

R·I·T Science+Math

MONTH IN REVIEW

Message from the Dean

October will be a busy month for our college as faculty and students become fully engaged in classroom and lab activities. However, it is important to look back at our accomplishments in throughout September. The College of Science is a remarkable place to work, as you will see in the items below.

Before you return to your day's work, I encourage you to take a moment to follow the College of Science on Facebook, Twitter, and LinkedIn. The Dean's Office has begun a campaign to build audience on our social media channels by creating new content and sharing it with groups throughout RIT.



Sophia Maggelakis, Dean
RIT College of Science

By following our College on those services, you will see daily updates on upcoming events and current activities. You will also have a chance to share items about the accomplishments of your research team and students.

Have a productive semester, but don't forget to enjoy the last warm weather of the year.

SOPHIA MAGGELAKIS
Dean, RIT College of Science

September 2016

NSF-funded project aims to increase diversity in physics graduate education

Associate professor Casey Miller (SCMS) is contributing to the American Physical Society-led effort to create a national network for access and inclusion in physics graduate education. The two-year project is funded by the new National Science Foundation program INCLUDES, (Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science) to increase diversity in the scientific workforce.

[University News >](#)



RIT researcher wins federal grant for work to aid in development of new antibiotics

André O. Hudson, associate professor in RIT's Thomas H. Gosnell School of Life Sciences, has been awarded a \$436,989 Academic Research Enhancement Award from the National Institute of General Medical Sciences. The grant will be used to fund research at RIT into the efficacy of using the DapL enzyme as a target in the creation of new narrow-spectrum antibiotics to help combat the growing threat posed by



antibiotic-resistant bacteria.

[University News >](#)

[Rochester Business Journal >](#)

RIT College of Science establishes the Data and Predictive Analytics Center

A new center in Rochester Institute of Technology’s College of Science is dedicated to advancing techniques that transform raw data into useful information. The Data and Predictive Analytics Center will focus on collecting, transforming, modeling and visualizing data sets often referred to as “Big Data.”

[University News >](#)



US News and World Report ranks RIT 107th in first year as 'doctoral university'

RIT ranked 107th in the nation after entering the highest "doctoral university" classification, a distinction shared by 310 other schools. The Carnegie Classification of Institutions of Higher Education changed RIT from “Masters – Comprehensive” to “Doctoral University” This change occurs when a university graduates more than 20 Ph.D. degrees per year, a figure that RIT has exceeded in recent years. RIT has seven doctoral programs: astrophysics, color science, computing and information sciences, engineering, microsystems engineering, imaging science and sustainability. A Ph.D. in mathematical modeling, begins in fall 2017..

[University News >](#)



RIT Sponsored Research garners \$73 million in funding

Rochester Institute of Technology’s sponsored research portfolio grew by almost 18 percent in fiscal year 2016, reaching a record \$73 million in funding. RIT received a record 358 new awards during that time period from a variety of state, federal, corporate and foundation sponsors. Included in that funding was a record \$15 million from the National Science Foundation, an increase of \$2 million, and \$3 million from the National Institutes of Health. [University News >](#)



Social Media



Students at work in the RIT Community Garden, maintained by the Thomas H. Gosnell School of Life Sciences. This photo appeared on the RIT College of Science Facebook Page on September 28.



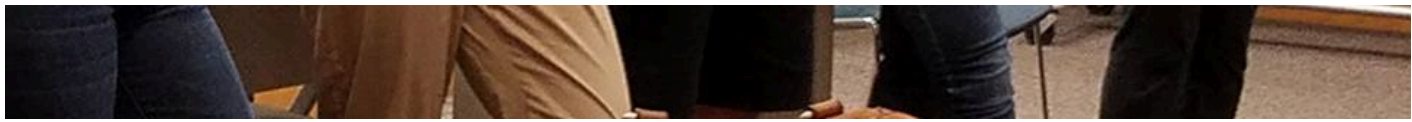
College of Science launches social media engagement campaign

The College of Science Dean's Office is focusing efforts to post more events and general college updates through its social media channels. Working with student employee Mila Le, a new media marketing major at the Saunders School of Business, the college is aiming for daily posts on its Facebook page, plus promotions of the post via Twitter. Additionally, the college has established a LinkedIn "company page" that can be added to your LinkedIn profile.

To follow this content, you can "like" the Facebook page ([RITCollegeofScience](#)), follow [@ritcos](#) on Twitter, or follow "[RIT College of Science](#)" on LinkedIn and add it to your educational or employment history at LinkedIn.

Additionally, you can help boost our engagement by suggesting new story ideas to [Mark Gillespie](#), COS Manager of Communications, Marketing, and Recruiting. These could be simple photo opportunities or story ideas, or an historic photo you have on file that we could use for Throwback Thursdays.





The student panel at the September 26 Fall Open House helps prospective future freshmen and their parents understand the scope of a science or math education at RIT.

Awards

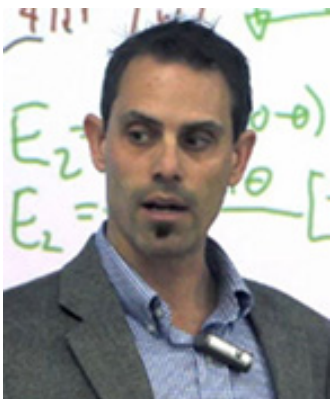
Robert Krzaczek awarded NASA research grant

Robert Krzaczek, systems software engineer for the Chester F. Carlson Center for Imaging Science, has been awarded \$10,095 from the National Aeronautics and Space Administration's Universities Space Research program. This proposed project will continue RIT's technical support to NASA's Stratospheric Observatory for Infrared Observatory (SOFIA) and the Data Cycle System (DCS) for SOFIA. Priorities include training USRA personnel on the operation of the software code developed by RIT and updating of appropriate documentation.



