RADICAL REBOUND

DYNAMIC DUO: Guard Sam Borst-Smith ’17 (right) won national attention for an intentionally missed free throw that led to a Yellowjackets’ overtime victory against the University of Chicago in February. Borst-Smith caught his own rebound and passed the ball to Mack Montague ’17 (left), who made the winning shot. The play aired on ESPN and went viral on YouTube, leading fans to cast enough votes for Borst-Smith to win State Farm’s inaugural Assist of the Year award. Borst-Smith was recognized in Houston during the NCAA college men’s basketball Final Four events. PHOTOGRAPH BY ADAM FENSTER
LOVE STORY: Eastman Opera Theatre mounted a production of Mozart's beloved comic opera *Le Nozze di Figaro*—*The Marriage of Figaro*—at Eastman Theatre this spring. With two rotating casts of Eastman School of Music undergraduate and graduate students, the production was the fifth at Eastman in the last 30 years, and was inspired by the art of 18th-century French painter Jean-Honoré Fragonard. PHOTOGRAPH BY ADAM FENSTER
STUDENT LIFE
Commons Core
WILSON’S WAY: Students, faculty, and staff gathered this spring among balloons, cake, and commemorative items to mark the 40th anniversary of the dedication of Wilson Commons, the hub of campus life designed by architect I.M. Pei as “a place to be, and a place to remember.” Envisioned by benefactor Joseph Wilson ’31 as the center of University life, Wilson Commons is known for its signature honeycomb windows, constructed with 18,000 square feet of glass, to place in focus the tower of Rush Rhees Library.
PHOTOGRAPH: UNIVERSITY LIBRARIES
**Parting Words**

**Literary critic Jane Tylus considers Renaissance rituals of separation—and why bidding farewell was so hard.**

By Kathleen McGarvey

Saying good-bye—in life and in art—isn’t easy.

For Jane Tylus, a professor of Italian studies and comparative literature at New York University, the idea that there’s a convergence between both forms of parting became clear when she saw a 15th-century painting that she describes as “probably the most beautiful and thought-provoking work” she’s seen in a lifetime: the Congedo della Vergine by Sano di Pietro, at Villa I Tatti, near Florence.

This gesture of Saint Peter, who knows what is in front of him, but isn’t ready to go in just yet—this, to me, captures the posture of the poet who is ready to say good-bye, but hesitating at the moment of doing so.

The topic of Tylus’s keynote address was spurred by personal experience: coming to terms with the loss of parents and reflections on mourning and grieving. But her scholar’s mind soon ranged beyond her private sadness to thoughts about how contemporary beliefs and practices surrounding loss differ from what they were centuries ago. A practicing Catholic, Tylus says she realized that “in my life, there’s a lot more continuity with the Middle Ages. There are sharp differences that Protestantism introduces to Catholic practices of not really saying good-bye.”

With the Protestant Reformation came enormous departures from Catholic religious practice, including a rejection of the idea of purgatory, where souls would be purified before ascending to heaven. Practices such as allowing the living to shorten, through paying for indulgences, the duration of life beyond death. “It’s a sad kind of rejection of the meaning he’s had as an artist, as he’s also saying good-bye to that life itself in his poems,” she says.

Produced a century later, Shakespeare’s work is “riddled with questions about when and how we say good-bye to loved ones,” she says. One particularly well-known example is Polonius’s comically excessive leave-taking from son Laertes in Hamlet. The Tempest: Prospero implores the audience to “release me from my bands/With the help of your good hands.”

At the same time, artists were carrying on a long poetic tradition of pausing before the end of a work to contemplate the act of letting go. With many names—among them, the composer in Bach and the poet in French—the end of a poem was often a place where poets would turn to address the work itself and consider what might happen to it once it leaves them.

