

# R·I·T

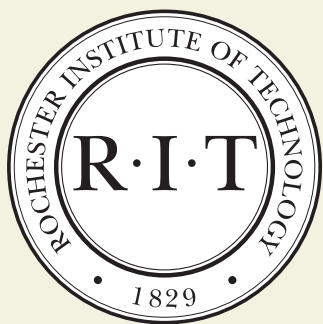
The University Magazine

Spring 2013

## A Leader in Sustainability

How RIT is making the world  
greener for the next generation





## RIT: The University Magazine

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# Containing the cost of higher ed

It's always a good exercise to examine the family budget and see where potential cuts can be made or new thinking can be applied to strengthen your finances. At RIT, our fiscal health is very strong, but the same logic applies.

Our overall fiscal health enables us to explore new educational paradigms and possible cost-cutting and revenue-generating models from a position of strength. In the past year, we've asked campuswide committees to study and make recommendations to improve our operating efficiencies in areas of employee benefits, information technology, procurement of goods and services, and organization structure. Our goal is to find \$3 million in the coming fiscal year by reducing administrative costs and/or increasing revenue outside of tuition increases.

Why cost-containment efforts now?

Undergraduate tuition at U.S. colleges and universities has been increasing at twice the rate of inflation for 25 years.

Last year, four-year private colleges and universities increased their tuition rates by more than 4 percent on average, yet took in less money per student on average than the year before due to discount rates.

We have reached the limit of how much more families can afford to pay for a college education, and we must try to bring our annual tuition increases down closer to the rate of inflation.

We need to protect the quality of the educational experience and the quality of student life for our students.

In recent years, RIT has done a better job of holding down tuition hikes, including a 3.8 percent increase this past year. Our goal for this fall is to keep the annual tuition increase to 3.5 percent or less. Here is a sample of some of the actions that will help us keep tuition increases closer to inflation:

- Each university vice president will find a 1 percent reduction in his or her administrative budgets.
- Dependent tuition benefits for undergraduate students enrolled at RIT will be limited to 145 semester hours per dependent. This will still ensure a reasonable amount of time to graduate.
- We will adopt an "inside RIT first" mindset in areas of food catering, printing and supplies in areas of procurement.
- Energy consumption reductions will be implemented, including the replacement of 18,000 fluorescent light bulbs with LED fixtures.

Perhaps the most controversial decision is to begin charging faculty, staff and students for parking on campus for the very first time starting on July 1. The annual fees range from \$50 to \$150. The costs of providing parking are real, and most of the costs of our parking operations are borne by students via tuition. Visitor parking will remain free.

The \$3 million in projected savings and additional revenue will mostly be used to keep tuition increases moderate, while a portion will be used for some new initiatives.

I thought that you, members of the RIT family, should understand where we stand financially within our \$666.1 million annual operating budget at a time when the university continues to be on a very positive trajectory. By numerous measures—undergraduate applications, SAT scores, student selectivity, major gifts—RIT is extremely healthy. Let's stay fit and lean.

Cordially yours,

Bill Destler

President

[www.rit.edu/president](http://www.rit.edu/president)



President Bill Destler addresses the RIT community.

P.S.: Please join me Saturday, May 4, for Imagine RIT: Innovation and Creativity Festival. Our festival is now in its sixth year, establishing itself as a community tradition. Visit [rit.edu/imagine](http://rit.edu/imagine) to learn more about the nearly 400 exhibits.



- 8** A new approach to science education teaches critical thinking along with biology.



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### Cover

Photo illustration of Michele Goe, a third-year Ph.D. candidate in sustainability, walking by the green wall grown for the new Sustainability Institute Hall with her 2-year-old daughter, Boe Yee Chan. Goe says she is studying sustainability because she is interested in making sure people have access to a healthy environment. (Photos by A. Sue Weisler. Illustration by Jeff Arbegast)



- 18** How did RIT in less than 10 years create a world-class research and education hub for sustainability, establish one of the first doctoral programs in sustainability and open a new building filled with cutting-edge technology that serves as a classroom? Read how one man's vision became a reality.

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A new feature profiles one of the more than 4,600 RIT alumni couples.

## Memories of an RIT professor



Joseph Brown, professor emeritus in the School of Printing, died Feb. 27, 2012. Brown joined RIT in 1958, teaching paper technology and hand papermaking. He was awarded the Eisenhart Outstanding Teaching Award in 1989-1990 and served as chairman of RIT's Faculty Council. He was a Peace Corps volunteer. Brown retired from RIT in 1992.

I wanted to share my memories of Joe Brown.

I had just moved to Rochester to start my MFA in textiles at the School for American Crafts. Being a textile person, I had tried many "textile" media, including papermaking, and sported a bumper sticker on my car that read "Papermakers Get Felt Between The Sheets"—something you do in hand-papermaking to separate the sheets of freshly made paper. I was stopped at a light near campus with my parents in the car, and this guy pulls up alongside and calls out, "Who's the papermaker?" I didn't know quite what to think but answered that I was. He said, "Hand or machine?" and I said, "Hand." Then he said, "Come over and see me at RIT. I'm Joe Brown."

I did get to visit the paper lab one day and introduced myself—he remembered my bumper sticker! I later learned that Joe's wife, Helen, was a fiber person and had a great shop for supplies. Joe always invited me to the paper lab when they were doing handmade paper for special projects like Valentine's

Day—he liked the art students to show off to the machine papermakers. I usually took a couple of other textile students with me and we made all kinds of cool and fun things with the paper pulp.

Joe was my first introduction to RIT and from that I knew that my experience there was going to be different and special. Joe Brown will truly be missed!

**Janelle Delicata '83 (weaving and textile design)**

I had Joe Brown for my freshman paper class in 1976-1977 and was amazed at how he could make what would seem like a mundane subject so intriguing! I had never before thought to analyze a ream of copy paper...

In seriousness, he was excellent at what he taught and gave me a thorough perspective of the myriad papers on the market, which came in very handy as my first five years after graduation were spent as a publications director/print buyer for two Rochester-area colleges.

In addition, I chose to do an independent study on the concept of dye resist qualities of different papers (basically testing papers to see how they would adapt to the batik process). Professor Brown was always eager to see what I was doing and the progress I was making with my research. He was an exceptional mentor. Finally, he was very helpful to the Genesee Valley Calligraphy Guild, of which I have been a member for approximately 25 years. He offered tours and workshops in papermaking to guild members and encouraged their experiments with inks on various paper surfaces. He will truly be missed.

**Kathie (Steinke) Lyke '80 (printing management)**

We welcome letters on subjects covered in the magazine and of broad interest to our readers. We edit for space, clarity and style. Write to *The University Magazine*, University News Services, Rochester Institute of Technology, 132 Lomb Memorial Drive—Brown Hall, Rochester, NY 14623. Email can be sent to [umagwww@rit.edu](mailto:umagwww@rit.edu).

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# Expert Advice

with Erhardt Graeff '06, '07



Erhardt Graeff '06, '07 (information technology, international studies) is a founding trustee of The Awesome Foundation. He lives in Somerville, Mass., and works as a graduate student and research assistant at the MIT Media Lab.

## How to make a project awesome

In July 2009, I helped start an organization called The Awesome Foundation in Boston. The basic idea is 10 “trustees” get together every month to pick the most awesome project submitted. That project then receives \$100 from each trustee to create a \$1,000 grant with no strings attached. We see this as filling a gap in philanthropy in which it’s nearly impossible to find small amounts of money for inspiring ideas that fail to fit into established categories of social good.

While we deliberately maintain no specific criteria for awesome projects, we have come to appreciate certain qualities that recur in the projects we fund. The following are five key qualities of awesome that I rely on, and how they are reflected in one of our earliest grants to Lee Altman’s “Eco-pod Armada” project involving easy-to-assemble aquatic phytoremediation devices to clean New York City’s East River.

### Unique

The quality of unique or novel seems obvious, but what qualifies as unique is not necessarily wholly original. Remixes or mashups of ideas are strongly encouraged, especially art + science. Lee’s project blended community crafts with scientific activism, involving remote-controlled boats pulling water remediating plant pods along the Brooklyn Bridge Park coastline.

### Do-It-Yourself

Real magic and learning occurs when you create something yourself. We have a strong preference for grants like Lee’s that are designed and built by the grantee. Even if you want to create a website for a cause, create the website yourself. Pouring your own passion directly into the project makes it awesome.

### Playful

The other magic quality is fun. Playfulness and humor create spaces that invite more people to engage with an idea or project. Wild optimism is also encouraged to feed excitement and possibility. What could be a more enjoyable way to introduce others to environmental activism than by constructing floating gardens powered by remote-controlled toy boats?

### Open

We regularly encourage people to take one-off projects and turn them into events. Lee’s project was in part about a clever prototype for water remediation, but it was also about bringing people together around a cause. Think of any awesome project as a platform that could be opened up to participation from others. If you are making something, teach others how to make it. Releasing your awesome into the world is a guaranteed way to create more awesome.

### Local

This quality has become more important as The Awesome Foundation has grown into a many-chapter network. But even when our chapter funds projects like Lee’s outside of Boston, we consider its connection to the location in which it’s situated—the community affected by East River pollution. Tailoring a project to a locality creates opportunities for greater impact and maximum inclusivity and increases awesome by coming full circle to enhance a project’s uniqueness.

The Awesome Foundation shares a lot of its philosophy of awesome with the slow food movement, which situates itself in contrast with “fast food.” For slow funding, we believe it’s important to raise public awareness about, improve access to, and encourage the enjoyment of funds that are local and sustainably grown. This drives our preference for local, DIY and open projects. A truly awesome project inspires others to participate and undertake their own awesome projects. Awesome should pay itself forward.

If you are interested in applying for an Awesome Foundation grant, go to [www.awesomefoundation.org](http://www.awesomefoundation.org). To learn more about Lee Altman’s project, go to [www.awesomefoundation.org/en/projects/608](http://www.awesomefoundation.org/en/projects/608). And to find out how to get involved or start a chapter in your area, visit our website’s FAQ. There are already 60-plus chapters around the world and growing. More awesomeness is our mission.



## NOTEBOOK

### Super Big Shot

RIT's longtime community photography project known as the Big Shot was expected to capture a spectacular nighttime photograph of Cowboys Stadium in Arlington, Texas, on March 23.

"This is an amazing opportunity for RIT because of the technical challenges to produce a nighttime photograph of a landmark of this size," says Michael Peres, one of the organizers of the Big Shot.

The Big Shot project relies on thousands of volunteers to provide the primary light source for the image while RIT photographers shoot an extended exposure. Cowboys Stadium is RIT's 28th Big Shot. Go to [www.rit.edu/bigshot](http://www.rit.edu/bigshot) to see the image.

### Social friendly

The E. Philip Saunders College of Business ranked fourth in the "Top 10 Most Social Media Friendly Online MBA Schools," according to a study conducted by OnlineMBAPage.com.

The Saunders College was recognized for its scores in "likes, followers, subscribers and members" on such social media sites as Facebook, Twitter, YouTube, LinkedIn, Google Plus and Flickr.

## RIT collaborates with industry

Printed electronics and related advanced manufacturing technologies have the potential to be a \$45 billion global industry, according to business analysts.

RIT researchers, led by engineering professor Denis Cormier, will play a key role in advancing this industry as a result of a university-industry partnership with regional and national high-tech firms, and the acquisition of new state-of-the-art advanced manufacturing equipment.

"We have the infrastructure here," says Cormier, the Earl W. Brinkman Professor in RIT's industrial and systems engineering department, and one of the premier researchers in the

area of advanced printing devices and technologies.

"In this region alone, we have a variety of companies that make printing or deposition equipment, companies that make nano-inks for printing and another group of companies that use the printers and inks for applications. The region has a lot to offer, and we have the opportunity to transform the manufacturing industry."

Advanced manufacturing is being used to develop applications such as smart sensors, biomedical devices, touch screens and fuel cells in a wide variety of industries—medical, aeronautics, military and automotive, for example.

The Brinkman Lab

in RIT's Kate Gleason College of Engineering will be a resource to advanced manufacturing firms in the region and throughout New York state for developing some of these technologies. The lab could play a key role in the region's economic development, which has a significant employment base in advanced manufacturing.

The lab's most recent equipment acquisition is a NovaCentrix Pulseforge, an advanced curing system for printed electronics. RIT is one of the only universities nationally to have such a highly specialized instrument.

The Pulseforge uses high-intensity light at very short pulses to heat materials such as

nano-inks that, once fused, render conductive properties. The process is essential in printing electronic devices such as sensors, smart cards, photovoltaic devices and flexible circuits.

With a \$599,390 grant from the National Science Foundation, Cormier has also established a "Partnership for Innovation in Printed Devices and Materials," which includes Rochester-based Intrinsic Materials, located in the Eastman Business Park, as well as NovaCentrix and Optomec, national companies that manufacture the equipment necessary to engage in the emerging fields of printing/deposition, nano-inks and print applications.

Michelle Cometa '00

## Alumnus brings Watson to campus

Answer: A supercomputer capable of answering questions posed in ordinary language that visited RIT in January.

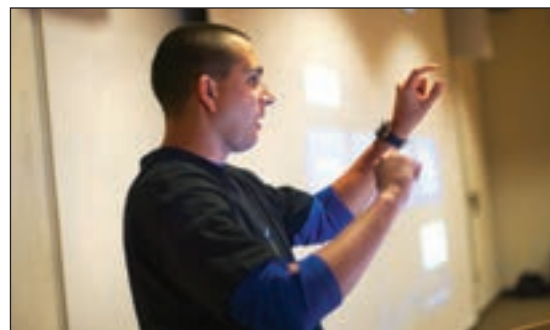
Question: What is IBM's Watson?

IBM developer Stephan Roorda '01 (computer science) showed off Watson, which was made famous by its 2011 appearance on the quiz show *Jeopardy!*, to a packed crowd. After the machine defeated former *Jeopardy!* champions Brad Rutter and Ken Jennings, IBM began looking for ways to commercialize Watson's artificial intel-

ligence engine. Watson's data crunching capabilities could someday be used to help suggest diagnoses to doctors or analyze massive amounts of data for insurance companies.

Students asked the supercomputer about the meaning of life. When Watson came up with answers like Monty Python's *The Meaning of Life* and exponential decay, Roorda explained that Watson is only able to pull answers from the data it has access to.

Watson did know



IBM developer Stephan Roorda '01 showed off Watson to a packed crowd in the Golisano Hall auditorium. (Photo by A. Sue Weisler)

who had been the head football coach of RIT and Boston College—Tom Coughlin, the current New York Giants coach.

Randy Horwitz '99

(computer science), manager of IBM's Extreme Blue internship program, also attended to recruit co-op students.

Scott Bureau '11

# RIT inducts six into Innovation Hall of Fame



Paul Taylor



Bruce Smith



Robert Fabbio



Lynn Fuller



Jackie Pancari



John Schott

This year's six inductees into RIT's Innovation Hall of Fame are pioneers and visionaries in their fields. The recipients—Paul Taylor, Bruce Smith, Robert Fabbio, Lynn Fuller, Jackie Pancari and John Schott—will be honored during a ceremony at 5:30 p.m. May 3 in Webb Auditorium on the RIT campus.

"Many people in the RIT community are unaware of the profound impact our stakeholders and friends have made in the innovation space," says Richard DeMartino, chairman of the nomination committee of RIT's Innovation Hall of Fame.

Here is more on RIT's fourth class of inductees:

**Paul Taylor**, retired NTID faculty member. Taylor is a deaf pioneer who was instrumental in not only developing the TTY but, more importantly, in helping to create the first TTY network in the world in St. Louis during the mid-to-late 1960s. He also helped to develop the first telephone relay service, which connected deaf people by telephone not

only to other deaf people, but also to the hearing world at large.

While at RIT/NTID, Taylor developed and marketed a device called C-Phone, which replaced the old Western Union teletypes with CRT units and was the forerunner of portable electronic TTYs.

**Bruce Smith '86, '89, '95 (imaging science)**, director of RIT's program in microsystems engineering and professor of electrical engineering. Smith is a respected leader in the field of nanolithography through invention, innovation and the dissemination of enabling technological advances. Many of his contributions to the nanolithography field have become mainstream for commercial semiconductor device manufacturing. He holds 27 patents in the fields of optics, microelectronics and nanolithography. U.S. and European companies have licensed many of his inventions for commercial use.

**Robert Fabbio '85 (computer science)**, serial entrepreneur and CEO of WhiteGlove Health in

Austin, Texas. His company has proven to lower healthcare costs, improve access to health care and provide a better experience. Fabbio founded Tivoli Systems, DAZEL Corp. and Ventix Systems. Among his honors, Fabbio was awarded the Ernst & Young Entrepreneur of the Year Award in 1997 and named in 2002 to *Forbes* magazine's Midas List of the Top 100 Technology Venture Investors (technology's top 100 dealmakers).

**Lynn Fuller '70 (electrical engineering)**, RIT professor and founder of RIT's microelectronic engineering program.

He has designed, fabricated and tested hundreds of different microchips at RIT. These chips range from totally microelectromechanical systems (MEMS) devices for drug delivery, MEMS pressure sensors, accelerometers, optical-pyrometers, CMOS integrated circuits for hearing aids and sophisticated CID imagers with more than 35,000 transistors per chip.

**Jackie Pancari**, world-renowned artist and

pioneer of creative glass-blowing techniques.

Pancari, based out of Alfred, N.Y., has been a visiting artist at the Museum of Glass in Tacoma, Wash.; Seto City Museum in Seto, Japan; and RIT to name a few. Pancari's innovative body of work combines physical prowess and technological mastery. Her work has been exhibited around the world.

**John Schott**, the Frederick and Anna Wiedman Professor in RIT's Chester F. Carlson Center for Imaging Science and one of the founders of the imaging science program.

His research has focused on solving problems related to imaging science and remote sensing. Schott is part of the Landsat Science Team that provides scientific support to the Landsat 8 satellite. The U.S. Geological Survey in cooperation with NASA appointed Schott. His history with the program goes back to 1981.

To learn more about this year's inductees, go to [www.rit.edu/alumni/ihf](http://www.rit.edu/alumni/ihf).

Kelly Sorensen

## NOTEBOOK

### New chairman

Brian H. Hall '78 (MBA) of Colorado Springs, Colo., is the new chairman of the Board of Trustees.

Hall retired in 2007 as vice chairman of The Thomson Corp. (Thomson Reuters), a global information company.

### Female faculty

Researchers were awarded \$3.2 million from the National Science Foundation for the project, "CONNECT: Increasing the Representation and Advancement of Women Faculty at RIT."

The university will address recruitment, retention and advancement of female faculty through reassessment of its academic and human resource policies, expanding a faculty mentoring program and increasing professional development and leadership opportunities.

### Improving lives

RIT has awarded more than \$100,000 in seed funding to 15 faculty-led student teams in an effort to spur research that will assist people with disabilities in the Rochester community.

Last year, RIT had more than 70 research projects related to effective access technology across the university.

# About Students

## IN THE NEWS



Katherine Bukys '12 made this package while she was a student. It won first place at an international packaging conference.

## A better fast food

Katherine Bukys '12 (packaging science) designed a happier meal.

Her apple-themed package, "Lettuce Eat: A better way to do fast food," won top honors at the Paperboard Packaging Alliance Student Design Challenge during the annual Pack Expo and Conference in Chicago. She was recognized for her sustainable and easy-to-use packaging for a quick-serve chain kids' meal.

This year, more than 200 students competed from 13 leading packaging and graphic design programs. They are required to not only develop the package design but detail the production process—use of sustainable materials and how the package would be produced, shipped and assembled—and produce a marketing plan.

Bukys' design focused on these elements and has three components including an entrée and side tray held together by an outer sleeve. A beverage cup and side dish nestle in the package.

"It can be assembled quickly, it keeps everything in one place, even the drink, so that a parent doesn't have to worry about juggling bags and taking the time to figure out which parts of the meal go to which child," says Bukys, who now works for Astor Chocolate as a packaging engineer.

Michelle Cometa '00



Cyclocross team members Luke Thomas, left; Chris Hartmann, center; and Ian Gielar, right, practice on campus. The team took first place in its division this past season. (Photo by A. Sue Weisler)

## Pedaling to first place

The cyclocross portion of the RIT Cycling Team secured first place in its division this past season, with individual rider Peter Hagerty, a fifth-year mechanical engineering major, also qualifying for the national championships by placing first in the Men's A category.

Founded in 2008, the club, which has about 30 racing members, has quickly transformed from a small group of casual riders into a nationally ranked competitive force. The cyclocross portion of the team, which competes in Division II of USA Cycling Collegiate, has enjoyed a string of successful seasons recently, capturing fifth place three seasons ago and second place two seasons ago.

The cycling team is split into three main components: a mountain team, a road

### BY THE NUMBERS

#### ABOUT RIT'S CAMPUS

**82**

Buildings added since the original construction of the Henrietta campus was completed in 1968.

**38**

Buildings added since 2000, including those currently under construction.



team and a cyclocross team. The cyclists compete in races across the northeastern U.S., as part of the Eastern Collegiate Cycling Conference of USA Cycling Collegiate.

James Parascandola, president of the RIT cycling club, says that the team's growth and success are the result of intense weekly practices and the dedication of the riders.

"We all know that it's going to be a big commitment going in," says Parascandola, a fourth-year mechanical engineering major. "We do it for our love of competition and to try to grow our team."

The cycling team is one of 21 competitive sports clubs at RIT. "The members of our club sport teams are incredibly self-sufficient, passionate and engaged," says Sarah Griffith, assistant director for clubs and community outreach. "In many cases, they are representing RIT as the official team in their respective sports, even though they aren't a varsity program."

Matt Gregory '12

## STUDENT LIFE



The fourth annual FreezeFest in February encouraged students and members of the RIT community to celebrate winter. The festival included a snowboard competition, carriage rides and comedian Joel McHale. (Photo by David Beyerlein)

## ONLY AT RIT

### Sharing RIT's quirks

"#OnlyAtRIT do we stream the Puppy Bowl on one monitor and the Super Bowl on another, and then discuss the technologies behind each."

