

HIGHER GRADE of DENTISTRY

The Eastman Institute for Oral Health marks 100 years.

By Karen McCally '02 (PhD)

ADVANCING PUBLIC HEALTH: When the Rochester Dental Dispensary opened in 1917 to provide care to area children (this page), there was only one other clinic in the nation—Boston's Forsyth Dental Infirmary—that rivaled its mission and scope. Hans Malmstrom (opposite page), chair of the Advanced Education in General Dentistry program, is a leader in training oral health practitioners for clinical and academic roles.

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hen Eli Eliav was a dental student in Jerusalem, one of his classmates achieved a rare distinction: he was accepted to the postgraduate dentistry program at the Eastman Dental Center in Rochester. Located adjacent to the Medical Center, the dental facility was not yet fully integrated with the University, but the clinical training program run collaboratively by the two institutions was world renowned.

"Accepted to Eastman! I envied him so much," Eliav says. "If anyone told me that I'd be the director of this institution 20 or 25 years later, I would say that's crazy. But this is a fact."

Eliav has been the director of the Eastman Institute for Oral Health since 2013. The institute adopted its name in 2009 as a reflection of the full integration of research, education, and clinical care in oral health into a single entity within the Medical Center.

The institute, which traces its origins to the opening of the Rochester Dental Dispensary in 1917, turns 100 this year. It's routinely among the top 10 recipients of grant funding from the National Institute of Dental and Craniofacial Research. Each year, more than a thousand applicants from around the globe compete for roughly 50 spaces in one of the institute's eight postdoctoral training programs.

Last fall, the American Dental Education Association conferred on the institute its highest honor: the William J. Gies Award for Achievement in Academic Dentistry and Oral Health.

Leading the planning of this year's centennial celebration is Cyril Meyerowitz '75D, '80D (MS). Eliav's predecessor, Meyerowitz successfully implemented the merger of the Eastman Dental Center with the University in 1997. The highlight of the celebration takes place in June, when clinicians and researchers from around the world, including many distinguished alumni, arrive in Rochester to take part



AN EASTMAN TRADITION: Eliav (above), director of the institute since 2013 and an expert on neuropathic pain, combines accomplishments in research with a commitment to the kind of clinical service the Rochester Dental Dispensary (top) was founded a century ago to deliver.

in a two-day symposium on the future of oral health, culminating in a gala celebration.

The Rochester Dental Dispensary was built with funds provided primarily by George Eastman. Eastman's interest in dental care came from his recognition that dental health was an integral part of overall health. What started as a facility to provide basic care and training grew, in an eventual merger with the University, to become an internationally distinguished center for dentistry built on the three pillars of research, specialized training, and clinical care.

It's an unusual model in at least two respects. First, there is no program leading to the doctor of dental science (DDS) or doctor of medicine in dentistry (DMD) degrees. Instead, the institute's educational mission is to provide postgraduate training.

Second, its clinical care is targeted to underserved populations. They're a diverse group themselves, including people in poverty, geriatric patients, people with intellectual and developmental disabilities, and others with complex, ongoing medical conditions.

It's a model that allows the institute to concentrate its resources in areas of strength—strength that helps it maintain itself as the enviable institution that Eliav could scarcely envision himself leading so many years ago as a student in Jerusalem.

Beginnings

When George Eastman was a boy in the 1860s, a budding dental profession served mostly the well-to-do. To a large degree, dental work was considered luxury care. For most people, problems with teeth, usually encountered by early adulthood, were taken care of by a tooth puller—often an itinerant laborer who provided painful extractions with rudimentary tools.

Change came quickly in the early 1900s. Many physicians and civic leaders began to recognize the broad social consequences of poor public health. Eastman—who had lost all of his teeth by early adulthood—developed an interest in dental care, based on the forwardthinking idea that oral health was integral to general health.

The City of Rochester was an early leader in dental care. As Elizabeth Brayer tells the story in *Leading the Way: Eastman and Oral Health* (University of Rochester Press), the Rochester Dental Society established what's believed to be the nation's first free dental clinic in 1901.

In early 1915, a committee of citizens and dentists met to plan for additional clinics. But Eastman had another idea. He proposed one central clinic instead. He'd been following the development of a large dental infirmary in Boston—what would become the Harvardaffiliated Forsyth Institute. As he wrote to the committee chairman, William Bausch, "I should not care to have anything to do with this affair unless a scheme be devised which will cover the whole field and do the work thoroughly and completely and in the best manner."

No doubt inspired by Forsyth's example, Eastman reasoned that a central clinic would be able to train much needed dental hygienists more efficiently. Hygienists would then travel to schools to provide basic cleaning and checking, and refer difficult cases to the central clinic.

With his conditions met, Eastman agreed to finance what became the Rochester Dental Dispensary. It opened in October 1917 in an expansive building at 800 East Main Street, sporting nearly 70 operating units, a research wing, a library, special examination rooms, and a children's waiting room adorned with whimsical murals and a large birdcage.