Michelangelo’s non finito, or unfinished, sculptures for the tomb of Pope Julius II—unfinished—are one example Tylus points to of a similar phenomenon in the visual arts. The figures “look like they’re imprisoned in their own existence” from what’s “left unfinished,” she says. Late in his life, Michelangelo wrote a series of sonnets about his art’s lack of value when it comes to his life beyond death. “It’s a sad kind of rejection of the meaning he’s had as an artist, as he’s also saying good-bye to that life itself in his poems,” she says.

Tylus is the director of NYU’s Center for the Humanities. Like Saint Peter, she says, the artist stands before a work, declaring, “‘I’m about to say good-bye—but not yet. I can’t bear to say good-bye yet.”

The painting led Tylus to what she calls “leaves of poetry” that “extends far beyond linguistic expertise and the envoi of a poem but hasn’t sent it off yet.”

Saying that “in my life, there’s a lot more continuity with the Middle Ages. There are sharp differences that Protestantism introduces to Catholic practices of not really saying good-bye.”

**Ferrari Humanities Symposia**

Jane Tylus was the 2016 keynote speaker for the Ferrari Humanities Symposia, an annual event designed to highlight the breadth of interdisciplinary connections that are fundamental to a liberal arts education. Tylus is the director of NYU’s Center for the Humanities and a professor of Italian studies and comparative literature.

University Trustee Bernard Ferrari ’70, ’74 MD and his wife, Linda Gaddis Ferrari, established the symposium to broaden the liberal education of the University’s undergraduates, enhance the experience of graduate students, and expand the connections of University faculty with other scholars from around the world. Established in 2012, the series has hosted speakers including Anthony Grafton and Stephen Greenblatt.

—Kathleen McGarvey

---

**LEAVE-TAKING:** Critic Jane Tylus compares the gesture of Saint Peter in a Renaissance painting by Sano di Pietro to the “posture of the poet who is ready to say goodbye to a poem but hasn’t sent it off yet.”
Catching Some Rays

A simple but groundbreaking observatory in central Mexico is shedding new light on the workings of cosmic and gamma rays in Earth’s atmosphere. Formally opened a year ago, the High-Altitude Water Cherenkov Gamma-Ray Observatory will be used by scientists to gather information on high-energy particle acceleration for 10 years. The observatory is perched on the side of the Sierra Negra volcano, almost 14,000 feet above sea level. Segev BenZvi, an assistant professor of physics, helped to create the observatory and is part of the team now carrying out research there.

Air Showers

When high-energy gamma rays and cosmic rays interact high in the atmosphere, they create a particle cascade that peaks as it falls to Earth and wanes before it reaches the ground. The cascade, which moves at the speed of light, looks like a pancake that grows wider and wider as it nears ground level.

Gamma Rays

Using the observatory, scientists can distinguish between air showers created by gamma rays and cosmic rays. At ground level, most of the signal from the particle cascade is centered around the direction of the initial gamma ray. But cosmic ray showers are much less orderly, breaking apart as they descend.

Cherenkov Effect

When particles reach the ground, they move through the water tanks, producing ultraviolet light, in a process known as the Cherenkov effect. Photosensors in each tank record the light. By studying when the sensors are triggered, researchers can deduce information about the air shower of particles.

BenZvi and colleagues on the project are studying extremely high-energy particle acceleration, from supernova remnants, black holes, neutron stars, and pulsars—“objects with very, very large amounts of energy,” he says.

Water Cherenkov Tank Array

High-altitude Water Cherenkov Gamma-Ray Observatory

Tanks and Pancakes

Physicist Segev BenZvi and scientists at an ambitious observatory use simple tools to probe the universe.

Three hundred giant tanks, each holding more than 50,000 gallons of purified water, perch on the side of the Sierra Negra volcano in central Mexico, standing 13,500 feet above sea level. Four photosensors lie at the bottom of each tank.

