

DREXEL UNIVERSITY

# College of Medicine

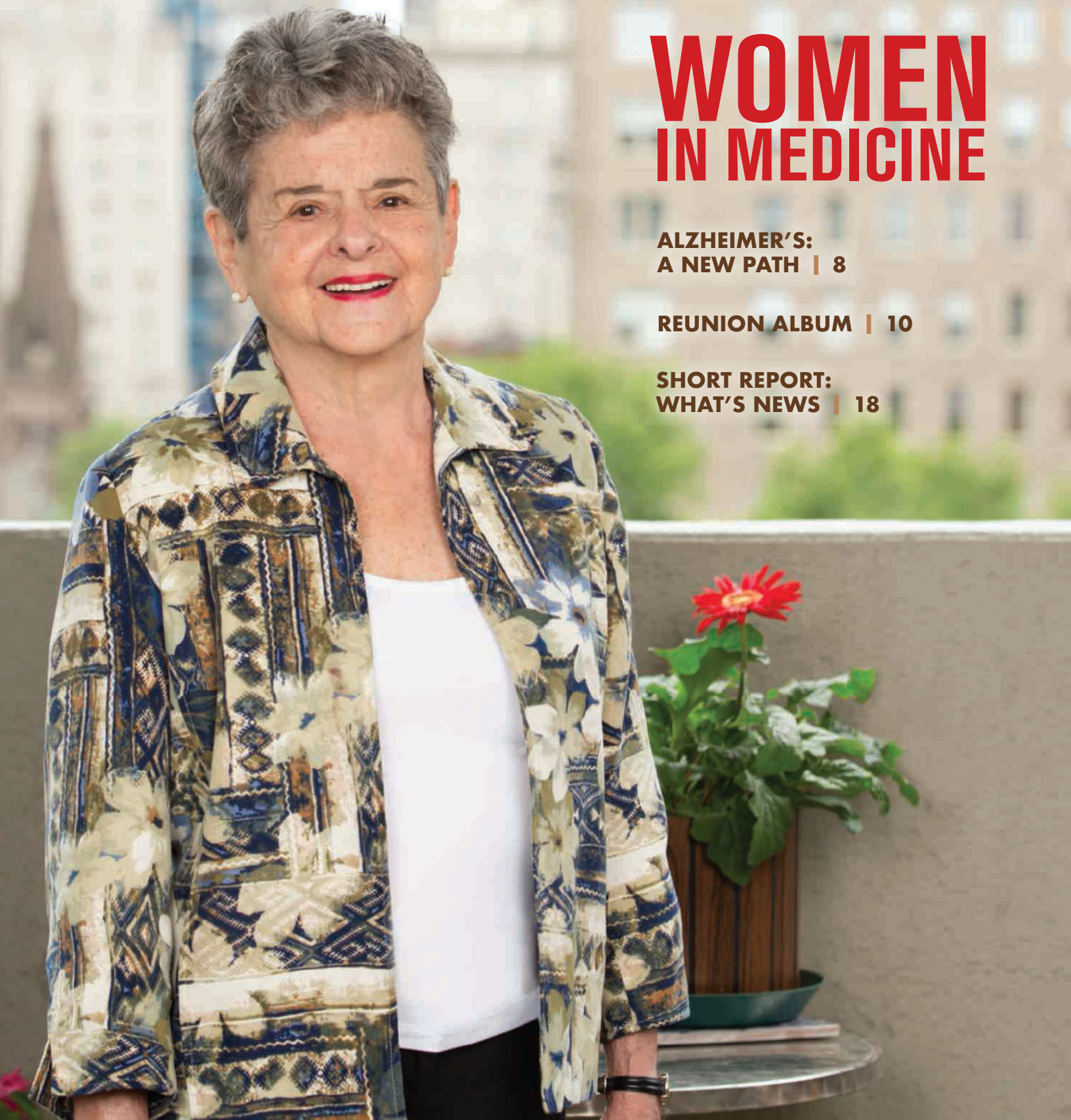
ALUMNI MAGAZINE

## WOMEN IN MEDICINE

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# Start a New Tradition

## Give a white coat and stethoscope to an incoming medical student

Each year, first-year medical students are presented with a white coat during the White Coat Ceremony. This emotional event marks the beginning of the medical school journey for our students.

Traditionally, alumni are invited to purchase a white coat for a first-year medical student. This has been a wonderful way to connect medical students with alumni and reconnect alumni with their own journey/experience through medical school.

Beginning in 2018, all first-year medical students will receive a stethoscope and a white coat, thanks to the inspiration of alumnus Raymond Schreyer, MD, HU '78. Additionally, Dr. Schreyer will generously match any gift to the White Coat/Stethoscope Fund, up to a total of \$13,000.