A Fortuitous Opportunity

The dispensary flourished in its first years. Preventive care began at birth, as the director, Harvey Burkhart, sent notices to Rochester parents of newborns instructing them to bring their babies to the dispensary at the first sign of teeth. Meanwhile, twice a year, a corps of hygienists fanned out to Rochester schools to provide basic preventive care to children up to 16 years of age.

Eastman might have been satisfied had his contribution to the oral health of the local community ended with the establishment of the dispensary. But in 1920, he was presented with an unexpected opportunity.

As part of a national movement to improve physician training, the John D. Rockefeller Foundation was offering millions of dollars to

help establish modern schools of medicine. The University of Rochester seemed a promising destination to the educator leading that movement, Abraham Flexner, who thought that given Eastman's support for dentistry, he could easily persuade this progressive philanthropist to support a medical school.

Following a meeting with Flexner and then University President Rush Rhees, Eastman offered his support—provided the school be designed to offer both medical and dental education.

What Kind of Dental Education?

"I did not foresee that [the dispensary] might have an opportunity to become a part of a greater project for a higher grade of dental education than had before been attempted," Eastman wrote to the dispensary trustees in June 1920.

He envisioned a close partnership with the school, whose trained dentists would enable the dispensary to expand the services it of-





MEETING PATIENTS WHERE THEY ARE: Institute dentists deliver general and specialized care to underserved and difficult-to-reach populations. Mobile units serve geriatric patients (top); and institute dentists screen children with intellectual and developmental disabilities at a Special Olympics event (above).

fered. But when the school opened in 1925, it was unable to attract candidates in dentistry. Among the reasons was that the school required dental and medical students to take the same coursework in their first two years. Other dental schools required far less of their entering students.

What emerged instead was the University of Rochester Dental Research Fellowship Program. It was consistent with the vision of the

Two Institutions, One Major Goal

How George Eastman and the University laid the foundation for a single institute for oral health



school's first dean, George Whipple, a pathologist and dean at the University of California Medical School who came to Rochester as an unabashed proponent of building a research-oriented institution.

Joining Forces

When the Eastman Dental Center merged with the Medical Center in 1997, then President Thomas Jackson declared, "The question is not why the merger happened, but why it took 70 years."

The reasons are various, including concern on each side about sacrificing independent control over resources and priorities. But as early as the mid-1960s, both institutions discovered they were less independent of the other than they imagined. The strengths on which they prided themselves could only be maintained in partnership.

In its early years, the dispensary focused on clinical care and training, leaving research to the University. But in the 1950s and 1960s, under the direction of Basil Bibby '35M (PhD), the dispensary put significant resources into research. It added a new research wing, hired aggressively, and in 1965 changed its name to the Eastman Dental Center, in recognition of a mission that had expanded beyond basic treatment and training.

While the center's resources were impressive, the University lagged in attracting students and found itself heavily dependent on the center's resources to win coveted grants from the National Institute of Dental and Cranial Research.

But the center faced challenges, too. Because it was not affiliated with a hospital, its educational programs didn't meet the standards for approval by the American Dental Association.

As the 1960s drew to a close, both institutions were at a turning point. The next decade would bring a formal affiliation, as well as the Eastman Dental Center's move from its East Main Street home to a new facility adjacent to the Medical Center. "Dentistry is a specialty in the medical field," declared the president of the Eastman Dental Center's board in justifying the move.

Although a merger was still years away, the center's relocation facilitated the collaborations that would lead eventually to it.

The Institute at 100

The merger of the city's premier dental institution with the region's major medical center may look inevitable in hindsight. That's because it reflects the direction in which dentistry had been moving for quite some time.

"What we've been doing at the institute is way beyond the basics," Eliav says. "We're improving the quality of lives on many levels."

As advanced dentistry begins its second century in Rochester, it's clear that dentistry is now more fully integrated into general medicine than ever before, and more integral to medical treatment and research than many laypersons realize. That integration is apparent in the institute's research, education, and clinical care.

Research

Research takes place throughout the institute, including the Center for Oral Biology—a direct descendent of the Dental Research Fellowship Program that the Medical Center established in 1929.

Housed in the Arthur Kornberg Medical Research Building, the center underscores the way in which dentistry and other areas of medicine are interrelated.

For example, Wei Hsu, who holds the title of Dean's Professor at the Center for Oral Biology, discovered early in his career that a gene implicated in cancer also played a prominent role in craniofacial development and disease. Recruited to the institute in 2002, he's conducting pathbreaking research on stem cells and skull deformities.

Catherine Ovitt, an associate professor at the center, has achieved national recognition for her research on the repair and regeneration of the salivary glands—critical for oral health, yet often seriously damaged during treatment of head and neck cancers.

Along with principal investigator Dorota Kopycka-Kedzierawski, an associate professor of dentistry, several more institute researchers are exploring the effects of stress and parenting behaviors on early childhood caries—a significant public health problem that disproportionately affects children in poverty.

The National Institutes of Health has recognized the institute not only by the grants it has awarded, but also by selecting it in 2012 for a leadership role in a \$67 million national research initiative to improve clinical care.

Education

"In New York, there are five dental schools and us," says Eliav. "We train the teachers and leaders of dentistry."



