

In Review

A black grand piano is the central focus, positioned in a room with large, multi-paned windows in the background. The piano's lid is open, and sheet music is visible on the stand. To the left of the piano is a tufted leather stool. The floor is made of light-colored wood with a geometric pattern. The lighting is bright, coming from the windows, creating a high-contrast scene.

PULITZER PRIZE

Prized Moment

STEALING A SCENE: Composer Kevin Puts '94E, '99E (DMA) talks with his son, Benjamin, 2, at their home in Yonkers, N.Y., in April after Puts learned he had been awarded the 2012 Pulitzer Prize in Music for his opera, *Silent Night: Opera in Two Acts*. The first opera that Puts has composed, the work was commissioned by the Minnesota Opera, where it had its premiere last November. Puts is the ninth alumnus to win a Pulitzer and the 13th winner with University ties.

PHOTOGRAPH BY CRAIG RUTTLE/AP IMAGES.



CLASS of

20

UNIVERSITY



GRADUATION

Senior Portrait

MOSAIC MEMENTO: A mosaic of photos taken during the last four years will serve as a memento for the Class of 2012. The project is the brain-child of class leaders Scott Strenger '12 and Palida Noor '12 who, working with Alumni Relations and the 2012 Class Council, plan to turn a similar mosaic into a jigsaw puzzle and give pieces to each classmate. Class members will be asked to "rebuild" the puzzle when they return for reunions. For more about the mosaic, visit www.rochester.edu/pr/Review.



2012

ROCHESTER



ENGINEERING

Easier Rider

CRUISE CONTROL: Travis Block '12, a biomedical engineering major from San Antonio, Texas, demonstrates a three-wheeled bicycle that can be steered with one arm. He and his team developed the prototype for their senior design project in engineering. The bicycle was one of several projects developed during the year-long course, a capstone requirement in which students work with health care, disability, and other Rochester-area agencies to conceive, design, and prototype devices that address a need among the agencies' constituents.

PHOTOGRAPH BY ADAM FENSTER.



SCHOLARSHIP

The Power of Puppets

Professor Kenneth Gross explores the theatrical power of puppets to “bring a part of us back to play.”

Interview by Husna Haq

PUPPETRY ISN'T SIMPLY CHILD'S PLAY. While American audiences may be more familiar with hyperactive *Sesame Street* characters and a “Disneyfied” version of Pinocchio, the puppet in societies across the world has played the role of provocateur, historian, clairvoyant, and keeper of the faith, says Kenneth Gross in a new book, *Puppet: An Essay on Uncanny Life* (University of Chicago Press, 2011). From re-enacting sacred texts in Balinese shadow puppetry to mocking authority in England's raucous Punch and Judy shows, puppets are masters of metamorphosis and often, mirrors of ourselves.

“They are what we project onto them,” says Gross, professor of English at the University and an admired scholar of Shakespearean and Renaissance literature. “They also project onto us.”

During a year abroad in 2007–08, Gross traveled to Italy, Germany, Switzerland, France, Israel, and Bali in order to study puppet theater. He talked with a wide range of artists, traditional and experimental, exploring literary incarnations of the puppet from Plato to Kafka. The result is an elegant, poetic meditation on the inanimate objects that we invest with life and meaning, in an attempt, muses Gross, to tap into buried pieces of ourselves.

How did this book come about?

I love writing about all kinds of theater, and there's something very elemental about theater that puppets are able to show; there's something very raw and immediate in watching their movements, gestures, and artificial life on stage, a life both assertive and secretive. I also liked the effect of writing about it, what it did to my language. I found that in order to do justice to this kind of theater, I had to simplify and loosen up, make my own writing more poetic or expressive. I had to think more like an essayist.

Were there memorable performances?