**Please help us leave a lasting impression on our first-year medical students by purchasing a white coat and stethoscope to be presented at the White Coat Ceremony.**

### Questions? Contact:

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**ON THE COVER:**

*Anna Meadows, MD, a distinguished pediatric oncologist, had three children and a master's in psychology when she followed her dream into medical school.*

Photo: Mark Garvin



**FEATURED**

**ALUMNI PROFILE**

After medical school, Veronica and Rene Ramirez, both MD '09, returned to California, where they seem to be raising future doctors.

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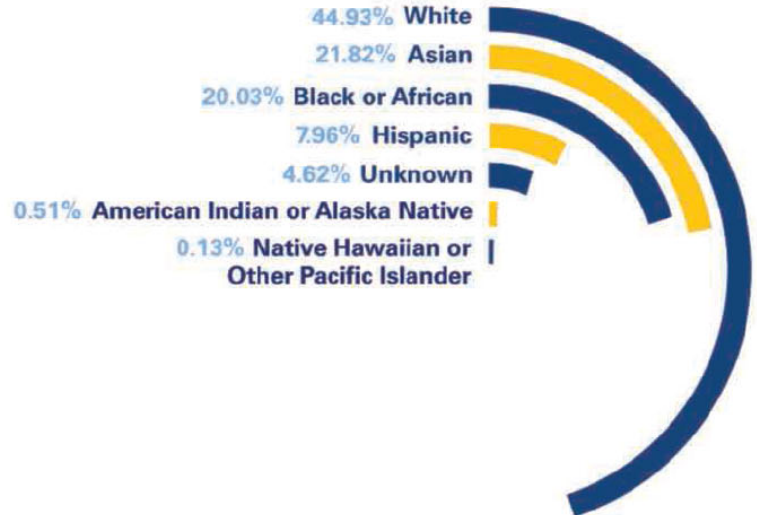
*Oskar Fischer had a different theory from Alzheimer. New research may support his hypothesis.*

## Our Graduate School of Biomedical Sciences & Professional Studies has 779 students in more than 40 programs

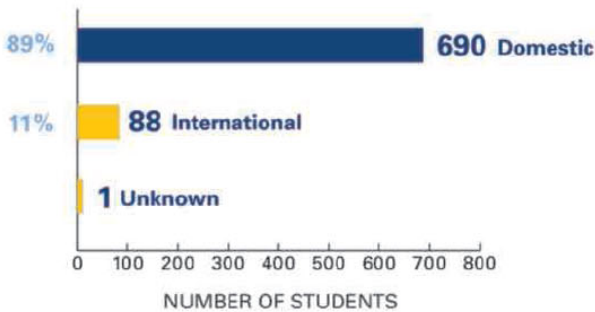
### GENDER



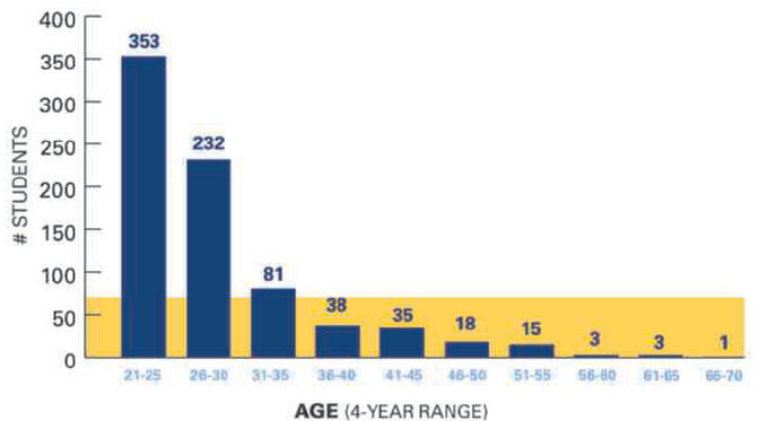
### RACE



### INTERNATIONAL STATUS



### STUDENT'S AGE



### QUESTIONS? ANSWERS?

We want to hear from you! What would you like to know about the College of Medicine in 2018? Or are you interested in the history? Do you have an experience to share or a story to tell? Do you wonder what "Forensic Science" students learn? Are you curious about "Biomedicine and the Law"? What research intrigues you – basic, translational, clinical, interdisciplinary? Let us know – just email [medical.alumni@drexel.edu](mailto:medical.alumni@drexel.edu).

# Be Connected

Dear Fellow Alumni:

It gives me great pleasure to serve you as the new Alumni Association Board president. In my seven years as a board member, I have witnessed a renewed energy and excitement about our medical school. Your continued engagement with the students, faculty and each other will keep this momentum going!

I encourage you to consider the ways that you can reconnect with the College of Medicine. Staying in touch has never been so easy — and I guarantee you it will be very rewarding! We want your participation in whatever way works for you. Opportunities abound for all alumni: share knowledge and experience on career panels, attend regional events, be a judge at Discovery Day or assist with your reunion plans. And you can support the College with your annual gift.