SMD and the Eastman Dental Center develop a clinical teacher training program designed to train "the highest quality of dental teachers and researchers." The Eastman Dental Center merges with the University, becoming a division within the Medical Center. The Eastman Dental Center becomes the Eastman Institute for Oral Health—no longer a division within the Medical Center, but an integrated part of the Medical Center responsible for research, education, and clinical care in oral health.

Among those leaders is Martha Somerman '78D, '80M (PhD), who completed institute training in periodontics and a doctorate in pharmacology at the Medical Center, and is the director of the National Institute of Dental and Craniofacial Research.

Institute graduates serve in leadership roles in universities around the world. Most recently, after being approached by a team from Kuwait University, the institute partnered with that university as well as Damman University in Saudi Arabia to train dentists from the two Middle Eastern nations for clinical and research faculty positions in their expanding dental schools.

Eliav—who holds a dental degree as well as a doctorate in neuroscience, and researches neuropathic pain—emphasizes the need for oral health faculty who have degrees in both clinical dentistry and research.

"One of the problems we've had in health care," he says, "is the lack of connection between the clinical work and research. We need more clinicians who are involved in research and more researchers who understand patients' needs." Given the scarcity of candidates with substantial research and clinical backgrounds, the institute often recruits faculty from among its top graduates.

The institute also leads in training practitioners to treat specific populations, including patients with complex diseases who have unique needs, older adults, and patients with intellectual and developmental disabilities. Eliav says there's a paucity in the medical literature about treating such patients, and institute faculty are developing protocols that will help dentists treat them.

Clinical Care

There are about 180,000 patient visits each year to institute facilities. They include visits from thousands of patients who have no other option for care. Many of these patients are on Medicaid, which institute-affiliated dentists accept, and most private practitioners do not.

Among them are children in poverty who receive care at all Eastman's locations as well as at a mobile dental unit called the Smilemobile. The first Smilemobile (there are now several in active use) was developed for the Eastman Dental Center in 1967 by the Sybron Corp. and Wegmans Food Markets. It was designed to provide care to targeted underserved populations, which at that time meant primarily central cities and rural areas. Today, the mobile units serve about 8,000 patient visits per year by traveling to schools and day care centers throughout the region, "If it weren't for the Smilemobile, a lot of our kids would get no dental care at all," says Darlene Pelow-Sullivan, a social worker at School No. 2 in Rochester. "They would be suffering from abscesses and decay. You can't learn if your mouth is hurting."

This year marked the introduction of an additional Smilemobile. Funded through the United Way by the family of Joseph Lobozzo, founder of the Rochester optical design and manufacturing firm JML Optical, it's the first unit in the fleet to be outfitted especially for patients with physical, developmental, or intellectual disabilities, as well as other medically complex conditions.

But while institute dentists travel to serve patients, many patients travel distances to receive care from them. The institute is a regional destination for specialized oral health care. Patients with a range of birth defects—cleft lip and palate, severe underbites that interfere with speaking as well as eating, to name just two examples—come to the institute to be treated by highly trained specialists.

The University's new Complex Care Center, opened last spring, is a cutting-edge facility for coordinated treatment of patients with a host of conditions that make dental care a challenge. It's there that institute students are being trained to treat patients with special needs.

Among the admirers of the institute is Christopher Fox, the executive director of the International Association for Dental Research. Fox, who will be leading a plenary session, along with Eliav and Meyerowitz, at the June symposium, says the institute's clinical programs are "innovative, and a model for the provision of dental services to the underserved."

Its research and training, meanwhile, serve as a prototype for "how research will lead to the improvement of oral health worldwide."

"This is a critical time for the dental profession," he adds. "We have to make decisions today that will determine the future of the profession, most importantly how we will interact with the larger health care world. [The Eastman Institute for Oral Health] will continue to play a leading role in that planning."

For more on the centennial celebration of the Eastman Institute for Oral Health, as well as the institute's history, visit the website "Celebrating 100 Years" at www.urmc.rochester.edu/dentistry/ centennial.aspx.

Hidden Passions, Creative Lives

What a fabric artist, an unusual brand of storyteller, and a map collector have in common.

Most of us have more than one interest or talent. If we're lucky, we get to pursue at least one of them as our "day job."

And what about those other callings? For many of us, they're hobbies. But for some people, they become something serious—more akin to a second area of expertise.

Since March 2015, the Memorial Art Gallery has been on a mission to discover such people and bring them to the museum to share their pursuits as part of a series called "Hidden Passions: Inspiring Conversations about Hyphenated Lives."

Jonathan Binstock, the Mary W. and Donald R. Clark Director of the Memorial Art Gallery, says that what unifies participants in the series is the unique expression of a creative impulse.

He established the series as a first step in a mission to place the museum at the center of a regional conversation about creativity. He calls it "an opportunity for the public to share their visions for a creative world with us and with each other."

Now in its third season, the program includes presenters from throughout Greater Rochester. Here are a few examples from the University community who have shared their "Hidden Passions." **(**

For more about the series, visit the museum's website at http://mag.rochester.edu.

FABRICATIONS: Melissa Matson, principal violist in the Rochester Philharmonic Orchestra, creates "improvisational" monoprint and screen-printed fabrics. She sells and displays her work at shows and in galleries throughout the region.