There was one theater in Berlin I used to go to a lot. It was the former GDR state puppet

theater, a remnant of the Communist era. It was like returning to a small piece of the former East Germany. This was in a grim and bereft part of the city, a very small theater space, and I remember seeing things that ranged from creepy children's shows to a remarkable version of *King Lear*—a solitary human actor as the king among a world of puppets—with a mixed audience of young artists, children, and old inhabitants of East Berlin. When a show started, you felt suddenly removed from this strange space of the city, caught up in the show. What I remember as much as particular plays is that experience of being completely removed, transported from the

“Puppet” comes from the Latin *pupa*, for little girl or doll... For me, it's such an odd-sounding word, like a child's word.

environment by the show. Something similar happened in watching shadow plays in rural Bali, performed at night on a cinema-like screen, but here the larger environment never disappeared. I stayed intensely conscious of the exotic place, the tropical air, the sounds, the gamelan music, people coming and going during the show.

What insights does the etymology of the word offer on puppetry and its history?

“Puppet” comes from the Latin *pupa*, for little girl or doll—that says something. The Latin term is still used in entomology to describe the middle stage of an insect's metamorphosis. For me, it's such an odd-sounding word, like a child's word. The word was used in Renaissance England as a term of abuse for prostitutes or courtesans. Iconoclastic Protestants would call Catholic statues of saints “puppets.” There is sometimes an element in the word of something trivial or unserious, or that carries contempt—as in “puppet government”

or “puppet ruler.” But such contempt often pushes away a strange power that people feel in the puppet.

You introduce a sense of morbidity to puppetry, writing that puppets are “the closest thing we have in the ordinary human world to the transmigration of the soul.”

In some cultures, for instance in Bali, puppets spring from death, revivifying departed souls, ancient heroes as well as gods and clowns. In a sense, they mediate between the living and the dead. Puppets were often used as a means of communication with the dead. They could bring the dead back to life, give form to spirits or ghosts. They belong to a kind of being that's neither quite living nor quite dead. They're like spirits themselves.

As objects whose “words or actions are more able to slip under the radar of official censorship,” are puppets also a means of protest, or satire, even subversion?

They have a sort of natural gift for comedy, satire, mockery—it's a talent that puppets have. Often they're amazingly poignant and serious, as in that version of *King Lear*, but there is a certain bent toward the grotesque or satirical. It's part of the uncanniness of puppets. Remember that in the original book from 1881, Pinocchio smashed that moralizing cricket with a cobbler's mallet. There is also a tradition of overtly political puppet theater, exemplified by a company that's been running since the '60s, the Bread and Puppet Theater, now based in Vermont. They did amazing grotesque morality plays using oversize puppets and masks as part of Vietnam War protests, and they recently did a show in New York on behalf of Occupy Wall Street.


You write, “To find life in objects returns us to life.” What do you mean?

That part of us that finds life in objects is an aspect of the child's imagination and instinct that is later hidden or sometimes let go of in adulthood. It's something children are indeed more adept at, finding life and voice in objects. Puppets awaken that part of us. They bring a part of us back to play. **R**

Husna Haq is a Rochester-based freelance writer.

UNCANNY LIVES: "They are what we project onto them; they also project onto us," says Gross, whose new book explores the roles that puppets—like these by artist Paul Klee—play in human imagination.





SOCIAL PICTURE: Mapping sets of data drawn from posts to social networks like Twitter and Flickr (this one is by the Google mobile programmer Eric Fischer) can reveal unexpected and intriguing patterns.

Following Friends to Where You Are

Are we known by the company we keep? Perhaps more so than ever before. Rochester computer scientists have shown that a great deal can be learned about people from their interactions in online social media, even when users hide their personal information.

Analyzing location data from the friends of users on the microblogging service Twitter, **Henry Kautz**, professor of computer science, **Jeffrey Bigham**, assistant professor of computer science, and graduate student **Adam Sadilek** were able to pinpoint the location of

individual people with surprising particularity.

In one study the researchers came within a 100-meter radius with 85 percent accuracy.

Their resulting paper, "Finding Your Friends and Following Them to Where You Are," won the Best Paper Award at the

Fifth Association for Computing Machinery International Conference on Web Search and Data Mining.

The team hopes to apply the models to such tasks as tracking and predicting the spread of communicable diseases.