The array of tanks is part of the High-Altitude Water Cherenkov Gamma-Ray Observatory, or HAWC, a joint project of Mexico and the United States. While the technology is comparatively simple, the project is ambitious: observing gamma and cosmic rays, and contributing to the search for dark matter.

The high-altitude location brings greater sensitivity to the particles, which get absorbed by the atmosphere as they descend; its “optically isolated, densely packed” tanks; and the algorithms that let the scientists make use of the data they assemble.

Construction of the observatory began in 2011 at a site in the Parque Nacional Pico de Orizaba, a national park and home to the dormant volcano Pico de Orizaba, Mexico’s highest peak. HAWC was formally opened last spring. When the experiments are complete, in about 10 years, the scientists will restore the area to as close to its original condition as they can. The park is a “cloud forest,” with one of the highest tree lines in the world. An environmentally sensitive site, the forest affects cloud formation and rainfall in areas south and west of the park. No trees were removed in creating the observatory.

The high-altitude location poses minor challenges for researchers, like shortness of breath, says BenZvi. “And shortness of temper, believe it or not,” he says. “You just get really irritated. Your thinking isn’t very clear. I find that I get bad at doing water tank in the lab to measure for muons—heavy, unstable versions of electrons that are the ground-level remnants of particle cascades. But the project is innovative in three ways: its high-altitude location brings greater sensitivity to the particles, which get absorbed by the atmosphere as they descend; its “optically isolated, densely packed” tanks; and the algorithms that let the scientists make use of the data they assemble.

Construction of the observatory began in 2011 at a site in the Parque Nacional Pico de Orizaba, a national park and home to the dormant volcano Pico de Orizaba, Mexico’s highest peak. HAWC was formally opened last spring. When the experiments are complete, in about 10 years, the scientists will restore the area to as close to its original condition as they can. The park is a “cloud forest,” with one of the highest tree lines in the world. An environmentally sensitive site, the forest affects cloud formation and rainfall in areas south and west of the park. No trees were removed in creating the observatory.

The high-altitude location poses minor challenges for researchers, like shortness of breath, says BenZvi. “And shortness of temper, believe it or not,” he says. “You just get really irritated. Your thinking isn’t very clear. I find that I get bad at doing
When anomalies are found in astrophysical data, scientists consider whether the source of the anomaly is a mistake in their model or the influence of dark matter.

"And that’s kind of the name of the game," says BenZvi. "It’s a tough game, as you can imagine. It’s sort of like the joke about unknown unknowns—you don’t know what you’re not modeling."

Telescopes offer another way to measure gamma rays. But they have a narrow field of view, taking in only a few degrees of the sky at a time. HAWC records information from two-thirds of the sky every 24 hours.

"Over the course of one day, we can see essentially the entire northern hemisphere," says BenZvi, noting that the methods are complementary. "We’ve made the bet on more coverage, less sensitivity, they make the bet on more sensitivity, less coverage. If you have both types of instruments running, you can look for unexpected stuff with HAWC—we communicate with those guys through back channels. ‘Hey, we see something interesting, Point your telescope there.’ And that’s how a lot of the field works."

Scientists are now processing their first year’s worth of data from HAWC, which they began to make public this spring. And they are expanding the array with some additional tanks—just a fine, which will bring them with a four-fold increase in sensitivity.

And there is now a coordinating center, possibly in Chile. The southern hemisphere provides the best vantage point for observing the center of the galaxy—and it’s “a very strong candidate for observing dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary

When anomalies are found in astrophysical data, scientists consider whether the source of the anomaly is a mistake in their model or the influence of dark matter.

"And that’s kind of the name of the game," says BenZvi. "It’s a tough game, as you can imagine. It’s sort of like the joke about unknown unknowns—you don’t know what you’re not modeling."

Telescopes offer another way to measure gamma rays. But they have a narrow field of view, taking in only a few degrees of the sky at a time. HAWC records information from two-thirds of the sky every 24 hours.