The upcoming year also brings change. With the recent announcement that Dean Daniel V. Schidlow, MD, intends to step down next June, we will celebrate his 40-year-plus career at our affiliate St. Christopher's Hospital for Children and his outstanding service to the College of Medicine. Stay tuned for more details. Additionally, over the next two years, we will be diversifying our board membership, so if you are interested in getting involved please contact Alumni Relations.

Lastly, keep us updated, and please share your new contact information with us by calling 215.895.ALUM (2586) or emailing [medical.alumni@drexel.edu](mailto:medical.alumni@drexel.edu). This will ensure that you receive alumni publications, invitations to events near you and other important news. You can also use the website and social media to stay connected (visit [drexel.edu/medicine/alumni/overview](http://drexel.edu/medicine/alumni/overview)).



Mark S. Codella, MD, HU '84  
President, Alumni Association Board

**P.S. Please save the date for Alumni Weekend,  
May 16-18, 2019! All alumni are invited to attend.**



*A peaceful transition: Dr. Codella receives the gavel from outgoing president Timothy Manzone, MD, MCP '89*



# On Their Own Terms

## Four Alums Explore What It Means to Be a Woman in Medicine

By Elisa Ludwig

"I was lucky to live in an interesting time," says distinguished pediatric oncologist and researcher Anna Meadows '69, referring to the opportunities she created for herself in an era when women doctors were rare. Arguably, these are still very interesting times for women and especially in the field of medicine, where women now outnumber men in medical school. Meadows and three other alumnae — ob/gyn and Carilion Clinic Chief Medical Officer Patrice Weiss '92; cosmetic and laser physician Lisa Cheley Espinoza '04; and emergency physician Kraftin Schreyer '13 — recently shared their challenges and successes, and what they'd like to see shift for women doctors of the future.

### Dreams, Breakthroughs and Stumbling Blocks

It's hard to believe that there was a time when women were simply discouraged from entering the field, full stop. Yet an early college experience quashed Anna Meadows' goals for a time. "I took a chemistry course and I really aced it, and the TA thought I must have cheated, so he gave me a C in the course. This will surprise people who know me now, but back then I just said, *Well, there's nothing I can do and I'll never get into medical school.* So I changed my tack and majored in psychology."

After she got her master's degree in psychology and moved to Ohio with her first

husband, Meadows taught at Lake Erie College and had three children, yet she still felt dissatisfied with her career choice. In 1962, Benjamin Spock came to the school to speak, and when she asked his advice, he told her to follow her dream. Meadows applied to Harvard Medical School, only to be told that she would be taking the place of a man who wouldn't have children and therefore would have a much more productive career. That "poison pen" letter only lit the fire for her, and she applied to as many East Coast schools as she could find. She was accepted at Woman's Medical College, where she enrolled in 1965, one of 62 women in her class.

Some 30 years later, Patrice Weiss found the path to medical school to be much smoother, partially because she had actively-engaged parents who had already helped her break down social barriers — in 1974, they petitioned local organizers to allow her to be one of the first girls in Pennsylvania, if not the first, to play Little League baseball. It was Weiss's involvement in sports and the injuries she sustained as a result of playing them that piqued her interest in anatomy and medicine.

"But I never told anyone I wanted to be a doctor, not because I was a girl, but because I was a jock and focused on other things. I started college as a business major but by sophomore year I told my father I wanted to switch to pre-med. He told me to go for it. I was in awe — I just held physicians, nurses and the medical field in such high regard, and I never thought I could do what I really loved," she says.



## Drawing on a Legacy of Women's Medical Education

Even with women comprising the majority of medical students today, it's still poignant to consider that Woman's Medical College privileged women's careers when that was a radical idea. Lisa Cheley Espinoza came to medical school later than the traditional student, having spent many years as a professional ballet dancer. Drexel University College of Medicine enticed her because of its culturally diverse student body and its reputation for educating underserved populations.

"I was a little older, my parents never went to college and I'm Hispanic, so it was important for me to choose a school that embraced different kinds of students," she says. "As someone who always felt like an underdog, I very much appreciated that Drexel was built on the history of Woman's Medical College."

While enrolled, she found that Drexel's ratio of female faculty lecturers, administrators and leaders was important to her academically, and formative in her vision of what her life could look like. "These were amazing women who were teaching and practicing medicine and having families. They did everything, and they showed me how you could be a powerhouse as a woman in medicine, that I could go into whatever specialty I chose."

Another key influence is Espinoza's mother, an immigrant from Colombia, who advised her to work at least 5 percent harder than everyone else, and Espinoza took this to heart. In medical school she was named class president, and she later served as chief resident.