—Peter Iglinski

Is Homophobia Self-Phobia?

A new study finds that intense hostility toward homosexuals may be linked to a repressed same-sex attraction, combined with an authoritarian upbringing.

Though such factors aren't the only cause of homophobia, the findings suggest those "who have a discrepancy within themselves about their expressed versus

unconscious sexual attraction find gay and lesbian people more threatening and are more likely to express prejudice and discrimination toward them," says **Richard Ryan**, professor of psychology. He and Netta Weinstein of the University of Essex in England coauthored the study, which was published in the

Journal of Personality and Social Psychology. The study measured discrepancies between what people say about their sexual orientation and how they react during split-second timed tasks.

Ryan says the study may help explain the personal dynamics behind some bullying and hate crimes and shed light on

high-profile cases in which public figures who have expressed antigay views have been caught engaging in same-sex sexual acts. People in denial about their sexual orientation may lash out because gay targets bring an internal conflict to the forefront, the authors note.

—Susan Hagen

Astrocytes: No Longer Just ‘Brain Glue’

A type of cell long considered mainly the stuff that holds the brain together and often overlooked by scientists more interested in flashier cells such as neurons wields more power than had been realized, according to new research published in *Science Signaling*.

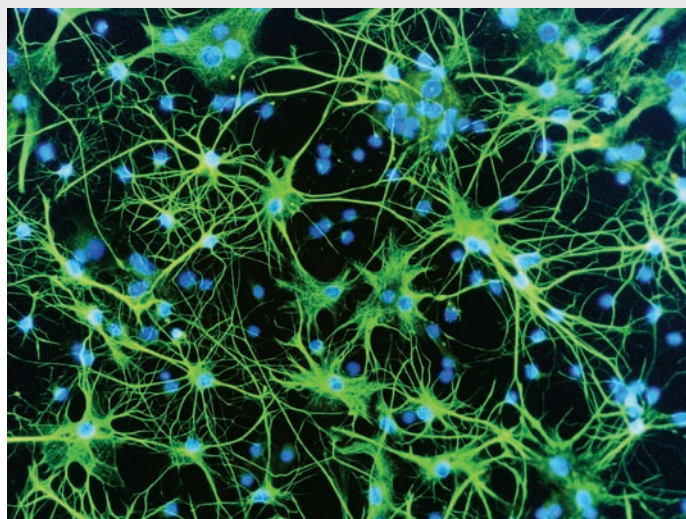
Rochester neuroscientists report that astrocytes are crucial for creating the proper environment for brains to work, playing a key role in reducing or stopping the electrical signals in brain activity, determining when cells

called neurons fire and when they don't.

"It turns out [astrocytes] can influence the actions of neurons in ways that have not been realized," says **Maiken Nedergaard**, professor of neurosurgery and leader of the study.

The new research indicates that in addition to astrocytes' well-known roles in cleaning up excess potassium, the cells can cause potassium levels around neurons to drop, stopping neuronal signaling.

—Tom Rickey



NEW LOOK: Rochester scientists are giving astrocytes new attention.

Sending an Elusive ‘Wireless’ Message

A group of scientists led by researchers from Rochester and North Carolina State University have for the first time sent a message using a beam of neutrinos, nearly massless particles that travel at almost the speed of light. The message was sent through 240 meters of stone and said simply, "Neutrino."

Many have theorized about the possible uses of neutrinos in communication because of one particularly valuable property: they can penetrate almost anything they encounter.

While **Kevin McFarland**, a professor of physics who was involved in the experiment, says the idea of using neutrinos to communicate isn't currently practical, the project is a first step toward demonstrating its possibility.

The team performed their test at the Fermi National Accelerator Lab, outside Chicago.

The group has submitted its finding to the journal *Modern Physics Letters A*.