"Over the course of one day, we can see essentially the entire northern hemisphere," says BenZvi, noting that the methods are complementary. "We’ve made the bet on more coverage, less sensitivity, they make the bet on more sensitivity, less coverage. If you have both types of instruments running, you can look for unexpected stuff with HAWC—we communicate with those guys through back channels. ‘Hey, we see something interesting, Point your telescope there.’ And that’s how a lot of the field works."

Scientists are now processing their first year’s worth of data from HAWC, which they began to make public this spring. And they are expanding the array with some additional tanks—just a fine, which will bring them with a four-fold increase in sensitivity.

And there is now a coordinating center, possibly in Chile. The southern hemisphere provides the best vantage point for observing the center of the galaxy—and it’s “a very strong candidate for observing dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary

FEELING LIKE A CUMMERWORLD

When anomalies are found in astrophysical data, scientists consider whether the source of the anomaly is a mistake in their model or the influence of dark matter.

"And that’s kind of the name of the game," says BenZvi. "It’s a tough game, as you can imagine. It’s sort of like the joke about unknown unknowns—you don’t know what you’re not modeling."

Telescopes offer another way to measure gamma rays. But they have a narrow field of view, taking in only a few degrees of the sky at a time. HAWC records information from two-thirds of the sky every 24 hours.

"Over the course of one day, we can see essentially the entire northern hemisphere," says BenZvi, noting that the methods are complementary. "We’ve made the bet on more coverage, less sensitivity, they make the bet on more sensitivity, less coverage. If you have both types of instruments running, you can look for unexpected stuff with HAWC—we communicate with those guys through back channels. ‘Hey, we see something interesting, Point your telescope there.’ And that’s how a lot of the field works."

Scientists are now processing their first year’s worth of data from HAWC, which they began to make public this spring. And they are expanding the array with some additional tanks—just a fine, which will bring them with a four-fold increase in sensitivity.

And there is now a coordinating center, possibly in Chile. The southern hemisphere provides the best vantage point for observing the center of the galaxy—and it’s “a very strong candidate for observing dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary

Feeling like a cummerworld, or even a doowart, because your Older Scots vocabulary is a bit rusty? Fear not—you needn’t be looking quaint for long.

In May, the University is hosting the Rochester-St Andrews Conference on Older Scots Literature and Culture. The gathering is being organized by specialists from the United States, Canada, and Europe to share papers on 14th- to 16th-century literature in Older Scots, the descendant of Old English that was used in medieval and early modern Scotland.

The data they collect may also contribute to the understanding of models or the influence of dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary

Feeling like a cummerworld, or even a doowart, because your Older Scots vocabulary is a bit rusty? Fear not—you needn’t be looking quaint for long.

In May, the University is hosting the Rochester-St Andrews Conference on Older Scots Literature and Culture. The gathering is being organized by specialists from the United States, Canada, and Europe to share papers on 14th- to 16th-century literature in Older Scots, the descendant of Old English that was used in medieval and early modern Scotland.

The data they collect may also contribute to the understanding of models or the influence of dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary

CONVENING SCOTS: Scholars are gathering at Robbins Library to discuss texts written in Older Scots, a descendant of northern Old English that was used in medieval and early modern Scotland.

Brushing Up on Older Scots

Scholars discuss the literature of medieval and early modern Scotland.

"Feeling like a cummerworld, or even a doowart, because your Older Scots vocabulary is a bit rusty? Fear not—you needn’t be looking quaint for long.

In May, the University is hosting the Rochester-St Andrews Conference on Older Scots Literature and Culture. The gathering is being organized by specialists from the United States, Canada, and Europe to share papers on 14th- to 16th-century literature in Older Scots, the descendant of Old English that was used in medieval and early modern Scotland.

The data they collect may also contribute to the understanding of models or the influence of dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary

Feeling like a cummerworld, or even a doowart, because your Older Scots vocabulary is a bit rusty? Fear not—you needn’t be looking quaint for long.