Well into the 21<sup>st</sup> century, Krafftin Schreyer was encouraged to follow her interest in medicine from childhood and, having plenty of doctor role models, never once considered that she would encounter any obstacles due to gender. She was drawn to Drexel for its progressive pedagogy, but she

was equally enamored with its tradition of teaching women. "There were many men and women in my family involved in medicine, and my parents both attended Hahnemann Medical College — my mother for her PhD — so there were several reasons for me to choose Drexel, but I liked knowing that history was there."

## From School to Specialty

Choosing a specialty can raise important considerations for women in medicine. Historically, of course, many specialties were simply seen as unfit for women doctors, and some continue to demand hours that could be incompatible with traditional household arrangements. Yet these four graduates were undeterred by naysayers and focused on their passions above all else.

With a fascination for the visual — the pathologies she could see in a microscope — Meadows decided to go into pediatric oncology, one of the specialties that had lots of women then. As a resident at St. Christopher's Hospital for Children, she found that women in the hospital setting were often ignored, so she made it a point to befriend the nurses.

"The women doctors realized the nurses knew everything and they were our allies. That helped us get through," Meadows says.

As a student at Hahnemann University School of Medicine, the one thing Weiss was certain she *didn't* want to be was an ob/gyn — which, even in the late 1980s, was a fairly male-dominated field — but a rotation changed her mind.

"I discovered how amazing pregnancy is. How can our bodies reject kidney transplants, yet when it comes to pregnancy, you have 50 percent foreign proteins and DNA in your body that doesn't get rejected?" Weiss says. "People thought I was crazy for going into a specialty that would take me away from home at all hours of the night. They told me I couldn't have a family life and I would be hit with malpractice cases. All I ever said back was 'but I like it.'"

Espinoza found her specialty even before attending medical school: Her own history of acne and an undergraduate job at a UCLA clinic exposed her to the field of cosmetic dermatology. She soon fell in love with laser medicine and its applications for a range of skin conditions. At the time this modality was in its infancy and just coming into vogue on the West Coast, and she saw a valuable business and career opportunity to bring the technology east.

Likewise, Schreyer has always known she wanted to go into emergency medicine. She finds the spontaneity of the work, the constant improvisation and hustle, exciting. She also had a sense that shift work would actually allow her to more easily manage parenting and family life, when the time came. "I think the field in general attracts strong women, and I see that in the women who take on leadership roles," she says.

*In photo (l-r): Drs. Weiss, Espinoza, Schreyer, Meadows*

## Forging a Career Path

Leadership, entrepreneurship, education — finding a niche and using it to make a difference distinguishes these women in their careers, whether it's a platform to share their expertise or a seat at the table with key decision makers. Along the way, they've sought help from mentors and mentored younger women in turn.

In 1972, Meadows was recruited for a fellowship at the Children's Hospital of Philadelphia, where she worked with her mentor Audrey Evans, a pioneer in the field. After realizing that there was very little research that followed up on the outcomes for childhood cancer survivors, Meadows got involved in clinical research. Her groundbreaking work made her an international leader in the field and helped evolve treatment methods to protect patient health. "In a small way I was able to change the outlook for kids, from not just surviving cancer to being able to live lives free from some of the untoward consequences that the treatment created for patients."

Meadows served as chief of pediatric oncology at CHOP for 10 years. She also was the first director of the National Cancer Institute's Office of Cancer Survivorship.

Weiss took on leadership roles as early as residency and won several resident research awards. Later she became director of the residency program and medical director of risk management for the Lehigh Valley Physician Group. Throughout her career, even as she was named vice chair and medical director of the Breast Care Center at Carilion Clinic, became chair of ob/gyn, and was promoted to her current role as CMO, she says she didn't encounter any gender-based obstacles, and she is thankful for that.

Despite her expanded responsibilities, Weiss remains clinically active as a professor of ob/gyn at Virginia Tech Carilion School of Medicine.

"I have a vested interest in women's health because I'm a woman, too. I've had difficult pregnancies. And I'm now almost 53 years old, so I'm looking toward issues like menopause and

osteoporosis management. I don't think you need to be female to take great care of pregnant women. But you can definitely relate to what patients are going through," Weiss says.

With the support of her husband, a Drexel Cardiology Fellowship alum, Espinoza decided to follow her dream of essentially creating a subspecialty, starting with opening her own practice.