Fabrics with Flow

Melissa Matson '78E, '80E (MM) has always liked to "make stuff."

Growing up in northern California, she made forts in the walnut trees on her family's property. She followed along when TV's Captain Kangaroo brought out his shoebox full of craft supplies and embarked on a new project using a milk carton or another found object. She learned to sew at a young age, and looked forward to family trips to Britex, a fabric store in San Francisco where she would "bask in all the fabrics."

Matson is principal violist with the Rochester Philharmonic Orchestra and an associate professor of orchestral repertory at the Eastman School of Music. But she hasn't stopped making things. These days she finds a creative outlet in making colorful artisan-dyed fabric and garments something she's been doing for about 15 years.

Inside the second-floor studio in her Honeoye Falls home hang dyed pieces of many sizes and colors, as well as completed jackets and scarves. She honed her skills at a screen printing workshop with Jane Dunnewold, whose book, *Complex Cloth*, first got Matson interested in the art. Dunnewold uses ordinary household materials such as masking tape, glue, and flour paste on her screens before dyeing, depending on the desired effect. She calls her method "improvisational," and it's an approach Matson has embraced.

"I just keep experimenting and see where it goes. Each piece is unique," Matson says, proudly. Some are inspired by the rhythm of poetry. Some are the result of experimentation with color and texture. Some have more of a personal touch.

Matson pulls out a jacket and gently fingers screen-printed images of her mother and grandmother as little girls—they are enveloped by the bold, gold pattern covering the piece. She says her mother supported her interests and encouraged her to experiment on her sewing projects as a child.

Her background as a musician sometimes influences her creations. "People say that my fabrics look musical," she says. "I think that has a lot to do with the flow and emotion that come when I play [music]. The fabrics I've made that I like the least are the ones that just sit there and don't really have any motion."

She's found parallels between being a musician and a fabric artist. She says she's always striving to find a better way to make music—a richer phrase or more interesting color in her playing. She takes the same approach to dyeing fabric.

There are differences, too. For example, playing music with the orchestra is more collaborative than the solo work of dyeing fabrics.

"This is a little freeing, but also adds more responsibility, because it's all me," Matson says about screen printing. "If it's great, it's me. If it's ugly, it's me.

"What's nice about fabric making is that it frees me from the fear of making mistakes. There are no mistakes when I'm dyeing fabric. If I do something unexpected, it could be a really great discovery or it could be really bad.

"But I can always dye it again. I always say that if at first you don't succeed, dye, dye again." —Jennifer Roach

MATERIALS ISSUE: Matson uses materials such as masking tape, glue, or flour paste-and even pine needles-to create visual interest in her fabrics.





Hidden Passions: The Series

Designed as a way to showcase the creative lives of Rochesterians, the Memorial Art Gallery series "Hidden Passions" highlights the ways in which people in the community pursue their talents and interests. For series organizer Debora McDell-Hernandez, curator of engagement at the Memorial Art Gallery, an important aspect of the series is to inspire others in the Rochester area to think about ways to develop their intellectual, artistic, and cultural passions.

McDell-Hernandez says the museum is the perfect place to host such conversations, part of a larger effort to establish MAG as a hub for creativity in all its manifestations.

"A museum is more than just a place for visitors to view creativity on display," she says. "With 'Hidden Passions,' visitors take center stage. It is our hope that hearing people tell their stories about creativity will nurture people's creative sides."

Launched in 2015, the program has hosted a wide range of guests. Here's a sample:



Catelyn Augustine, a massage therapist who runs a gourmet ice cream business, Eat Me Ice Cream.



John Beck, a professor emeritus of percussion at the Eastman School of Music who has been making wine for more than two decades.



Joe Carney, director of advancement for the Memorial Art Gallery, who teaches in the English department at Monroe Community College.



Emma Lo '15M (MD) made portraits of people served by a project she launched as a student at the School of Medicine and Dentistry to provide health care to Rochester's homeless.



Agustin Ramos, a private investigator who also crafts cuatro guitars.



Josh Owen, a professor of industrial design at the Rochester Institute of Technology who sculpts bonsai trees.



Ian Wilson '99M (MD), '04M (Res), '06M (Flw), a Medical Center radiologist who leads a public art program called Wall\ Therapy, which aims to transform the urban landscape, inspire, and build community.



Mike DiCaprio, a media strategist who grows carnivorous plants.



Spencer Christiano, an archival film projectionist, is also a playwright whose

'A Story for Everyone'

It's windy and cold at the Rochester Public Market, and the black box that houses Karl Smith's 1926 Underwood typewriter keeps falling to the pavement. As Smith picks it up, he spots a couple walking past crates of apples, pumpkins, and gourds. They're among the few customers shopping on this blustery Tuesday morning.

"Would you like a story?" Smith asks with a smile. "Just 10 cents a story."

The couple looks unsure.

"Or," he says, "I'll do it for free."