In May, the University is hosting the Rochester-St Andrews Conference on Older Scots Literature and Culture. The gathering is being organized by specialists from the United States, Canada, and Europe to share papers on 14th- to 16th-century literature in Older Scots, the descendant of Old English that was used in medieval and early modern Scotland.

The data they collect may also contribute to the understanding of models or the influence of dark matter, because we believe there is a super-massive black hole in the center of the galaxy, and so there should be a gravitational well there where dark matter is concentrated,” says BenZvi.

"If we have a HAWC in the southern hemisphere, literally the center of the galaxy will be right overhead," he says.

- Kathleen McGeary
Connecting Veterans with Jobs

A new website aims to connect veterans and reservists with jobs at Rochester. The site helps job applicants with military experience and knowledge to find positions at the university that match well with their qualifications. It builds on support services offered throughout the University designed to ease the transition from active service to employment or degree programs. During the campaign, the Veterans Alliance—an affinity group that helps active military and veteran students, staff, faculty, alumni, and their families succeed in higher education—and the Veteran and Military Family Services Office, which supports veterans as they transition from military life to the classroom. Visit the new site at Universityofrochester-veterans.jobs.

University Launches Antiracism Campaign

A new antiracism campaign, “We’re Better Than That,” was launched this spring as part of a larger effort to address issues related to racial and ethnic diversity. The catalyst for the campaign came last November, when about 150 students and supporters marched peacefully across campus to protest racism at the University. The campaign was led by the Human Rights Campaign Foundation’s educational arm, The Human Rights Campaign (HRC), and was inspired by the success of its “equality” campaign, which has helped to increase understanding and acceptance of LGBTQ patients and their families.

Talking Strategy at Simon

The 16th annual Strategy and the Business Environment Conference will be held at the Simon Business School in April. The conference, which has been held at Harvard, Stanford, and the Kellogg School of Management in recent years, featured papers from multiple disciplines, on topics including political risk, corporate governance, corporate social performance, activism, and regulation. The conference will be highlighted by Apple during the company’s annual product launch event in March.

Apple Taps Parkinson App

An iPhone app developed by Sage Bionetworks and Medical Center neurologists to improve the study of Parkinson’s disease was highlighted by Apple during the company’s annual product launch event in March. The mPower app, first unveiled in March 2015 during Apple’s “Spring Forward” product launch, gathers real-time data from patients to more fully understand Parkinson’s and how it affects daily life. The app also allows patients to track symptoms and how treatments are affecting the progression of the disease. With more than 12,000 registered users, it represents one of the largest studies of the disease.

HUMANKINDS An Intellectual Icon

GUEST LECTURE: The Humanities Center welcomed Noam Chomsky, the Distinguished Visiting Humanist for the 2015-16 academic year, to campus in April. Chomsky, the Institute Professor and Professor of Linguistics Emeritus at MIT, is widely considered the founder of the modern field of linguistics and a deeply influential public intellectual, having written and spoken on topics of power, force, exploitation, and the media for nearly 50 years. For three days, Chomsky delivered talks—including a filled-to-capacity lecture on “Language, Creativity, and the Limits of Understanding,” in the Interfaith Chapel—met with faculty, graduates, and undergraduates (left) to discuss his linguistic and political works, and sat for Q&As and discussions at film screenings, including a sold-out screening of “Revolution in the American Dream: Noam Chomsky and the Principles of Concentration of Wealth & Power,” at the Little Theatre downtown Rochester.

For more on Chomsky’s visit, and on the Humanities Center’s Distinguished Visiting Humanist program, see http://www.sas.rochester.edu/humanities.
A Fishy Study Is Promising for Lung Infections

Here’s another reason salmon and sardines can be a boon to human health.

A new study has found that omega-3 fatty acids—like those found in fish—may be key to helping the body combat lung infections.