Emmett Ientilucci awarded US Air Force research grant

Emmett Ientilucci, assistant research professor in the Chester F. Carlson Center for Imaging Science, was awarded a \$49,400 research grant from the U.S. Air Force Materiel Command and the Invertix Corporation. The objective of this effort is to support the National Air and Space Intelligence Center's Geospatial Intelligence Squadron (NASIC/GSI) in the areas of reflectance retrieval support and spectrum spatial research and development.



André Hudson awarded Bayer Corporation research grant

André Hudson, associate professor in the Thomas H. Gosnell School of Life Sciences, was awarded \$33,255 by the Bayer Corporation to assess the plausibility of targeting L,L-diaminopimelate aminotransferase (DapL) from the horseweed as a means to facilitate the development of novel herbicides.



Jeyhan Kartaltepe awarded NASA research grant

Jeyhan S. Kartaltepe, deputy director of the Laboratory for Multiwavelength Astrophysics and assistant professor in the School of Physics and Astronomy, was awarded \$18,000 for two astronomical observation programs. The first is for one night of DEIMOS observations on Keck II to obtain optical spectroscopy of galaxy pair candidates in two of the most commonly studied deep fields. The second is for one night of MOS FIRE observations on Keck I to obtain rest-frame optical spectroscopy for a sample of highredshift luminous and ultraluminous infrared galaxies within candidate overdensities in the COSMOS field.



Linda Barton awarded NSF research grant

Linda Barton, associate professor in the School of Physics and Astronomy, was awarded \$73,740 toward a project called the PIPELINE Network: Supporting the Development of Physics Innovation and Entrepreneurship Education through Institutional Engagement. This collaborative research includes six universities as well as the American Physical Society, and aims to develop curricular materials that incorporate physics innovation and entrepreneurship (PIE) elements.



COS staff nominees for Presidential Staff Award

Congratulations to our staff members who were nominated for the Presidential Staff Award—to be announced in an October 5 ceremony:

INDIVIDUAL NOMINEES

- Allison Healy, GSOLS
- Jennifer Liedkie, GSOLS
- Autumn Madden, SCMS

TEAM NOMINEES

- Gabrielle Crandall, Allison Healy, and Jennifer Liedkie
- Cindy Drake and Cari Hindman

2016 Connect Grant awardees

The following College of Science faculty members received funding through RIT's 2016 Connect Grant Program:

- **Mentorship for an Interdisciplinary Numerical and Experimental Investigation for Colloidal Transport within Evaporating Droplets under an Electric Field.** Kara Maki, College of Science, School of Mathematical Sciences; Co-PI: Michael Schertzer
- **Mathematical Sciences Peer-to-Peer Mentoring Group on Advising Student Researchers.** Laura Munoz, College of Science, School of Mathematical Sciences; Co-PI(s)-Manuela Campanelli and Nathan Cahill
- **WISe Distinguished Seminar Series.** Leslie Kate Wright, College of Science, Thomas H Gosnell School of Life Sciences; Co-PI(s)-Lea Michel and Sukanya Chakrabarti

The project's goals are to increase the representation of women STEM faculty at RIT and to increase their representation among our campus leaders.

2016 Outstanding Teaching Award for Non-Tenure-Track Faculty

Congratulations to our faculty members who have been nominated for the Outstanding Teaching Award for Non-Tenure-Track Faculty (NTT Award):

- Alla Bailey
- Dawn Carter

- Stacey Davis
- Aaron McGowan
- Jeffery Mills
- Deanna Olles
- Corey Ptak
- Hans Schmitthenner
- Beth Van Winkle
- Michelle Weatherell

Announcements

Study Abroad Pathways. A set of Study Abroad Pathways has been developed for each academic program offered by the College of Science. Academic advisers will use these, along with a checklist, to help undergraduate students prepare for a study abroad experience. [See Pathways.](#)

Newsmakers

- **Professor David Merritt**, SOPA, mentioned in iTechPost ([Spiral And Irregular Galaxies' Acceleration Challenge Dark Matter](#)) and NanoWerk ([In rotating galaxies, distribution of normal matter precisely determines gravitational acceleration](#))
- **Matthew Hoffman**, SMS, led a second successful Hockey Analytics Conference on September 10, 2016. The conference brought mathematicians and sports enthusiasts together to discuss how analytical methods can help understand and predict performance in the sport of hockey.
- **Bernard Brooks** and **Joel Driebelbis**, SMS, both completed the program requirements for the General Education Online Development Program, or GOLD. The two met with consultants in Teaching and Learning Services for advice and assistance developing your course, and your resulting course design met the standards of the Quality Matters rubric for course quality. After delivering the new course design, you considered how this course might be further improved, consistent with the values of continual improvement.

- **Amanda Preske** (chemistry '09), featured in the Rochester Democrat and Chronicle for her circuit board jewelry. ([Rochester woman uses circuit boards to make jewelry](#))