"Just experienced 15 whole seconds of sunlight. I feel spoiled. #OnlyatRIT"

These are the sentiments being shared by members of the RIT community on the social network website Twitter, where users post their thoughts in the form of "tweets." The tweets are connected to a Twitter account, named Only at RIT, by labeling them with #OnlyAtRIT or @OnlyAtRIT.

The Only at RIT account is a place for members of the RIT community to share experiences, photos and humorous anecdotes that they feel can only be found at RIT. A second-year student started it after she saw similar Twitter accounts for area universities.

"I often hear stereotypes about how weird and nerdy RIT can be, and I will be the first to admit they are true, but I choose to embrace it as something to unify us and something to laugh at," says the student, who wishes to remain anonymous to keep the focus on the humor.

Matt Gregory '12

**3,685,101**

The increase in square footage from new buildings since the Henrietta campus was completed.

**59,453**

The square footage of the main interior of Gordon Field House.

**112 ½ feet**

The approximate height of Eastman Hall's tower.

# More than biology



Benjamin Davis, a second-year applied mathematics student, and Kalila Elahi, a second-year biology student, try to fold a model protein into a 3-D shape according to the rules of chemistry discussed in their cell biology class. (Photo by A. Sue Weisler)

## New approach to science education teaches critical thinking

The Amino Acid Starter Kit looks like a toy. At first glance, the clear plastic pieces and colorful foam-covered wires don't look like they belong in a college classroom.

Don't be fooled. The three-dimensional models convey the complexity of amino acids and protein folding in ways that elude textbook illustrations. Assistant professor Dina Newman asked the students in her cell biology class to construct a coherent picture of a protein molecule for themselves. In order to build the molecule, they had to grapple with their understanding of its structure and follow the laws of chemistry.

The availability of commercial models such as the ones Newman uses in her class hint at new research-based approaches to teaching biology, a trend echoing throughout the College of Science at RIT and in institutions across the country. Scientists from within their own disciplines are discussing

and conducting research about science education, once primarily the purview of schools of education.

Educating students in science, technology, engineering and mathematics, or the STEM disciplines, is a national concern. College of Science Dean Sophia Maggelakis cites the February 2012 report from the U.S. President's Council of Advisors on Science and Technology, which calls for more graduates with STEM degrees.

"Cultivating the younger generation's interest in science and mathematics is essential for ensuring that the United States remains a player in the research and development of new technology," Maggelakis says. "We are falling behind and the importance of high quality STEM programs is widely recognized as both fundamental to educational initiatives and important to the country's competitive-ness and long-term economic health."

Under Maggelakis' leadership, the College

of Science is moving to consolidate and grow its various STEM initiatives under a central nexus.

Nurturing young scientists through experiential learning—or "learning science by doing science"—is a priority for Anne Houtman, who joined RIT in 2011 as head of the recently named Thomas H. Gosnell School of Life Sciences. She oversees programs in biology, biotechnology, bioinformatics and environmental sciences. Nearly 500 students are enrolled in the programs, which draw approximately 100 new students each year.

"All of us who are involved with science education reform share a go-to idea," Houtman says. "The goal you start with is to teach students to think like a scientist. And if you're teaching non-scientists, the goal is to help students understand how scientists think and act so they have a better understanding for the process of science."

Since 1994, Houtman has been an active

member of Project Kaleidoscope, a national organization that focuses on science-education reform. Project Kaleidoscope advocates for strengthening undergraduate STEM education through experiential learning and critical assessment.

"We're doing such an amazing job in the upper-level classes but our students really need to experience hands-on research opportunities from day one," Houtman says.

Nick Fisk, a third-year student majoring in biology and biotechnology, appreciates the new approach.

"The way I see it, improving the methods and techniques used to instruct any life science course is vital to future student understanding of biology."

## Active learning

Redesigned introductory biology courses rolled out this past fall with built-in pre- and post-assessment surveys to gauge learning gains. A special section was developed for incoming majors who earned advanced placement credit in biology while in high school. Instead of repeating the class, this group of 24 students applies introductory concepts to a hot topic in the field—"vanishing amphibians." The idea to focus on this topic came from Harvey Pough, professor of biology, who joined RIT in 2004 for the previous transformation of introductory biology.

"Advanced placement high school biology courses often use condensed versions of college textbooks, and students don't like to be told that they must repeat that material," Pough says. "In the AP Scholars course we tell them, 'OK, you learned that material in

high school, now you're going to use it to do research.' Vanishing amphibians is an ideal theme because it involves biological processes that extend from molecules to ecosystems."



**Kate Wright**

Newman and Kate Wright '97 (biotechnology), assistant professor of biology, credit Pough's approach of "learning biology by doing biology" as influential to their career development.

Next fall, Pough and Newman will be among the faculty teaching vanishing amphibians. Wright will be one of the professors leading the revised, yet more traditional, introductory course for the majority of incoming biology majors.

"Our philosophy is that it's the same course content, it's just delivered differently," Wright says. "Many elements are the same:

the investigative projects, experimental design, generating and communicating data, the discussion and the active learning."

Houtman's arrival at RIT coincided with a growing interest among a small group of faculty in science-education research and reform.

With the support of Dean Maggelakis and RIT Provost Jeremy Haefner, Scott Franklin, professor of physics, established the Science and Mathematics Education Research Collaborative to conduct discipline-based education research, curriculum development and advocate for evidence-based teaching practice as a metric of success. Members of the collaborative include Newman and Wright, Tom Kim, associate professor of biochemistry, and Robert Teese, professor of physics. Together, Houtman and the research group were in-

in physics, conducted physics education research from 1997–2000 during a National Science Foundation Postdoctoral Fellowship in Science, Mathematics, Engineering and Technology Education.

"Physics was the first of the disciplines to start taking a rigorous look at teaching and learning in ways that brought together education research, cognitive science and their discipline," he says. "Chemistry is now doing it, biology is now doing it and math is beginning to. For whatever reason, physics is the one that started it in the early 1970s."



**Scott Franklin**



Assistant professor Dina Newman discusses how a protein folds with Kiara Hughey, a third-year biomedical sciences student, and Michael Noble, a third-year bioinformatics student. (Photo by A. Sue Weisler)

fluent in establishing the Project Kaleidoscope Upstate New York Regional Network, a branch of the parent organization.

Science-education reform—the trend toward discipline-based education research, experiential learning in the classroom and critical assessment of learning gains championed by Project Kaleidoscope—first took root in physics 40 years ago, Houtman says.

"Biology has been late to the table because we have so much content and it's hard for faculty to let go of content and spend a little less time on the details of what's inside a cell and a little more time to give students the chance to engage actively with their material," she says.

Franklin, who earned his doctorate

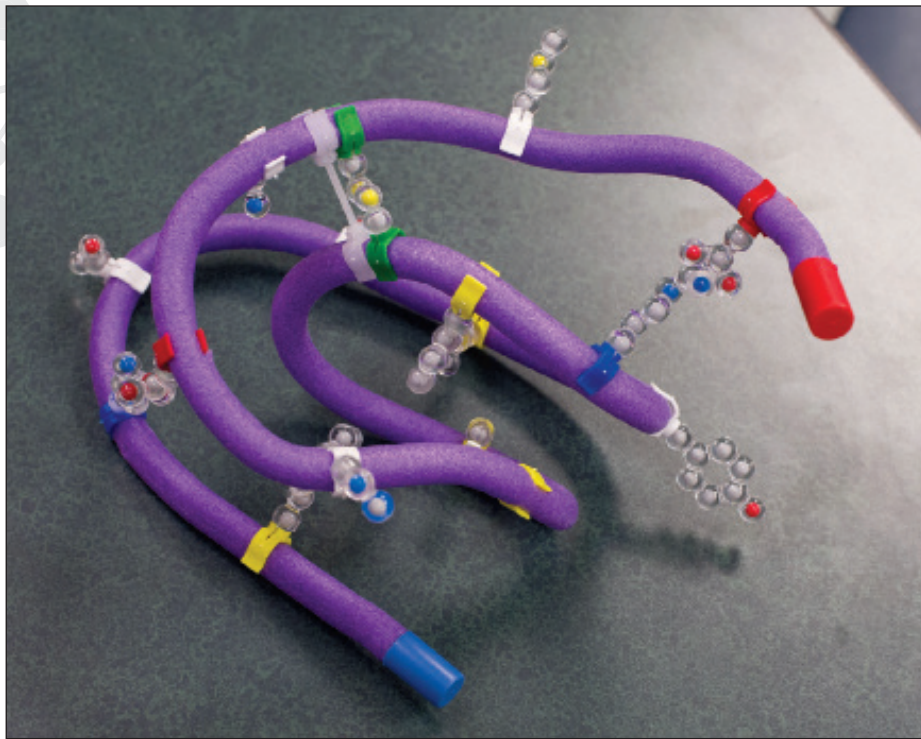
## Big ideas

A decade ago, RIT's Department of Physics, now part of the School of Physics and Astronomy, changed how introductory physics is taught by switching up the classroom. Team Physics, which includes eight sections of university and college physics, threw out the traditional lecture format in favor of a workshop-like setting. Now, students collaborate in small groups on worksheets focusing on comprehension and problem solving.

"The workshop room allows students to have a lecture for 10 minutes and a lab for 10 minutes and then have a worksheet for 10 minutes and solve a problem," Franklin says. "It's much more flexible in terms of what you can do in a classroom."



Alexandra Valentine, a second-year biomedical sciences major, works on an activity. (Photo by A. Sue Weisler)



This model represents the backbone of a protein. Colorful objects stuck to it represent amino acid side chains. (Photo by A. Sue Weisler)

Franklin is a strong proponent of scientists conducting education research within their respective fields. “Discipline-based education research is all about combining social science theories and methods with a deep content knowledge to produce a new form of research,” he says. “You need to know the discipline to ask the right questions and to understand what you are observing in addition to using the curriculum in the right way and assessing if it’s being taught better.”

He considers the collaborative “an opportunity” for RIT to become a leader in discipline-based education research. The number of similar multidisciplinary research groups is small but growing. Pockets of science-education researchers are active at the University of Maine, University of Colorado, Florida International, University of Illinois, University of Maryland and Rutgers University.

Members of the RIT collaborative are working to add the university’s name to that list through their awards, publications and national presentations.

Their work has already gained notice. In December, Franklin led an American Association for the Advancement of Science working group on research-based documentation of teaching practice.

Prior to that, in August, Franklin represented the Science and Mathematics

Education Research Collaborative on a panel focused on interdisciplinary discipline-based education research groups at the national meeting of the American Association of Physics Teachers.

Franklin’s ideas about education research and reform resonate with Newman and Wright in biology, who share a deep interest in student learning and investigating classroom dynamics.

Their lectures also emphasize core concepts and overarching themes. Newman, a 2012 BEN Scholar, is developing resources for the BioSciEdNet, a digital library of biology educational materials managed by the American Association for the Advancement of Science.

“I try to get the students to see how there are patterns and how there are big ideas that come up over and over again,” says Newman. “For example, the structure-function relationship in proteins—or any biological molecule. The specific molecular structure is key to how it works. If you change the structure, you change the function. Some students do very well with that; other students are still trying to memorize the small details and missing the big picture.”

Two years ago, the National Science Foundation published a document called “Vision and Change: A Call to Reform Undergraduate Biology Education,” which outlined six

core competencies that all undergraduate biology majors should know. The list includes the structure/function relationship that Newman reinforced in her cell biology class through the protein modeling activity.

“You focus on these concepts instead of trying to go over a ridiculous number of chapters in the textbook,” Wright says. “Because you can’t. I’ve also put the responsibility back on the students. They’re doing reading and online quizzes. In class, I like to focus on the key concepts—the main ideas. I’ve gone back and looked at my slides for my classes and I thought ‘Did I really go over 48 slides in the past? Why did I do that?’ I’m trying to do things differently.”

## New approach

Back in Newman’s cell biology class, teaching assistant Christina Catavero stops at each table and talks to the students sticking amino acids to foam tubes representing protein backbones.

“I’m learning how to ask them what they know and not tell them the information,” says the third-year honors student from Poughquag, N.Y.

Catavero is majoring in biotechnology in the College of Science and biomedical sciences in the College of Health Sciences and Technology.

She published her first paper with New-

# How to create an active classroom

Dina Newman and Kate Wright work closely together to introduce creative teaching techniques into their classrooms. The two assistant professors of biology in RIT's Thomas H. Gosnell School of Life Sciences design a lot of their own instructional materials that transform their classrooms into active learning environments.

The synergy between the colleagues has led them to co-author numerous articles and to explore different pedagogical tools, such as:

- Medical case studies provide narratives and opportunities to explore biological concepts, make predictions and hypotheses. "The students like the cases because they're real world," Wright says. "It's a transition for getting them thinking in class."
- Student Response Systems, or "clickers," are wireless keypads that enable students to answer interactive questions and surveys in class. Harvey Pough, professor of biology, introduced Newman and Wright to the RIT-supported technology, which they have added to their repertoire. Now, Wright peppers clicker questions to the 120 students in her molecular biology lectures. "This is a good way in a big class to keep people involved and engaged."
- "Interactive Video Vignettes" are online interactive modules used by Bob Teese, professor of physics and a member of the Science and Mathematics Education Research Collaborative. Teese led workshops in 2009 as part of the LivePhoto Physics Project sponsored by a grant from the National Science Foundation. "Digital video analysis can help students master difficult physics topics using a full range of representations, including analytic mathematical modeling," he says. Newman and Wright are adapting Teese's ideas to biology topics.
- Social networking tools, such as Nota Bene, an integrated software program, allow for virtual group discussions about articles or other posted materials outside of class. It gives Newman and Wright a different perspective and a different way of interacting with their students. "I can see what they're thinking, and it's not what I would have thought they were thinking, many times," Newman says. "For example, the words they choose to focus on very often are things that I would have passed over."

man and Wright in the winter issue of *CBE-Life Sciences Education* about student failure to transfer their knowledge of chromosome structure to concepts of cell division. Catavero understands the value of using models like the Amino Acid Starter Kits to think about biological concepts on a different level.

"When students are hands on and doing it themselves, they're making their own knowledge."

Newman adds that it is an example of active learning.

"Research shows that students learn more when they take responsibility for their own learning," she says. "It allows them to build new knowledge on the foundations of previous knowledge with input from peers."

She looks around the room. "Notice no one has their phone out. They're working together, talking and bouncing ideas off each other. It's a much richer learning experience and it will stick with them longer than if I stood in front of the classroom and showed them how to construct a protein."

The plastic-and-foam protein models have replaced the simple pipe cleaners and beads Newman and Wright used to hand out to their students.

Irene Evans, professor of biology, purchased several different models for the Thomas H. Gosnell School of Life Sciences with funding from a MERCK grant.



Dawn Fitch, a second-year biology major, and Jason Meyers, a fourth-year environmental science major, collaborate during cell biology class. (Photo by A. Sue Weisler)

Other models include a water molecule kit, "the molecules of life"—plaster models of DNA, proteins, lipids and carbohydrates—a DNA starter kit, and gene maps—12-foot rolls in 12-point font.

"Models like these are fairly new," Newman says. "But if you go back to Watson and Crick, they made their own model of DNA

and, if you think about it, that's the way to learn. Traditionally, this topic wouldn't be taught this way. You get a very different picture when looking at a two-dimensional or three-dimensional drawing. Playing with the things is a way of learning. Questions you didn't know to ask, you find the answers to."

Susan Gawlowicz '95

DOCUMENTING THE STORIES OF

10

# FAITH-BASED ENTREPRENEURS



A child flies his kite in a garbage dump  
in Mumbai, India. (Michael Conti)



Because of violence in the Democratic Republic of Congo, refugee children and their families are moved to an Internally Displaced Persons camp in Eastern Congo. (Steven Pfof)

Many of them had never left the borders of the U.S., but when the opportunity arose for seven RIT photography alumni to donate their time to travel to developing countries ravaged by violence, malnutrition and poverty, these photojournalists did not hesitate. Their mission: to document unsung heroes, faith-based social entrepreneurs transforming lives and bringing hope to some of the worst parts of the world.

Each year, the Opus Prize Foundation awards a \$1 million prize to a faith-based innovator tackling global issues and affecting social change. Since its inception, the Opus Prize has been awarded to 10 people.

RIT photo alumni got involved with the Opus Prize Foundation through a friendship between Doug Rea, RIT professor of photojournalism, and Don Neureuther, executive director of the Opus Prize Foundation, which is based out of Minneapolis.

“Doug suggested we do a 10-year anniversary book that would be photo driven to tell the stories of these 10 faith-based entrepreneurs,” Neureuther says. “With Doug’s history at RIT, he had photographers that we could send to each of these countries who would do a great job getting photos. We were just absolutely

thrilled with this idea and are even more thrilled now after seeing the work that each of these photographers has done.”

The alumni took vacation time from their regular jobs to take on these photo assignments. The foundation paid for their travel expenses. Rea photographed two of the recipients in October 2011 and August 2012, which gave him a sense of the kind of photographers needed to cover the remaining eight.

Steve Pfof ’10 (photojournalism) also covered two Opus Prize recipients in Africa—traveling to Burundi at the end of October and then finishing in the Democratic Republic of Congo the first week of November.

“I saw it as a great opportunity for an all-expense-paid trip to Africa, somewhere I’ve always wanted to go,” says Pfof, who works for *Newsday* on Long Island. “Burundi was all I had imagined Africa to be with clay huts, foliage everywhere. The first day I woke up to a huge rainbow. The experience on a whole was great as a photojournalist. There were no distractions; it was all about concentrating on photographing.”

Pfof documented the work of Marguerite “Maggy” Barankitse, who launched Maison



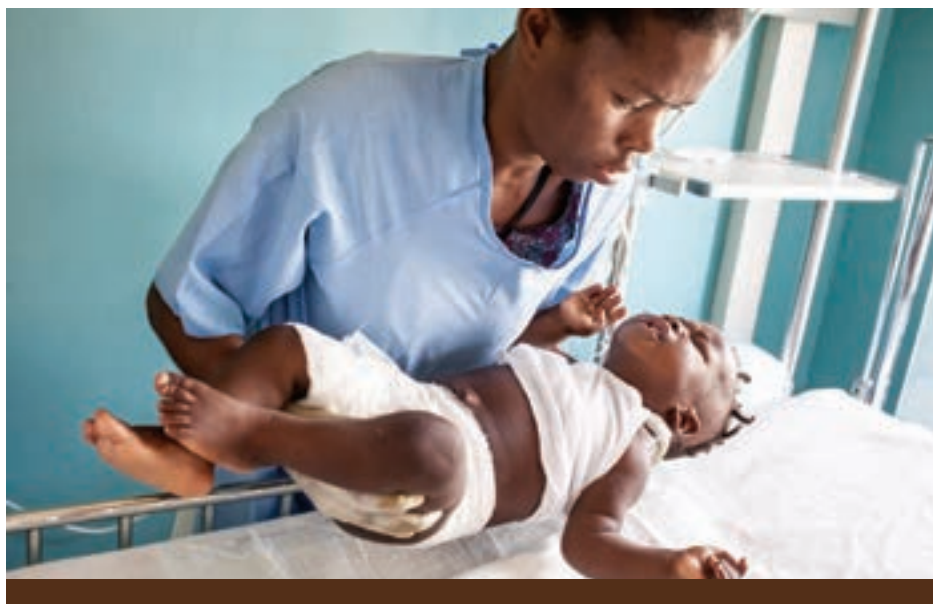
#### STEVEN PFOF II '10 PHOTOJOURNALISM

Pfof currently lives in Lindenhurst, N.Y., and is a daily contributor to Long Island’s

*Newsday*. Since graduation, he’s interned at *The Dallas Morning News*, *Concord Monitor* and the Rochester *Democrat and Chronicle*. Pfof has won honors and awards for his work including College Photographer of the Year in 2010 and the Associated Collegiate Press NPPA Contest in 2010. Pfof documented the work of two Opus Prize recipients, Maggy Barankitse in Ruyigi, Burundi, and 2011 Opus Prize recipient Lyn Lusi, who created HEAL Africa in Goma, Democratic Republic of Congo.

Shalom, or “House of Peace,” for orphans with HIV and AIDS and child soldiers. Barankitse survived a rebellion in Burundi in 1993, but both her parents were killed. Shortly after the uprising, she began Maison Shalom. The safe haven includes facilities such as a church, school and state-of-the-art hospital.

“Miss Maggy’s work is impressive. Out of swampland, she’s created farms and invested in cows and cheese machines so the residents



St. Luke Foundation in Port-au-Prince serves as the largest pediatric hospital in Haiti. (Doug Rea)

can make their own food and be self-sufficient," he says.

Pfost then went to the Congo photographing HEAL Africa, an organization that runs a state-of-the-art hospital, which offers health care to the poor and provides fistula and clubfoot surgery, rape counseling and HIV/AIDS education.

Pfost's experience in Goma was much more dangerous than Burundi. Rebel M23 fighters were stationed outside the borders of Goma during the weeks Pfost was there. Rebels overran the city, killing many residents only days after Pfost left to return home.

"The people of Goma kept saying the rebels were coming closer," says Pfost. "It was very tense. My first night there I cried myself to sleep. United Nations helicopters were flying overhead and Congolese army soldiers carrying machine guns were patrolling the area. The experience is something I'll never forget."

Communication barriers and hard feelings were part of the overall experience for Emma Tannenbaum '09 (photojournalism). The staff photographer at the *Rocky Mountain Telegram* traveled to Haiti and then the Dominican Republic. Tannenbaum had a translator, but he wasn't fluent in English.

"According to the organization, there's not a big culture of volunteering in Haiti," Tannenbaum says. "The volunteers were resentful that an American was flown in and getting paid. My translator was unable to convey that I also was a volunteer. I tried to overcome the resentment with a positive tone and positive body language to try and build good will."