Sitting on a folding chair, tapping away on his 90-year-old typewriter, Smith creates stories on demand, for a mere dime. Since September 2013, the 27-year-old has set up shop at the market, the Rochester Museum and Science Center, the Strong Museum of Play, a cocktail lounge in Rochester, and even in Manhattan this past summer while serving as an American Association for the Advancement of Science mass media fellow at *Scientific American* magazine.

"I can't describe what I feel when I'm writing," Smith says. "It does something to me. It's like I was put here to do this. I want to make the world a stranger, more whimsical place."

A PhD candidate in biophysics, Smith studies glass filters 10,000 times thinner than a human hair as part of the Nanomembranes Research Group. It's because of his rigorous academic schedule that he began the 10-cent project. "I wanted something to keep me sane at the end of the day when I left the lab," he says.

The Pittsburgh native has written more than 900 stories, each roughly 500 words, on half sheets of paper. Strangers give him a prompt, and he pecks away. He's crafted stories about lost loves, lost dogs, sea lions, flying princesses, and frogs who jump over the moon. Stories about babies, treehouses, aardvarks, and dancing polar bears. Stories about murder.

"It's dizzying the stories I've been told," he says. There was the woman who asked him to write about being unable to tell a man she loved him. The reason? "I'm married," she told Smith.

He says "writer's block is not an option." And neither is Liquid Paper. If he makes a typo, he backspaces and types over the word with capital X's.

Smith has long been fascinated by typewriters and began collecting them while studying physics and English at Allegheny College. He found his current one on Craigslist for \$30.

"I use a typewriter because it's impossible to ignore," he says. "The tapping and the ring of the bell is a draw. And when I'm done, I have a one-and-only physical object."

He catalogs each story by taking a photo of the finished product on his phone. He posts several each week at 10centstories.com and Facebook.com/10centstories, where he also lists his upcoming appearances.

Why 10 cents? "When my dad was in second grade, his brother told him that he needed to collect dimes," Smith says. "'Pennies are worthless, nickels are too heavy. Dimes have the best value-to-weight ratio,' And my dad took it to heart. When he asked my mom to marry him, he paid for the engagement ring with dimes."

"There really is a story for everyone," he says. "I don't know what my future holds, but I know I want to keep doing this. I feel it's a calling."

-Jim Mandelaro



READER MEETS AUTHOR: Karl Smith, a PhD candidate in biophysics who also collects typewriters, creates stories on demand for a mere 10 cents. At the Rochester Public Market, Marilyn Belle-Isle, of Webster, New York, asks Smith to whip up a story for her granddaughters.





work has been performed by the University's International Theatre Program.



Danielle Raymo, an office manager who cofounded Rochester Brainery, a community classroom and event space that offers classes to the community.



Nita Brown, a strategic planner who owns MansaWear, a custom clothing company influenced by Brown's Ghanaian roots.



Gene Olczak, an optical engineer, makes Karma Sauce a homemade hot sauce that he sells in stores and online.



Laura Fox, an urban planner who also is a rooftop farmer.



Steven Schwartz, an accountant and beekeeper.



Ramon Ricker, professor emeritus of saxophone at the Eastman School of Music, who restores Jaguar cars.



Andrew Ainslie, dean of the Simon Business School, who is an avid cave diver.



Anne Kress, president of Monroe Community College, who is also a quilter.



Wendell Castle, a renowned sculptor who plays folk guitar.

A Maven of Maps

"Serendipitous" is how Seymour Schwartz '57M (Res) describes the evolution of his interest in historic maps.

As an undergraduate at the University of Wisconsin, Madison, during World War II, he took a typical pre-med curriculum. With the exception of introductory English and a three-credit course on Shakespeare, every class was in science, says Schwartz, who holds the title Distinguished Alumni Professor of Surgery.

"I had no particular interest in history until I saw some maps," he recalls, sitting beside a reproduction of the first known map to include the Americas, which hangs in his office at the School of Medicine and Dentistry. "Maps provide a palatable way of learning history."

He acquired his first map—a 1795 map of the state of New York—in 1963. His collection has since grown to become one of the most acclaimed assemblages of rare maps in North America. His holdings focus on the 16th, 17th, and 18th centuries—documenting Europe's earliest contact with, and understanding of, the New World.

"My surgical personality speaks to developing a specialty," Schwartz says about his decision to focus on a specific region and time period.

As his interest in cartographic history grew, he discovered few examples of scholarship on the mapping of America. So he took on that role. He's authored seven books on cartography, including the definitive reference work, coauthored with Ralph Ehrenberg, *The Mapping of America* (Abrams, 1980). He has served on the boards of the National Museum of American History of the Smithsonian Institution and the Geography and Map Division of the Library of Congress.

Schwartz has donated parts of his collection over the years. In 2008, he bequeathed more than 200 of his rare maps to the University of Virginia. In 2010, he donated some of the earliest maps and drawings of western New York to the River Campus Libraries' Department of Rare Books, Special Collections and Preservation. The Schwartz collection at Rochester includes the first map printed in the colony of New York, dated 1733, as well as the earliest known drawing of the region, a circa 1768 etching of the Upper Falls of the Genesee River.

For Schwartz, maps not only offer a means of learning history; they also have aesthetic value. "Maps should be considered works of art," he says, adding that a true collector should never sell his items for profit.

