Learn, discover, heal, create—and make the world ever better
Message from the President

In 2012–13, we marked a momentous year in the history of our University. We substantially completed the strategic plans that we set out on in 2008, and with Board approval embarked on an ambitious new strategic plan in October 2013.

By 2018, we envision that Rochester will have fortified its position as one of the nation’s leading research universities consistent with our core values of academic excellence, academic freedom, diversity, and community. Fundamental to our progress will be continued strengthening of our faculty, students, and staff.

Five years from now, we intend to be “Ever Better” in the quality of our teaching, research, clinical care, and creative arts.

During the next five years, we will make major commitments to data science; health care; faculty growth in Arts, Sciences & Engineering; new or expanded programs to support learning and research; improved infrastructure; and classroom and library renovation.

We are building on remarkable momentum as we look forward to the next five years.

When normalized for faculty size, we rank 15th in federal research funding among the 176 top funded research universities, with more than $400 million in total sponsored research during 2010 and 2011 and $348 million in 2012.

Our student body has grown from 8,300 total students in 2004 to 10,510 this past year, achieving the goal of our 2008 strategic plan. Since 2005, we have received $157.3 million in commitments for scholarships, fellowships, and other support for students.

Undergraduate student quality and diversity have been strengthened. At the College we have seen increases of high school GPAs and in the two-score equivalent SAT. Simultaneously the percentage of our underrepresented minority and international students has increased.

Tenured, tenure track, clinical, and other instructional staff have grown from 2,009 in 2004 to 2,499 in 2012. Since 2005, we have created or received commitments to create 65 new endowed professorships and deanships.

New programs have been developed throughout the University, including the Health Sciences Center for Computational Innovation; the University-wide Center for Integrated Research Computing; 14 new majors in Arts, Sciences & Engineering, including those in international relations, public health, and digital media studies, and the Barry Florescue Undergraduate Business Program; and the Center for Medical Technology Innovation jointly developed by the School of Medicine and Dentistry and the Hajim School of Engineering & Applied Sciences.

Twenty-four new major facilities projects have been completed or initiated since 2005.

We have grown to be greater Rochester’s largest employer with 22,019 full-time equivalent jobs, making the University the seventh-largest private employer in New York state, with an increasing role in the community as the provider of 47,000 direct and indirect jobs, $2.4 billion in direct and indirect wages, $66.9 million in uncompensated health care in 2012, and, since 1996, 55 start-up companies using University-licensed technology.

As of June 30, 2013, through the Meliora Challenge, our first comprehensive capital campaign since 1924, we have raised in cash and commitments $945 million or 79 percent of the June 30, 2016, goal of $1.2 billion.

Such support is a testament to the commitment of our alumni, faculty, staff, parents, and friends. Our University is a remarkable institution, one that demonstrates the true meaning of Meliora.

In coming years, I am confident that I will have additional reports of accomplishment to share with you.

Joel Seligman
Connecting to Data Research

How do you answer big questions? Address complex and multidimensional problems? For as long as universities have existed as centers of research, the answer has been to break large questions and ideas into their component parts.

But in the era of "big data," says Henry Kautz, chair of the computer science department, it’s possible to yield insights about all kinds of systems—physical, biological, and social—on a scale that was unimaginable only a few years ago.

“Big data” is no mere buzzword, says Kautz, who organized the Rochester Big Data Forum, a gathering of experts in big data analytics and its applications from around the nation held last October. To the contrary, Kautz contends, big data is "real and important, a new way of connecting science and computing." It refers to our ability, rooted in advances in computer technology and data science, to process and analyze vast quantities of data. It offers a fresh capacity to see how things interrelate, from the molecular level to the level of an entire population.

This year Kautz, postdoctoral researcher Adam Sadilek ’12 (PhD), and the Medical Center’s Vincent Silenzio showcased the capabilities of big data in a project they called TwitterHealth. Using geotags embedded in the hundreds of millions of tweets posted daily on the microblogging service Twitter, Kautz, Sadilek, and Silenzio were able to program supercomputers to analyze the posts. By identifying messages in which users reported illness, the Rochester team created models that tracked the transmission of influenza and other diseases. The models were able to predict if an individual was likely to get sick, results that may open a new frontier for research on basic questions of public health.

Throughout campus, Rochester researchers are adopting big data tools to address a wide range of questions. In the political science department, Professor Curt Signorino has used tools designed to mine and analyze genetic and financial data to address the question of why nations go to war. In earth and environmental sciences, Professor Carmala Garzione and her team are able to analyze data sets of unprecedented size and complexity to work “across disciplinary boundaries to understand how the earth behaves as a complex system.”

Rochester is likely to remain a leader in data science. Home to the Health Sciences Center for Computational Innovation—a partnership among the University, New York state, and IBM—Rochester became one of the five most powerful university-based supercomputing sites in the nation this year when the center upgraded to IBM’s next-generation supercomputer, the Blue Gene/Q. With the capacity to make more than 200 trillion calculations per second, the Blue Gene/Q is 15 times more powerful than its predecessor. David Topham, vice provost and executive director of the center, says the Blue Gene/Q is “truly a new domain” for research and the way we study, monitor, and treat disease.
University Creates Institute for Popular Music

What's that sound? For much of the past century, it's been the music of popular culture, a shifting soundscape that has traditionally received little academic attention. A new School of Arts & Sciences initiative, the Institute for Popular Music hopes to change that by providing an educational framework for exploring pop music with the same rigor that traditionally has been given to genres such as classical or jazz.

Under the direction of John Covach, the Mercer Brugler Distinguished Teaching Professor, chair of the College’s Department of Music, and professor of music theory at the Eastman School, the institute brings together faculty members at Rochester and an advisory board from the United States and the United Kingdom to support research in musicology, music theory, ethnomusicology, and music performance.