The organization's work she documented, Pastoral da Crianca, is a public health program initially launched in Brazil to help pregnant women and children, teaching mothers about nutrition, childrearing techniques and breastfeeding. The program has expanded into Haiti and the Dominican Republic.

"It was amazing to go on these home visits with volunteers in the Dominican Republic," says Tannenbaum. "For the parents, it's a big deal to have volunteers come once a month and monitor their children's stages of



Stan Goetschalckx, the 2007 Opus Prize winner, runs the AHADI International Institute in Tanzania. (Evan Witek)



**DOUGLAS FORD REA**  
**PROFESSOR**

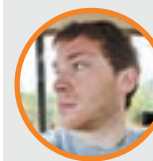
Rea is a professor of photography at RIT. He is also a freelance photographer working for NGOs (non-government organizations), news agencies and motorsports interests. His work has been published in numerous national and international newspapers and magazines. Rea documented the work of two Opus Prize recipients, traveling to Tabarre, Haiti, for 2012 Opus Prize recipient Father Rick Frechette and Karonga, Malawi, for Sister Beatrice Chipeta, the 2010 Opus Prize recipient.

development. One mother told us that when she got frustrated she would tie up her three sons and beat them until she was no longer angry. She was beaten as a child, so that's what she did to her own. During another home visit, I spent an afternoon with a mother who scrubbed the floors and washed dishes all day because her baby had started to crawl and she was worried about cholera."

Dr. Zilda Arns Neumann, founder of Pastoral da Crianca and the 2006 Opus Prize winner, was among those killed during the Haiti earthquake in January 2010 while in Haiti to meet with leaders on how to bring the program there.

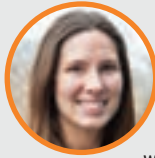
"The program was very dear to Dr. Neumann and she felt Haiti needed her help," says Tannenbaum. "It's this ongoing struggle of trying to make people understand that your neighbor's problem is your problem, too. I witnessed the positive effects of the program in the Dominican Republic. It gives you hope for the future of Haiti and what the program will become."

Much like Tannenbaum who found travel in Haiti to be difficult because the earthquake wiped out roads, Michael Conti '11 (photojournalism) faced similar transportation issues while covering REAP



**EVAN WITEK '10**  
**PHOTOJOURNALISM**

Witek, an award-winning multi-media journalist, has been taking mental pictures since before his fingers could work a camera. Witek is currently a video journalist for the *Beaver County Times* in western Pennsylvania. He traveled to Kigoma, Tanzania, to photograph the work of 2007 Opus Prize winner Brother Stan Goetschalckx.



**BRITTNEY LOHMLER '11**  
**PHOTOJOURNALISM**

Lohmiller, who lives in New York City, first started taking pictures when she received a Nikon camera for her 16th birthday. Since graduating from RIT, Lohmiller has interned with photographer Lauren Greenfield and interned at a variety of newspapers around the country. Lohmiller traveled to Casablanca, Morocco, to shoot images of 2009 Opus Prize winner Aïcha Ech-Channa.

(Reach Education Action Programme) in India the first week of last November.

"It's inspiring how REAP is able to overcome so many challenges while covering such a large region of both urban and rural areas," says Conti, who works for Journal Communications, which produces travel magazines. "There are significant issues with India's infrastructure. For example, to drive 30 miles, we would be in the car for two hours on bumpy roads with no traffic signs."

REAP runs more than 450 literacy centers in an effort to combat India's high illiteracy rate and mainstream children into school.

"My experience with REAP was amazing. It was a great life experience. REAP has an incredible leader in Father Trevor Miranda," Conti says. "I wanted to make sure to capture every aspect of the charity work because not only does he lead small classrooms for rural and urban children, Father Miranda runs boarding schools and has started self-help groups for women to empower them to become more financially independent."

Miranda, the 2005 Opus Prize recipient, was impressed with Conti's commitment to documenting REAP's mission.

"Michael was very adaptable to different situations," he says. "He captured the depth of our work, the struggles and the difficult circumstances we work under. This itself is a telling story. We hope the images will generate a great deal of interest in more people



Single mothers benefit from the services of the Association Solidarité Féminine in Casablanca. (Brittney Lohmiller)



Siblings play in their home in Riverton, Jamaica, the site of the city's garbage dump. (Dave Londres)



**DAVE LONDRES '08**  
**PHOTOJOURNALISM**

Londres worked as a staff photographer at the *Utica Observer-Dispatch* for two years before deciding to be his own boss. He accepts assignments worldwide and is based in Philadelphia, Pa. Londres documented Monsignor Richard Albert in Kingston, Jamaica. Albert was awarded the Opus Prize in 2004.



Children in Quito, Ecuador, watch as a 3-year-old classmate gets a routine teeth cleaning. (Adam Richins)



**ADAM RICHINS '07**  
**PHOTOJOURNALISM**

Richins is an award-winning professional photographer specializing in high-end portraits, sports and documentary-style event photography in the greater Boston area. After graduating from RIT, Richins interned at the *Poughkeepsie Journal*, the Rochester *Democrat and Chronicle* and *Newsday* before landing a staff position as a photographer and multimedia journalist at the *Pocono Record* in Stroudsburg, Pa. In May 2011, he left his staff job to pursue his own photography business in his home state of Massachusetts. Richins traveled to Quito, Ecuador, to shadow Father John Halligan, the 2010 Opus Prize recipient.



Children in Welsh, Haiti, eat a free meal after a Celebration of Life ceremony. (Emma Tannenbaum)

collaborating with REAP to bring education and empowerment to the poorest.”

The book came out in early February to commemorate a 10-year Opus Prize anniversary celebration hosted at Marquette University Feb. 4-8. In addition to the 100-page book, the images appeared on banners, posters and invitations to promote the university's weeklong celebration of the Opus Prize recipients. Another idea is to use the images as part of a traveling exhibit.

“These photos will be really important to the recipients themselves,” adds Neureuther. “It's transformative what these organizations are doing and it's conveyed in the images. You can't walk away from spending time with these Opus Prize recipients without asking yourself, ‘What more should I be doing to make the world a better place?’”

Kelly Sorensen



Boys in Quito, Ecuador, break up chunks of cement mix as part of a volunteer effort to build a home. (Adam Richins)



**EMMA TANNENBAUM '09**  
**PHOTOJOURNALISM**

Tannenbaum is currently a staff photographer at the *Rocky Mountain Telegram* in Rocky Mount, N.C. Tannenbaum completed internships at the *Birmingham News* and the *Fayetteville Observer*. She documented the work of the organization Pastoral da Criança (Pastoral of the Child) in Haiti and the Dominican Republic, started by Dr. Zilda Arns Neumann, the 2006 Opus Prize winner.



A child wades through piles of trash looking for valuable materials in Mumbai, India. (Michael Conti)



**MICHAEL CONTI '11**  
**PHOTOJOURNALISM**

Conti is a photographer working in Franklin, Tenn. With his pictures, he helps promote small towns across America as well as documenting agribusiness and tourism. Conti shot images of the 2005 Opus Prize winner Father Trevor Miranda in Mumbai, India.

## About the **OPUS PRIZE**

The first Opus Prize was awarded in 2004.


The Opus Prize Foundation awards a \$1 million faith-based humanitarian award and two runner-up \$100,000 awards each year.

The foundation partners with a different university annually to identify potential candidates and submit finalists. Past university partners include the University of Notre Dame, Marquette University, Fordham University and St. Catherine University.

The 2012 Opus Prize recipient is Father Rick Frechette, an American priest and doctor who has lived in Haiti for 25 years and started St. Luke Foundation. St. Luke Foundation provides health care and education to more than 150,000 people and employs 1,600 Haitians.

To learn more about the Opus Prize, go to [www.opusprize.org](http://www.opusprize.org).



A photograph of Nabil Nasr, a middle-aged man with grey hair, wearing a dark pinstripe suit, a light blue shirt, and a red patterned tie. He is standing on a balcony with a wooden railing, leaning his hands on the rail. The background is a large, modern building with a grid of orange-tinted glass panels. The lighting is warm and orange, matching the building's facade. The photo is taken from a slightly low angle, making him appear prominent.

Nabil Nasr, assistant provost and director of Golisano Institute for Sustainability, stands in the recently completed Sustainability Institute Hall. The building is one of the greenest in the world and acts as a living lab for students to study. (Photo by A. Sue Weisler)

# How RIT has become a Leader in Sustainability

**N**abil Nasr had a vision: Create a world-class research and education hub for sustainability. Establish the first doctoral program in sustainability. Position RIT as a global leader in the field of sustainable design and product development. And open RIT's first living lab, a building filled with cutting-edge technology that serves as a classroom and inspires students.

The director of RIT's Center for Integrated Manufacturing Studies told all of this to the Board of Trustees in November 2004 as part of a discussion on big ideas to help the university grow. At that time, few people were talking about what happens to products after they are done being used.

"I can't imagine what the Board of Trustees was thinking," says Nasr. "This crazy guy wants to build another Ph.D. program. He wants to build a sustainable building."

Soon Nasr had secured initial funding for a study from the Henry Luce Foundation, which resulted in more funding, including a naming gift from B. Thomas Golisano, and RIT's Golisano Institute for Sustainability (GIS) was created. The educational programs, research and partnerships with companies followed, and in 2010, the U.S. Department of Commerce's National Institute of Standards and Technology granted the program \$13.1 million for the construction of a green facility.

In April, GIS will dedicate its new \$40-million building, which is indeed a living lab. The building even looks similar to the one Nasr, now assistant provost and the director of GIS, used in his 2004 PowerPoint presentation to the trustees. And it houses a program that has become one of the best in the nation.

In the short term, the facility is expected to create 75 new jobs at RIT and 1,000 jobs offsite at regional manufacturing firms. Longer term, Nasr projects significant additional job growth related to GIS both on campus and throughout the upstate New York region.

"We see RIT as a leader in the country in the sustainability movement, if not No. 1 in



Chelsea Bailey, a third-year Ph.D. candidate in sustainability, is researching greener ways to recycle lithium-ion batteries discarded after use in electric vehicles and consumer electronics. (Photo by A. Sue Weisler)

industrial leadership in sustainability," says Owen Foster, senior vice president of marketing and sustainability at Rochester Midland Corp., a manufacturer of specialty chemicals and a longtime partner with GIS. "In my travels and networking, I see other universities involved in sustainability but when I look at where their interface is with industry, there isn't a lot. There is nothing like what I get at RIT."

Nasr's vision, though, has always included an element bigger than RIT. The global population is increasing by almost 75 million people a year and is predicted to reach 8 billion by 2025. There are not enough resources to supply the world's rapidly growing appetite for new and better products. Something has to change and Nasr plans to be part of the transition.

## A different approach

Nasr wasn't always concerned about the lifecycle of products. The Rutgers-trained industrial and manufacturing engineer joined RIT's College of Engineering in 1989 as an assistant professor teaching topics such as robotics and manufacturing processes.

Nasr was attracted to RIT because of the applied-research nature of the university, its resources and he could continue his consulting work designing manufacturing facilities one day a week. One project was with Xerox, where he stumbled upon a new concept.

"They called it remanufacturing of equipment," he says. "We were never taught anything like that at engineering schools."

At the same time, he was working with Kodak to design a new facility for its ortho-clinical diagnostics division and that com-



This organic acid solution is used as a leaching agent to recover precious and scarce metals from a lithium-ion battery waste stream. (Photo by A. Sue Weisler)

# How RIT has become a Leader in Sustainability

pany, too, was talking about what happens to products when they are done being used.

To learn more, Nasr put on his blue jeans and worked on the assembly line with Kodak employees during quarter break, disassembling equipment, inspecting the parts and cleaning and salvaging the materials.

“No one was thinking about what is going to happen at the end of life so we can reclaim that material. You want to get a microphone and tell everyone in the design and engineering community, we are making a lot of problems here. We should pay attention to these issues.”

In the early 1990s, Nasr found himself with such a microphone. He wrote a paper he called “Turning Trash Into Cash” that was picked up

engineering to the newly opened Center for Integrated Manufacturing Studies, known on campus as CIMS.

CIMS focused on remanufacturing, lifecycle engineering and alternative energy development. The center contracted with companies and government agencies to solve manufacturing problems.

Al Simone, RIT president from 1992 to 2007, was quickly won over by Nasr and provided the initial funding for Nasr’s remanufacturing and resource recovery program.

Simone tells the story of a meeting he and Nasr had with a senior U.S. senator in Washington, D.C. The senator brought in his expert to quiz Nasr on his knowledge of remanufactur-

support his ideas and support his execution.”

Nasr became director of CIMS in 2002 and continued to grow the operation. CIMS contracted with the U.S. Navy and Marine Corps to apply its knowledge in remanufacturing to large equipment, which resulted in cost savings to the military by extending the lives of aging vehicles, ships and planes. Researchers also developed a system to monitor the performance of military vehicles. (That system was later expanded to the commercial freight industry and resulted in the spin-off company Vnomics, which recently graduated from RIT’s incubator Venture Creations.) They studied ways to use fuel cells and alternative fuels in buses, trucks and other



From left, Ph.D. candidate Erinn Ryen; Barbara Kasulaitis, a first-year Ph.D. student; and assistant professor Callie Babbitt disassemble computers to identify high environmental impact materials and test strategies for designing electronics that can be more easily reused and recycled. (Photo by A. Sue Weisler)

by The Associated Press. Soon Nasr’s name appeared in hundreds of newspapers.

The stories caught the attention of people in the then-small remanufacturing industry, and Nasr was named head of the Remanufacturing Industries Council. He visited remanufacturing companies, learned as much as he could about the process of rebuilding equipment instead of replacing it and built strong ties to industry.

He founded the National Center for Remanufacturing and Resource Recovery, and in 1997, Nasr’s operation was moved from

ing. The expert realized that Nasr not only knew the answers to his questions but also had new information to share. By the end of the meeting, Nasr was mentoring the expert.

“The rare person is one that can have the vision and then have the capability of actually executing that vision. Nabil is one of those people,” Simone says. “To execute you have to work hard, be dedicated, focused and committed. But there is one key attribute Nabil also has, which is his sincerity. His intelligence and knowledge of the subject matter comes through. He is able to get people to



Students identify materials and components on a circuit board extracted from an RIT server made in the early 2000s to quantify the environmental impact of its manufacturing. (Photo by A. Sue Weisler)

public transportation. Engineers and technicians began analyzing components used in making toner cartridges to help manufacturers reduce waste.

And they worked with companies—big and small—to reduce their environmental footprint by changing their design methodology and developing an innovative product that was greener or that would last longer. That process helped to create more than 1,500 jobs and retain more than 1,900 additional positions at manufacturing companies worldwide.

All of this work fell under the umbrella of sustainability. But Nasr wanted more.

“We want to have impact,” Nasr says. “Education was the only way to spread the word. This was my dream.”

## Creating an institute

Paul Stiebitz was four months into retirement in 2006 when he got a call from his former colleague. The two met for lunch and



An open-air terrace on the third floor of Sustainability Institute Hall features large areas of sedum and plantings that are part of Rochester's Seneca Park Zoo Butterfly Beltway project. (Photo by A. Sue Weisler)

Nasr told the retired professor, who taught industrial engineering at RIT for 22 years, of his plans to start a sustainability institute. Nasr invited Stiebitz to work with him.

"I started the next morning at 8 o'clock," Stiebitz says. "What better thing to do in the retirement period than to create education and research that will help out on some really tough problems that the world is facing. So I came back."

RIT had already secured a \$465,000 grant from the Henry Luce Foundation to create one of the first multidisciplinary Ph.D. programs in sustainability.

Stiebitz began working on a curriculum concept and formed a curriculum committee to help move the concept through the approval process. That would be challenging because the programs were multidisciplinary and involved faculty and resources from different colleges.

Nasr, Simone and Bill Destler, who had just joined RIT as president, pitched the idea of a sustainability institute to Golisano, founder and chairman of Paychex Inc. and an RIT trustee. Golisano was familiar with sustainability through his work with the Clinton Global Initiative, which was formed by former President Bill Clinton in 2005.

"He challenged us," Nasr says about Golisano. "He is brilliant with numbers. He said, 'I want to see value to the community. I want to see it by design and not by accident.'"

In September 2007, Golisano donated

\$10 million and the Golisano Institute for Sustainability was created. "It is imperative that we accelerate strategies to promote a sustainable society and ensure future generations the opportunity to address their own needs," Golisano said at the time.

With the help of Destler, who shares Nasr's passion for sustainability, others got on board with support, including Xerox Corp., Caterpillar Inc., Eastman Kodak Co., Staples, Rochester Midland Corp., the Carlson Charitable Fund and the Shumway Foundation.

Each year marked additional growth.

In 2008, RIT was named host of the New York State Pollution Prevention Institute, which works to make the state more sustainable for workers, the public, the environment and the economy.

The pollution prevention institute is a partnership with three other universities and 10 regional development centers.

Other divisions in GIS continued to focus on remanufacturing resource and recovery, sustainable production and sustainable transportation issues.

That same year, the first four Ph.D. students in sustainability were admitted to the program.

All that was left for Nasr was the construction of a building, where it could all reside. But that building had to inspire people—as one of the greenest in the world and as a living lab for students to study.

## If you build it

Among the first to help with the final goal was the Rochester region's state legislative delegation, which secured \$10 million for the project in the 2008-2009 state budget.

"The building will be of tremendous value to RIT," says state Sen. Joseph Robach. "But it will go above and beyond that by creating spinoff jobs, technology and products not only created here but developed here."

Two years later, RIT was awarded \$13.1 million from the U.S. Department of Commerce's National Institute of Standards and Technology—the largest award in the NIST construction program that year.

In December, New York Gov. Andrew Cuomo announced that GIS would receive \$5 million as part of the Finger Lakes region's funding award through the governor's Regional Economic Development Council process. The funds will be used to equip the institute's unique suite of labs and testbeds.

Stella Fiotes, former chief facilities management officer for NIST, says of particular interest to NIST was that the new facility will pull together a variety of sustainability researchers focusing on energy, transportation, sustainable materials and systems for



Research labs, student work areas, classrooms and conference rooms in Sustainability Institute Hall all open onto a light-filled, four-story galleria space. (Photo by A. Sue Weisler)



Nabil Nasr's dream was to open RIT's first living lab, a building filled with cutting-edge technology that serves as a classroom and inspires students. The dedication and ribbon cutting for Sustainability Institute Hall is scheduled for April 12. (Photo by A. Sue Weisler)

printing and imaging, products and production systems and building systems.

"This proposal had the most comprehensive and broad focus on researching sustainability issues out of all 92 proposals submitted," Fiotes says.

The research generated in the building will be critical, as sustainability becomes the next major movement in industry. GIS has already branched out into the eco-IT area, or reducing energy consumption of electronic devices. The new building's computer server room will allow researchers to further explore reduction possibilities, which could result in huge cost savings for companies. In addition, researchers in the new Staples Sustainable Innovation Lab in the building will figure out ways to better design and manufacture green office products and services.

Foster, of Rochester Midland Corp., says sustainability issues today are on par with the environmental movement in the 1960s and 1970s and quality concerns in the 1980s and 1990s.

"Bids, government requirements, customer requirements are demanding all of the documentation of our position in sustainability. What do we have for a sustainability report? What are our metrics? What have we done to lower our carbon footprint? All of these questions didn't exist in 2007," Foster says about the year he first attended a conference at RIT on sustainability.

One of the reasons Rochester Midland has

stayed ahead of sustainability is because of its work with RIT and the company's commitment to the issue, he says. Along with producing products in a more sustainable way, the company has defined its sustainability mission and created a sustainability certification program.

The company has even organized a special interest group made up of representatives from 40 area companies to talk about sustainability issues.

This spinoff effect is what matters to Nasr. For the world to use less energy and create less waste, it is going to take everyone working together for generations—from industry to educators. "There's a lot to be done," Nasr says. "We are scratching the surface."

### Spreading the word

More than 50 students are now enrolled in GIS graduate programs, which by 2011 along with the Ph.D. in sustainability included both the master's program in sustainable systems, and the Master of Architecture degree program, which has an emphasis on sustainability.

Niles Barnes, senior programs coordinator for the Association for the Advancement of Sustainability in Higher Education, says his organization calculates there are only about 145 sustainability degree programs at the more than 3,500 universities in the United States.

"Offering a degree in sustainability is still very unique, especially at the Ph.D. level," he says.

When the programs are fully populated, the number of students will swell to more than 130. This May, four Ph.D. students and four master's students in sustainable systems are on track to graduate.

They will then take their passion out into the world and work on their own pockets of sustainability.

Congresswoman Louise Slaughter says she believes one of them could be the next Chester Carlson or George Eastman.

"Thanks to centers like GIS that bring the world's top academics, researchers and students to Rochester, they will have the resources and expertise to realize their dream of creating the next big technological advancement," she says.

Nasr and the dozen faculty members of GIS continue to spread the message globally. RIT is working with the Clinton Global Initiative to create educational materials and guidebooks, curriculum advisory groups, faculty exchange programs and a mentorship program with the Dominican Republic, Egypt, Indonesia, Malaysia and Peru in an effort to share the model of sustainability.

The federal government also tapped Nasr to help develop international sustainability standards. He helped the Organisation for Economic Cooperation and Development create the sustainable manufacturing toolkit, which will give companies metrics to use to measure their environmental performance.

Closer to home, Nasr and his team hope to use the new building to teach the Rochester community about sustainability. The educational efforts are all about preparing students for the future and playing a role in ensuring there is a future for this generation and the next.

State Assembly Majority Leader Joseph Morelle, who has worked with Nasr since the early days of remanufacturing, says he isn't sure people fully appreciate how unique it is to have a center like this in Rochester. Soon they will, and the Golisano Institute for Sustainability will cement Nasr's legacy in Rochester and around the world.

