and Physiology
January 29 – COS Distinguished Speaker: Paige Lawrence
February 5 – COS Distinguished Speaker: David Bader
February 12 - Life Sciences Student Seminar
February 19 – Chris Dempsey, Gannon University
February 26 – Courtney Wigdahl, SUNY Fredonia
March 4 – Thomas Powell, SUNY Binghamton
March 18 – John Wiley Jones Distinguished Speaker: Talat Raham
March 25 - Inclusive Excellence Seminar
April 1 – Courtney Wigdahl, SUNY Fredonia
April 8 - Inclusive Excellence Seminar
April 15 – Carlos Castellanos, RIT, School of Interactive Games and Media
April 22 – Karin Wuertz-Kozak, RIT, Biomedical Engineering

* Are you interested in being a speaker in the Seminar Series? Please contact Dr. Elizabeth DiCesare at ewdsbi@rit.edu

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