Since joining the Rochester faculty in 1957, Schwartz has written numerous medical texts, including the authoritative textbook *Principles of Surgery*, now in its 10th edition under the title *Schwartz's Principles of Surgery* (McGraw-Hill). He's also authored more than 300 scientific papers and edited several of the most respected journals on surgery.

He's received numerous accolades during his long career. Many have recognized his accomplishments as a surgeon; others have honored his contributions to cartography.

"In the books I've written on cartography, the audience generally doesn't know that I'm a surgeon," he says. "In contradistinction, the readers of [*Principles of Surgery*] don't have any idea about my interest in cartography."

Two of his honorary degrees—one from the University of Madrid and one from the University of Wisconsin—were awarded for his contributions to both surgery and cartography.

"And that pleases me," he says.

—Jennifer Roach

TWICE ON THE MAP: Schwartz, a noted surgeon, is also a prominent expert on historical mapmaking. Yet, he observes, the readers of his seminal textbook, *Principles of Surgery*, "don't have any idea about my interest in cartography."









Jefferson Svengsouk, associate professor of emergency medicine, who is also a Native American flute player.

Bruce Ian Meader, an associate professor of design at Rochester Institute of Technology, who is a Beatles enthusiast.

Rosemary Janofsky,

a midwife and clinical assistant in the Department of Obstetrics and Gynecology, who is also an innkeeper.





Omar Soufan '17, a biomedical engineering student (top), and Ibrahim Mohammad '17, a mechanical engineering student, who together have organized a rehabilitation center in Lebanon that tends to wounded refugees from the civil war in Syria.

Daniel Hargrove

'17, an international relations student, who has an interest in coral reefs.

Erik Rosenkranz

'18, a mechanical engineering major who crafts long-board skateboards.



Theresa Lou Bowick, a registered nurse who organized a grassroots neighborhood bicycling program.



Nannette Nocon, a financial advisor who is also a children's book author.



Evan Dawson, the host of *Connections*, a daily talk show on WXXI public radio in Rochester, who also writes widely about wine.



Aprille Byam '96, '97S (MBA), a market researcher who is known as Storychick.

-Jennifer Roach

How Do We Relate?

Psychologist Harry Reis puts human relationships under the microscope.

By Kathleen McGarvey Illustrations by Michael Osadciw

elationships—with partners and friends, coworkers and siblings, roommates and neighbors—can bring moments of pure delight. But they can also take you on a bumpy ride. And often the last thing it all feels like is something systematic.

But there are patterns underlying the day-to-day drama, and it's the life's work of psychologist Harry Reis to understand them. Since joining the faculty in 1974, he has contributed prominently to creating the field of relationship science.

When Reis was an undergraduate at City College of New York in the 1960s, the study of interpersonal relationships wasn't an area of formal research—even though such influential figures as Sigmund Freud and Erik Erikson had indicated their belief that relationships are important in shaping personality.

But an early-1980s conference in Madison, Wisconsin, brought together about 100 young researchers who were interested in scrutinizing relationships scientifically. Reis remembers it as a "visceral experience. The energy and electricity at that conference were off the charts."

What a collection of academic renegades brought forth is now a well-established field, with the usual apparatus of scholarly standing: an international society, semiannual meetings, and research journals. And Reis has been there from the very beginning.

"It was the light bulb going off," Reis says of the Madison conference. "I've been studying it ever since."

In 2012, the International Association for Relationship Research presented Reis with its Distinguished Career Award, the association's most significant honor. And in 2015, the Society for Personality and Social Psychology



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gave him its annual Career Contribution Award.

"He has been a true pioneer in the field for four decades," said Andrew Elliot, a professor of psychology at Rochester, when the award was announced. In December, Gloria Culver, dean of the School of Arts & Sciences, appointed Reis to a Dean's Professorship, the highest honor a dean can bestow on a faculty member.

Reis helped transform social psychology research as one of the Rochester investigators who developed the use of daily experience records, a now widely adopted technique that's still known as the Rochester Interaction Record. Researchers value the method because it lessens the impact of flawed recollections and other forms of bias on reports people provide of their own behavior.

New directions for research have opened since Reis began his work. His and other researchers' findings about men and women's interactions "need to be investigated in nonheterosexual couples, and that's an exciting area for research," he says—but adds that indications so far are that the psychological processes of committed, monogamous relationships are fundamentally alike for all couples.

"The experience of being in a same-sex couple in the U.S. is very different than being part of a heterosexual couple. But issues of intimacy and commitment, and what people fight about—that's the same," he says. "We need to understand and appreciate the differences, but what's striking is the similarity."

For the last 25 years, Reis has been zeroing in on the issue of "responsiveness" in relationships. "It's the idea that your partner 'gets' you, that they understand you in a fairly deep way, and that they appreciate the person they understand. It's a combination of understanding and what we call 'validation' but appreciation is just as good a word for it."

Responsiveness is a theme that comes up repeatedly in Reis's research, but his career has been characterized, as much as anything, by a wide-ranging curiosity. "I don't follow the model of 'take one thing and stay with it until you've beaten it into the ground," he says. "That's not my approach at all."