"My goal now in my career is that when I'm retired one day—if I ever retire—and think back about what we were able to do, I want to have contributed to society and feel good about it," Nasr says, slowly smiling. "That is really my biggest goal. It is not money. It's not recognition. It's making sure that when we had a chance, we did the right thing."

Mindy Mozer

# a Living Laboratory

*The new home of Golisano Institute for Sustainability—called Sustainability Institute Hall—represents the ultimate manifestation of RIT’s commitment to the environment.*



Cutting-edge “green” technology has been incorporated into every inch of the new 84,000-square-foot building, from the solar panels on the soaring canopy to the vertical wind turbines at the entrance. The facility was designed to exceed Leadership in Energy and Environmental Design (LEED) Platinum standards of the U.S. Green Building Council—the highest standard that can be achieved.

“We felt that we needed to walk the talk,” says Paul Stiebitz, associate academic director of Golisano Institute for Sustainability. “We also saw an opportunity to include technologies for investigation into sustainable materials and systems. This building is truly a living laboratory.”

Here are some of the unique features:

**Fuel cell:** A UTC Power Model 400 Purecell System is the primary energy source for the building. This unit produces 400 kilowatts of

continuous electric power; heat generated as a by-product of electrical generation helps heat this and other buildings on campus.

**Microgrid:** This system takes power inputs from variable sources (including wind turbines and solar panels) and stores energy in a battery bank to provide 50 kilowatt-hours of energy. This will power some of the building’s lights and electrical outlets.

**Water conservation:** The building is designed to be 66 percent more efficient than a typical building. For instance, rainwater is collected and filtered and used to flush the toilets.

**Geothermal system:** Liquid will circulate from eight wells drilled into the ground through pipes in the galleria floor, helping to keep it warm in the winter and cool in the summer.

LeChase Construction and SWBR Architects led the construction and design with additional support from FXFowle architects, Stantec civil engineering consultants and M/E Engineering.

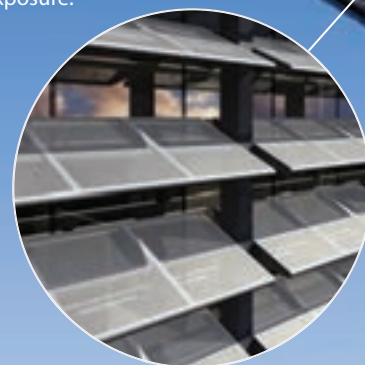
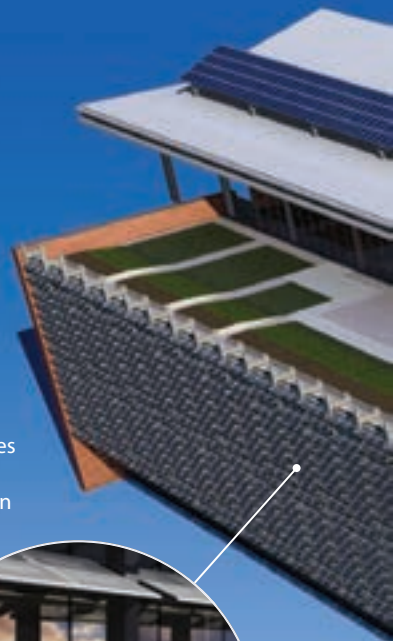
# Cutting-edge technology rooted in new facility for sustainability

The building maximizes energy efficiency through the building's envelope, which consists of the components that separate the exterior of the building from the interior of the building. There are some of RIT's signature bricks, but most of the building is sheathed in several varieties of glass. Opaque Spandrel panels have an insulation value comparable to masonry walls. Translucent panels with nanogel filling also have excellent insulating characteristics while admitting light. Transparent, high-efficiency heat-mirror glass made by Serious Energy (company founder Kevin Surace is a 1985 graduate) outperforms conventional triple-pane glass and is thinner, lighter and less expensive. Building windows in offices and conference rooms feature a coating that conducts electricity, so the glass can be heated to room temperature to eliminate drafts when the room is occupied. This eliminates the need for baseboard heating. The extensive glazing reduces the amount of artificial light required. A sunshade system of stationary louvers on the south side of the building reduces heat buildup from direct sun exposure.

**Energy-saving touches include three electricity-generating wind turbines (right), placed on the north side of the new building.**



**A sunshade system** of stationary louvers reduces heat buildup from direct sun exposure.



**A green wall** is near the west entrance and contributes to air quality as well as aesthetics.

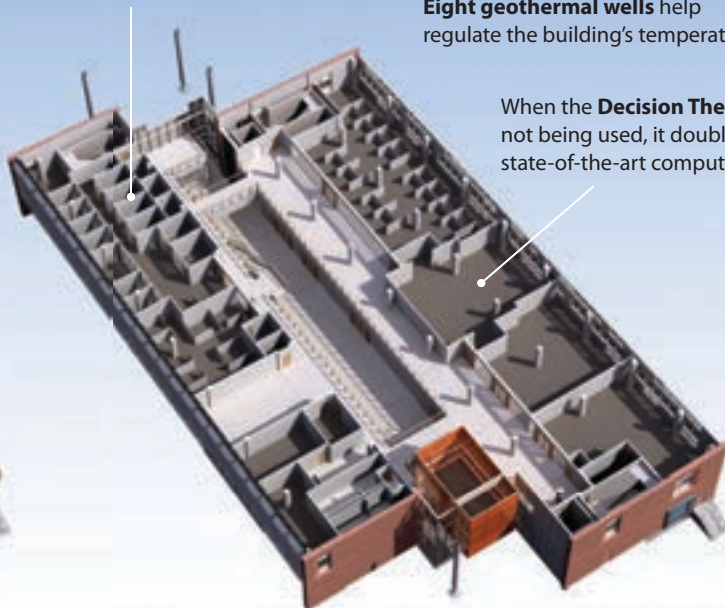
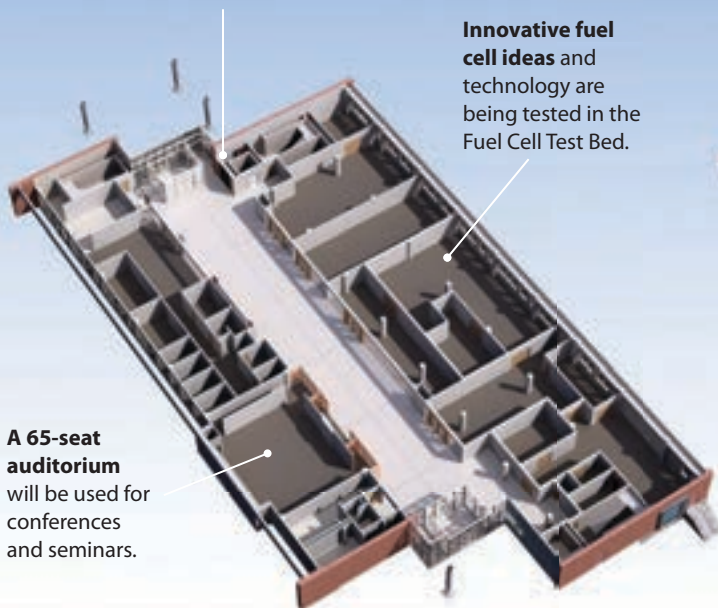
**Innovative fuel cell ideas** and technology are being tested in the Fuel Cell Test Bed.

**Offices** for sustainability faculty members are grouped together.

**Eight geothermal wells** help regulate the building's temperature.

When the **Decision Theater** is not being used, it doubles as a state-of-the-art computer lab.

**A 65-seat auditorium** will be used for conferences and seminars.

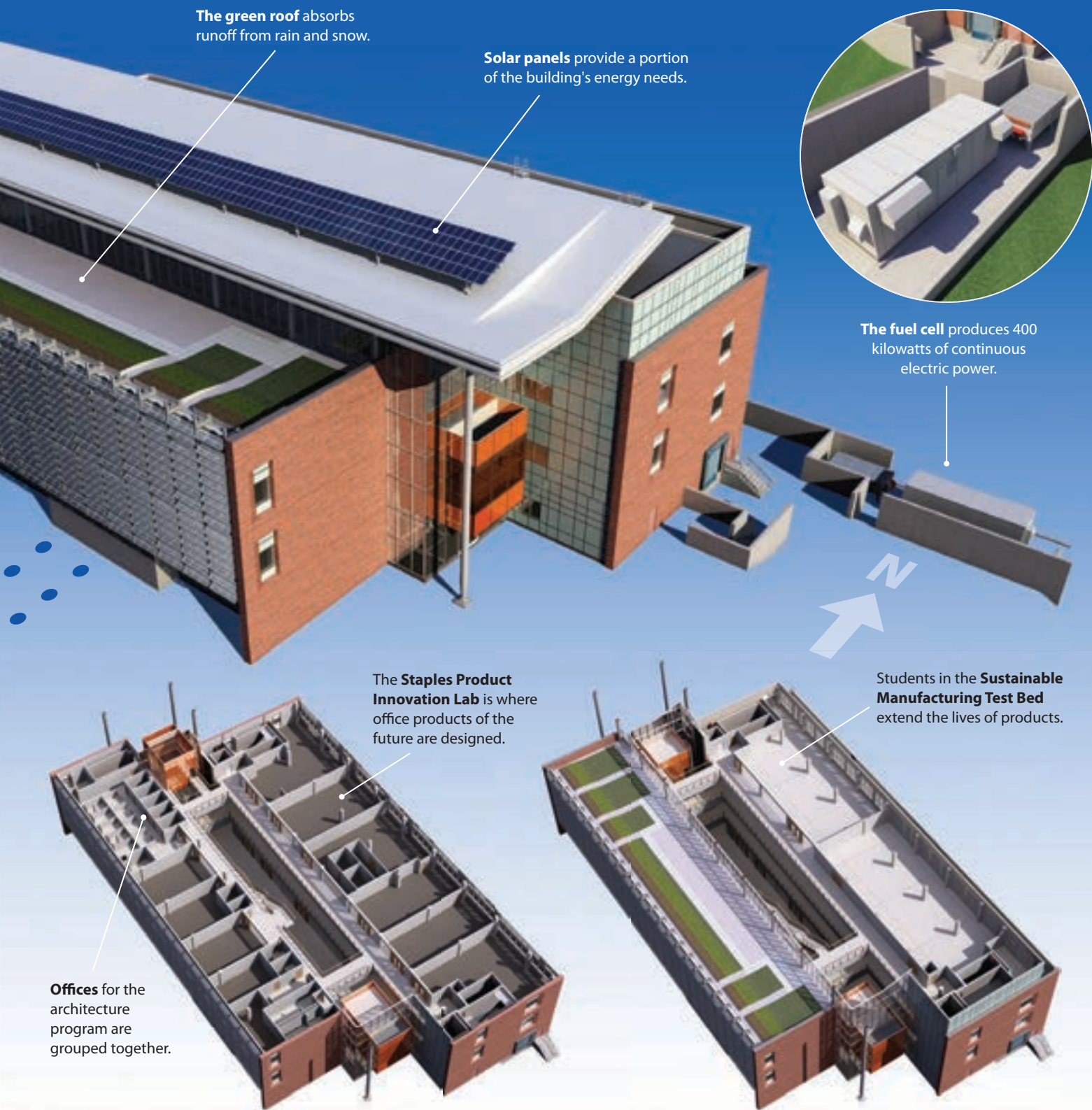


## Level 1: Monitoring the building

Three 65-inch flat-screen panels display the performance of building systems in real time on a video wall. The building is equipped with 1,200 sensors to monitor and control lights, heat and other systems. In the Microgrid Test Bed, information about the building's energy production and use are analyzed. Researchers in the Materials Science Lab test and develop materials. Electric hybrid vehicles are tested in the Electric Propulsion Test Bed.

## Level 2: Space to innovate

This level contains two areas where graduate students can work. The Eco-Design Lab is where students actively innovate, develop, and potentially commercialize their best ideas. Graduate students can present their ideas to other students and faculty in the Decision Theater. At the eastern end of the galleria, there is a collaboration room enclosed within amber-colored glass walls.



### Level 3: Sustainability labs

The third floor is similar to the second with classrooms and conference rooms and a collaboration room along the west end. Labs on this floor include the Sustainable Building Materials Lab, an Environmental Chemistry Lab and an Eco-IT Test Bed. In this lab, researchers work on reducing energy use in computing. Researchers in the Staples Product Innovation Lab design office products with a lower environmental impact.

### Level 4: Green roof

An open-air terrace features large areas of sedum and plantings that are part of Rochester's Seneca Park Zoo Butterfly Beltway project. The green roof also provides some insulation value and absorbs runoff from rain and snow. The only lab at this level is the Sustainable Manufacturing Test Bed, where students research and develop remanufacturing and recycling processes that extend the lives of products.

*"This new facility will enable RIT, and the Greater Rochester region, to become a world-class hub for sustainability research and education."*

RIT President Bill Destler

*"The way we are going with waste in this country is unsustainable. I am pleased that RIT is in the forefront with this needed direction for our world. This is indeed a vision for our future."*

RIT Honorary Trustee Catherine Carlson

*"As I have seen firsthand, the Golisano Institute for Sustainability will lead the way by merging sustainable development, strong research and education as well as creating new opportunities in high-tech manufacturing."*

U.S. Sen. Kirsten Gillibrand

*"Golisano Institute for Sustainability promises to make not only the Rochester area, but the whole country more efficient, increase our productivity, reduce energy consumption, decrease pollution and improve our economy."*

U.S. Sen. Charles E. Schumer

*"The Golisano Institute for Sustainability set Klein Steel up for success through both the Center for Integrated Manufacturing Studies and GIS. Our relationship with CIMS was transformational with respect to lean and quality, setting us up to be designated one of 10 North American IndustryWeek Best Plants in 2011. Recently, both CIMS and GIS are working with us to take a new, high-strength steel to market in Buffalo. Upstate New York businesses are indeed blessed to be supported by RIT and GIS."*

John Batiste, president and CEO  
of Klein Steel Service Inc.

*"Golisano Institute for Sustainability is a critical component of the Rochester region's position as a hub of alternative energy innovation. The opportunity for business leaders to collaborate with GIS faculty and students on next-generation sustainable materials helps us attract new companies to our region."*

Mark S. Peterson, president and CEO  
of Greater Rochester Enterprise

## First Ph.D. making a difference



RIT's first Ph.D. in sustainability graduate Annick Ancil '11, right, meets with Ph.D. student Kayla Collins at Clemson University in South Carolina. Ancil is an assistant professor of environmental engineering and earth sciences at Clemson University. (Photo by Craig Mahaffey)

**J**ust two years after receiving RIT's first Ph.D. in sustainability, Annick Ancil '11 is already making an impact on the field. Ancil, assistant professor of environmental engineering and earth sciences at Clemson University's College of Engineering and Science, has been elected to the President's Commission on Sustainability, a group of students, faculty, staff and community members who coordinate the university's efforts to become a model of sustainability for institutions of higher education.

"It's a huge honor, considering I've just started at Clemson," Ancil says. "They believed that I had a unique background and knowledge about sustainability and could therefore greatly contribute. I think my Ph.D. from RIT has given me unique skills that are highly in demand."

Ancil received her bachelor's degree in materials engineering from Ecole Polytechnique de Montreal. She earned a master's degree in materials science from RIT before starting the Ph.D. program in microsystems engineering. She switched to the sustainability doctoral program when it began in 2008. It's an excellent blend of skills, says Ryne Raffaele, Ancil's thesis adviser in microsystems engineering.

"Annick has a very strong, analytical background in physics," says Raffaele, RIT's vice president for research and associate provost. "It was such an asset when we were discussing problems in materials science, or microsystems, or sustainability. We talked the same language and came at the problem-solving aspects of her research in a similar way."

One particularly noteworthy experience was an internship in the United Nations' Department of Economic and Social Affairs Division for Sustainable Development, where she worked on projects including sustainability metrics and an educational simulation tool for sustainable tourism in developing countries.

"It was a really good experience," she says, "and actually I'm still working with my supervisor on some projects."

She joined the Clemson faculty in September 2012 after spending a year as a research associate at the National Photovoltaic Environmental Research Center at Brookhaven National Laboratory.

"I enjoyed the research, but I wanted to have opportunities to interact with more people," she says. She was impressed with Clemson's commitment to sustainability and the way the concepts are incorporated

throughout the curriculum.

In addition to teaching, Ancil is continuing her research in the area of renewable energy, particularly photovoltaics. She uses lifecycle assessment to identify the main issues of current technologies and propose alternative solutions. A primary focus of her work is in the environmental impact of nanomaterials and fine chemicals for energy applications, in particular as it relates to reducing the impact of industrial production.

"My goal is to make solar energy as green and as affordable as it can be," she says. "My passion is showing how to integrate sustainability into products."

Her Ph.D. thesis adviser, Brian Landi, is certain Ancil will make important contributions to the field.

"Annick is a talented problem solver and highly motivated to succeed at each endeavor," says Landi, assistant professor, chemical and biomedical engineering. "She brings both creativity and passion to an emerging field, which when combined with her experiences in government-funded research and working at the United Nations, will allow her to contribute to sustainable solutions of the highest order for society."



Annick Ancil '11 is already making an impact in the sustainability field. (Photo by Craig Mahaffey)

In addition to a focus on sustainability, Clemson has other similarities to RIT, Ancil says. The buildings are red brick, the mascot is a tiger, and there is a strong reputation for engineering.

The faculty position "is a perfect fit for me," she says. "Utilizing my technical background gets people to take notice and realize how important sustainability is to our environment."

Kathy Lindsley

## Meet sustainability students



Motherhood spurred Jacqueline Ebner's passion for sustainability.

Ebner already had a B.S. in mechanical engineering, an MBA and 13 years experience working for Xerox in a variety of positions. When her children—now ages 7, 9

and 11—came along, she became active in community organizations such as the Sierra Club, particularly the organization's Zero Waste committee. Now in her second year in the Ph.D. program in sustainability, her research focus is turning waste into energy, including biodiesel.

Ebner hopes to work with industry, particularly small businesses, on sustainability issues. Eventually, she would like to teach and influence another generation of professionals.



Michele Goe's interest in sustainability starts with people. "I am very interested in social justice—making sure all people have access to education and a healthy environment," says the third-year Ph.D. candidate in sustainability.

Goe says she grew up in an area of Detroit where that wasn't the case. Her long-term goal is to return to that community and build a school that focuses on science, technology, engineering and math for underprivileged kids.

She came to RIT after getting her undergraduate degree in mechanical engineering from the University of Michigan, she says, because she liked the collaborative nature of the program. Her research is in solar photovoltaics and material availability.

"We want to develop renewable energy for the future but we need to understand now if we are using materials in the right amount and if they have a low environmental impact."



There are more than 656,000 dairy cows in New York state, and each produces approximately 55 pounds of manure per day. With manure management being a critical issue, waste-to-energy conversion processes such as anaerobic

digestion are being developed at more and more dairy farms across the state. But for some small farms, that's not economically possible.

Matthew Rankin, a master's degree student in the sustainable systems program, is working on the problem. "My thesis research objective is to determine the optimal locations for biogas production facilities in New York so that farms and food manufacturing firms can share the economic and environmental benefits of anaerobic digestion technology," says Rankin.

*"Dr. Nasr is viewed as one of the foremost leaders in the domain of sustainability and remanufacturing. He is highly regarded by industry, government agencies and academia as a leading expert who is able to speak from an independent perspective."*

Mark Stratton, Caterpillar Inc.  
remanufacturing general manager

*"The research, the students, the innovations and the ideas being produced by the Golisano Institute for Sustainability at RIT are changing the way we understand the challenges of the present, while developing the solutions needed for a sustainable and prosperous future in Western New York and across the globe."*

New York State Sen. Patrick M. Gallivan

*"I don't think any of this could have been done without Nabil. He sees things other people don't see. It is fortunate we have been able to keep him in this community."*

New York State Assembly Majority Leader  
Joseph Morelle

*"Long before it was common practice, Nabil looked for ways to improve manufacturing processes to increase efficiency and decrease waste. The positive effects include cost savings for manufacturers and a cleaner environment."*

U.S. Rep. Louise Slaughter

*"The Golisano Institute for Sustainability is another example of RIT's commitment to engage in multidisciplinary education and the critical importance of working with business and industry to achieve sustainability goals."*

Niles Barnes, senior programs coordinator  
for the Association for the Advancement  
of Sustainability in Higher Education

*"Innovation through public-private partnerships is critical to Governor Cuomo's vision for the state's energy future. NYSERDA is proud to partner with the Golisano Institute for Sustainability and UTC Power in support of the purchase of advanced fuel-cell technology that will assist in lowering the greenhouse gas emissions of this extraordinary facility."*

Francis J. Murray Jr., President and CEO, New  
York State Energy Research and Development  
Authority (NYSERDA)

*Save the dates! October 10th–13th, 2013*



## BRICK CITY HOMECOMING & FAMILY WEEKEND

*Plan to attend these  
signature events:*

### **Comedian**

*(to be announced this summer)  
Thursday, Oct. 10th at 8:00 p.m.*

### **Presidents' Alumni Ball**

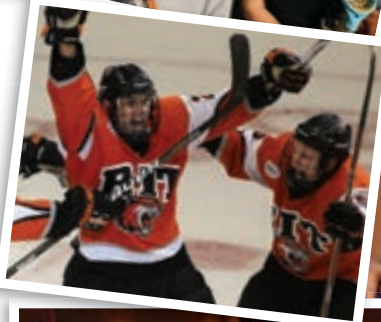
*at RIT's Gordon Field House  
Friday, Oct. 11th at 6:00 p.m.*

### **Student Government Horton Distinguished Speaker**

*(to be announced this summer)  
Saturday, Oct. 12th at 2:00 p.m.*

### **Men's Hockey vs. Michigan**

*at Blue Cross Arena  
Saturday, Oct. 12th at 7:05 p.m.*



**Don't forget about other Brick City traditions:** Golden Circle Luncheon, Brick City 5K, Brick City BBQ, Pumpkin Chunkin and much more! The full list of weekend events will be available in July. **Sign Up** to attend events & **purchase tickets online** as soon as they are available! **Reserve your hotel room now!** Visit our website for a list of hotels with special rates.