People with inflammatory diseases like chronic obstructive pulmonary disease, or COPD, are often plagued by a type of bacteria that omega-3 derivatives are effective at clearing.

COPD is most often caused by years of smoking. Quitting smoking can slow its progress, but won’t stop it, and anti-inflammatory drugs—the most common treatment—can put people at risk for secondhand smoke.

In a recent study in the Journal of Immunology, Richard Phipps, who holds the Wright Family Research Professorship in the Department of Environmental Medicine, Patricia Sime, chief of pulmonary diseases and critical care and the C. Jane Davis and C. Robert Davis Distinguished Professor of Pulmonary Medicine, and toxicology graduate student Amanda Croasdell tested the effectiveness of an inhalable omega-3 derivative to prevent bacterial lung infections. Unlike other anti-inflammatory drugs, the specialized agent used in the study reduced inflammation without suppressing the clearing of bacteria, and could hasten its further study is needed to determine the effectiveness of the treatment in people, but the approach also shows promise for remodeling other infections caused by the bacteria, including bronchitis, pneumonia, and ear infections.

—Suzanne Palle

A Little Bird Told Me …

Can a computer tell if you’ve been drinking when you tweet? New research suggests that it can. In an innovative test case for analyzing ongoing behavior by Twitter users, computer scientists have investigated drinking in different communities.

Computer science graduate student Nabil Hossain and collaborators taught computers to analyze tweets about drinking in different communities.

Computing science graduate student Nabil Hossain and collaborators taught computers to analyze tweets about drinking in different communities.

The computers can distinguish between people who are tweeting about an activity in which they’re presently engaged and those who have done it in the past or will in the future. The model could be applied to other behaviors.

The second breakthrough is a technique for locating tweeters’ homes with greater accuracy than ever before—and thereby determining whether they’re at home when they’re drinking.

Until now, predicting social media users’ home locations was done by establishing the place from which they most often tweet or the common location for their last post of the day.

In the new work, researchers applied machine-learning techniques to identify in-the-moment user behavior.

That allowed them to predict users’ home locations accurately within 100 meters.

When they combined the tools, researchers were able to discover patterns of alcohol use in urban and suburban settings, information that they hope can have applications for prevention and public health programs.

—Leonor Sierra

Counting the Ages of Stars?

People tend to get a little set in their ways as they age. So, it turns out, do stars.

As stars grow older, their activity becomes more predictable, researchers have found. In a paper published in Monthly Notices of the Royal Astronomical Society, scientists describe a new conceptual framework for understanding how stars similar to the sun evolved.

The researchers explain how investigating the physics behind the speeding up or slowing down of a star’s rotation, its x-ray activity, and its magnetic field generation can allow scientists to begin to plot the evolution of stars.

Using the sun as the calibration point, the model describes how the sun likely behaved in the past and how it’s expected to behave in the future. For stars of similar mass and radius, the model yields useful predictions.

Scientists aren’t yet able to accurately predict a star’s precise age, but lead author Eric Blackady, a research assistant professor in Yule’s lab, the team discovered that all four units that make up the protein must be “turned on” for calcium to increase and start fluid secretion. Yule believes the complexity is likely a safety feature, ensuring that the calcium channel opens only in particular circumstances. That avoids harm to the protein, one of several roles in the cell. Yule hypothesizes that calcium is also detrimental.

The team is continuing its research to investigate how specific genetic diseases affecting the protein result in brain and immune system disorders.

—Emily Boynton
Get Set for Meliora Weekend 2016

The 2016 edition of the fall celebration features big names in music, filmmaking, and political and cultural commentary.

Legendary singer Tony Bennett, acclaimed documentary filmmaker Ken Burns, the hosts of MSNBC’s Morning Joe—Joe Scarborough and Mika Brzezinski—singer-songwriter Ben Folds, and The Daily Show host Trevor Noah are the featured guests at this fall’s Meliora Weekend.