Eastman School Inaugurates Paul R. Judy Center for Applied Research

Musicians facing a changing landscape when it comes to audiences and support for the arts have a new resource at the Eastman School of Music’s Institute for Music Leadership. The Paul R. Judy Center for Applied Research helps young musicians learn how to navigate the challenges of today’s music world and turn their passions into careers. Named in honor of philanthropist Paul Judy, the chairman of the Chicago Philharmonic Society, life trustee and former board president of the Chicago Symphony Orchestra, and the founder of Eastman’s Orchestra Musician Forum and online resource center Polyphonic.org, the center will support research on innovative ensemble models and be an incubator for ensembles that can find success in the changing music world.

Rochester Joins Coursera

Students signing into the interconnected world of education are getting a chance to study with a few of Rochester’s faculty members. The University joined more than 50 colleges and universities around the globe as part of Coursera, one of the leading providers of massive open online courses. An initial set of three courses that got under way during the spring 2013 semester is part of Rochester’s ongoing exploration of online education.
How does Rochester connect to the wider world? With increasing numbers of students enrolling from overseas, the expansion of study abroad programs, record numbers of graduating seniors earning Fulbright scholarships for overseas study, and research partnerships with organizations such as the Worldwide Universities Network.

In Arts, Sciences & Engineering, the proportion of students enrolling from abroad has risen steadily in the past decade. In the College, the incoming Class of 2016 included a record 15 percent enrolling from abroad. International students make up almost a quarter of the student body at the Eastman School, and more than half of graduate students in the Hajim School and at the Simon School.

Faculty and students of all nationalities are taking advantage of an expanding array of opportunities for study and collaborations abroad. Faculty at the Eastman School have performed or taught master classes in 35 countries around the world. At the School of Medicine and Dentistry, about 40 percent of medical students of all nationalities participate in a program outside the United States as part of their medical education.

In 2013, a record number of graduating seniors earned Fulbright scholarships for overseas study, with projects taking them to Bangladesh, Germany, India, Japan, Jordan, Russia, Spain, Thailand, Turkey, and the United Kingdom.

Also this year, Rochester was one of only three American universities invited to join the Worldwide Universities Network, an organization to expand and enhance research and graduate education collaborations around the globe. With more than 30 research initiatives in its portfolio, the network aims to use the combined resources and intellectual power of its member universities to achieve collective international objectives and to expand international ambitions.

“Our collaborations with the Worldwide Universities Network will open innumerable possibilities as the University engages with faculty and students across five continents,” says President Joel Seligman, highlighting the ability of Rochester faculty and graduate students to participate in conferences, workshops, and virtual seminars that stem from network efforts. “We expect the alliance to produce even more support for scholarly research and break the barriers that may keep people in different parts of the world from working toward common goals.”

Connecting to the World
Understanding the Building Blocks of Disease

Why does a species of exotic subterranean rodent—the naked mole rat—never get cancer, despite a 30-year life span? A Rochester research team may have the answer.

Led by Vera Gorbunova, professor of biology, and Andrei Seluanov, assistant professor of biology, the group has discovered that the animals’ tissues are rich in a chemical called high molecular weight hyaluronan, or HMW-HA, a substance that stops tumors from developing. While the chemical may be an adaptation to life in underground tunnels, the finding could prove of broad benefit if it leads to new cancer treatments in people. If further tests go well, the team hopes to try the chemical—which is already used in antiwrinkle treatments and injections to ease arthritis pain in knee joints—on human cells.

Such seemingly simple discoveries can alter the understanding of some of the most dreaded diagnoses that humans face. And the research of Gorbunova and Seluanov is just one example of the kind of work undertaken by Rochester teams of biological and medical scientists, part of the University’s long history of groundbreaking work to understand the mechanisms of disease.

A multi-institutional team of researchers has pinpointed the genetic traits of the cells that give rise to gliomas, the most common form of malignant brain cancer. The findings provide scientists with a promising new set of potential targets to treat the disease. A research group led by Steven Goldman, URMC Distinguished Professor in Neurosciences and codirector of the Center for Translational Neuromedicine, has identified and isolated the cancer-inducing stem cells in gliomas. Traditional cancer therapies often do not prevent recurrence of the disease because they may not effectively target and destroy the cancer-causing stem cells that lie at the heart of the tumors.

Most scientists are starting to agree that repeated, subconcussive hits to the head are dangerous and linked to neurological disorders later in life. A new collaborative study discovered that damage to the blood-brain barrier and the resulting autoimmune response may be the culprit. The research, coauthored by Jeffrey Bazarian ’87M (MD), ’90M (MD), ’02 (MPH), associate professor of emergency medicine, suggests a new way of thinking about concussions: brain degeneration could result from an out-of-control immune response similar to what multiple sclerosis patients experience. If so, this could open the door to investigating a vaccine or drug therapy to prevent head trauma.

A newly discovered system by which the brain removes waste may be a potentially powerful new tool for treating neurological disorders such as Alzheimer’s disease. Using new imaging technology that enables scientists to peer deep within the living brain, Maiken Nedergaard, the Frank P. Smith Professor of Neurosurgery, and colleagues have been able to observe and document what amounts to an extensive, and previously unknown, plumbing system responsible for flushing waste from the brain—creating significant implications for the treatment of neurological disorders.
Daugerreotypes’ Life Extended through Nanotechnology

A Rochester project may help save images created in the 19th century from disappearing. Using 21st-century advances in the understanding of how light, chemicals, and materials interact at the scale of nanometers, Nicholas Bigelow, the Lee A. DuBridge Professor of Physics, is working with Ralph Wiegandt, senior project conservator at the George Eastman House International Museum of Photography and Film, to arrest degradation that’s begun to dim, if not destroy, many daguerreotypes, a technology for producing photographs of stunning clarity.

The Uncertainty Principle Challenged

Taking a measurement that once seemed impossible has been accomplished by physicists at Rochester and the University of Ottawa. Led by Robert Boyd, professor of optics, who has appointments at both universities, the team applied a recently developed technique to make the first direct measurements of polarization states of light—the directions in which the electric and magnetic fields of light oscillate. Such direct measurements long seemed impossible because of a key tenet of the uncertainty principle: that certain properties of a quantum system could be known only poorly if certain other related properties were known with precision.