Visit [www.rit.edu/brickcity](http://www.rit.edu/brickcity) today!

# From farmworker to advocate

Librada Paz was 15 years old when she left Oaxaca, Mexico, with her older sister for what she hoped would be a better life in the United States.

They joined their brothers in Ohio and immediately went to work in the fields harvesting tomatoes. When tomato season ended, they migrated with other workers to New York to pick apples and then to Florida to pick oranges.

"I did not like farm work," she says. "The bending was so painful. And you get so tired and dirty. As a farmworker there is no option but to accept all working and living conditions as they are."

The living conditions were just as challenging as the long hours and grueling heat. Paz slept on the floor in a small room with as many as 10 other people. She was one of only a few females and was sexually and physically abused.

She knew education was the way out. She didn't know back then, as a teenager, that it would be a way to make a better life for other migrant farmworkers.

In November, Paz '03 (mechanical engineering technology) received the 2012 Robert F. Kennedy Human Rights Award because of her leadership in New York's farmworker human rights movement. The Robert F. Kennedy Human Rights Award was established in 1984 to recognize people who stand up to oppression at grave personal risk in the nonviolent pursuit of human rights.

Paz received the 29th annual prize for her work with Rural Migrant Ministry, an organization that focuses on erasing the systemic violence and human rights violations that America's farmworkers and migrant laborers face. She joins past recipients from 26 countries.

"I do not have the words to describe how honored I feel to receive this award," she says. "I wasn't expecting that high of an honor."

After three years of migrating, Paz settled down in Brockport, N.Y., and attended high school. From there she took classes at Monroe Community College and transferred to RIT after talking to professors, who helped her zero in on mechanical engineering technology because she wanted to design machines.

Paz continued working in the fields to pay for college. She also raised her son, Brandon Nieves, who is now a hospitality student in the College of Applied Science and Technology.

"It was tough," she says. "We struggled. I



Librada Paz '03 works with Rural Migrant Ministry to make conditions better for migrant laborers. Paz is a former farmworker herself who realized as a teenager that education was the way out. (Photo by A. Sue Weisler)

didn't have enough time. I didn't know enough English. Engineering English was hard. But I loved it."

Paz made time to create awareness about the poor conditions of farmworkers. Richard Witt, executive director of Rural Migrant Ministry, met Paz more than a decade ago at a protest.

Soon Paz was leading workshops for migrant workers and lobbying in Albany for better working conditions. She began volunteering at an overnight camp for children, helped organize a statewide conference for rural female farmworkers and organized visits to migrant camps so others could see the sub-standard housing. "Librada is first and foremost a bridge builder," Witt says. "She helps bring people from different backgrounds into a relationship."

The partnership with the Robert F. Kennedy Human Rights Center will strengthen that bridge and help extend Paz's voice. Paz says her next goal is to help get a farmworker labor protection law passed in New York.

Martin Gordon, an associate professor in



Martin Gordon, an associate professor in CAST, stands with Librada Paz '03 after she received the 2012 Robert F. Kennedy Human Rights Award.

the College of Applied Science and Technology, says Paz was one of the most inspirational students he has known. Gordon attended the awards ceremony in November.

"This is a great example of someone using their RIT education in unexpected ways," he says. "The mechanical engineering technology program has always prepared its students to solve real-world problems. Libby has certainly been instrumental in tackling a very difficult real-world problem."

Mindy Mozer

# Tiger Talk

With a 2012  
U.S. Professor of the Year

## Todd Pagano

Todd Pagano, an associate professor and director of the Laboratory Science Technology program at the National Technical Institute for the Deaf, was named 2012 U.S. Professor of the Year by the Council for Advancement and Support of Education and the Carnegie Foundation for the Advancement of Teaching. Pagano was selected from more than 300 nominations. Pagano began teaching at RIT in 2002 and puts students first in every aspect of his job, from his research to his creative demonstrations in the classroom. The more than 100 students who have graduated from the two-year Laboratory Science Technology program either continued to pursue four-year degrees or began working as laboratory technicians in areas such as environmental analysis, food analysis, biotechnology and forensics.

**I think I knew I wanted to be a scientist first** and then a teacher. But it was much to my surprise. I was working on my doctoral degree and I went to my mother's retirement party. She was a teacher in Victor (N.Y.), where I went to school. After the ceremony, my second-grade teacher came up to me and asked me if I could guess what I said that I had wanted to be when I grew up. My immediate response was it had to be a baseball player. She said, 'No, you said you wanted to be a scientist.' And, as proof, she had a picture I had drawn of a guy with beakers and in a lab coat.

**The teaching came later.** At some point I started to like to get up in front of my classes and give presentations and teach others about research topics. I enjoyed it and started to think, 'Hey, I'm pretty good at this.'

**While I was finishing up my doctorate** (Ph.D. in chemistry from Tufts University) somebody sent me the job description for this position here. It had a list of very specific things they wanted the new hire to have. I was stunned at how well I satisfied the lengthy list, except for the bottom bullet, which said 'should know sign language,' which I did not.

**I was hired to teach** in the Laboratory Science Technology program and to be the founding director. This was an opportunity to build an entire program, to learn a new language, a new culture, which was exciting for me. The decision to work with this population of students has had a profound and positive impact on me.

**I really wanted to have direct communication** with my students. That was the motivation for me to learn sign language. As a result, I picked up sign language quickly enough where by my second quarter I was teaching my own courses using sign language.

**I think a classroom has to be** student-centered. If you involve the students in a student-centered way, they are going to take ownership of their own learning process not only in the courses you are teaching but hopefully in subsequent courses. It's a lifelong learning skill. You are teaching students how to be productive learners unto themselves.

**When you get a concept through** to a student, it changes their lives. It can change their lives if it means they get a job. So I will teach it 10 different ways if I have to in order to get the concept across.

**I think I could see early on** that there is a place for these students in scientific labs. Getting there was a challenge because you have to build these industrial relationships. It's hard for students to just cold call companies or send their résumés and get jobs. So many jobs are based on networking. But I could see how this program could be very successful and provide needed scientists to the workforce.

**The attention I have gotten has been good** for NTID. That's what I am most happy about. It gives me a national platform, a stage where people will take notice when I talk about the things I'm passionate about, which is hiring these deaf and hard-of-hearing students into science careers. Don't be reluctant to do it. They are good. You are going to be satisfied. It is going to make a difference for you like it did for me.

**I want to be remembered** as a professor who legitimately cared. If I haven't convinced these students that I take an interest in their education or in their success after graduation, I haven't done my job. I hope that's how they remember me. This guy was funny. This guy was a good teacher. He helped me learn. But more than anything, he cared about my success in more ways than just the classroom.



Todd Pagano was named 2012 U.S.  
Professor of the Year. (Photo by Elizabeth  
Lamark/RIT Production Services)



# A NUMBER WITHOUT A NAME IS JUST A NUMBER.

As we build the new Gene Polisseni Center, you have the unique opportunity to make your name a permanent part of RIT Hockey history. When you give a gift of \$1,000 to the Tiger Power Play Campaign, we'll mount a personalized plaque on a seat in the arena to recognize your commitment to RIT Hockey. Because Section 101, Row 8, Seat 3 is just another number until it's your name written across it. Then it becomes the best seat in the house.

Visit [rit.edu/powerplay](http://rit.edu/powerplay) to learn more about our seat-naming campaign and how you can give Tiger Hockey an assist.

**WE'D BUILD IT  
OURSELVES IF  
WE COULD**

# Signing sensation uses stardom to educate

After working as an American Sign Language interpreter at RIT for six years, Lydia Callis '10 (American Sign Language and interpreting education) decided last summer to face new opportunities and challenges working as a freelance interpreter in New York City.

Little did she know, within a few months, she would be a topic of national conversation, she would be referred to as an Internet sensation and portrayed in an opening skit of *Saturday Night Live* as the interpreter used by New York City Mayor Michael Bloomberg during the Hurricane Sandy press conferences.

"I actually had no idea what was going on," Callis says. "Then one day I walked out of a press conference and people started clapping for me. I said, 'What's going on?' They said I was famous. I was trending on Twitter. People were posting pictures of me in action on Instagram and Tumblr. People were setting up fan pages on Facebook. People were inviting me to be a guest on their talk shows. I was shocked. All the attention was completely overwhelming."

Callis was flooded with media requests for interviews. But, as her interpreter training taught her, she was reluctant to be the story. She was merely doing her job well, facilitating communication. The clear, expressive mannerisms she used when she worked weren't so much an extreme style of signing, but rather demonstrated the public's lack of understanding of how sign language and interpreters work.

Born and raised just outside Chicago, ASL was Callis's first language. Her mother and three siblings are deaf, including her brother, Joey Ouimet, a current student at RIT/NTID.

When she was 18, Callis moved to Phoenix and received an associate degree from Phoenix College's interpreter training program. After graduation, RIT recruited her to come to Rochester in 2006 and work as one of 125 interpreters on campus. She interpreted in classrooms and for many non-academic events.

"I came to Rochester from sunny, beautiful Arizona because of the diversity in Rochester, the culture," she says. "You see everybody from every different walk of life on a daily basis. It was a great career move not only for my profession, but for my family. My sister was at RIT/NTID at the time and I wanted to be exposed to more deaf culture. The interpreters at RIT are just wonderful. I wanted to work with people who could mentor me and help me be a better interpreter."

When she turned 30, Callis decided it was time to move on. Her motivation and passion for new challenges led her to New York City.



Lydia Callis '10 became an Internet sensation after she interpreted for New York City Mayor Michael Bloomberg. Now she is using that fame to educate people about deaf culture. (Photo by Spencer T. Tucker/Office of NYC Mayor)

**"The interpreters at RIT are just wonderful. I wanted to work with people who could mentor me and help me be a better interpreter."**

Lydia Callis '10 (American Sign Language and interpreting education)

"When the hurricane hit, the agency picked me to be the main interpreter for Mayor Bloomberg's press conferences. And the rest is history."

She received letters and emails from across the country, thanking her for her work. Some young people said they were considering being an interpreter after seeing her. She is recognized daily and has a huge following.

"I was starting to ask, when are the 15 minutes of fame going to be over?" she says. "I decided to turn it into something positive, to open the eyes of people who don't know much about deaf culture. Why was I getting this reaction? Because people have not been exposed to sign language."

Callis decided to use her fame to educate others about communicating with deaf people and the interpreting profession. She consented to a few national interviews, including CNN. She is in the process of starting her own business, LC Interpreting Services, where she provides ASL interpreting and mentoring to recent interpreting graduates and one-on-one ASL training.

"I'm not out there to be a shiner," she says. "I'm trying to help bridge the gap between hearing and deaf culture. I'm grateful to be a

part of both cultures."

In January, Callis accompanied NTID President Gerry Buckley to Capitol Hill, where they met members of Congress and talked proudly of NTID and its interpreting program, the oldest and largest in the nation.

"Lydia's presence by Mayor Bloomberg's side during and throughout the aftermath of Hurricane Sandy reminds the public of the important role interpreters play in providing access to vital information," Buckley says.

And Callis worked with Aidan Mack, a deaf entrepreneur who is attempting to start her own television talk show to help lessen the gap between the deaf and hearing communities.

"I want to show hearing people that deaf people can do the same things they can," she says. "They are not disabled. They communicate through a signed language instead of a spoken one. That's my destiny. That's what I've been put on Earth for."

Greg Livadas

## To learn more

For more information on Lydia Callis, go to her website at [www.signlanguagenyc.com](http://www.signlanguagenyc.com). She posts weekly blogs about cultural issues.

# College Alumni Programs

The ways to stay engaged with RIT keep growing. In addition to regional activities for all alumni, your alma mater also supports special programming designed for you and fellow graduates of your department and college. Check out upcoming events posted to your college's alumni Web page. Go to [www.rit.edu/alumni/groups](http://www.rit.edu/alumni/groups) and click on your college.

## Meet RIT's distinguished alumni

What do the Oscars, the Grammys, the Pulitzer Prize, the Nobel Prizes and the RIT Distinguished Alumni Awards have in common? They all celebrate creativity and passionate performance in one's profession, and they elevate the very best representatives in a competitive field.

Each year, the senior leaders select one graduate from each college who embodies the best of RIT. This year, RIT honors nine distinguished alumni who stand out amongst the more than 111,000 accomplished graduates. President Bill Destler and the leaders of RIT's colleges will present the Distinguished Alumni Awards on April 12. For more information, go to [www.rit.edu/alumni/recognition](http://www.rit.edu/alumni/recognition).

### B. Thomas Golisano College of Computing and Information Sciences

At an early age, Alex Kipman '01 (software engineering), fell in love with what he calls the art form of software because it is the youngest of all art forms. "For epochs we have been building bridges, painting caves and creating amazing music while discovering and philosophizing about our universe," he says. "In contrast, we have been creating software for less than a century." He sees



Alex Kipman

software as the only art form in which the laws of physics can be easily and purposely ignored, making it "the only medium where nothing is impossible ... and with a little imagination and a lot of pixie dust we yield signal from noise and make the improbable possible." Today, Kipman is the general manager of incubation for the Interactive Entertainment Business at Microsoft where he has led three major innovations for the company. The Kinect sensor is one of his best-known creations and anyone who has used this gaming system has experienced the

seeming defiance of the laws of physics. The application of this hands-free gaming technology now extends into areas such as health care and education.

Kipman is the primary inventor and holder of more than 60 patents since 2001. He was recently named IPO Foundation's 2012 Inventor of the Year.

### College of Applied Science and Technology

After graduating from SUNY Morrisville, George Peterson IV '88 (computer engineering technology) joined the second graduating class of his program. Peterson credits one of



George Peterson

his most admired professors, Robert E. Lee, for not only shaping students' technical skills but also honing the non-technical components of students' coursework—specifically spelling and grammar skills. He also values RIT's co-op program, which led him to his first job at Telog Instruments, where he worked for 11 years. Peterson is still friends with Telog's owner and considers him a mentor and life coach. Currently, Peterson is an analog field application engineer for Texas Instruments, assisting electronics companies throughout upstate New York with the design of electronic circuits. He has been an active member of RIT's Computer Engineering Technology Industrial Advisory Board. He has worked with Texas Instruments engineering and management teams to recruit RIT students.

He lives in Henrietta, N.Y., with his wife, Laura, and their three daughters. His advice to students and recent graduates is to "always seek people out who are willing to invest in you."

### College of Health Sciences and Technology

Paul M. Russo '05 (health systems management) has dedicated more than 30 years to

serving America's heroes while working for the Veterans Health Administration. He began his professional life as a clinical dietician after earning his bachelor's degree from the University at Buffalo. As he rose to a managerial role, he looked to his hometown



Paul Russo

of Rochester to further his education and enrolled in RIT's health systems administration online master's degree program. As a nontraditional student, he values the quality of his RIT education and feels that it gave him the essential skills to succeed in hospital administration.

Russo was recently named director of the Bruce W. Carter Veterans Affairs Medical Center/Miami VA Health Care system, and he has also served as director of the W. G. (Bill) Hefner VAMC in Salisbury, N.C., and associate director of the West Palm Beach, Fla., VA Medical Center. He lives in Miami with his wife, Karen, who has also dedicated her career to America's veterans.

He enjoys mentoring rising healthcare administrators through various professional organizations including his role as a Fellow in the American College of Healthcare Executives.

### College of Imaging Arts and Sciences

Over a career spanning 25 years, Bruce James '64 (printing) founded and led 13 printing and publishing organizations, each built on an emerging new technology. The businesses



Bruce James

varied from the Polish American Printing Co. with high-tech newspaper plants in Warsaw, Gdansk and a castle in Krakow, to Barclays Law Publishers in San Francisco, which *Inc.* magazine ranked for five years as one of the

country's 500 fastest growing companies.

Since retiring from business in 1993, he has served on seven higher-education-related boards, including RIT where he is chairman-emeritus of the Board of Trustees. Additionally, in 2002 he was appointed by President George W. Bush, and confirmed by the Senate, to follow in Benjamin Franklin's footsteps as the nation's 24<sup>th</sup> Public Printer. He led the U.S. Government Printing Office through a complete transition into the digital world for which he was recognized in 2006 as the Federal Executive of the Year.

Asked about the most important decision he ever made, he said it was letting go of the past. "You can't move forward and do dramatic new things unless you're willing to let go of the past and embrace the future."

### College of Liberal Arts

Jeffrey Culver '82 (criminal justice) never imagined that his career would take him to where he is now: director of corporate security for the World Bank. Yet as soon as



Jeffrey Culver

Culver enrolled in RIT's criminal justice program, he knew he was on the right track. He spent 24 years working for the Bureau of Diplomatic Security, the government agency responsible for providing a safe and secure environment for

the conduct of U.S. foreign policy throughout the world as well as managing reciprocity and immunity issues for foreign diplomats in the United States.

A member of the Senior Foreign Service with the rank of Minister Counselor, Culver served as principal deputy assistant secretary and director of diplomatic security from October 2009 until his recent retirement from public service. Moving from government to the private sector has given Culver more control over his schedule, making it possible for him to spend more time with his family.

In his current position at the World Bank, he is responsible for the safety and security of the bank's operations and personnel in Washington, D.C., and in 128 country and regional offices around the world.

### College of Science

Jon Roberts '70 (imaging science) has taken his father's advice seriously: Do what you have to do so you can then do what you want to do. As a senior partner in the Marbury Law Group, he practices in security clearance law, patent, copyright and trademarks. He has counseled, tried and documented more than 100 security

clearance cases and submissions for applicants for security clearances for U.S. government agencies.

He also personally holds more than 50 U.S. and foreign patents and he counsels U.S. and foreign clients on development and protec-



Jon Roberts

tion of intellectual property. He previously worked for the CIA while he finished his Ph.D. from Syracuse University and then took night classes to earn his law degree from George Washington University National Law Center.

Throughout his busy career, he has maintained a steadfast passion for the arts and music, singing with the National Symphony Orchestra and acting in theater productions with his wife, Jessie.

He was a student at RIT during the "big move" from downtown Rochester to the Henrietta campus and credits the excitement and fond memories of that time for his dedication to RIT. He serves on the President's Roundtable and has established a scholarship with his wife in support of science students who participate in the performing arts.

### E. Philip Saunders College of Business

Even as a child, William J. Prentice '99 (business administration finance) was industrious and motivated. When he was 10 years old, he worked on a farm and mowed his neighbor's lawn. At 12, he washed dishes at a local restaurant, worked in a bowling alley washing pins, and helped his father paint fire hydrants one summer.



William Prentice

Today, he owns Prentice Wealth Management LLC, overseeing whole-family accounts focused on disciplined financial security and goal-based wealth management. Prior to establishing PWM, Prentice served as vice president at Westminster Financial. He began his career in financial services as a representative with Northwestern Mutual Financial Network.

He established an annual scholarship for first-generation college students. He serves on the Saunders College Alumni Advisory Board, chairing the annual golf tournament committee. He is a member of the Dean's Advisory Council. He has participated in Junior Achievement team teaching. He has been a mentor and coach to the Saunders students, advising them to "take that entry level job.

Everyone starts at the bottom. There is a bottom rung on the ladder for a reason. Stand on it and climb your way up."

### Kate Gleason College of Engineering

After 18 years with IBM, where he became known for establishing IBM's blade server product line, Jeff Benck '88 (mechanical engineering) made one of the toughest but best decisions of his career—to move his family across the country and to take on a new set of challenges in California.

He is now president and chief operating officer of Emulex Corp., where he guides the corporate strategy. Benck led the company into the groundbreaking converged networking space. While his vocation at Emulex is time consuming, he still makes time for his family: his wife, Nina, and daughters Gabrielle, 14, and Gracy, 12.

He believes in giving back and volunteers with several organizations. He's on the board of the Discovery Science Center of Orange County, the University of California Irvine CEO Roundtable, and the UCI Paul Merage School of Business Dean's Advisory Board. At RIT, he is an active member of the KGCOE Dean's Advisory Council, and he has shared lessons learned with students as a featured KGCOE Dean's Alumni Speaker: "Never stop learning, take risks but learn to fail fast, and don't make the same mistake twice."

### National Technical Institute for the Deaf

Robert W. Rice '94, '97 (management and leadership, MBA), is the founder, president and managing partner of BayFirst Solutions LLC, a government contracting firm



Robert Rice

specializing in risk management, information technology and homeland security. Rice, who lives in Chevy Chase, Md., started his career with Coopers & Lybrand LLP and went on to work as an information technology consultant at Booz Allen Hamilton and

PricewaterhouseCoopers before founding BayFirst. He served as chairman of the NTID Foundation Board of Directors and RIT President's Roundtable. He now is a member of the RIT Board of Trustees. He advises others to "surround yourself with people who think along similar lines, but have different skills that complement your own."

# Regional Alumni Activities

Events are being planned in all cities. Check [www.rit.edu/alumniactivities](http://www.rit.edu/alumniactivities) for details.

## Atlanta

On Nov. 8, alumni in Atlanta held a multicultural happy hour at Frank Ski's Restaurant & Lounge.

## Bay Area

On Nov. 17, alumni braved rainy weather for a day of bike riding through Sonoma Wine Country. Riders stopped at vineyards for wine tastings and enjoyed dinner after the ride.

## Chicago

On Feb. 16, alumni gathered at the Tavern at the Park for lunch and networking. Following lunch, alumni visited McCormick Tribune Ice Rink at Millennium Park for an afternoon of ice-skating.

## Dallas

The RIT Big Shot event at Cowboy's Stadium on March 23 attracted alumni from around the country. A special alumni event was planned for inside prior to the shot.