Probing friendship, examining marriage's effects on health, investigating what social benefits men and women accrue from physical appearance: it's all fallen under Reis's scrutiny.

As Margaret Clark, a professor of psychology at Yale, noted in her nominating letter for his career award in 2012: "If you look at his vita, you'll see that his contributions in recent years are actually speeding up, not slowing down."

"This guy," she wrote, "is amazing." $\ensuremath{\mathbb{B}}$



Looking for a partner? Try online dating—but don't mistake it for science

Reis has turned his researcher's eye toward the phenomenon of online dating, which by 2012 had surpassed all forms of matchmaking in the United States other than meeting through friends.

His team found that online dating has lost the stigma once attached to personal ads, and it provides convenient access to potential partners. But they also found that despite the insistence of some of the biggest players in the online dating industry that their algorithmic matching offers a "science-based" approach to dating, such claims haven't been substantiated and should be given little credence.

"The Internet holds great promise for helping adults form healthy and supportive romantic partnerships, and those relationships are one of the best predictors of emotional and physical health," Reis said when the study was published in *Psychological Science in the Public Interest*.

But the researchers also concluded that online dating can promote a "shopping" mentality—people can become judgmental and picky, focusing exclusively on factors like attractiveness or interests. And corresponding by computer for weeks or months before meeting face to face has been shown to create unrealistic expectations, he says.

They further found that men and women behave differently online—men look at more profiles than women do and are more likely to initiate contact.

The researchers cautioned that online sites can encourage search for a "soul mate," convincing would-be daters that a partnership is "meant to be." People driven by such a conviction are especially likely to bail on a relationship when problems arise and to become vengeful in response to partner aggression when they feel insecure in the relationship, Reis and his colleagues found.

Relationship problems? Don't blame gender differences

No matter how inscrutable men and women sometimes seem to each other, odds are that gender difference is only a small part of the picture.

"'Boy or girl?' is the first question parents are asked about their newborn, and sex persists through life as the most pervasive characteristic used to distinguish categories among humans," Reis says.

But in a 2013 study published in the *Journal of Personality and Social Psychology*, he held up for statistical scrutiny 122 different characteristics—from empathy and sexual attitudes to science inclination and extroversion—in men and women. And he found that the sexes, by and large, don't fall into categorically distinct groups.

Reis and his collaborators—including lead author and then doctoral student Bobbi Carothers '03 (PhD)—reanalyzed data from studies that had shown significant sex differences. They also collected their own data on a range of psychological indicators. And they reopened studies of the "big five" personality traits: extroversion, openness, agree-ableness, emotional stability, and conscientiousness. In all that they

examined, they looked for evidence of attributes that could reliably categorize a person as male or female.

The pickings were slim. Although men and women differ on average in many ways, it's not that men are one way and women are another. People differ, and gender is only one of many factors that contribute to the differences. And it's a relatively small one, at that.

"When something goes wrong between partners, people often blame the other partner's gender immediately," says Reis. That reaction prevents people from seeing their partners as individuals with their own proclivities and idiosyncrasies.

"When psychological and intellectual tendencies are seen as defining characteristics, they're more likely to be assumed to be innate and immutable. Why bother to try to change?" Reis says.

Gay and lesbian couples, he adds, "have much the same problems relating to each other that heterosexual couples do. Clearly, it's not so much sex but human character that causes difficulties."



Make lots of friends, then make good friends . . . and then reap the benefits

It turns out that those college friendships bring bonuses years later—even if you never attend a reunion.

Reis coauthored a study released in 2015 that tracked college students for 30 years, beginning in the 1970s. He and his team assessed social activity at ages 20 and 30 and psychosocial outcomes—social integration, friendship quality, loneliness, depression, and psychological well-being—at age 50.

They found that the quantity of social interactions people have at age 20, and the quality of social relationships they have at age 30, can benefit health later in life. And it's not just psychological health that's involved—having few social connections has been shown to be as detrimental to health as tobacco use. The researchers—including study leader Cheryl Carmichael '11 (PhD), then a doctoral student—hypothesize that frequent social interactions at age 20 help to build a social toolkit that can be drawn on later. As 20-year-olds, people figure out who they are and how to manage differences from others.

The study—published in the journal *Psychology and Aging* additionally showed that a high number of social interactions at age 30 had no later psychosocial benefits. But 30-year-olds who reported having intimate and satisfying relationships also reported high levels of well-being at midlife. In fact, meaningful social engagement was beneficial at any age, but more so at 30 than 20.

A few tips

Reis offers the following suggestions as you navigate your relationships, romantic and otherwise.



Understanding and appreciation are key to rekindling desire

When a relationship has passed a few anniversaries and the spark seems to be flickering, responsiveness could be a pivotal factor in renewing desire, says Reis.

A study he published with Gurit Birnbaum, who completed postdoctoral work at Rochester and is now a psychology professor at the Interdisciplinary Center Herzliya in Israel, suggests that responsiveness in even mundane interactions may reignite sexual desire. The study appeared in a 2016 issue of the *Journal of Personality and Social Psychology*.