The annual celebration, October 6–9, will also mark the celebration of the success of The Meliora Challenge Campaign for the University of Rochester. Set to formally conclude on June 30, the Campaign has raised more than $1.3 billion in support of research, faculty professorships, student scholarships and fellowships, new construction and improvements to facilities and buildings, and new programs.

Registration and ticketing for the weekend opens in July. For more information, visit Rochester.edu/melioraweekend.

WEEKEND REPORT: Special guests for October’s Meliora Weekend include (clockwise from top left) Joe Scarborough and Mika Brzezinski of MSNBC’s Morning Joe, filmmaker Ken Burns, singer-songwriter Ben Folds, The Daily Show host Trevor Noah, and singer Tony Bennett. The weekend also includes celebrations to mark the success of The Meliora Challenge Campaign.
Global Rochester: Zambia and Malawi

Neurologist Gretchen Birbeck confronts seizure disorders in sub-Saharan Africa.

Gretchen Birbeck's first trip to Zambia came in 1994, when she was a University of Chicago medical student completing an elective at the remote Chikankata Mission Hospital, about 75 miles south of the capital city, Lusaka. More than two decades later, she spends half her year in sub-Saharan Africa, working to improve care for people with seizure disorders.

The Edward A. and Alma Vollertsen Rykenboer Professor in Neurology at Rochester, Birbeck is the director for Chikankata's Epilepsy Care Team. She’s also an adjunct faculty member at the University of Zambia.

Seizure disorders can be caused by many medical conditions, and they’re more common in the developing world. Neurological and psychological disorders account for about a quarter of the global burden of disease, and much of that is in developing countries,” says Birbeck.

“There’s a disconnect between where disease is and where experts are,” she says. She works to redress that disconnection, providing clinical care and conducting research. As a result, more than 3,000 patients have received treatment they otherwise wouldn’t have. And she has helped make changes to Zambia’s national policy that could help many more.

She’s also working to build up the resources and networks necessary to conduct clinical trials in Africa, and to create education and training programs for health care providers and researchers. She’s involved in several malaria research in Malawi and Uganda, and mentors post-graduates and junior faculty carrying out research in Zambia, Malawi, Kenya, and South Africa.

While creating access to specialty health care is critical, Birbeck finds that tackling stigma and misinformation is also key. The difficulties are complex. There aren’t only problems diagnosing, finding treatment options, and getting access to medication. Open flames from fires and bodies of water also pose significant threats. “Burns and drowning,” she says, “are two of the most common causes of death of people with epilepsy in developing countries.”

In the years that Birbeck has been traveling to Africa, she has seen “slow inroads” in Zambia for treating epilepsy, with improvements in general services and better access to information about the disease. Meanwhile, a “roll back malaria” campaign has transformed the incidence of malaria seizures in Zambia, though Malawi hasn’t seen such success. Efforts to deal with malaria haven’t kept pace with those for epilepsy, but there have been advances. “I’m not convinced malaria eradication is likely, but there are improvements in infection rates,” she says.

Overall, though, Birbeck sees reasons for optimism. “There’s much more expertise in country,” she says. “Junior people are coming back as senior people, and staying.”

Their efforts are an amalgam of teaching people about seizures and making care available to them. Both are essential, she says, and her research and clinical care are different but interrelated efforts to improve the lives of people with epilepsy and other seizure disorders. “We’re educating the public, but we also work with the health care structure to ensure there are providers and treatment,” she says.

StopPress: Birbeck has provided care for more than 3,000 patients with seizure disorders in Africa during two decades of work there.
Six Yellowjackets Receive All-America Honors

Six Rochester athletes earned All-America honors this spring, in basketball, squash, and the heptathlon.

Alexandra Leslie ’18 was named a first team All-American by D3hoops.com and a third team All-American by DIII News. Since the end of last season, Leslie has received eight postseason honors, including three All-America teams, two All-Region teams, and one All-League team. She was also named Player of the Year at both league and regional levels.