## Denver/Colorado Springs

On Dec. 2, alumni gathered at Gleneagle Golf Club for dinner and a pre-game pep talk with men's hockey head coach Wayne Wilson. After dinner, alumni watched the Tigers battle Atlantic Hockey Association rival Air Force.

## Hawaii

Alumni gathered for their first event March 23—a University of Hawaii baseball game and reception. Stay tuned for future events for our newest chapter.

## Hudson Valley

Hockey fans came out on Jan. 19 at the Thayer Hotel for a pre-game reception. The group then watched the Tigers beat the Army Black Knights.

## Houston

Alumni gathered Jan. 5 at Lucky Strike for a reception and to watch the Houston Texans' first playoff game. They then went to the Toyota Center to watch minor league hockey as the hometown Aeros battled the San Antonio Rampage. Thanks to **Mark Biscone '99** for hosting the event.

## New York City

On Dec. 14, alumni gathered to cheer on the Brooklyn Nets at the Barclays Center in Brooklyn. Thanks to host **Ken Holley '02**.

## New York North Country

Alumni gathered Jan. 5 to cheer on the men's hockey team. Former hockey player and Hoot Owl owner **Bill Helmer '67** hosted a pre-game reception.



## Pittsburgh

Alumni cheered on the Tigers as they took on Robert Morris University Feb. 9. Special thanks to alumni host **Phil Amsler '12**.

## Portland

On Nov. 18, alumni gathered to cheer on the Trail Blazers against the Bulls.

## Raleigh-Durham

On Jan. 19, 28 alumni gathered at The Pit Authentic Barbecue for an afternoon lunch. Thanks to chapter leaders **Mike Pail '98** and **Sue Pail '98**.

## Rochester

On Dec. 6, alumni enjoyed a delicious hors d'oeuvres cooking class at the New York Wine & Culinary Center. Thanks to hosts **Terry Palis '77** and **Alina Palis '79**.

On Jan. 22, more than 40 alumni enjoyed beer samples and BBQ at Roc Brewing. Thanks to Roc Brewing owners **Chris**



## Boston

On Nov. 17, alumni from throughout New England came to Worcester to cheer on the men's hockey team against Holy Cross.

On Jan. 25, more than 75 alumni gathered at M.J. O'Connor's for a networking reception. The Alumni Association Board of Directors hosted the event and President Bill Destler joined the festivities.

## Buffalo

On March 2, 30 alumni gathered at J.P. Bullfeathers for a reception before the men's hockey game at Canisius.

**Dan Christner '07** and **Mia Hodgins '11** are your contacts in the Office of Alumni Relations for regional alumni activities. Don't hesitate to contact them toll free at 1-866-RIT-ALUM. To learn more about the events listed go to [www.rit.edu/alumni](http://www.rit.edu/alumni).

# Meet Buffalo

Alumni activities involve more than just going to sporting events. That's the philosophy that Thomas Stumpf '89 (marketing) brings to his alumni chapter.

Stumpf is the head of the Buffalo, N.Y., chapter, where he is trying to diversify alumni outings. He joined the chapter at a time when several members were leaving Buffalo for new jobs. He was given the opportunity to organize an event for the chapter in 1991, and he has been the leader ever since.

"People had this idea that all the chapter does is go to Sabres hockey games," he says. "I really wanted to broaden the base of things that we do."

In recent years, the chapter has attended a wine tasting, visited an art gallery and taken a tour of Niagara Falls, in addition to the standard sporting events. Stumpf says that having a variety of outings is imperative to growing alumni involvement and also helps to showcase the chapter's city to its own residents.

"Making alumni happy encourages them to promote RIT," he says.

Stumpf, a native of Freedom, N.Y., was attracted to RIT because of the co-op program, which he says was instrumental in helping him secure a job immediately after graduation. He says that he feels more connected to RIT now than he ever has, and he returns regularly to campus for events such as Brick City Homecoming & Family Weekend and the Imagine RIT Festival.

Rollin Shoemaker '60 became involved with the Buffalo chapter after attending a business-networking event. He saw it as an opportunity to expand his business, Career Management Systems, where he serves as president.

Through the alumni events, he has been able to make numerous business connections, but he has also become more closely connected with RIT.

"Even at the age of 74, I still have a continuing passion for my alma mater," says Shoemaker. "I often attend events on campus, including hockey games, and I have a wonderful time every time I visit. I'm looking forward to the next Buffalo alumni event."

For more information, contact Stumpf at nitetone21@yahoo.com or 716-289-0170.



**Spinelli '08** and **Jon Mervine '07** for hosting the group.

Alumni participated in RIT's Expression of King's Legacy celebration on Jan. 28, which featured a talk by Julianne Malveaux.

Alumni enjoyed several family events in February, including the fifth annual RIT father/daughter dance at the RIT Inn & Conference Center on Feb. 9.

Alumni skied and snowboarded at Hunt Hollow on Feb. 23. Thanks to alumni hosts **Kristy Mooney Graves '00**, **Tony Kocienski '78** and **Frank Lucas '75**.

A sold-out group of hockey fans enjoyed a reception in the Ritz and the men's hockey game on March 1 as part of Tiger Sports Night. Thanks to hosts **Donna Bell '83**, **Draga Haboian '84** and **Bary Siegel '66, '68, '75, '90**.

Alumni and guests enjoyed dinner and a movie at The Little Theatre on March 12. Thanks to hosts **Terry Palis '77**, **Alina Palis '79**, **Rita Haschmann '79**, **Tony Kocienski '78**, and **Fran Versace '08, '09**.

More than 60 alumni and guests enjoyed an evening at the Genesee Brewery Tasting Room on March 19.

**Coming Up:** *Wicked* and *Gallery* reception, April 4; *Charlie and the Chocolate Factory* at Panara Theatre, April 27; campus Art Walk, June 16; and Niagara jet boat tour and lunch, July 20.

## San Diego

On March 2, 30 alumni gathered at the Torreyana Grill for a morning brunch. Thanks to **Pamela Wick '94** and **Phil Ohme '99** for hosting the event.

## Seattle

On Nov. 17, alumni gathered for lunch at Purple Café and then went to Chateau Ste. Michelle winery for a tour and tasting.

## Singapore

Alumni were treated to an event at the Singapore Cricket Club on Nov. 9. Thanks to hosts **Howard Wang '81** and **Gilbert Ong '02, '05**.

## South Florida

President Bill Destler toured South Florida cities in early March, making stops in the Delray Beach and Ft. Myers areas. Thanks to Delray Beach host **Paul Finkelstein '91**.

## St. Louis

On Feb. 1, alumni cheered on the women's hockey team against Lindenwood alongside NTID President Gerry Buckley.

## Syracuse

President Bill Destler joined alumni Nov. 18 for a reception at the Lodge at Welch Allyn in Skaneateles, N.Y. Thanks to host **Howard Higgins '86**.

On Feb. 23, alumni cheered on the Orange against the Georgetown Hoyas after a pre-game reception at the Sheraton.



## Vermont

Alumni slid down the snow tube hills in Killington and enjoyed a pizza party Feb. 2. Thanks to host **Mike Larson '93**.

## Washington, D.C.

On Jan. 24, more than 50 alumni gathered at the Dogfish Head Alehouse in Falls Church. Thanks to **Carlo Costino '04, '07** and **Phil Jones '02**, who are the new chapter leaders.

# Class Notes

## Key to abbreviations

- CAST** College of Applied Science and Technology  
**CCE** College of Continuing Education (now CMS)  
**CHST** College of Health Sciences and Technology  
**CIAS** College of Imaging Arts and Sciences  
**CLA** College of Liberal Arts  
**CMS** Center for Multidisciplinary Studies  
**SCB** E. Philip Saunders College of Business  
**KGCOE** Kate Gleason College of Engineering  
**COS** College of Science  
**FAA** Fine and Applied Arts (now CIAS)  
**GAP** Graphic Arts and Photography (now CIAS)  
**GCCIS** B. Thomas Golisano College of Computing and Information Sciences  
**NTID** National Technical Institute for the Deaf  
**SVP** NTID "Summer Vestibule Program"

## About Class Notes

Class Notes are edited for space, clarity and style. Share details and photos of special occasions and professional achievements in your life by going to [www.rit.edu/alumni/news](http://www.rit.edu/alumni/news).

## 1953

**Neil Montanus '53 (GAP)** was honored by an exhibition of his photographic



achievements at RIT's University Gallery from Nov. 28 to Feb. 22. Montanus, one of Kodak's most illustrious photographers, has a portfolio that includes 55 of the massive Kodak Coloramas, numerous celebrity portraits and his most recent work—the bacteriographs.

## 1964

**Kevin Gilson '64 (GAP)** relocated to Ann Arbor, Mich., last spring. In his semi-retirement, he continues to

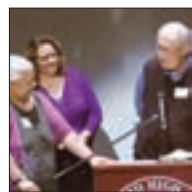
conduct ISO 9001 audits for Colorado-based Orion Registrar. He was elected president of the Ann Arbor Recorder Society and continues his 32-year affiliation with Consort Anon., a Maryland-based early music performing group.

## 1966

**Annette (Bellavia) Hills '66 (CCE)** released her first album, *Annette Hills Sings*, in 2009. Her second album, *Inspirations From Annette Hills*, won the Album of the Year Award in 2012 from Catholic Music Express. She was also nominated for Female Vocalist of the Year and her version of "The Prayer" was nominated for Best Song of the Year. She released her third album in January. For details, go to [www.annettehills.com](http://www.annettehills.com).



**Wallace Stuart '66 (GAP)** received the Dottie Grover Leadership Award at the 2012 Honors Awards ceremony of the New Hampshire Coalition for Community Media. The coalition is a statewide, nonprofit organization formed to support public, educational and government access television in New Hampshire.



## 1967

**James "Jed" Dertinger '67 (GAP)** retired from The Ohio State University in Columbus. "After 45 years of private and public sector employment, I have chosen to take the 'y' in the road marked retirement. Karen and I plan to travel, hone stained-glass skills, continue university classes, volunteer and develop a better golf game."

## 1968

**Jan Detanna '68 (FAA)** and his doo-wop group, Deke and The Blazers, were



asked to sing at the funeral of Cleve Duncan. Duncan was the lead singer of The Penguins on the classic ballad, "Earth Angel." Deke and The Blazers had been backing Duncan on several national tour shows until his sudden death on Nov. 6.

## 1970

**James Langone '70 (GAP)** was awarded the annual Pioneer Valley Photographic Artists award. Langone received the award for his work in commercial photography, as a teacher of photography at Springfield (Mass.) Technical Community College and as one of the founders of the Valley Photo Center in Springfield.

## 1971

**Robert Kiss '71 (GAP)** showed 10 mural-sized prints of celebrities that he photographed in the 1980s for *Interview*; Paris, British, and German *Vogue*; and *Town and Country*. Celebrities he photographed include Andy Warhol, Abdul Jabbar, Jodie Foster, Oscar de la Renta and more than 40 others. The show in February and March was at Cin Cin, a restaurant on the West Coast of Barbados.



## 1972

**Ronald Janicki '72 (SCB)** was hired to lead the Arizona Small Business



Association's business development efforts in Tucson and Southern Arizona. He is on the board of directors with the Oro Valley Chamber of Commerce.

**Harvey Duze '72 (GAP)** writes that the "C&O Canal Railroad Bridge—



Williamsport, Maryland" took second place at the 2012 Patuxent Art League Juried Exhibition at Montpelier Arts Center in Laurel, Md. The annual exhibition features a collection of 52 works of art by artists living in and around metropolitan Washington, D.C. This photo of the railroad lift bridge, built in 1923 over the C&O Canal, was taken at the Cushwa Basin outside of Williamsport, Md.

## 1973

**Michael Nelson '73 (GAP)** is producing 30 online videos for the *Journal News of*

*Westchester* as well as photo stories for the publication that are accompanying the videos. He lives in Saugerties, N.Y.

## 1974

**Thomas Taber '70, '74 (GAP)** writes that in August 2012, 150 years after the unit's formation, *The Orleans Battery-A History of the 17th New York Light Artillery in the War of Rebellion* was published by Almeron Press in Albion, N.Y. It is told through letters from 12 soldiers, from private to captain, written during their nearly three years of service.

**Michael Furman '74 (GAP)** writes, "Our latest book, *Vitesse-Elegance: French Expression of Flight and Motion*, was a finalist for Publication of the Year in the International Historic Motoring Awards competition held in London this past November. The title was the third book produced by Coachbuilt Press for the Mullin Automotive Museum in Oxnard, Calif."

## 1975

**Steve Beiser '75 (GAP)** was certified for CHCQM (Certified Health Care Quality Manager). He also was appointed to be the medical director for Confident Care Home Health Care.

## 1977

**Alan Frohlichstein '77 (GAP)** has been re-elected to a four-year term as a board member at large of the Ophthalmic Photographers' Society.



**Barry Gottlieb '77 (CAST)** accepted a position at Bioquell Defense in Horsham, Pa., as director of production. Bioquell Defense is the leader in the design, development and manufacture of Vehicle CBRN (chemical, biological, radiological and nuclear) filtration systems.

**Barbara Welsh '77, '91 (SCB)** accepted a position at Old Sturbridge Village in Sturbridge, Mass., as vice president of development. She was president of Dollars & Sense, a nonprofit consulting firm, since 1993.

## 1978

**Deb (Poetsch) Hall '77, '78 (GAP)**, associate professor in art at Skidmore



College, is the recipient of the 2012 Photographers' Fellowship Fund from the Center of Photography at Woodstock. "Artifacts" is among the images that Hall included in her award-winning portfolio, which included images taken in 2010 during her sabbatical trip to document the Columbia River from the mouth to the source.

## 1979

**Costena Walker '78, '79 (SCB)** is currently the sole proprietor of Walker Enterprises, an income tax preparation company. Walker was featured in Network Rochester.

## 1980

**David Price '80 (GAP)** and **John Henry '76 (GAP)** again traveled



together in November 2012 on a third adventure with their wives, this time visiting Greece, Egypt, Israel, Cyprus and Turkey. The two met in 1973 in the graduate program of the School of Printing. Both have recently renewed contact with Joseph Noga, their former RIT professor. Henry is research and development and technical manager of Metalcraft in Mason City, Iowa, and Price is an Apple Certified Support Professional with TekBasics in Dunstable, Mass.

**Thomas Grotta '78, '80 (GAP)** and his wife, Rhonda Brown, celebrated the 25<sup>th</sup>



anniversary of their contemporary art business, browngrotta arts (<http://browngrotta.com>). They represent more than 100 artists worldwide and have placed work at places such as the Metropolitan Museum of Art, Galaxy Macau Casino, Royal Caribbean Cruise Line and private collections around the world.

**Brian Wells '80 (CAST)** was promoted to associate vice president, Health Technology and Academic Computing at Penn Medicine in Philadelphia, Pa. "I am now fortunate to be



responsible for implementing the biomedical informatics systems that will enable the Penn Medicine clinicians and researchers to achieve the promises of personalized medicine."

## 1981

**Mercedes O'Connor Case '81 (CAST)** was awarded the Harry Denman Award for Evangelism at the 2012 Eastern Pennsylvania Annual Conference of the United Methodist Church in May. She is the senior pastor of the New London United Methodist Church in New London, Pa.

## 1982

**Owen Kassimir '81, '82 (GAP)**, owner of Owen Photography in Syosset, N.Y., has been the president of the Professional Photographers Society of New York State ([www.ppsnys.com](http://www.ppsnys.com)) since May 2012, following in the footsteps of the late Henry W. Leichter, who was one of Kassimir's professors in 1981. He is also involved in Photo North East ([www.photonortheast.org](http://www.photonortheast.org)), an organization that puts on a convention for professional photographers in the spring.

**Gary Sutto '82 (GAP)** is a corporate/industrial photographer for the Department of Defense at the Bremerton Naval Shipyard in Bremerton, Wash. He provides photographic service and products for the shipyard, forces afloat, contractors and other government agencies and commands.

## 1983

**Timothy Thompson '81 (SCB), '83 (CAST)** accepted a position at Jakks Pacific Inc. in Santa Monica, Calif., as vice president of new business development. Jakks is one of the world's largest toy companies.

**John Letteney '83 (CLA)** accepted a position at the Town of Apex in Apex, N.C., as chief of police. He was employed at Town of Southern Pines as chief of police.

**Michael Unger '83 (KGCOE)** has been working on embedded systems firmware for most of the 29 years since he graduated from RIT. "I have five children from 11 to 26... they keep me young... sort of. They are all great kids."

**David Jankowsky '83** published a new book in September. Order it online at [www.createspace.com/3991598](http://www.createspace.com/3991598).

**James Power '83 (KGCOE)** has been serving as director of breakthrough platforms for Covidien, a maker of medical devices, in Shanghai, China, since August 2011. He lives there with his wife, **Joan Tarasevich '82 (GAP)**, daughter Kyra and son Cullen.



## 1984

**John Villard '84 (CAST)** and Kathleen Villard are proud to announce the birth of a baby boy, John Robert Paul. He was born on Nov. 28, 2012, in Canandaigua, N.Y.



**Gregory Fiorito '82, '84 (GAP)** was promoted to Midwest regional vice president from regional production director at Gannett Publishing Services in Appleton, Wis.

**Linda White-McKelvie '83, '84, '98 (SCB)** accepted a position at Xerox Corp. in Webster, N.Y., as senior project manager. She was employed at Xerox Corp. as senior business systems analyst.

## 1985

**Jill Weiner '85 (FAA)** has launched Inky Dinky Artworks with Deborah DePasquale. They create hand-drawn "pen and ink" pet characters on greeting cards, gift items and custom pet caricatures. For details, go to [www.InkyDinkyArtworks.com](http://www.InkyDinkyArtworks.com). They have been accepted to exhibit at the 2013 National Stationary Show in New York City.



## 1986

**Rhonda Cox '84, '86 (GAP)** accepted a position at Nickelodeon in New York City as supervising producer/*Bubble Guppies*. She was employed at MTV as supervising producer/*Beavis and Butt-Head*.

**Jeffrey Mullen '84, '84, '86 (CAST)** is putting the finishing touches on a short



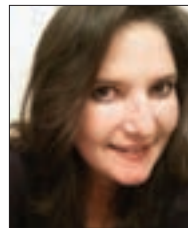
story that will soon be available on amazon.com as a Kindle file.

**Steven Morse '86 (SCB)** is the recipient of the Rochester School for the Deaf Perkins Founder's Award in recognition of 13 years of volunteer service on the school's board of directors, including two years as president.

**Carin (Peter) Calano '85, '87 (FAA)** accepted a position in Westchester, N.Y., as a spinning instructor. She was certified through Madd Dogg Athletics Inc.

## 1987

**Bonnie Hammer '87 (FAA)** is a computer instructor, teaching artist, adjunct professor and social media guru. She teaches computer classes at Adult Community Enrichment at



Sarasota County's Technical Institute and at Ringling College of Art & Design in Sarasota, Fla.

**Tracey (Schipp) Graney '85, '87 (COS)** and **Martin Graney '88 (GAP)** are happy to announce their marriage on Dec. 14, 2012. They live in Rochester.

**Barbara Grunbaum '87 (GAP)** was awarded an Emmy for the documentary, *Life in a War Zone: Montgomery County during the Civil War* in June 2012. Produced for Heritage Montgomery, the nonprofit organization dedicated to promoting heritage tourism in Montgomery County, Md., the hour-long video explores how the Civil War impacted the residents of Montgomery County. She was producer, writer and director.

## 1988

**Kevin Vining '86, '88 (SCB)** writes that the Tech Valley global Business Network has selected Vine Street Marketing as the Trade Partner Globie Award winner. The Globies recognize individuals or organizations that have demonstrated excellence in international trade. Vine Street Marketing is a sales and marketing company that is responsible for the exports of consumer branded products.

**Marc Raco '86, '88 (GAP)** has been hosting and producing the podcast show *Monkey Radio with Marc* at [www.monkeyradio.info](http://www.monkeyradio.info). He also has been directing animated shorts for the program and starring in the Off-Broadway musical *A Mermaid's Tale*. He appeared in an episode of NBC's *Law and Order: SVU* and was proclaimed an honorable Kentucky Colonel by the governor of Kentucky.

**Lynn Sullivan '88 (SCB)** accepted a position at Holy Sepulchre Cemetery in Rochester as chief financial officer.

**Thomas Taber '88 (CCE)** designed the lighting for the recently completed Hurst Convention Center in Hurst, Texas. He is now designing the lighting for the city's new courts building. Taber is a lighting representative with The Lighting Alliance in Dallas.

**Bruce Bennett '88 (GAP)** started a new job as a human resources programs and benefits manager at Responsys, based in San Bruno, Calif.



## Best 'bad day' leads to love

Ken Krug '10 (software engineering) wasn't in the best mood on that January day in 2007 when he walked into Gannett Hall to help recruit freshman orientation assistants.

That morning, he found a parking ticket on his Dodge Neon in the lot behind Kate Gleason Hall and he was late to his 8 a.m. class. After class, he discovered a second ticket on his car parked in S Lot. Frustrated, he ditched the car and pedaled his bicycle through the slushy campus to get to his recruiting assignment.

That's where he met Julie Zepke '09 (industrial design), who thought it was odd that out of the more than 100 recruiters, her partner wasn't from her college and she hadn't met him when they both worked as orientation assistants the previous summer.

But they connected. They both listened to country music. They both cheered for the Boston Red Sox. And they both drove Dodge Neons. (Ken's Neon was white; Julie's was red.)

"I wrote his name in my assignment planner to look him up on Facebook," says Julie, from Glastonbury, Conn.

Ken, a native of Great Bend, Pa., also was thinking about Julie that night. "I was telling my roommates how terrible my day was with the exception of meeting this girl."

The two connected on Facebook and planned a first date for the following Friday—only Ken's bad luck continued. An ice storm hit Rochester and the weather was too terrible to go out. Ken trudged from his residence hall to Riverknoll, where Julie lived, and they watched *The Boondock Saints*.