The ability to make such measurements challenges the idea that full understanding of a quantum system cannot be attained through direct observation.
The Search for the Higgs Boson

When an international team of scientists announced that they had homed in on evidence for one of the long-sought keys to the standard model of physics, the report had particular resonance at Rochester. Carl Hagen, professor of physics, was one of six physicists who in the 1960s developed a theory that explained how particles acquire mass, positing the existence of a particle that’s since come to be known as the Higgs boson. Last summer, scientists at the Large Hadron Collider in Switzerland reported that they had discovered a particle “consistent with the Higgs boson.”

The research in Switzerland also included work by Rochester’s Arie Bodek, the George E. Pake Professor of Physics; Regina Demina and Paul Slattery, professors of physics; Aran Garcia-Bellido, assistant professor of physics; Pawel deBarbaro, senior scientist and senior laboratory engineer; and Sergei Korjenevski, engineer.

Terahertz Research on the Rise

A formerly little-studied “gap” in the electromagnetic spectrum is getting new attention, thanks to Xi-Cheng Zhang, the M. Parker Givens Professor of Optics. Zhang, who began an appointment as director of the Institute of Optics in 2012, is considered one of the leading experts in understanding the terahertz band, a frequency region between microwaves and infrared that shows great promise for applications in biomedical imaging, the pharmaceutical industry, and materials testing. Optics postdoctoral research associate Bianca Jackson demonstrated some of the promise of applying terahertz-based technology to the worlds of art and culture when she reported the results of projects that peered—at least metaphorically—under the surface of a 19th-century fresco in the Louvre Museum. Her team detected the painting of a face of an ancient Roman man hidden below the layers of paint.
What happens to children’s brains as they learn? New research led by Jessica Cantlon, assistant professor of brain and cognitive sciences, indicates that the brain’s neural structure, like other parts of the body, develops along predictable pathways as we mature.

In an experiment she reported this year, Cantlon used functional magnetic resonance imaging scans to capture the neural responses of children between ages 4 and 11—as well as those of 20 adults—as they watched a 20-minute *Sesame Street* video featuring short clips focused on numbers, words, shapes, and other subjects. The result? Children whose neural maps more closely resembled the neural maps of adults scored higher on standardized math and verbal tests.

Cantlon is just one of many Rochester researchers on a quest to learn about our cognitive processes and how they affect our experience of the world. And not just for humans—in another study, Cantlon showed that baboons seem to have the ability to understand numbers. Working with colleagues at the University and at the Seneca Park Zoo in Rochester, she found that baboons understand quantity using a “more than, less than” approach—also known as the analog system. Research has shown that children who have not yet learned to count also depend on such comparisons to discriminate between number groups, as do adults when required to estimate quantity quickly.

People whose brains are better at unconsciously filtering out background motion perform better on standard measures of intelligence, according to a new study led by Duje Tadin, assistant professor of brain and cognitive sciences, and doctoral candidate Bryan Harrison ’10 (MA). A simple visual test they developed is the first purely sensory assessment to be strongly correlated with IQ and may provide a nonverbal and culturally unbiased tool for scientists seeking to understand neural processes associated with general intelligence.

Tadin also helped lead a study indicating that children with autism see simple movement twice as quickly as other children their age, and the hypersensitivity to motion may provide clues to a fundamental cause of the developmental disorder. Such heightened sensory perception in autism may help explain why some people with the disorder are painfully sensitive to noise and bright lights. It also may be linked to some of the complex social and behavioral deficits associated with autism.

Glial cells—a family of cells found in the human central nervous system and, until recently, considered mere “housekeepers”—now appear to be essential to the unique complexity of the human brain. Scientists reached that conclusion after demonstrating that when transplanted into mice, the human cells could influence communication within the brain, allowing the animals to learn more rapidly. The study, coauthored by Steven Goldman, URMC Distinguished Professor in Neurosciences and co-director of the Center for Translational Neuromedicine, suggests that the evolution of astrocytes—a subset of glia cells that are larger and more complex in humans than in other species—may have been one of the key events leading to the higher cognitive functions that distinguish us from other species.

A study by Richard Aslin, the William R. Kenan, Jr. Professor in the Department of Brain and Cognitive Sciences, and doctoral candidate Celeste Kidd ’11 (MA) shows that being able to delay gratification is influenced as much by the environment as by innate ability. For the past four decades, the famous “marshmallow test” has served as a classic experimental measure of children’s self-control: will a preschooler eat one of the fluffy confections now or hold out for two later?

In the new study, children who experienced reliable interactions immediately before the marshmallow task waited on average four times longer—12 versus 3 minutes—than youngsters in similar but unreliable situations. The robust effect of manipulating the environment, the authors conclude, provides strong evidence that children’s wait times reflect rational decision making about the probability of reward.
Heal
Providing Health Care to a Broader Area

As economic, political, and demographic shifts have begun to alter the landscape of health care, the University’s Medical Center is expanding its ability to provide top-flight care to a broader region of upstate New York as part of a strategy of careful growth.

The formula also is designed to better ensure cost-effectiveness in a medical landscape changed by health care reform, evolving expectations for care, and other factors.

In 2012, the Rochester-based Pluta Cancer Center legally transferred its programs and services to the Medical Center, providing Pluta patients easier access to state-of-the-art research and promising clinical trials.

“This is a terrific example of leveraging the strengths of two outstanding providers to better serve cancer patients in our community,” says Bradford C. Berk ’81M (MD), ’81M (PhD), University senior vice president for health sciences and CEO of the Medical Center.

And in June, Lakeside Health System announced plans to sell most of the system’s assets to the Medical Center. The deal breathes new life into the Brockport, N.Y., medical campus, reestablishing urgent care and outpatient services after the system closed its hospital to patients in the spring.