—Peter Iglinski

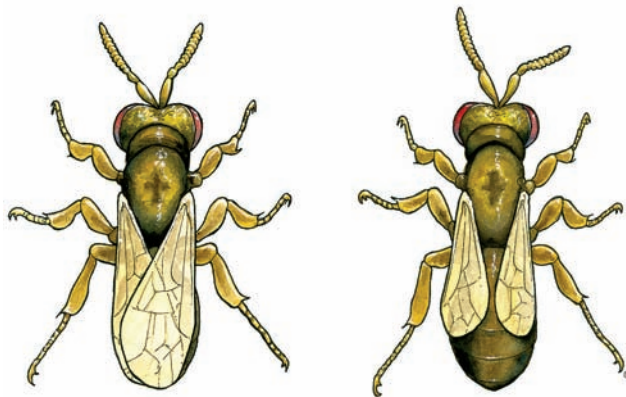
Scientists Find a Key to Growth Differences Between Species

The wings of the tiny jewel wasp are providing big insights into how growth is regulated, Rochester biologists say. **John (Jack) Werren**, the Nathaniel and Helen Wisch Professor of Biology, and doctoral student **David Loehlin** have discovered that changes in expression of a well-known cell regulator gene—called "unpaired"—accounts for wing-growth differences between males of closely related wasp species. The finding could lead to better understanding of

cell-growth regulation and the underlying causes of some diseases.

The gene responsible for the wing difference was isolated using a technique called positional cloning. The biologists note that their discovery illustrates the principle that animals—from insects to humans—often use the same "genetic toolkit," despite immense differences in their biology. The findings were published in the journal *Science*.

—Peter Iglinski



WING GROWTH: Differences between closely related wasp species *N. giraulti* (left) and *N. vitripennis* help explain important genetic processes, say Rochester biologists.

Stopping the RAGE of Alzheimer's

Researchers have taken another crack at a promising approach to stopping Alzheimer's disease that encountered a major hurdle last year. In research published in the *Journal of Clinical Investigation*, scientists report that they have developed a compound that targets a molecular actor, known as RAGE, that plays a central role in damaging the brain tissue of people with the disease.

Scientists at Rochester and the University of Southern California synthesized a compound that stops RAGE—which stands for Receptor for Advanced Glycation Endproducts—in mice, reversing amyloid deposits, restoring healthy blood flow to the brain, squelching inflammation, and making old, sick mice smarter. But the scientists caution that the work has a long way to go before it's considered a possible treatment in people.

A 2011 study of another compound designed to stop RAGE was halted when scientists had questions about the compound's safety at high doses.

—Tom Rickey

Key University Leaders Begin Second Terms

Bradford Berk '81M (MD/PhD), senior vice president and CEO of the Medical Center, has been re-appointed for a second five-year term. A former chief of cardiology, director of the Cardiovascular Research Institute, and chair of the Department of Medicine, Berk was first appointed CEO in 2008. During his tenure as CEO, federal research funding to the Medical Center reached an all-time high, and the Medical Center has opened a number of new facilities, including the Saunders Research Building and the Ambulatory Surgery Center. Inspired by his own experiences following a serious spinal cord injury in 2009, Berk has also driven the Medical



Bradford Berk

Center to adopt a rigorous approach to patient- and family-centered care, an effort that is boosting patient satisfaction scores across the health system.