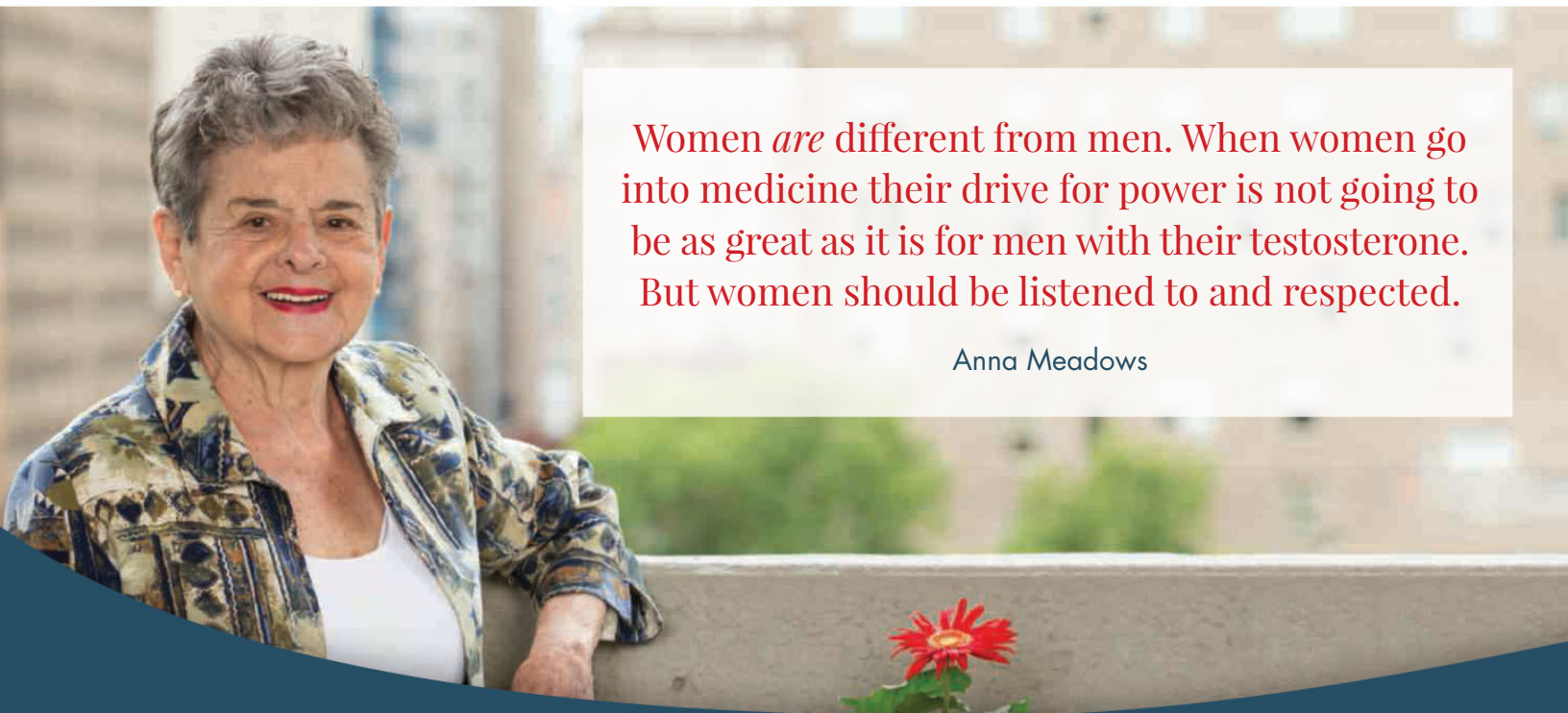
"I always knew I loved the entrepreneurial side of medicine, but I also realized it was harder to break into business as a woman. I bought my first laser in 2005 and built my own private practice of cosmetic and laser medicine while working at a wellness center, seeking additional training opportunities to combine dermatology, cosmetic surgery and laser medicine."

The multidisciplinary La Chelé Medical Aesthetics clinic opened in 2008 in Bucks County, Pennsylvania. Espinoza works seven days a week, but loves every minute of it. In addition to running her business, she teaches medical students, conducts clinical research, consults with multiple pharmaceutical and laser companies and travels the world speaking about the future of the field.

It hasn't always been easy, she says, and challenges remain. "Clinical research is still hugely male-dominated, as are a lot of specialties in medicine. My hybrid specialty didn't even exist when I started out so it's been a rough road getting to where I am, breaking down barriers, and I couldn't have done it without my mentors, many of whom have been women in business."

Espinoza says she has seen huge changes in her field. She's proud of the fact that she employs 25 women, and that she has been invited to speak at international conferences, join pharmaceutical advisory boards and donate services to more than 270 nonprofit organizations. La Chelé will soon be in its third phase of expansion, adding another 5,000 square feet.

Now an assistant professor of emergency medicine at Temple University's Lewis Katz School of Medicine, Schreyer works in the emergency room and conducts research. As a young faculty member, she has taken on a host of leadership roles, including quality officer for the Department of Emergency Medicine,



**Women *are* different from men. When women go into medicine their drive for power is not going to be as great as it is for men with their testosterone. But women should be listened to and respected.**

Anna Meadows



director of the Emergency Medicine Administrative Fellowship (which she developed), and co-director of the Quality and Patient Safety Curriculum for the medical school. She also serves as a mentor for residents, medical students and academic associates.