The facility, renamed Strong West, will eventually house a freestanding emergency department, an ambulatory surgery center, orthopaedic surgeons, urologists, and other specialists along with labs, radiology, and a pharmacy.
Small Change Leads to Huge Benefits for Heart Patients

A small, very simple change in the way that physicians program defibrillators—devices designed to detect and correct dangerous heart rhythms—can make an enormous difference for patients. That’s according to a study led by Arthur Moss ’62 M(Res), ’65 M(Flw), professor of cardiology and a world-renowned expert on the treatment and prevention of heart arrhythmias and sudden cardiac death. Moss and his team reported that by raising the heart rate at which the devices were set to deliver therapy, patients saw a dramatic 80 to 90 percent reduction in potentially painful and anxiety-provoking shocks delivered for rhythms that weren’t dangerous or life-threatening.

Highland Family Medicine Recognized as National Model

An initiative to identify practice innovations that make primary care more efficient, effective, and satisfying to patients and providers has earned national accolades for Highland Family Medicine. The practice was one of 30 nationwide selected as an Exemplar Primary Care Practice by the Robert Wood Johnson Foundation and Group Health Research Institute.
Centers Explore New Research Avenues

The Medical Center has opened the doors on a new facility that will enable researchers to create, study, and ultimately use stem cells and their offspring in early-phase experimental human therapies.

The Upstate Stem Cell cGMP Facility—which will be used by academic and private-sector scientists from across New York—was created with $3.5 million in support from the Empire State Stem Cell Board.

And the National Institutes of Health has named the University a Center for AIDS Research, a designation that will help to support HIV/AIDS work across the University. Rochester is one of only 18 NIH-designated centers in the country.

Surgeon Leads Restructured Medical Faculty Group

Trauma surgeon Michael Rotondo has been appointed chief executive officer of the Medical Faculty Group. Rotondo returns to his hometown from the University Health Systems of East Carolina, where he was surgery chair. In addition to responsibilities for overseeing the 1,000-physican faculty group, Rotondo was also appointed senior associate dean of clinical affairs, professor of surgery, and associate vice president for administration at Strong Memorial Hospital.
Celebrating the Arts

Creativity unites scholarly endeavors across disciplines at Rochester. It especially unites the arts—literary and theatrical, visual, and musical.

In his 2012 book *The Virtues of Poetry*, the Joseph Henry Gilmore Professor of English James Longenbach, himself a renowned poet, explores poetry as a unique literary art form. What animates great poetry, and why does great poetry matter? Poetry treats language not as “a disposable vessel for information,” Longenbach concluded, but remarkably, while “shaping the raw material of a language into a set of patterns,” showcases the power of words and ways in which language is transformed into art.

At the Eastman School, musical creation was the theme behind a festival celebrating the 150th birthday of Claude Debussy, one of the most distinguished and innovative composers in musical history. Incorporating influences from other musical genres, theatrical elements, and stylistic devices inspired by France’s literary Symbolists, Debussy forged a whole new approach to the European classical tradition. The festival itself marked “a celebration of the creative artistry of Debussy but also of the combined creative resources of our school,” says Marie Rolf ’77E (PhD), professor of music theory and the festival’s artistic director.

Over one winter weekend, Rochester held Day of the Arts, a series of events combining dance, music, theater, and visual arts to highlight the breadth and depth of creative endeavors taking place at the University within a 24-hour timeframe. The celebration was a collaboration among the Eastman School, the Division of Medical Humanities and Bioethics at the Medical Center, Open Letter Books, the Memorial Art Gallery, and several humanities departments from Arts, Sciences & Engineering.
1893 Organ Makes Debut

A newly restored 1893 organ made its concert debut as part of a project of the Eastman School of Music and its Eastman Rochester Organ Initiative. The Hook & Hastings organ, made by one of the premier American organ builders of the 19th century, has been installed in Christ Church in Rochester, where it is used for teaching, practice, and public recitals by Eastman students and faculty and guest artists, as well as for church services. The restoration of the organ was made possible by a generous grant from the Kilian J. and Caroline F. Schmitt Foundation.

Carillon Rings In 40 Years

The University celebrated 40 years with the Hopeman Memorial Carillon, the iconic River Campus landmark housed high within the Rush Rhees Library tower. In a series of free outdoor concerts on the Eastman Quadrangle, performers from around the world played selections of American classics and lullabies, songs from Broadway musicals, as well as compositions written specifically for the carillon.

The carillon, installed in November 1973, consists of 50 bells cast in bronze by Royal Eijsbouts, a bell foundry in Asten, Netherlands. One of only seven carillons in New York, the instrument, which weighs more than three tons, is regularly played by students in the University’s Carillon Society. Throughout the year, players mark every quarter hour with the traditional melody “Westminster Quarters.”
Fringe Festival Debuts
With almost 200 performances—including an excerpt of Bound(less), a large-scale, vertical dance performance by the group Bandaloop—the first edition of the Rochester Fringe Festival drew an audience of more than 33,000. Theater producer Erica Fee ’98 returned from London to lead the effort to create a fringe festival in Rochester. The University sponsored and supported about 30 shows.

Hajim School Students Win da Vinci Award
A project designed by five students from the Hajim School may be giving new mobility to people with disabilities. The students—Travis Block ’12, Sara Hutchinson ’12, Dominic Marino ’12, David Narrow ’12, and Martin Szeto ’12—created the MonoMano Cycling Control System, a device that enables cyclers to steer, brake, and shift gears with one hand on a recumbent tricycle. The device is intended as an adaptive technology for people with disabilities.

The National Multiple Sclerosis Society’s Michigan Chapter presented the team with the Student of da Vinci Award at a gala ceremony in Dearborn, Mich. The students have started a company, MonoMano Cycling, to market their system and develop other technologies.