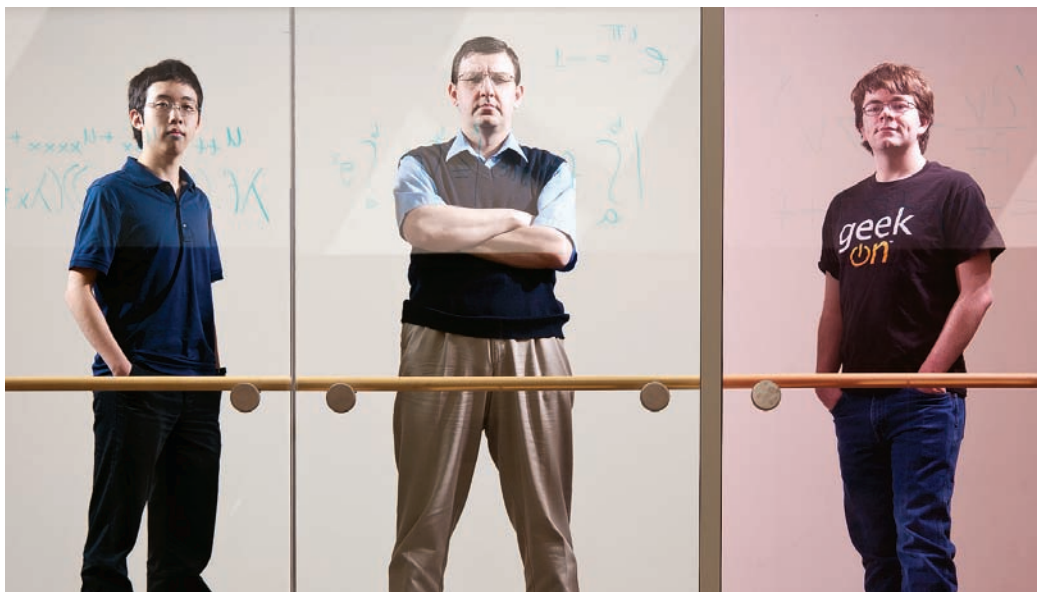
Ralph Kuncel

Ralph Kuncel, provost and executive vice president of the University, begins a second five-year term this spring. He has also been named the University's

chief research officer. First appointed provost in 2007, Kuncel has helped direct the University's initiatives in high-performance computing, including the Health Sciences Center for Computational Innovation, which facilitates access to high performance computational resources for University researchers. He also has led efforts in corporate research collaborations, multi-disciplinary initiatives, diversity, and online education. He's been responsible for reviews of deans, the library, approximately 150 faculty promotion or tenure decisions, sustainability, and faculty-driven learning assessment initiatives.

Math Teams Add Up Top Finishes

For the fourth year in a row, a team from the University has placed among the top 15 in one of the nation's most highly regarded mathematics competitions. The team of Xiaoqing Tang '12, Vincent Yu '14, and Douglas Miller '15 finished 15th among 460 teams in the William Lowell Putnam Mathematical Competition. They were coached by Dan Geba, associate professor of mathematics. A total of 4,440 students from 572 colleges participated in this year's competition. Harvard took top honors, followed by Carnegie Mellon, Caltech, Stanford, and MIT.



HIGH MARKS: Coached by Dan Geba (center), Vincent Yu '14 (left), Douglas Miller '15 (right), and Xiaoqing Tang '12 (not pictured) finished 15th at the William Lowell Putnam Mathematical Competition.

Win at the Met Puts Eastman Student on Prestigious Stage

Eastman School graduate student Matthew Grills was one of five winners of the Metropolitan Opera's National Council Auditions this spring. He and four other winners were chosen

among nine finalists. His winning performance included the aria "Ah! Mes Amis!" from Donizetti's opera *La Fille du Régiment*, an aria which, with nine high Cs, has been called "the Mount Everest

for tenors"—and which Grills reprised a month later to win the 2012 Lotte Lenya Competition for singing and acting. Nearly 1,500 singers entered this year's Met auditions, which are considered

the most prestigious in North America for singers seeking to launch an operatic career. Past winners include Renée Fleming '83E (MM), Susan Graham, and Jessye Norman. —Helene Snihur



PLANNED SPACE: Rendering of the new Golisano Children's Hospital

Plans for New Golisano Children's Hospital Taking Shape

Updated plans for a new Golisano Children's Hospital emphasize spaces for gathering, playing, resting, and finding respite. "Our families are so dedicated to participating in the care of their children while they're hospitalized that our nurses have to firmly remind them to take care of themselves, too," says Nina Schor, the William H. Eilinger Chair of Pediatrics and pediatrician-in-chief at Golisano Children's Hospital. "Having these services

so close will make it easier for all our parents to stay rested and nourished." Designed by the Philadelphia-based Ballinger architectural and engineering firm, the new \$145-million tower, attached to Strong Memorial Hospital, will feature eight floors and nearly 245,000 square feet of space. Groundbreaking is planned for later this year, with an expected opening in 2015. For more about the plans, visit www.urmc.rochester.edu/childrens-hospital.