All of these roles feel natural to Schreyer, who hopes to continue to hold leadership positions. "I've never felt that I should be sitting on the sideline listening. When I'm in a meeting, I speak up if I have something to say. I like to take initiative instead of waiting for things to happen."

## The Side Job

For accomplished physicians in their respective fields, multitasking is key. Yet, even if they delegate tasks like childcare and cleaning, women often find they are still responsible for much of the "emotional" labor of their households: keeping the schedules, planning events, organizing the home, attending school meetings and shopping for their children.

"If they have a family, in most cases women are still the ones who are going to remember to buy the milk, to buy the toilet paper, to decorate the house," Meadows says. "It's not easy."

For her part, Weiss doesn't like the term "work-life balance" because it tends to induce guilt in anyone trying to achieve what could ultimately be an impossible feat. The point, she says, is to establish priorities and make decisions accordingly, without letting social norms dictate the rules of the house.

"What works for me may not work for someone else," she says. "I have been fortunate to be married to my best friend for 26 years. He is also a physician, and he worked in primary care. We never had roles based on gender. He could cook dinner and I could mow the lawn. He could cut his hours back for our family when I couldn't. In 1999, people were asking us how the man could possibly cut his hours for the woman's career. We faced a lot of those stereotypes from his patients and others, but I like to think that has changed by now."

Having a strong support system, inside the household and beyond, can help to weather the stressors of "having it all." Schreyer doesn't currently have children but she hopes to someday. "I see that when women at the hospital go on maternity leave, everyone rallies around them to fill in the coverage — not just women, but men, too. It's still a struggle in medicine to balance a full workload and a family. A lot of women go part time when they have kids. I'm not sure if that's in my future, but I do know that I love what I do and would have a tough time cutting back. Thankfully, I have an incredible fiancé and family that support me in all of my endeavors, and I know they will continue to do so."

## Challenges Ahead

Conditions have evolved, yes, but there is work to be done in evening the playing field for women doctors. Espinoza would like to see the gender pay gap close. She works hard in her own professional life to advocate for equal pay for women. She'd also like to see more resources devoted toward women entrepreneurs in medicine, more

mentorships and business education.

"When you're a young doctor coming out of medical school and opening up your practice, you're dewy-eyed and you're going to make mistakes. We need to go out into the world with more business acumen," she says.

In the wake of the #MeToo movement, women in medicine may be more aware of gender dynamics in the workplace. Schreyer has heard rumors about inappropriate conduct from male counterparts, especially during training, but she personally has not experienced anything along those lines. "Perhaps I'm mistaken, but I don't think it's as prevalent in medicine as it might be in other fields."

Weiss does see more women in high-powered positions relying on their male partners for childrearing support they might not have gotten even a decade ago. Though she still encounters more men than women in health care leadership, she believes that will change.

"We'll see the shift — over time there will be more candidates. And these roles aren't for everyone. To a young woman in the field I would say, 'Follow your passion and don't let anyone dissuade you.' I'd rather wake up every day and do something I'm passionate about for 60 hours a week than work 30 hours at something I don't care about. But you also have to punch your ticket with each experience along the way, and take the skillsets and develop your coping mechanisms so that you're ready for the opportunities when they come."

At 87, Meadows is helping to organize her 50-year reunion from medical school. She also takes care of her mentor, Audrey Evans, who lives nearby in Center City. But for all of the advances she's witnessed in her lifetime, she still recognizes the need for improvements. Meadows notes that in just about any conference or group setting, formal or informal, the speaker typically calls on a man first when answering questions.

"That's always an issue and I am forever pointing it out. But right now I see the obstacles for women as being essentially the same for men. It's about greed dominating the field of medicine — greed and power. Women *are* different from men. When women go into medicine their drive for power is not going to be as great as it is for men with their testosterone. But women should be listened to and respected."

She idly wonders if she would have gotten where she did if she'd had less determination to break through gender barriers or a different style of interacting with colleagues. "I frankly didn't have any problems once my career at CHOP began, not in terms of gender. Partly that's because I have a big mouth and if I saw injustice, I spoke out. Who knows — maybe I would have gotten further in my career if I'd kept my mouth shut. But I did what I wanted to do and I had a glorious 40-year career in medicine."

From her vantage point, Espinoza feels encouraged about women in the medical workplace. "From what I see we're doing it all and we're doing it well. We should be really proud of how far we've already come."



Mark Garvin

# REWRITING THE BOOK on Alzheimer's Disease

By Elisa Ludwig

With his latest research, Garth Ehrlich, PhD, could potentially change Alzheimer's treatment — and even the way we talk about this disease — for future generations.