Street Scene at Eastman Opera Theatre
The stage of Kodak Hall was transformed into a New York City tenement when students in Eastman Opera Theatre presented Kurt Weill’s Street Scene. Adapted from a Pulitzer Prize-winning play, the opera depicts the daily lives of a group of tenement residents, following their problems, fights, desires, and frustrations over two sultry days. Playwright Elmer Rice wrote the libretto with the poet Langston Hughes.
Eastman Wind Ensemble Turns 60

A four-day series of events marked the 60th birthday of the Eastman Wind Ensemble in February 2013. The centerpiece of the celebration was a concert at Kodak Hall featuring music by Mozart and Stravinsky performed during the premiere concert in 1953, as well as a new work commissioned by the ensemble from Douglas Lowry, the late Joan and Martin Messinger Dean of the Eastman School of Music.

Since its establishment in 1952 by legendary conductor Frederick Fennell ’37E, ’39E (MS), ’88E (HNR), the internationally acclaimed ensemble has premiered more than 150 works by composers around the world and is widely credited as the pioneering force in the symphonic wind band movement.

Vocal Point Sings at White House

Eleven members of the all-female a cappella group Vocal Point helped celebrate the December holidays at the White House. The group sang holiday classics, including traditional Christmas carols and Hanukkah songs, for guests and visitors taking the annual White House holiday tour.
**Eastman Quartet Performs at Presidential Inauguration**

Four Eastman students entertained President Barack Obama, Vice President Joseph Biden, and distinguished guests at the Presidential Inaugural Luncheon in the U.S. Capitol on Inauguration Day 2013.

Appearing as the Eastman String Quartet, violinists Che Ho Lam ‘13E and master’s student Markiyen Melnychenko ‘12E, cellist Hyeok Kwon ‘13E, and violist Kelsey Farr ‘11, ‘13E (MM), performed during the luncheon program, which featured the theme “Faith in America’s Future.”


**Open Letter Wins NEA Grant**

A University initiative to share the world’s leading literary voices was recognized by the National Endowment of the Arts. Rochester’s Open Letter Books won a $45,000 grant to support the promotion of books in translation and the continuation of its website and blog, Three Percent. Open Letter is one of only a handful of presses in the United States devoted solely to works in translation.

**Rhinestone Drone**

An 18-foot-long, rhinestone-covered replica of a U.S. Predator drone was the focal point of a multimedia art exhibit by University senior lecturer Heather Layton in collaboration with Brian Bailey of Nazareth College.

The exhibit, *Home Drone*, mounted at the Hampden Gallery at the University of Massachusetts–Amherst, challenged viewers to imagine that thousands of deadly drones had attacked the United States—specifically in Massachusetts—rather than in Pakistan, Yemen, or Afghanistan.

Layton and Bailey, who were named “citizen diplomats” by the U.S. Department of State in 2012, have previously created art installations designed to challenge assumptions about urban gun violence and fears of other cultures.
More than 100 children from the Rochester City School District filled the new classrooms of LeChase Hall this summer with an energy matched only by the bright yellow shirts describing their six-week summer enrichment program: “Horizons at Warner.”

Launched at the Warner School of Education in 2010, the program is designed to help elementary and middle school students stay engaged over the summer with learning in math, reading, social studies, and literacy. Such engagement during the “summer slide” has been demonstrated to improve educational performance the rest of the school year.

Horizons is the latest example of the Warner School’s long-standing ties to Rochester’s educational community. In addition to several other summer and after-school programs, the school’s faculty and students work closely with teachers in the Rochester area on educational projects, research initiatives, and professional development opportunities.

It’s a commitment that was stretched to its limit until this spring, when the doors opened on Raymond F. LeChase Hall, the Warner School’s new home on the River Campus. Named in honor of the pioneering founder of Rochester’s LeChase Construction, the building was made possible thanks largely to a lead gift from R. Wayne LeChase—a University trustee, chairman of LeChase Construction, and Raymond LeChase’s son—and his wife, Beverly.

The new building features facilities such as a “methods” classroom where instructional approaches can be demonstrated to prospective teachers; a technology center available to students 24 hours a day, seven days a week; community spaces for school and campus events; and designated work space for the school’s more than 600 full- and part-time graduate students.

“We were bursting at the seams,” says Raffaella Borasi, dean of the Warner School since 2000. “Every single closet was used as an office; we had no storage space; people were sharing offices. At the same time, we were borrowing classrooms from everywhere else in the University.

“And, as we looked at our strategic plan, we realized that we still had significant capacity for growth.”

Under the direction of Borasi, who is also the Frederica Warner Professor, the school has grown faster than any other academic division within the University, more than doubling in student enrollment and tripling in its support from state and federal grants. At the same time, the school has added several programs aimed at supporting schools in the Rochester area and launched new initiatives to research educational practices to advance education and policy across the country.

The building will allow the school to continue to explore new ways to improve the lives of teachers, students, and other members of the community, says Borasi.

“What is most exciting to me are the different things that this new space will allow us to do—which is developing a greater sense of community and encouraging more collaboration among faculty, staff, and students; having specialized facilities that will allow us to better prepare teachers and counselors; and making it possible to expand in some new exciting directions identified as promising in our strategic plan.”
Grant Holcomb remembers when the entrance to the Memorial Art Gallery was on the north side of the building, away from University Avenue. And just a few years ago, there was a wrought-iron fence marking the borders of the 17 acres of the gallery’s grounds.

As Holcomb, the Mary W. and Donald R. Clark Director of the Memorial Art Gallery, walks around those grounds today, much has changed. The main entrance is on the south side of the building, where most visitors see it more easily; most of the fence is down, and 10 of the 17 acres have become an outdoor showcase of public art designed to celebrate the gallery’s cultural leadership and to enhance the gallery’s connections to the surrounding neighborhoods.

Holcomb says the physical changes represent what the gallery has always been about: “Becoming more accessible—physically, architecturally, programmatically—to a broader community.”

To mark the gallery’s 100th anniversary in 2013, the University formally dedicated Centennial Sculpture Park, a landscaped urban space with installations by four nationally recognized sculptors. The new park also features sculptures from the gallery’s collections, interactive walkways, whimsical gathering places, and venues for public performances—all part of an effort to transform the city’s Neighborhood of the Arts into an outdoor museum.