Where Is Flat Pi?

Flat Pi—the mascot for the University's Pi Week celebration—has begun a trip around the world to demonstrate the universality of the mathematical constant and the role of math in our lives. In a project of the Society of Undergraduate Mathematics Students (SUMS) that combined mathematics awareness and so-

cial media, the initiative provided math-minded people with copies of the paper icon and asked them to share photos of Flat Pi at sites around the world. As of the end of April, the mascot had been spotted in Alaska, Finland, South Africa, and Thailand. To follow Flat Pi, visit www.rochester.edu/news/flat-pi. —Peter Iglinski

University Joins National Effort to Improve Science, Engineering Education

Rochester is joining a national effort to develop a new generation of college-level science and engineering faculty. The Center for the Integration of Research, Teaching & Learning, which began in 2003 with a handful of universities, has expanded to include 25 of the nation's top educational institutions. Supported by the National Science Foundation and headquartered at the University of Wisconsin-Madison, the center's mission is to improve the teaching of

science, technology, engineering, and mathematics at colleges across the country. As a member, Rochester will have access to the teaching and learning innovations of other network members, as well as a platform for sharing its own successes, including the peer-led workshop model, the WeBWork online homework tool for math and science, and diversity-oriented approaches for creating an inclusive campus environment.

—Peter Iglinski



Barbara Walters



Craig Ferguson

Walters and Ferguson Headline Meliora Weekend 2012

Famed journalist Barbara Walters, a correspondent for ABC News, the host of *The Barbara Walters Specials*, and creator, cohost, and executive producer of *The View*, will be the keynote speaker at Meliora Weekend on Oct. 13. Comedian Craig Ferguson of *The Late Late Show* on CBS will be the headline entertainer

as part of the weekend's activities for alumni reunion, homecoming, and family weekend.

More than 5,000 attendees are expected for four days of lectures, performances, seminars, and social gatherings, Oct. 11 to 14. For more information, visit www.rochester.edu/melioraweekend.

"[Dick Clark] was able to position himself in the center of the television and music industry in the way that allowed him to have a career that spanned a half a century."

—**John Covach**, a rock 'n' roll historian and chair of the Department of Music, talking on CNN about the death of Dick Clark, celebrated music producer, television personality, and "America's Oldest Teenager."

Team-Focused, Community-Minded

By Karen McCally

IT'S OFTEN SAID THAT SPORTS ARE A GREAT way to foster leadership skills. At Rochester, athletes aren't waiting until after graduation to put leadership in action.

During this spring semester, the men's and women's soccer teams, as well as the women's lacrosse team, reached into the community to show how sports can help improve bodies, minds, and quality of life.


"There's no better way for our team to get involved in the community than through sharing our passion with young girls," says Bridget Lang '13, a goalkeeper on the women's soccer team from Robbinsville, N.J.

On May 5, the team ran a clinic for girls ages 6 to 12 in the Rochester City School District. The Yellowjackets taught basic skills to the girls—many of whom had never kicked a soccer ball—played matches, and took them on a tour of the River Campus.

The Yellowjackets hope the clinic will lead to the formation of a girls team as part of the Riverflow Soccer Club, the only travel soccer club in the city of Rochester, which is currently made up only of boys' teams.

In February, the men's soccer team helped bring about the first Yellowjacket Cup soccer tournament to raise money for the Riverflow Soccer Club, as well as Grassroot Soccer Rochester, a University-wide student organization that brings evidence-based programs using sports to serve at-risk youths.

"The turnout was wonderful," says Josh Richards '12, of Grassroot Soccer Rochester. "We had 24 teams play in a World Cup-style tournament with group stages, then knockout rounds."

And in April, the women's lacrosse team teamed up with Friends of Jaclyn, an organization founded in 2004 by the family of then nine-year-old lacrosse player Jaclyn Murphy. The organization matches pediatric brain tumor patients with sponsoring sports teams. Sporting "Friends of Jaclyn" T-shirts in the warm-up before a game against Vassar College, the women joined Vassar players in honoring eight-year-old Grace Leva. 