"We're testing the hypothesis that Alzheimer's disease — which perhaps should be called Fischer's disease — is triggered at least in some cases by infection," says Ehrlich, a professor in the Departments of Microbiology & Immunology and Otolaryngology-Head and Neck Surgery.

Currently, the widely accepted idea is that Alzheimer's disease arises when neurofibrillary tangles and beta-amyloid plaques form in the brain — resulting in brain cell death and fewer nerve cells and connections, which eventually impairs cognitive function — but the root cause of these plaques and tangles is not definitive.

"There's no bigger health problem in first world countries," Ehrlich says. "In the U.S., we currently spend about a quarter trillion dollars a year on direct health care costs and another quarter trillion in lost wages to family caregivers. It is anticipated that the direct costs will go to \$1 trillion by 2050."

Since last year, Ehrlich's research has been funded by James Truchard, PhD, co-founder and chairman of the board of National Instruments, as part of what is called the Oskar Fischer Project.

Oskar Fischer was a Jewish academic, psychiatrist and

neuropathologist working in Prague in the first half of the 20th century. In 1907, he published a paper describing 12 cases of senile dementia with neuritic plaques — essentially determining the clinicopathological definition of what became known as Alzheimer's disease. During the Holocaust, Fischer was arrested and taken to a political prison, where he died, and in the ensuing years his work fell into obscurity. Meanwhile, Alois Alzheimer wrote about the presence of plaques and tangles in one case of dementia the same year that Fischer's paper came out. In 1910, a colleague named the disease for Alzheimer in an important book, and Fischer's contributions went unrecognized.

Enter Jim Truchard. An electrical engineer who turned his company into a multinational enterprise, Truchard has committed funds to Alzheimer's research projects while aiming to resurrect Fischer's important legacy.



Oskar Fischer  
1876-1942

"I chose Drexel's Institute for Molecular Medicine & Infectious Disease for the Oskar Fischer Project because of the center's advanced genome sequencing capability and Garth Ehrlich's unique experience with biofilms and bacteria that can evade the immune system," Truchard says. "Dr. Ehrlich's expertise is critical for establishing a definitive answer to the question of whether spirochetes or other bacteria reside in the brains of Alzheimer's patients."

## A NEW PATH OF DISCOVERY

The philanthropic support has allowed Ehrlich and Drexel to purchase a higher-throughput DNA sequencing device, which will be used for the research. The team will screen blinded samples of patient brain tissues for bacteria and analyze the specimens for evidence of infection.

"Eventually we will do the same for fungal and parasitic infection, but for our first assay we will be looking at bacteria," Ehrlich says.

For the past several months, Ehrlich has been working on operationalizing and validating the latest-generation equipment, and he is now looking at the first set of specimens. "We suspect that all the brains will have some level of bacteria because of the sensitivity of the assay and because there are no real sterile sites in the body, contrary to what we used to believe," he says.

The new instrument allows the team to look at about 160 specimens in a single run. "That is a huge increase in our capacity. The rate-limiting step is preparing all of the samples, but we anticipate that we can get the bacterial assays done by the end of the summer and hopefully the fungal and parasitic samples by the end of the year," Ehrlich says.

Ehrlich will be looking to see if there are more or different types of bacteria in the Alzheimer's patients. One of the reasons Ehrlich believes that infection could be the likely culprit is because of what the brain looks like in syphilis patients.

"When that disease kicks into the final stages, it causes a dementia that's very similar to Alzheimer's disease. I was shown this by Dr. Judith Miklossy [director of the International Alzheimer Research Center at the Prevention Alzheimer International Foundation in Switzerland] about four and a half years ago, and it really opened my eyes to the possibility that infections could be the trigger here."

The concept was not a stretch for Ehrlich, who has been working for nearly three decades on characterizing medical conditions that were thought to be nonbacterial processes as bacterial. In the early 1990s, he began by looking at chronic middle-ear disease, which was considered nonbacterial because children with persistent middle ear problems did not respond even when treated with multiple courses of antibiotics. Ehrlich and his colleague discovered live, metabolically active bacteria in the ear that could not be cultured. The bacteria had actually formed a biofilm whose cellular physiology was impervious to antibiotics.

"We tend to think of bacteria as a single-celled organism, but when it becomes a biofilm, it's going through a process of change that is more profound than a caterpillar turning into a butterfly or moth — it becomes a multi-celled organism."

This paradigm — of infection that hides behind a hard-to-culture biofilm — applies to many other diseases and conditions that

researchers are studying, including sinusitis, cystic fibrosis, urinary tract infections, periodontitis and others. Biofilms are also associated with infections from implanted devices, which are notoriously unresponsive to antibiotics and can only be stopped when the implanted device is removed.