The project draws on the heritage of the gallery’s founding in 1912, when the museum’s chief benefactor, Emily Sibley Averell Watson, stipulated that the gallery be open to all citizens of the community.

It’s a legacy that the gallery celebrates in its collections—which now number more than 12,000 pieces spanning 50 centuries of human culture—as well as in outreach and teaching programs. The gallery began holding community art classes as early as the 1920s, an initiative that continues today as the Creative Workshop. And with more than 1,100 volunteers, the gallery has more volunteers than any other art museum in the Northeast.

Holcomb credits a web of engaged artists, patrons, board members, and volunteers as a fundamental reason for the gallery’s success during its first 100 years.

“I now know fully what the phrase ‘the gallery family’ means,” Holcomb says. “Which is that different entities of the city come together to have, not only an art museum, but a nationally acclaimed art museum.”
College Town Gets Under Way
Students, faculty, staff, and community members will soon have a new place to shop, eat, and gather. That’s after work began this spring on a 500,000-square-foot project to create College Town, a planned, mixed-use development at the intersection of Mt. Hope and Elmwood avenues that’s designed to create an urban village center for students, residents, and shoppers.

Magnificent Meliora
More than 7,000 alumni, parents, students, faculty, and friends renewed their connections as members of the University family during the signature celebrations of Meliora and Eastman Weekends. An overflow audience gathered in Kodak Hall at Eastman Theatre for a keynote talk by ABC News correspondent Barbara Walters, who urged the sold-out audience to embrace the values of laughter and compassion in life.

Appointed
Three Elected As Trustees
Retired executive Carol (John) Davidson ’88S (MBA), retired senior vice president, controller, and chief accounting officer of Tyco International; Sandra Parker, president and CEO of the Rochester Business Alliance; and Timothy Wentworth, a parent of a graduate and a current Rochester student and senior vice president and president of sales and account management for Express Scripts in St. Louis, were elected to the University’s Board of Trustees.

New Dean of Nursing Named
Kathy Rideout ’95W (EdD), ’03 (Flw), a pediatric nurse practitioner at Golisano Children’s Hospital who has served as associate professor of clinical nursing and in administrative roles over the last 26 years, was named the dean for the School of Nursing.

Catherine Cerulli Leads Anthony Center
Catherine Cerulli, an academic and legal leader with more than two decades of commitment to battling domestic violence and victimization, was named the new director of the Susan B. Anthony Center for Women’s Leadership. She succeeded Nora Bredes, who led the center from 1999 to 2011, when she died of complications from breast cancer.

New Director of Religious and Spiritual Life Appointed
The Rev. C. Denise Yarbrough—a scholar, educator, and leader in the Episcopal Church and greater Rochester religious community—was appointed as the new director of religious and spiritual life. The position is charged with supporting the University’s faith communities housed at the Interfaith Chapel.

Melissa Mead Named University Archivist
Melissa Mead has been named the John M. and Barbara Keil University Archivist and Rochester Collections Librarian. Mead, who has worked in the Department of Rare Books, Special Collections, and Preservation for 16 years, succeeded Nancy Martin, who retired after serving as archivist since 2000.

Gail Norris Leads University’s Legal Team
Gail Norris, who has served as senior legal counsel for key aspects of University operations since 2005, was named vice president and general counsel for the University. She succeeded Sue Stewart, who had served in the role since 2003.

Director of New Intercultural Center Named
Longtime admissions and financial aid administrator Michelle Thompson-Taylor was appointed director of the University’s new Intercultural Center. In that role, Thompson-Taylor promotes engagement and collaboration among students, faculty, and staff in Arts, Sciences & Engineering.

Lymphoma Specialist Leads Wilmot Cancer Center
A hematologist and a national leader in lymphoma care and research, Jonathan Friedberg, the Samuel E. Durand Chair, has been appointed director of the Wilmot Cancer Center. He joined the Medical Center in 2002 and was named chief of the division of Hematology and Oncology in the department of Medicine in 2009.
Eli Eliav Named Director of Eastman Institute for Oral Health

A widely published expert in oral medicine and orofacial pain, Eli Eliav has been named director of the Eastman Institute for Oral Health and vice dean for oral health within the School of Medicine and Dentistry.

Stephen Dewhurst Named Vice Dean for Research

Stephen Dewhurst, the Dean’s Professor and Chair of Microbiology and Immunology, has been named vice dean for research at the School of Medicine and Dentistry. A past senior associate dean for basic research, Dewhurst is leading the school’s strategic planning for research in the new position, which was recommended by a faculty-led strategic planning committee.

Faculty Honored

Several faculty members were appointed to new named professorships and positions during the 2012–13 year.

Richard Kreipe ’81M (Flw) as the Dr. Elizabeth R. McAnarney Professor in Pediatrics Funded by Roger and Carolyn Friedlander

Richard Kreipe is the founding director of the Child and Adolescent Eating Disorder Program at Golisano Children’s Hospital. Trustee Roger Friedlander ’56 and his wife, Carolyn Friedlander ’68 PNP, longtime supporters of the University and the Medical Center, established the professorship to honor their friend Elizabeth (Lissa) McAnarney ’70M (Flw), professor and chair emerita of pediatrics. McAnarney has worked closely with Kreipe throughout his career.

David Bushinsky as the John J. Kuiper Distinguished Professor

David Bushinsky is a nationally recognized expert on kidney disease whose research has helped advance the understanding of a broad range of renal disorders. John Kuiper ’65M (Res) established the professorship to help the University attract and retain the best researchers and educators in the field of nephrology.

Ronald Goettler as the James N. Doyle, Sr. Professor in Entrepreneurship

Ronald Goettler, associate professor of business administration at the Simon School, is a leading expert on using structural econometric methods to understand consumer and firm behavior. The professorship was established by philanthropist James Doyle, Jr. in recognition of his father, James Doyle, Sr., a longtime member of Simon faculty who inspired his son’s work.