They began spending more time together. Ken left his job in the Gordon Field House and Activities Center ticket booth to play his trumpet in the Pep Band with Julie, who played alto sax. Ken also started playing Ritchie during the Presidents' Alumni



Ball at Brick City Homecoming & Family Weekend. Julie tagged along as Ritchie's helper. In August 2010, they got engaged and they were married a year later on Aug. 6. Orange was their wedding color.

Ken, who works as a software engineer at Brand Networks in Rochester, continues to play Ritchie at the alumni ball, with Julie's help. Julie is a product designer at Skooba Design in Rochester. They also continue to attend hockey games.

Both say they were attracted to RIT in high school because it was one of the few universities at the time to offer programs in their areas of interest. Ken looked at a cheaper in-state school but he says he was swayed by RIT's reputation.

"Good decision," Julie says, smiling at Ken. "Good decision."

Mindy Mozer



Ken Krug '10 (software engineering) and Julie Zepke '09 (industrial design) were married in 2011. Ken plays Ritchie at the Presidents' Alumni Ball during Brick City Homecoming & Family Weekend each year and Julie is Ritchie's helper.

### About Tiger Love

There are more than 4,600 RIT alumni couples. Tiger Love is a new series that profiles some of them. If you have a suggestion of a Tiger couple to feature from any decade—they don't have to be newlyweds, email The University Magazine at [umagwww@rit.edu](mailto:umagwww@rit.edu).

## 1989

**Paul Maples '89 (GAP)** finished work on *The Hobbit* in July, after spending seven months in New Zealand. He was given the task of on-set, real-time scaling of Gandalf, the dwarves

and Bilbo, as well as others. A description of the work is in *Popular Mechanics*, <http://bit.ly/Uad83S>.

## 1990

**David Neff '89, '90 (GAP)** became owner of David Neff Photography in Brooklyn. He was employed at Makerbot Industries LLC as general manager. "After a two-year stint with a Brooklyn, N.Y., startup, I happily return to shooting freelance and rejoining the creative world."

**Jeffrey Zagon '90 (FAA)** is a wood-working instructor at Holy Childhood in Rochester, teaching woodworking to school-age students and adults since 2010. He received a master's degree in childhood and special education from Roberts Wesleyan College in 2009.

**Stephen Ingkavet '90 (FAA)** has launched an emoji app for the iPhone called Emoji My Face. Now emoji fans can put their own faces into emoji shapes. Learn more at <http://bit.ly/EmojiMyFace>. He also has created uSit iSit, a mobile app that reinvents the

babysitting co-op idea of swapping babysitting duties with local parents to save money. With uSit iSit, parents swap only with friends they invite into their circle. Learn more at [www.usitisit.com](http://www.usitisit.com).

## 1991

**William Stegner '91 (SCB)** accepted a position at Emcien Inc. in Atlanta as professional services consultant. He was employed at Vertafore Inc. as technical support analyst II.

**Elisa Skop '91 (COS)** transferred to a position at Regeneron Pharmaceuticals Inc. in Tarrytown, N.Y., as senior project manager. She was employed at Regeneron as senior manager, Preclinical Development-Sample Analysis Group.

**Scott Wilson '91 (CIAS)** was a recipient of a National Design Award, granted by the Smithsonian's Cooper-Hewitt National Design Museum. Wilson is the founder and principal of Chicago-based design firm MNML, which is the creative force behind products including the Xbox 360 + Kinect sensor. First

Lady Michelle Obama presented the awards at a White House luncheon in 2012.

## 1992

**David Naess '79 (CAST), '77, '92 (CCE)** accepted a position at St. Tikhon of Zadonsk Monastery in South Canaan, Pa., as aspirant. "The first thing that the abbot wants me to do is become an ASL interpreter. I am therefore going to start classes at NTID in the interpreter program."

**Denika (Simmons) Reid '92 (COS)** is co-owner to a private ultrasound facility with her husband in Bermuda. They have been in business since June 2008.

**Terry Myers '90, '92 (GAP)** was promoted to quality/continuous improvement manager from production control supervisor at RR Donnelley in Jefferson City, Mo. Myers has served a variety

of roles including time in prepress, bindery, customer service and production control before taking the quality manager role and has been with RRD for 10 years.

## 1993

**David Finkelstein '93 (GAP)** is co-founder and chief technology officer of Prosado.com, a bidding website helping people find a tax preparer.

## 1994

**Harold LaRock '94 (COS)** is the division chief of the programs and analysis division of the NATO Training Mission—Afghanistan, finishing a year-long tour. His biggest accomplishment involved developing the fiscal year 2014 budget estimate for the Afghan National Army and Police.

**Paul Rogusz '94 (KGCOE)** was promoted to manager, electrical engineering, from lead electrical engineer at Meggitt Training Systems in Suwanee, Ga.

## 1995

**Jennifer Goyette '95 (CLA)** started her own business, The Cusp Association, in Los Angeles providing marketing and management services to artists. She was employed at Sony Pictures

Entertainment as director of media and promotions for almost 10 years. "I've been helping my artistic friends for years and enjoyed it so much I decided it was what I wanted to do full time."

## 1996

**James Laidley '96 (CIAS)** accepted a position at Children's Healthcare of Atlanta as director of clinical IS&T business partners.

**Gregory Kehn '96 (CAST)** accepted a position at C.T. Male Associates in Latham, N.Y., as site civil engineer. He was employed at Foit-Albert Associates as project engineer.

**Nicole (Harding) Chapell '96 (CIAS)**



and Donald Chapell are proud to announce the birth of a baby boy, Nathaniel William Chapell. He was born on Sept. 25, 2012, in Lansdowne, Va. He joins big brother Braydon Renner, 2½.

## 1997

**Angelo Santabarbara '97 (COS), '98 (SCB)**



accepted a position at Siena College in Loudonville, N.Y., as director of networks and systems. He was employed at

New York State Public Employees Federation as IS director.

**Brian Martens '97 (KGCOE)** is an engineering manager at Harris RF in Rochester. He lives outside of Spencerport with his wife **Candace (Dixon) Martens '98 (CAST)**. He also is a blacksmithing instructor at the new Rochester Arc and Flame Center and a chief instructor at the Kokikai Aikido dojo in downtown Rochester.

## 1998

**Rachel Doucette '96 (CIAS), '98 (CAST)** is one of the 2013 Boston Go Red Women for the American Heart Association. To see her story, go to [www.heart.org](http://www.heart.org) and search "Local Women are Making it Their Mission to Fight Heart Disease." Her first practicum in the BS in nutrition management program was with the American Heart Association. She went on to complete her internship at the Frances Stern Nutrition Center/New England Medical Center and get a master's degree in nutrition at Tufts University.

**Allison Ferencz '98 (CLA)** was married Jan. 11, 2013, in Yonkers, N.Y. She met her husband, Jonathan, on eHarmony in 2006. They are expecting a baby in May.

**Jim Crocker '98 (CAST)** is a network engineer at Google in Denver.

**Melissa (Answeeney) Reese '98, '07 (SCB)** and Andy Reese are proud to



announce the birth of their baby boy, Kellan Gehrig. He was born on Aug. 20, 2012, in Fort Collins, Colo.

## 1999

**Mark Biscone '99 (COS)** passed the Board of Governors Exam and is now board certified in healthcare administration. He is also currently working on a Black Belt certification in Lean Six Sigma.

**Luke Murphy '99 (SCB)** published his debut novel, *Dead Man's Hand*, after a six-year career as a professional minor league hockey player. While recovering from a hockey injury, Murphy, of Shawville, Quebec, discovered his passion for writing.

**Samantha Powell '99 (CIAS)** and her partner, Jen Thompson, celebrated their



20th anniversary. They met at RIT. They are actively involved as Realtors in the Women's Council of Realtors, Chicago chapter, and volunteer as managers for the Chicago Force, a women's professional tackle football team, which went to the championships in 2008 and 2012.

## 2000

**Anthony Calabria '00, '02 (COS)** accepted a position at Benjamin Moore Paints in New Jersey as color technology project manager. He was employed at Benjamin Moore Paints as a color scientist.

**Raymond DeJohn '00 (SCB)** was promoted to electronics commodity manager (strategic sourcing) from senior procurement analyst (materials) at Welch Allyn Inc. in Skaneateles Falls, N.Y. He previously worked for McNeil Consumer Healthcare in Fort Washington, Pa., for seven years as a senior strategic planner and senior planner/buyer.

**Thomas Rossman '00 (SCB)** and Matt Miller are proud to announce the adoption of a baby boy, Ryan James Miller-Rossman. Ryan was born on Aug. 25, 2012, in Phoenix, Ariz.



They live in Manchester, N.H.

# Tigers make a tiger



Scott Vosbury '04, Rich Enders '02 and Jen Stratton '05 helped create the digital tiger in *Life of Pi*. (Photo by Rhythm & Hues)

Three graduates from the School of Film and Animation helped create the digital Bengal tiger in *Life of Pi*, which won an Academy Award for Best Visual Effects in February.

Scott Vosbury '04 (film and animation), Rich Enders '02 (computer graphic animation) and Jen Stratton '05 (film and animation) work for Rhythm & Hues, a character animation and visual effects studio in Los Angeles.

Vosbury worked as a lead digital compositor for the film with a team responsible for scenes involving Pi being stranded at sea, animal attacks and flying fish.

"It's my job to take all the elements and assets from every other department and seamlessly integrate them on screen. It's my job to make you believe the unbelievable."

Enders was a tracking supervisor for the film, one of about 40 artists who made sure the characters' positions were in sync with the movement of other objects, such as waves and the boat.

And Stratton was responsible for delegating tasks and managing the texture team, ensuring image surfaces looked the way they were supposed to look. "I helped make sure we main-

tained a high degree of quality and would assist my team in growing each individual's skill set," she says.

An actual tiger was used in 24 of the 170 shots in the movie, but the animation is so lifelike, it isn't obvious which tiger image is real.

Vosbury says about 600 people from Rhythm & Hues worked on the film. But only four names could be listed on the Oscar nomination ballot; two are from the studio. Rhythm & Hues artists won Visual Effects Oscars for *The Golden Compass* in 2007 and *Babe* in 1996.

"More than any other project we have worked on so far, I was astounded by the quality of work we had produced," Stratton says. "I am proud to tell others I was a part of the process."

Being a devoted RIT alumnus, Vosbury said the thought did occur to him to call the digital tiger "Ritchie" after the RIT mascot.

"Apparently the author, Yann Martel, sold a couple million copies of the novel with the tiger named 'Richard Parker,' and I don't think the fans of the book would have been too pleased with the change."

Greg Livadas

**Olga Zilberbourg '00 (SCB)** was promoted to senior associate editor at *Narrative Magazine*. "I combine my own writing with work as an editor at [www.NarrativeMagazine.com](http://www.NarrativeMagazine.com), a digital platform for literature, where we have published original work by Alice Munro, E.L. Doctorow, T.C. Boyle and many established and emerging writers."

**Tomonori Hemmi '00 (CIAS)** was promoted to director of graphic and



medical at Fujifilm South Africa in Johannesburg. "I joined Fujifilm in May 2010 for the medical systems division. Now, I am in South Africa for both medical systems and graphic systems (printing), divisions for the sub-Saharan region."

**Scott Doepper '00 (CIAS)** lives in Las Vegas and accepted a position at AT&T as an industry manager, mobile security. He was employed at Research in Motion as technical manager.

**Paul Tracy '00 (CIAS), '00 (GAP), '00 (CIAS)** is working part-time as the video specialist at Browncroft Community Church in Rochester. Many of the videos he creates for the church are used during services and can be found at: <https://vimeo.com/album/1702483>. He continues to run his video business called Envision Productions, where he creates commercial videos.

## 2001

**Vladimir Boulatnikov '01 (SCB)**



accepted a position at Ameriprise Financial in Pittsford, N.Y., as financial adviser/vice president. He was employed at Merrill Lynch as

senior financial adviser.

**Ryan Trombino '01, '01 (SCB)** accepted



a position at Delmonico Insurance Agency in Syracuse, N.Y., as director of operations. He was employed at Empire State Container

as an executive.

**Michael Attebery '01 (CIAS)** and **Stephanie (Esmond) Attebery '01 (CIAS)** are proud to announce the birth of their daughter, Charley Mame Attebery. She was born on Oct. 12, 2012,

in Seattle. Michael released his fourth novel, *Bloody Pulp: A Brick Ransom Adventure*, on Nov. 13, 2012. All four of his books are available at the RIT bookstore. They can also be ordered on Amazon.

## 2002

**James Reale '02 (GCCIS)** accepted a position at VMware in Los Angeles as technical account manager.

**Charles "Chuck" MacDougal '02 (GCCIS)** and Julie MacDougal are proud to announce the birth of a baby boy, Liam Francis MacDougal. He was born on Nov. 4, 2012, in Albany, N.Y.

**Janis Hansen '02 (CIAS)** and Travis Jensen are happy to announce their



marriage on July 25, 2012, in Manti, Utah.

**Ryan Testa '02, '06 (CIAS)** accepted a position at Techkon as the global sales manager.

## 2003

**Krista (Rivet) Prall '03 (KGCOE)** and **John Prall '02 (KGCOE)** are proud to announce the birth of a baby boy, Bryce Evan. He was born on Sept. 21, 2012, in Lawrenceville, Ga.



**Amado Figueroa '03 (SCB)** accepted a position at Advance 2000 in Williamsville, N.Y., as corporate trainer. Figueroa was employed at ITT Technical Institute as an instructor.

**David Fuehrer '02 (CLA), '03 (SCB)** is seeking partnerships for cureLauncher, a crowdfunding website for cancer research. Fuehrer, a two-time cancer survivor, helped to found the organization in 2012.

**Michael Sadovnick '03 (CAST)**, project engineer with Balfour Beatty Rail Inc., completed the newest light rail transit expansion to the west side of Los Angeles in Culver City

on June 21, 2012. This marks the return of passenger rail service to one of the most densely populated areas of the city.



**Paul Gebel '03 (CIAS), '09 (SCB)** and Abbey Gebel are proud to announce the



birth of a baby girl, Evelyn Tess. She was born on Aug. 31, 2012, in Rochester.

**Arica Guthrie '03 (COS)** accepted a position at University of Maryland Medical Center in Baltimore as clinical nurse. "I wanted to help others so I switched careers from a laboratory scientist to a RN."

**Bhairav Mehta '03 (KGCOE)** accepted a position at Apple Inc. in Cupertino, Calif., as staff engineer. Mehta was employed at Qualcomm Inc. as senior engineer. Mehta received a MBA in general management from Cornell University on May 19, 2012.

## 2004

**Michael Winters '99, '99, '00, '01, '04 (CAST), '11 (GCCIS)** was promoted to director at Ericsson in Piscataway, N.J.

**Sarah Smith '04 (KGCOE)** and Robert Smith are proud to announce the birth of a baby boy, Colin Michael. He was born on April 19, 2012, in Reston, Va.



**Denise Herrera '04 (CLA), '08, '07**



(NTID) completed five years working at RIT's Department of Access Services as an associate interpreter.

**Ara Hagan '04 (SCB)** is managing director/partner at Kaza Hagan Associates in Burlington, Vt., a full-service marketing communications company.

**Timothy Trapp '04 (KGCOE)** was promoted to manager, reliability and analysis engineering from product integrity engineer at Mattel/Fisher-Price in East Aurora, N.Y.

**Jennifer (Wicus) Belden '04 (CAST)**



and **David Belden '04 (CAST)** are happy to announce their marriage on Oct. 20, 2012, in Riviera Maya, Mexico. They

live in Denver. Jennifer received the Director of the Year Award for It's Just Lunch, where she is currently the senior director and matchmaker in the Denver office. David has been named general manager at the Hilton Garden Inn in downtown Denver. He was employed at Embassy Suites Denver Downtown as director of operations.

## 2005

**Kyle Bechtel '05 (GCCIS)** accepted a position at the BMW Group Technology Office USA in San Francisco, Calif., as an advanced technology engineer. He was employed at Bose Corp. as a firmware engineer.

**Ashley (Behrens) Gross '05 (CIAS)** received a MBA in marketing from Rutgers University in December 2011.

**Alex Ludwinek '05 (GCCIS)** and Amber Ludwinek are proud to



announce the birth of a baby girl, Mariana Josephine. She was born on Oct. 20, 2012, in Atlanta.

**Seth Schapiro '05 (GCCIS)** accepted a position at The MITRE Corp. in Annapolis Junction, Md., as lead systems engineer. He was employed at Northrop Grumman as senior systems engineer. He received a Master of Science in systems engineering from Johns Hopkins University on Aug. 26, 2011.

## 2006

**Christopher Adams '06 (SCB)** accepted a position at NASDAQ OMX Group Inc. in New York as a compensation analyst. He was employed at Mercer as an associate in the company's human capital practice.

**Alka Uroda '06, '06 (CAST)** received a MBA in global management from Thunderbird School of Global Management on Dec. 14, 2012.

**Dean Ganskop '06, '10 (GCCIS)** taught Web programming at the American College of Management and Technology in Dubrovnik, Croatia, for RIT's winter academic quarter.

**Timothy Johnson '06 (GCCIS)** accepted a position at Endeavor LLC in Wilmington, Del., as co-founder. Go to [www.ExperienceEngage.com](http://www.ExperienceEngage.com) to learn more.

## 2007

**Matthew Weit '07 (SCB)** and Jessica Brooks are happy to announce their marriage on Nov. 1, 2012, in Wai'alea Beach Park, Oahu. They live in Rochester.



**Nancy Coogan '07 (NTID)** has a new job as a teacher of the deaf and hard-of-hearing in Bullitt County, Ky. She obtained her Kentucky Teaching Certificate and is gratified to be teaching at the high school level.

**Atila Hirsch '07 (CAST)** and Paula Depine are happy to announce their marriage on Nov. 24, 2012. They live in Curitiba, Brazil.

**Michael Metz '07, '07 (CIAS)** was hired as an R&D engineer at ApniCure in Redwood City, Calif., to work on the WINX sleep apnea therapy system.

**Jessica Mills-Juart '07 (CIAS)** accepted



a position at Mercury in Brentwood, Tenn., as art director in March 2012. She was employed at Cabeledge.com, prior to its acquisition by

a local software development company.

**Cheri (Tilburg) Chandler '07 (COS)** and **Dave Chandler '04 '07 (KGCOE)**



are proud to announce the birth of a baby boy, Roy Richard. He was born on March 3, 2012, in San Diego.

**Rachel Robbins '07 (CAST)** is happy



to announce her marriage on Aug. 4, 2012, at Shadow Lake in Penfield, N.Y. The wedding party included alumni **Dean Rzonca '07 (GCCIS)** and **Jon Hatalla '08 (GCCIS)**. The couple lives in Webster, N.Y.

**Kimberly (Rosenthal) Oliver '07**



(CIAS) and **Craig P. Oliver '06 (CAST)** are proud to announce the birth of their baby boy, William Henry. He was born on Oct.

31, 2012, in Sun City West, Ariz.

**Anne (Froustet) Gupta '07 (KGCOE)** and **Rahul Gupta '08 (KGCOE)** are happy to announce their marriage on

# Grad nabs spot in 40 under 40 list

Christopher Palmieri '00 (health systems administration) experienced RIT by VHS cassette.

As a student in the early years of RIT's distance learning program, Palmieri was FedExed graduate school lectures on cassette. He watched the lecture, participated in conference calls and took the same tests from his home in Utica, N.Y.

"I really liked the program," he says. "It was spot-on in terms of being very applicable."

During his 17-year career in health care, Palmieri has been quick to jump off the path most traveled and do things in a non-traditional way. That approach landed him in the 2012 *Crain's New York Business* 40 under 40, which recognizes those who have achieved success before the age of 40.

Palmieri attended RIT after getting his Bachelor of Science degree in health care administration in 1996 from Ithaca College. As an undergraduate, he focused his studies on managed care and insurance, even though his advisers at the time told him to go into long-term care if he wanted a job.

Palmieri was offered a job at Slocum-Dickson Medical Group in Utica, N.Y., where he had worked as an intern. He was one of few people in the office who had experience in managed care. That's where he worked when he took RIT classes.

By the age of 23, Palmieri was building a managed health care plan for Senior Network Health in Utica. He moved to the New York City area in 2001 shortly after the Sept. 11 terrorist attacks.



**Christopher Palmieri '00 is president of the Visiting Nurse Service of New York CHOICE Health Plans.**

"The recruiter called me back at the end of September and asked if I wanted to reconsider my move given everything that had happened," Palmieri recalls. "And I said, 'Actually, now is the best time to go to New York City. If I am ever going to have an opportunity to enter, now is probably the time when everyone else is leaving or scared to be there.'"

Palmieri went to work for Home First, a subsidiary of the Metropolitan Jewish Health System, and expanded its services from Brooklyn to all of the New York City area. In 2005, after a brief time with Amerigroup Corp., he landed at the Visiting Nurse Service of New York CHOICE Health Plans, a provider of home and community-based health services. He became president in 2009.

When he started, the company served about 3,000 people with \$400 million in revenue. Today, it serves 31,000 people and boasts about \$1 billion in revenue.

The company recently expanded beyond the New York metropolitan area to all of New York state, which means a lot to Palmieri to bring the company's services to his hometown and Rochester.

"It is amazing how thankful people are that these types of programs exist—programs that allow people to stay in their own homes or apartments," Palmieri says. "To be able to do this across the state is really special to me."

**Mindy Mozer**

(GCCIS), maid of honor **Sarah Stark '09 (CAST)**, **Grace Reid '09 (COS)** and **Keri Tobin '09 (CAST)**.

**Sandy Arias '08 (CAST)** and Harlington Obando are proud to announce the birth of a baby boy, Darien Abel Obando. He was born on July 14, 2012. They were married July 16, 2011, in Somerset, N.J. They live in North Brunswick, N.J. **Ericka (Orrego) Lezama '08 (SCB)** attended the wedding.