Their research began as an inquiry into what psychologists call the "intimacy-desire paradox": while people strive for intimacy in their relationships, such familiarity doesn't seem to foster desire.

"Adjusting to married life is a challenge, and many newlyweds don't do it particularly well," says Reis. "Here you've been dating, and that's all exciting—but now you've got dirty socks to contend with." And as the years tick by, those piles of dirty socks don't add to the mystery. Previous studies hadn't established whether emotional intimacy promotes or undermines sexual desire. Now Reis and Birnbaum's research suggests that, at least in certain circumstances, there may not be a paradox at all.

What they found is that intimacy itself doesn't fuel or hamper desire—instead, it's what the intimacy signals that matters.

Responsive couples are willing to invest in their relationships, and they show a deep understanding of a partner. Responsiveness is actually a kind of intimacy—and likely it encourages desire because it conveys the impression that a partner is worth pursuing.

When men and women perceive their partners as responsive, they feel special and think of the partner as valuable, which boosts sexual desirability, the researchers found. They also found that women's perceptions of themselves and others were even more strongly affected by responsiveness than men's—an effect that translated into higher levels of desire for the responsive partner.

Marriage is good for your heart—and a happy marriage brings women big benefits

A bad relationship can cause heartache—but a good one can literally help your heart keep ticking.

A 2011 study by Reis and Kathleen King, a professor emerita at the School of Nursing, showed that happily married people who underwent coronary bypass surgery

were more than three times as likely to be alive 15 years later as unmarried counterparts.

The effect of marital satisfaction is "every bit as important to survival after bypass surgery as more traditional risk factors like tobacco use, obesity, and high blood pressure," says Reis. The research was published in the journal *Health Psychology*.

"A good marriage gets under your skin, whether you are male or female," he says.

But the marriage advantage plays out differently for men and women. For men, marriage in general is linked to higher survival rates and the more satisfying the marriage, the higher the rate of survival. But for women, the quality of the relationship is even more important. While unhappy marriages don't add much to longevity for the women who've had bypass surgery, happy ones increase women's survival rate almost fourfold, the study found.

"Wives need to feel satisfied in their relationships to reap a health

dividend," says Reis. "But the payoff for marital bliss is even greater for women than for men."

What's behind the benefit? The study adjusted for age, sex, education, depressed mood, tobacco use, and other factors known to affect survival rates for cardiovascular disease.

Supportive spouses most likely help by encouraging healthy

behavior, such as increased exercise or smoking cessation, which are critical to long-term survival of heart disease. And a nurturing marriage also provides people with motivation to care for themselves and stay around to prolong a happy partnership, the researchers say.

Share and share alike

They say you can't buy happiness. But researchers have shown that when you are buying something, you're more likely to feel happy about spending your money on experiences than on material possessions.

Why? It seems to hinge on the fact that experiences are more likely to be shared with others than material goods are.

In a 2012 study published in the *Journal of Personality and Social Psychology*, Reis and fellow investigators set out to learn why recent research had shown that spending discretionary money on acquiring life experiences made people happier than buying tangible objects.

They found that social spending was favored over solitary spending, but experiences otherwise weren't favored over material goods. In other words, it's the sharing that seems to matter.



Appearance matters for more than first impressions

It's well established that people's attractiveness significantly influences the first impression that they make. But what about beauty's role in ongoing relationships? After all, most of our social encounters are with people whom we've met before.

In a study published in 1982 in the *Journal of Personality and Social Psychology*, Reis and his collaborators asked another question, too: why does physical attractiveness influence social participation? It was the first study to document connections between social competence and people's actual social experiences in everyday life, thanks to the team's use of the Rochester Interaction Record, a diary technique for gathering data that Reis helped develop.

They asked senior college students to record information about every social contact they had lasting 10 minutes or more. And they asked a class of psychology students at another university to view photographs of the study's subjects and rate their attractiveness on a scale of one to seven.

Here's what Reis and his team found:

Attractive men had more social interactions—and in particular, more social interactions with women—than unattractive men.

There was no difference in the quantity of interactions for attractive and unattractive women.

Pretty people of both sexes had better social interactions—longer, more intimate, and more pleasant.

Attractive men were more socially assertive and less worried about rejection by women. But attractive women were less assertive and less trusting of men. They were more likely to wait to be approached by others.

For both sexes, assertiveness led to more and better social participation.

The researchers wrote in their report that appearance had "diametrically opposite" consequences for social assertiveness for men and women. Attractive men had higher social self-esteem than unattractive men, but attractive women had lower social self-esteem than unattractive women.

Their results suggest that physical attractiveness is just as socially consequential for men as it is for women, at least in terms of the amount and type of social interaction they experience. "It's a finding that contradicts common notions that beauty matters only for women—a point that's now axiomatic in the literature," says Reis.

Why doesn't attractiveness affect the quantity of relationships women have? Researchers didn't arrive at a definitive answer, but hypothesized that attractive females may be more likely to wait to be approached by others—and most males, who don't earn "attractive" status, are leery of rejection. And they speculated that because attractive women tend to wait for others to come to them, they don't cultivate the social skills that less attractive women do.