David Primo as the Ani and Mark Gabrellian Professor

David Primo is an expert in American politics, campaign finance regulation, and fiscal policy. Established in the fall of 2011 by Ani ’84 and Mark Gabrellian ’79, the position recognizes a multidisciplinary scholar and teacher whose work bridges two or more academic fields.

Mary Ann Mavrinac as the Andrew H. and Janet Dayton Neilly Dean of River Campus Libraries

Mary Ann Mavrinac, the former chief librarian at the University of Toronto’s Mississauga campus, was formally introduced as the Andrew H. and Janet Dayton Neilly Dean of River Campus Libraries. She is the third holder of the library deanship, which was established in 2000 through a gift from Andrew H. Neilly ’47 and his wife, Janet Dayton Neilly.

Charles Thornton ’91M (Flw) as the Saunders Family Distinguished Professor in Neuromuscular Research

Charles Thornton is one of the nation’s most highly regarded experts on muscular dystrophy. The professorship was established through the generosity of Rochester-area philanthropist E. Philip Saunders, a longtime benefactor of the Medical Center, who is providing instrumental support to the neuromedicine programs at the University.

Edward Schwarz as the Richard and Margaret Burton Distinguished Professor in Orthopaedics

Edward Schwarz, director of the Center for Musculoskeletal Research, is considered a pioneer in exploring gene therapy to understand and treat diseases such as arthritis, bone infections, and other disorders. Richard Burton ’64M (Res), the inaugural Marjorie Strong Wehle Professor in Orthopaedics, and his wife, Margaret Burton, established the professorship to help support research in orthopaedics, where Burton has been a central figure for the last 50 years.

Michael Eaton as the Denham S. Ward, MD, PhD Professor

Michael Eaton, the chair of the Department of Anesthesiology, is leading research efforts to reduce complications associated with cardiopulmonary bypass machines, a technology that does the work of the heart and lungs when the heart is stopped during surgical procedures. The professorship was established through leadership gifts from anesthesiologist Denham Ward and his wife, Debra Lipscomb, and from the family of Robert M. Lawrence ’49M (MD), as well as support from students, colleagues, and friends who wanted to recognize Ward as a University leader, scientist, and physician.
Theodore (Ted) Brown as the Charles E. and Dale L. Phelps Professor in Public Health and Policy

Ted Brown, a noted scholar of U.S. and international public health, is professor of history, public health sciences, and medical humanities at the Center for Palliative Care. Timothy Quill ’76M (MD), ’79M (Flw) as the Georgia and Thomas Gosnell Professor in Quality and Safety

Robert Panzer is chief quality officer for the Medical Center and Strong Memorial Hospital and is also associate vice president for patient care quality and safety for the Medical Center, associate medical director of Strong, and professor of medicine and of public and health sciences at the School of Medicine and Dentistry. Both Gosnell professorships were established through the support of Georgia Gosnell and her late husband, Thomas, longtime local supporters of the Medical Center.

Jeffrey Hayes as the Shohei Koide Professor in Biochemistry and Biophysics

Jeffrey Hayes, professor and chair of the Department of Biochemistry and Biophysics, leads research focusing on DNA structure, chromatin, and DNA repair. The School of Medicine and Dentistry established the professorship in honor of Shohei Koide to support innovative research. The professorship is funded through income generated by patents related to technology developed by Koide.

New Professorships

Faculty positions named in honor of alumni, friends, and other supporters of higher education represent a signature honor, designed to celebrate the national stature of a faculty member’s work. Several new professorships were established in 2012–13.

• Georgia and Thomas Gosnell Distinguished Professorship in Palliative Care
• Georgia and Thomas Gosnell Professorship in Quality and Safety
• Dr. James C. Wyant Professorship in Optics
• Shohei Koide Professorship in Biochemistry and Biophysics
• Gordon Fyfe Professorship in Economics
• Jay S. and Jeanne P. Benet Professorship of Finance
• Dominick J. Argento Professorship
• Adeline Lutz Professorship in Ophthalmology
• Dexter Perkins Professorship in History
• Joseph M. Lobozzo II Professorship

New Professorship Commitments

• Anonymous Professorship in Orthopaedics
• Anonymous Professorship in Political Science
• Ramon and Judith Ricker Saxophone Professorship
• Ramon and Judith Ricker Jazz Saxophone Professorship

Leadership Gifts

Georgia Gosnell, who, with her late husband, Thomas, has a long history of giving in the Rochester area, has committed $5 million to name the Neonatal Intensive Care Unit in the new Golisano Children’s Hospital. The gift commitment also included support for two professorships in the School of Medicine and Dentistry. The hospital’s new Gosnell Neonatal Intensive Care Unit (NICU) will include 60 beds both in the new building and in the current NICU space in Strong Memorial Hospital. The gift is one of the largest that the Golisano Children’s Hospital’s $100 million campaign has received since its public launch in October 2011.

Trustee Alan Hilfiker ’60 made a significant gift that created the Alan F. Hilfiker Distinguished Professorship in English. He also committed additional funds to the existing Alan F. Hilfiker Endowed Graduate Scholarship Fund, which helps students pursue academic careers of distinction in English, and the Alan F. Hilfiker Endowed Undergraduate Scholarship Fund, for first-generation college students who plan to study English or the humanities.

Ramon Ricker ’73E (DMA) and Judith Ricker ’76, ’81E (MM), ’91S (MBA) have committed $3.4 million to establish professorships and an endowed scholarship at the Eastman School of Music. The couple committed their gift to establish two faculty positions: a professor of saxophone and a professor of jazz saxophone. They also are committed to establishing a scholarship fund to support talented classical and jazz saxophone students with demonstrated financial need at the Eastman School.