BASEBALL: Jon Menke '13 earned UAA and Liberty League honors for a 7-0 shutout in April.



TRACK: ECAC qualifier Francisco Ramirez '12



SOFTBALL: All-UAA selection Nina Korn '14

HIGHLIGHTS

Rounding Up a Busy Spring

By Dennis O'Donnell

A BUSY SPRING FOR THE UNIVERSITY'S ATHLETIC teams included several highlights. Softball has returned to a position of prominence by attaining a regional ranking. The men's and women's tennis teams have worked their way through a schedule pockmarked with some of the strongest teams in the nation. And golf is competing for a potential NCAA bid.

As April came to a close, here's a run-down of some of the spring's highlights:

Baseball: The Yellowjackets went into the last two weekends of the regular season trying to battle their way into a Liberty League playoff spot. In late April, Rochester beat 18th-ranked Ithaca on the road, then

earned two victories over Vassar in the final at-bat. Jon Menke '13 threw a three-hit shutout over Clarkson to reap three individual awards. Adam Sullivan '13 was the team's closer with three saves and just one earned run allowed in 11 innings of work. Ethan Sander '14 was the top hitter, averaging .333. Nick Carlson '14 led the team in home runs (3) and RBIs (16).

Golf: Nick Palladino '14 won the UAA individual championship with an association record low score of 137 for 36 holes. He is the first man to win back-to-back UAA golf titles in the 25-year history of the UAA. Rochester was third at the NYU/Manhattanville Invitational and third at the McDaniel Spring Invitational. The Yellowjackets faced RPI in the first round of the



TRACK: Yvette Igbokwe '15 was among 18 Yellowjackets who qualified for the ECAC title meet.


Liberty League championships (match-play format) to determine which team would get the league's automatic bid to NCAAAs.

Lacrosse: Rochester had a nice three-player attack in Niki Holmes '12 (19 goals, 8 assts., 27 pts.), Liza Maizel '13 (20-5-25), and Lindsey Randall '14 (16-4-20). The Yellowjackets defeated Becker College in Myrtle Beach, S.C., then returned north and posted a win over Bard College in Liberty League play.

Rowing: The Yellowjackets broke into the national rankings at No. 13 after a series of strong performances in March and early April. In successive weekends, they defeated both Ithaca and WPI, who were in the national poll. Two big races loom in May: the New York State championships, May 5-6, and the Dad Vail Regatta in Philadelphia, May 11-12.

Softball: Rochester earned the No. 2 seed for the Liberty League championships with an 8-2 record in league games. The Yellowjackets wrapped up April with a 25-12 record and were ranked third in the Northeast region by the NCAA Division III softball committee. Nina Korn '14 (.375) and Meg Hennessy '14 (.339) led a lineup with five .300 hitters. Korn had seven home runs by late April. Brittany Grace '15 had six. A strong pitching nucleus revolved around Grace (9-4), Sarah Wayson '15 (9-4), and Maddie Skellie '13 (6-4).

Tennis: The Yellowjacket women's team was 8-4 heading into the UAA championships in Florida in late April. Frances Tseng '13 was ranked No. 6 regionally and No. 45 nationally as a singles player. Rochester's record included wins over Whittier College, Ithaca, William Smith, and St. Lawrence. The men's team was 6-14, ranked No. 18 regionally.

Track & Field: James Vavra '12 and Lauren Norton '12 competed at the Penn Relays in late April, trying to secure a berth in the NCAA championships. Vavra ran in the 10,000 meters, Norton in the 5,000 meters. At the Alumni Invitational, Rochester earned a total of 18 qualifiers for the ECAC championships—nine apiece for men and women. At the Cortland Classic, the women's 4x400 relay ran the second fastest time in school history and the 19th fastest time in Division III in 2012. Rochester was getting set to host the New York State championships as May began. 

O'Donnell is director of communications for the Department of Athletics and Recreation.