For the second straight year, and only the third time in the 58-year history of the squash program, Rochester had four All-Americans, as named by the College Squash Association. Ryosei Kobayashi ’17 and Mario Yanez Tapia ’17 were first team All-Americans, and Neil Cordell ’16 and Tomotaka Endo ’18 were second team.

The awards capped off the most successful season in Rochester squash history, as the Yellowjackets earned a 12–4 record and reached the national championship match for the first time, falling in a 5–4 match to host Yale.

Pat Rice ’16 produced outstanding finishes in his last two events in the NCAA Division III heptathlon and garnered All-America honors. He finished fourth overall with 4,931 points at the New York state championships this winter. That was just shy of his Rochester record in the competition (4,980 points). —Dennis O’Donnell

SPRING AWARDS: Yellowjackets earning All-America honors this spring were Pat Rice ’16 (clockwise from above), Ryosei Kobayashi ’17, Tomotaka Endo ’18, Neil Cordell ’16, Mario Yanez Tapia ’17, and Alexandra Leslie ’18.

HIGHLIGHTS

Spring Sports Roundup

By Dennis O’Donnell

Rochester’s rowers won the coveted Kerr Cup in Philadelphia and followed that with a victory by the first varsity 8-shell team in the Liberty League championships.

At the 50th edition of the Kerr Cup, the first and second varsity women’s teams prevailed in the finals over Franklin and Marshall, Bryn Mawr, and Mary Washington.

At the Liberty League championships, Rochester was seeded third and edged leader William Smith with a sprint over the last 250 meters to win by less than a second.

Here’s a look at how the other teams were faring as April came to a close:

**Baseball**: Rochester was a game out of first place at 10–6 in the Liberty League. Evan Janifer ’16 had a 4–2 record and a 1.16 ERA. John Glyths’18 had 5–0 with a 1.90 ERA.

**Golf**: The Yellowjackets finished second at the Liberty League spring championships. Four golfers will earn Scholar All-America honors from the Golf Coaches Association of America this year.

**Lacrosse**: Three goals in the first three minutes lifted Rochester to a 14–4 victory over Bard College for the first Liberty League win of the season and fourth overall. Jamie Walisch ’17 and Madeline Levy ’18 each had 31 goals with the season winding down.

**Softball**: Rochester was tied for first in the Liberty League (with RPI) at 8–2. Elizabeth Bourne ’19 spun a two-hit shutout over regionally ranked Corfand in late April. At the UAA tournament, Eleni Wechler ’17 had a save and a save as Rochester topped second-ranked Washington twice.

**Men’s tennis**: Rochester roared off a six-match winning streak, four of those wins with 9–0 scores, heading into the UAA championships. Ben Shapiro ’16 was the overall leader in singles victories (15). Aaron Mervorah ’18 was second (14).

**Women’s tennis**: The Yellowjackets posted victories over William Smith, Ithaca, Nazareth, and RIT. Alex Wolkoff ’18 had 11 singles wins and Lauren Zickar ’17 had 10. The doubles team of Carina Garcia ’19 and Christine Ho ’16 was 16–10.

**Men’s track and field**: The team met eight ECAC qualifying standards at the Bucknell Invitational against competition from all three NCAA divisions.

**Women’s track and field**: The Yellowjackets broke three school records at the Bucknell Invitational: the 3,000-meter steeplechase, the 5,000-meter run, and the 4x400 relay.

ACCOLADE: Maura McGinnity ’87, ’96 (MBBA) (right) was recognized last fall with a Garnish Citation Award, presented by George Vanderburg, executive director of athletics and recreation. A member of the 1986 national championship women’s soccer team, McGinnity is the development director of interdisciplinary biosciences at Stanford University. Named for a former coach, the late Lyle (Spike) Garnish, the award recognizes support of the intercollegiate athletics program.