All commitments contribute to The Meliora Challenge: The Campaign for the University of Rochester.
## Financial Statements

### Operating Revenues (in thousands)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and Fees</td>
<td>$387,638</td>
<td>$360,695</td>
</tr>
<tr>
<td>Less: Scholarships and Fellowships</td>
<td>−162,473</td>
<td>−151,430</td>
</tr>
<tr>
<td>Net Tuition and Fees Subtotal</td>
<td>225,165</td>
<td>209,265</td>
</tr>
<tr>
<td>Grants and Contracts</td>
<td>400,772</td>
<td>396,145</td>
</tr>
<tr>
<td>Gifts and Pledges</td>
<td>77,940</td>
<td>111,805</td>
</tr>
<tr>
<td>Hospital and Faculty Practice Patient Care Activities</td>
<td>2,075,553</td>
<td>1,860,382</td>
</tr>
<tr>
<td>Auxiliary Enterprises</td>
<td>91,028</td>
<td>88,728</td>
</tr>
<tr>
<td>Royalty Income</td>
<td>24,299</td>
<td>34,431</td>
</tr>
<tr>
<td>Other Sources</td>
<td>59,037</td>
<td>50,180</td>
</tr>
<tr>
<td>Endowment Investment Income and Gains Allocated to Operations</td>
<td>86,766</td>
<td>88,390</td>
</tr>
<tr>
<td><strong>Total Operating Revenue</strong></td>
<td><strong>$3,040,560</strong></td>
<td><strong>$2,839,326</strong></td>
</tr>
</tbody>
</table>

### Operating Expenses (in thousands)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>1,475,021</td>
<td>1,369,458</td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>420,403</td>
<td>400,322</td>
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<tr>
<td><strong>Total Compensation</strong></td>
<td><strong>1,895,424</strong></td>
<td><strong>1,769,780</strong></td>
</tr>
<tr>
<td>Supplies, Business and Professional</td>
<td>566,783</td>
<td>541,582</td>
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<tr>
<td>Utilities, Maintenance, and Facilities Costs</td>
<td>183,816</td>
<td>167,340</td>
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<tr>
<td>Depreciation and Interest</td>
<td>217,761</td>
<td>193,346</td>
</tr>
<tr>
<td>Other</td>
<td>70,022</td>
<td>59,881</td>
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<tr>
<td><strong>Total Operating Expenses</strong></td>
<td><strong>$2,933,806</strong></td>
<td><strong>$2,731,929</strong></td>
</tr>
</tbody>
</table>

### Change in Net Assets from Operating Activities

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in Net Assets from Operating Activities</td>
<td>106,754</td>
<td>107,397</td>
</tr>
</tbody>
</table>

### Non-Operating Activities (in thousands)

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Income, Gains/Losses, Net</td>
<td>206,962</td>
<td>4,098</td>
</tr>
<tr>
<td>Endowment Investment, Income and Gains Allocated to Operations</td>
<td>−86,766</td>
<td>−88,390</td>
</tr>
<tr>
<td>Other Changes Net</td>
<td>48,265</td>
<td>−57,298</td>
</tr>
<tr>
<td>Change in Net Assets from Non-Operating Activities</td>
<td>168,461</td>
<td>−141,590</td>
</tr>
<tr>
<td>Change in Net Assets before Cumulative Effect of Acquisition</td>
<td>275,215</td>
<td>−34,193</td>
</tr>
<tr>
<td>Cumulative Effect of Acquisition</td>
<td>48,279</td>
<td>−</td>
</tr>
<tr>
<td><strong>Change in Net Assets</strong></td>
<td><strong>$323,494</strong></td>
<td><strong>$34,193</strong></td>
</tr>
</tbody>
</table>

Financial Statements are prepared on the accrual basis of accounting and in conformity with generally accepted accounting principles (GAAP) in the United States of America. Gifts and pledges include unconditional transfers of assets and promises to pay that are reported at net present value. Grants and contracts include governmental grants as well as grants from private and charitable foundation sources. Amounts reported under GAAP differ from totals reported in the charts on page 32, which are based on advancement industry key metric definitions.
**Endowment Asset Allocation**

- Opportunistic 19.6%
- International Equity 16.1%
- Fixed Income 3.8%
- Cash 4.2%
- Hedge 22.0%
- Distressed 1.4%
- Venture 5.1%
- Buyouts 12.2%
- Real Estate 10.2%
- Energy 4.1%
- Timber 0.7%
- Mining/Commodities 0.5%

**Sponsored Program Expenditure**

- Federal 78%
- Corporations 5%
- NY State & Local Government 6%
- Foundations & Voluntary Health Organizations 3%
- Other Sponsors 8%
Total Commitments
For Fiscal Year ending June 30, 2013, the University booked Total Commitments of $115M, which was 104% of the Fiscal 2013 Projection of $110M. Although a decline of 23% from Fiscal Year 2012 performance of $149M (our largest single fiscal year during which we publicly launched The Meliora Challenge campaign), the University received more major gifts in Fiscal Year 2013 vs. Fiscal Year 2012 (356 vs. 347, respectively).

Book of Pledges
The University added nearly $51M to the Book of Pledges in Fiscal 2013, drew nearly $33M in pledge payments and adjusted approximately $3M in pledge balances. Total pledge balance at the end of Fiscal 2012 was $271M. The current Book of Pledges is composed of approximately $144M or 53% of pledges that are due to mature in fewer than 10 years and $127M or 47% due to mature in greater than 10 years.

Total Cash
Total Cash booked through June 30, 2013, was $96M, which was 101% of the Fiscal Year 2013 projection of $95M. This represents a 3% growth over the Fiscal Year 2012 Total Cash number of $93M. New Cash, as defined by Outright Gifts + Current Year Payments (payments on newly received multiyear pledges), contributed $63M, a 4% growth to the overall Total Cash number. Prior Year Payments, as defined as payments on pledges received in prior years, contributed the remaining $33M, a growth of 3% from Fiscal Year 2012.

Annual Fund Cash
The Annual Fund delivered another strong year ending at $13.3M in cash received for Fiscal Year 2013. This performance marked the eighth consecutive year of growth. Strong performance from George Eastman Circle provided a surge of momentum to surpass the Fiscal Year projection of $13.0M. The Annual Fund is still on track to triple by Fiscal Year 2016 from its pre-Campaign base Fiscal Year 2005.