## 2009

**Travis Thomas '09 (GCCIS)**, **'09 (CAST)** and **Erica (Binotto) Thomas '06 (CIAS)** are proud to announce the birth of a baby boy, Arthur Michael. He was born on Nov. 28, 2012, in Montgomery County, Pa.



**Edward Wolf '09 (KGCOE)** accepted a position at LongTail Video in New York as a product manager for the JW Player. He was employed at Time Inc. as business analyst.

**Eric Kerby '09 (CIAS)** and **Lindsay Block '10 (CIAS)** are happy to



announce their marriage in September 2012 in Maryland. They live in Northern Virginia. Debbie Kingsbury of CIAS participated in the ceremony. Alumni **Tim Wallenhorst '09 (SCB)**, **Jim Spoth '10 (KGCOE)** and **Thom Siegarth '11 (KGCOE)** also attended.

**Maria Soto '09 (CAST)** and Mike Cleary are happy to announce their marriage on Nov. 10, 2012. They live in Seymour, Conn. Alumni who attended the ceremony are **Jamie Mallonga '08 (COS)**, **Jen Casella '07 (GCCIS)**, **Deepika Gosain '09 (COS)**, **Aman Verma '08 (KGCOE)** and **Santiago Florez '10 (CIAS)**.

## 2010

**Yiyi Lu '10 (CIAS)** and **Ye Jin (GCCIS)** celebrated their first anniversary on Dec.



Nov. 3, 2012, at St. Michael's Catholic Church in Richmond, Va., where they live. Alumni who attended are: **Julie Blackwood '06 (COS)**, bridesmaid; **Allison Tentis '07 (KGCOE)**, bridesmaid; **James Perkins '07 (SCB)**, groomsmen; **Timothy Wesley '09 (KGCOE)**, groomsmen; **Aaron St. John '09 (SCB)**, **Rachel Deutschman '09 (COB)** and **Chris Reed '07 (KGCOE)**.

## 2008

**Brian Abraham '08, '08 (GCCIS)** left his pre-doctoral IRTA fellow position at the National Heart, Lung and Blood Institute

at the National Institutes of Health (Bethesda, Md.) to become a post-doctoral associate at the Whitehead Institute for Biomedical Research at MIT.

**Stephen Shachtman '08 (CIAS)** was commissioned by the city of Denver Public Art program to create a sculpture titled *Bridge* out of steel, glass and granite. It was completed Oct. 4, 2012.



**Logan Nedo '08 (GCCIS)** and **Sadie (Thornton) Nedo '09 (CLA)** are happy



to announce their marriage on Nov. 20, 2012, in Negril, Jamaica. They live in Fairport, N.Y. They were joined by best man **Brandon MacDonald '08**

15 at their new house near the RIT campus. "This is a huge change and challenge for an international couple to end their rent life and own their sweet home."

**Stephanie (Walter) Hicks '10, '11 (KGCOE)** and **Kevin Hicks '10**



(KGCOE) are happy to announce their marriage on May 5, 2012. They live in King of Prussia, Pa. Attendants were **Caitlyn Ostrowski '11 (CAST)** and

**Matthew Piatkowski '10 (KGCOE)**.

**Nicholas Cheong '10 (CLA)** accepted a position at FirstBank in Wheat Ridge, Colo., as banking officer. He manages four branches with 50 employees and supervisors in a \$400-million market.



**Erin (Schmidtman) Purington '10 (COS)** and **Jonathan Purington '10 (COS)** are happy to announce their



marriage on Oct. 13, 2012, in Rochester. The bridal party included alumni **Douglas Tusch '10 (COS)**, **Jennifer (Purington) Stitt '08 (CIAS)**, and **Travis Stitt '07 (GCCIS)**. They live in Henrietta, N.Y., and both are employed as imaging scientists at Exelis.

**Erika Soltis '10, '10 (KGCOE)** accepted a position at Capital One headquarters in Plano, Texas, as a senior operations analyst in Capital One Auto Finance. She was employed at SPX Corp. as a supply chain engineer.

**James Douglas '10, '10 (CIAS)** won *Style Weekly's* (Richmond, Va.) annual



comic competition with **Andy Rees '10 (CAST)** and they now have a biweekly comic published in the alternative newspaper. This continues their collaboration making comics for *Reporter* magazine.

**Matthew Syska '10 (KGCOE)** accepted a position at Deloitte Consulting LLP in Washington, D.C., as a strategy and operations consultant. He was employed at Lockheed Martin.

**Ronald Lee '10 (SCB)** was promoted to senior vice president and global head from partner at SunGard in Toronto, Ontario.

**Trevor Mack '10 (CLA), '10 (GCCIS)** was promoted to senior software engineer from software engineer at The MITRE Corp.

## 2011

**Sandra (Hillhouse) Moats '11 (CMS), '12 (CAST)** accepted a position at Loth Inc. in Cincinnati, Ohio, as GE account manager. She was employed at Oak Ridge National Laboratory as facilities planner.

**Mandi Viles '09 (GCCIS), '11 (CIAS)** and **Scott Tryanowski** are happy to



announce their marriage on Sept. 2, 2012, in Lancaster, N.Y.

**Brendan Lokes '11 (CIAS)** accepted a position at Carhart Inc. in Dearborn, Mich., as a marketing consultant. "It was a big move from Western New York to Michigan."

**Christine Foster '11 (CLA)** is the marketing automation manager at Billtrust in Hamilton, N.J.

**Jay Hyun Kim '11 (CIAS)** joined a startup company that develops smart



phone applications and became one of the founding members in charge of graphic user interface design. The company launched its first app on the Apple

App Store for iPhone called CliQs, which is a social game app. Users can pick their friends to answer questions.

## 2012

**Elizabeth Shaw '12 (COS)** accepted a position at Tufts University in Boston as Web specialist/designer.

**Thomas Gamer '12 (KGCOE)** and **Priscilla Gamer** are proud to announce the birth of a baby boy, Arthur. He was born on April 12, 2012, in Rochester. Gamer accepted a position at Erdman Anthony in Rochester as a mechanical engineer. He was employed at Rochester Automated Systems as a project engineer.

**Samantha Whalen '12 (CHST)** accepted a job as an orthopedic surgery physician assistant with Eastern Connecticut Health Network in Manchester, Conn.

## Alumni Updates

# Well-rounded alumnus is square

It's not every day that Jack Dorsey, the creator of Twitter, asks you to start a business with him. But for Tristan O'Tierney '08 (computer science), that's what happened.

They co-founded Square — the electronic payment service that allows people to accept credit cards with only a tablet or mobile phone and a square-shaped card reader that attaches through the headphone jack.



Tristan O'Tierney '08

Today, the company is valued at more than \$3 billion.

The roots of O'Tierney's success were nurtured in Computer Science House at RIT, where he was able to jump from one obsession to the next. From Linux to Objective-C to human computer interaction to Macs, he would stay well-rounded by finding something new to master every year.

Before landing at Square, O'Tierney worked at Yahoo! on the Messenger for Mac, at Apple on Safari for Mac OS X and at software company VMware Fusion. He also had the opportunity to work on the official Obama '08 iPhone app and for Twinkle, one of the first Twitter client apps on the Mac App Store.

"I initially met Dorsey through Twinkle, because he loved the location software embedded within our app," O'Tierney says. "He was so impressed with my work, that later on down the road when he was looking to start a new company, he asked if I'd be interested in joining."

In early 2010, Dorsey and O'Tierney began brainstorming along with Jim McKelvey, a computer science engineer and glassblower, who happened to have the problem that would cement Square's future. McKelvey's glass blowing studio in St. Louis was losing sales because he could not accept expensive charges from American Express.

"Jack realized that everyone has mobile computers in their pockets and everyone carries credit cards," says O'Tierney. "He thought, 'Why can't we level the playing field for small businesses by letting everyone accept credit cards?'"

After about 18 months, the company had something users could download, sign into and swipe. By August 2012, Starbucks announced it would begin processing all credit and debit card transactions using Square.

"We are continuing to perfect and add on to Square's capabilities," says O'Tierney. "In the future, we'd like to raise the bar by reinventing the way people think about digital payments."

Scott Bureau '11

# Leadership Giving Counts!



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“Many of my talented, inventive students are only able to attend RIT because of scholarship support. Since I was looking to ‘give back’ to RIT, I decided that a great way to do this was by supporting scholarship funding. It’s gratifying to know that I am helping students get much-needed assistance in attaining an RIT degree—and I know that can be a life-changer.”

—Thomas Gaborski, Ph.D.  
*Assistant Professor, Chemical and Biomedical Engineering  
Kate Gleason College of Engineering  
Leadership-Level Scholarship Donor*

“Without my scholarship, I wouldn’t be able to attend RIT. Now, I cannot imagine myself being as successful and happy anywhere else! I learn from amazing professors and thanks to the Center for Student Innovation, I’ve already been able to do a research project in just my first year. I am very grateful for all the opportunities my scholarship opened up for me.”

—Camila Gomez Serrano '16 (mechanical engineering)  
*Scholarship Recipient*

Leadership donors like Tom are helping to change the lives of students like Camila when they support RIT at the Nathaniel Rochester Society giving level of \$1,000 or more. As an NRS-level donor, your gift will have a significant impact on the future of RIT and its students, and you will be recognized as one of RIT’s most appreciated advocates. So fan the flames, unbolt opportunity, and be a life-changer. BE NRS.

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## BOOKS

Books recently published by the RIT Press. To place an order, call 585-475-6766 or go to [ritpress.rit.edu](http://ritpress.rit.edu).

### With Fire: Richard Hirsch: A Life Between Chance and Design

Scott Meyer



This is the story of ceramic artist Richard Hirsch, and an examination of the work for which he is so widely celebrated. This richly illustrated book presents the life of an artist whose career spans some of the most important developments in the American Clay Movement. Hirsch established a connection with the legendary Raku and Ohi families, whose influence created a lasting pedagogical and creative link to the West that continues today.

### The Albumen and Salted Paper Book: The History and Practice of Photographic Printing 1840-1895

James M. Reilly



This is a descriptive history of the major photographic printing processes that were used between the years 1840-1895. These first 50 years of photography established a tradition of individual experimentation and craftsmanship where each photographer participated in the manufacture of the printing materials that were used. This book describes both the technical information of these historical materials and offers the reader an organized approach to this process.

## In MEMORIAM

### Alumni

**1932**

H. Judson Gregory '32 (KGCOE), Sept. 14, 2012

**1936**

Margaret (Iggleden) Gilbert '36 (SCB), Oct. 31, 2012

**1939**

Theo E. Wiggins '39 (COS), Nov. 19, 2012

**1940**

Frank Martin Jr. '40 (GAP), Nov. 3, 2012

Merritt Sweet '40 (KGCOE), Dec. 13, 2012

**1942**

Carlton D. Goebel '42 (KGCOE), Oct. 2, 2012

Leslie D. Stroebel '42 (GAP), Nov. 14, 2012

**1943**

Elizabeth (McLeod) Hanrahan '43 (SCB), Oct. 19, 2012

William G. Jacob '43 (FAA), Nov. 17, 2012

**1944**

Clarence A. Rugg '44 (CCE), Sept. 3, 2012

**1947**

Edgar E. Moore '47 (GAP), Dec. 5, 2012

Donald C. Rose '47 (CCE), Nov. 23, 2012

**1948**

Eleanor (Hayden) Kaiser '48 (FAA), Oct. 6, 2012

**1949**

John A. Decker '49 (KGCOE), Nov. 8, 2012

Robert F. Holroyd '49 (GAP), Dec. 7, 2012

**1950**

Gerard C. Bogart '50 (KGCOE), Nov. 23, 2012

Thomas Hirschak '50 (KGCOE), Sept. 14, 2012

Clarence E. Lamb '50 (KGCOE), Nov. 16, 2012

Norman G. Moeller '50 (GAP), Oct. 22, 2012

Mary Ellen (Spaulding) Murray '50 (SCB), Oct. 22, 2012

**1954**

John D. Stonely '54 (KGCOE), Dec. 7, 2012

**1955**

Christopher Kellogg '55 (GAP), Sept. 13, 2012

**1956**

Edward N. Annechino '56 (CCE), Nov. 25, 2012

**1957**

L. Cameron Hyers '57 (FAA), Sept. 11, 2012

Robert C. Putnam '57 (GAP), Sept. 27, 2012

**1958**

Kenneth A. McAlpin '58 (GAP), Sept. 9, 2012

**1959**

William C. Coveney '59 (CCE), Nov. 12, 2012

**1961**

Douglas H. Cullen '61 (KGCOE), Aug. 28, 2012

**1963**

Mary Ellen (Carr) Harkness '63 (SCB), Dec. 1, 2012

**1964**

Holcomb V. Huse '64 (GAP), Sept. 6, 2012

Thomas L. Ippolito '64 (CCE), Nov. 17, 2012

**1965**

Anthony R. Sears Sr. '65 (GAP), Dec. 15, 2012

**1966**

Sue (St. James) Cortese '66 (SCB), Sept. 25, 2012

Winston V. Hamilton '66 (COS), Nov. 6, 2012

David P. Hayden '66 (SCB), Dec. 7, 2012

**1967**

Ojars Vidas '67 (KGCOE), Dec. 19, 2012

**1968**

John S. Levisky II '68 (GAP), Nov. 3, 2012

**1969**

Joseph F. Hurzy '69 (CCE), Nov. 16, 2012

**1970**

Richard Mather '70 (CCE), Oct. 5, 2012

Raymond Welch '70 (CAST), Nov. 13, 2012

**1972**

Robert E. Bartell '72 (SCB), Oct. 20, 2012

Martin F. Hoffmann '72 (CCE), Oct. 20, 2012

John Jackman '72 (CAST), Dec. 8, 2012

**1973**

George S. Kubitz '73 (CCE), Sept. 21, 2012

Edward N. Shirey '73 (SCB), Oct. 4, 2012

Toby Thompson '73 (FAA), Oct. 7, 2012

**1974**

Douglas A. Hunt '74 (SCB), Nov. 16, 2012

**1975**

Dominick J. Arigo '75 (CCE), Nov. 12, 2012

David M. Storandt '75 (CCE), Nov. 14, 2012

Ken L. Whitman '75 (CLA), Oct. 12, 2012

**1976**

Suzanne Eileen Moyer '76 (SCB), Nov. 8, 2012

David H. Offen '76 (SCB), Dec. 10, 2012

**1977**

Janet M. Switzer '77, '78 (CCE)(CCE), Dec. 8, 2012

**1978**

J. Craig Person '78, '80 (FAA)(FAA), Sept. 6, 2012

**1981**

Betty J. Glasenapp '81 (CCE), Nov. 1, 2012

**1984**

Thomas E. Hellaby '84 (CCE), Dec. 6, 2012

John Walter Kozik '84 (CAST), Sept. 27, 2012

**1986**

Jay S. Sellstone '86 (NTID), Oct. 26, 2012

**1987**

Kathleen E. (Cleary) Losert '87 (NTID), Aug. 31, 2012

**1996**

Rebecca L. Robinson '96 (CIAS), Sept. 18, 2012

**1998**

Judith Ann Cross '98 (COS), Nov. 26, 2012

Shawn M. Fadden '98 (CIAS), Nov. 19, 2012

**2003**

Ryan P. Alisanski '03 (SCB), Dec. 17, 2012

**2006**

Deanna Campagnini '06 (CAST), Sept. 24, 2012

**2009**

Zachary J. Boyce '09 (CAST), Nov. 4, 2012

**2010**

Alexis F. Stanley '10 (CAST), Nov. 1, 2012

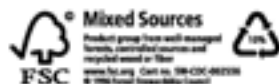
### Faculty and staff

Jean Bondi-Wolcott, NTID, Feb. 8, 2013

Edline Chun, CIAS, Feb. 3, 2013

Frank Hutchins, Board of Trustees chairman emeritus, Dec. 20, 2012

Our apologies to Sean Conklin '11 (museum studies/new media publishing), who was included in the In Memoriam list in the Winter 2012-2013 issue. He is alive and well. To read more about him, go to [bit.ly/W6BIRz](http://bit.ly/W6BIRz).

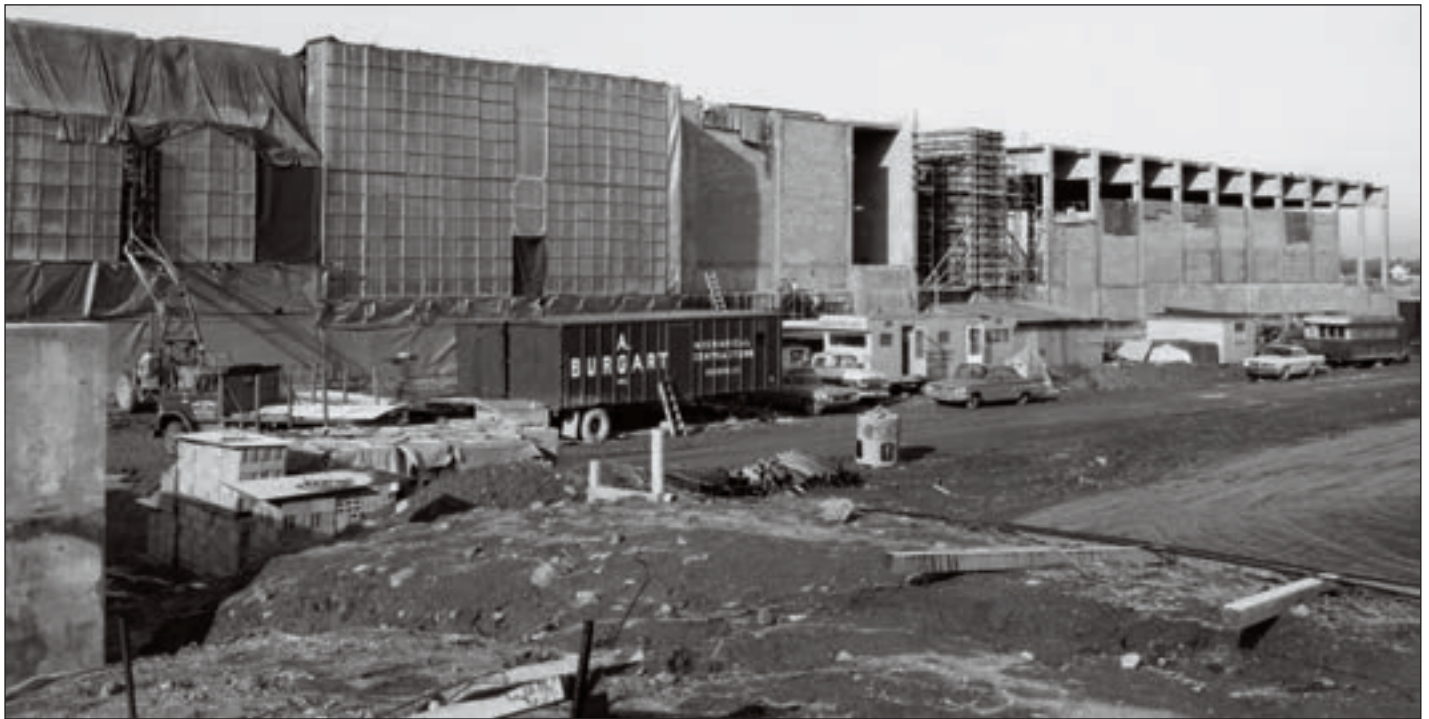


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1968

# When Ritter Arena was new



Construction of the Frank Ritter Memorial Ice Arena was completed in 1968, coinciding with the opening of RIT's Henrietta campus. (RIT Archives)

RIT's new ice arena, the Gene Polisseni Center, is currently under construction, just south of the Student Alumni Union. More than four decades earlier, there was a different arena being built on RIT's campus—Frank Ritter Memorial Ice Arena.

Designed by architectural firm Roche-Dinkeloo, Ritter Arena was constructed in 1968 as one of the original buildings at RIT during its move from downtown Rochester to suburban Henrietta. It sits adjacent to the George H. Clark Gymnasium at the heart of campus.

Named in honor of Frank Ritter, one of the founders of the Mechanics Institute, Ritter Arena has served as the home of the RIT Tigers men's and women's ice hockey programs, the Genesee Figure Skating Club and various events for more than four decades.

While the arena's monolithic brick exterior has remained largely unchanged since 1968, the interior has benefited from several renovations. Improvements have included new

interior walls and a ceiling, improved lighting and sound systems and a new scoreboard. Most recently, in 2011, an addition was constructed with new locker rooms, offices and training facilities.

With a crowd capacity of 2,100 spectators and ice dimensions of 185 feet by 85 feet, the 52,125-square-foot arena is a small, intimate venue that frequently draws sellout crowds for RIT's hockey contests.

In October 2012, ground was broken on the Gene Polisseni Center. Slated to open in the fall of 2014, the arena will be about 105,000 square feet, with an NHL-sized 200-foot-by-85-foot ice surface. The Polisseni Center will have the ability to accommodate an audience of 4,500 for hockey games.

RIT's home hockey games will be played at the Polisseni Center starting in the 2014 season, but Ritter Arena will not be abandoned. It will continue to serve the RIT and Rochester communities for years to come as a



Ritter Arena will remain a host to figure skating as it has since it first opened. (RIT Archives)

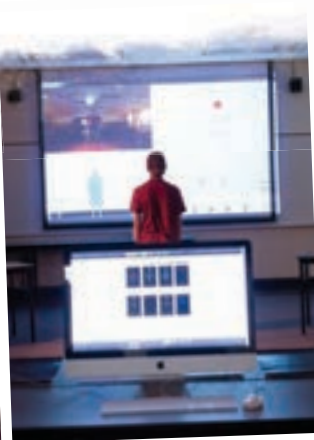
host for local hockey tournaments and public skating, and the newly added locker rooms will serve other sports teams at RIT, including baseball, lacrosse and soccer.

# R.I.T

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Saturday, May 4.

**Admission:** Free and open to the public, rain or shine.

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