Ehrlich hopes that his research will conclusively show the link between infections and the inflammation that leads to beta-amyloid plaques. "About 25 years ago, Dr. Sue Griffin at University of Arkansas came up with the idea that Alzheimer's disease was an inflammatory process, and she wasn't taken seriously at first. She demonstrated it with her research, and now it's part of the dogma that this is an inflammatory condition. She believes that our hypothesis is a reasonable idea, and she is a collaborator on our research."

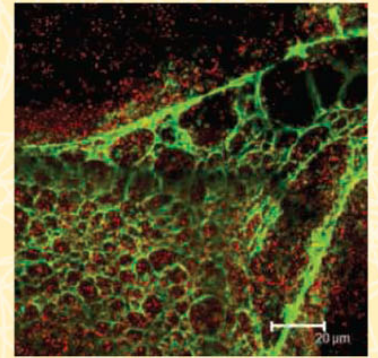
While other researchers are looking at similar links, some in the Alzheimer's community have expressed skepticism about Ehrlich's hypothesis.

"People have dismissed this idea out of hand, which I find very troublesome. We might be wrong, but let's rigorously test this hypothesis before we decide. We're not saying that all Alzheimer's disease is caused by an infection, but some subset of it could be," he says.

If a bacterial trigger can be identified, then researchers could develop a testing method for bacteria in the central nervous system so that patients would know their likelihood of getting the disease before the onset of symptoms. There may also eventually be a way to stop the progression, he says, that is similar to what is used in Lyme disease patients — a high-dose intravenous antibiotic.

Ehrlich's mother died of dementia a couple of years ago, so he understands what it is to live with this extremely common disease that affects some 5.4 million Americans. "We're not sure if what my mother had was classical Alzheimer's because she might have had vascular or mixed dementia and she had several mini strokes. It's not why I got involved in this research topic, but I have come to see how hard it is for family members taking care of dementia patients. My sister had to quit work for the last three years of my mother's life to take care of her. Meanwhile, the NIH and big pharma companies have spent over \$60 billion on research, and it's done nothing to change these outcomes."

Of course, along with meaningful research results comes an opportunity to bring awareness about an important figure in the history of science, something that Ehrlich, himself an amateur historian of science, values deeply. "Most people have never heard of Oskar Fischer. We won't ever replace the Alzheimer name, but we should establish Fischer as a co-equal in the development of this medical paradigm. What Truchard has done for this field of research is pretty incredible."



*Confocal microscope image of a Pseudomonas aeruginosa biofilm. The red dots are individual cells; the green is the matrix they produce, stained with lectin.*

# ALUMNI WEEKEND

## IS IT REALLY 50 YEARS?



Left: At the welcome reception at Estia in Center City (l-r) Mary Vassallo and Richard Vassallo, MD, HU '68, with Bruce Cassidy and spouse Eda Hochgelerent, MD, HU '68



Above: Members of WMC '68 catch up at the reception at Estia (in foreground, Drs. Janet Phillips Kramer and Barbara O'Pray)





Top: Woman's Medical College of Pennsylvania Class of 1968: Drs. (back row) Jeannette Chirico-Post, Barbara O'Pray, Joanne Sulewski, Barbara Reid, Patricia Crumrine; (front) Janet Phillips Kramer, Joni Lahr Magee, and Barbara Sandt Dampog



Above: Hahnemann Class of 1968: Drs. (back row) Stanton Lebowitz, Thomas Bender, Roger Bucs, Leon Rigberg, Patricia Lyons, Richard Vassallo, Sandy Smith, Paul Sparks, George Primiano, Al Squitieri, Roger Lee, John Owens; (front) Kenneth Rosen, Art Smukler, Eda Hochgelerent, Ronald Kamm, and Dennis Donnelly

# ACTIVITIES FOR ALL AND ALL OVER TOWN



*Left: Drs. Raymond Schreyer, David Laskin and Ron Gerson, all HU '78, at the Friday Reunion Celebration at the Franklin Institute*

*Below: Alumni Association Board members turn out for the alumni awards: Timothy Niesen, MD '11; Jill DeHaven, MS '10; then president Timothy Manzone, MD, MCP '89; incoming president Mark Codella, MD, HU '84; Richard Shusterman, MD, MCP '83; Denise Shusterman, MD, MCP '85; Elinor Cantor, PhD, MCP '79, emerita; and Robert Abbott, MD, MCP '85*



*Far right: Roger Lee, MD, HU '68*

*Right: Golden Dragon Joanne Marie Sulewski, MD, WMC '68, with the Dean and her commemorative Drexel diploma*



*Top: Alyrne Shockman, MD, WMC '53, and Dean Schidlow at the 50-year and Grand Classes — Golden Dragons — luncheon at the DoubleTree*

*Above: Drexel friend Ted Michaels (center) with Tara Colella Niesen, BSN '13, and her husband, Timothy Niesen, MD '11, enjoying Drexel After Dark at the 23rd Street Armory*

*Top: The 25th! MCP '93, including Drs. Thomas Riordan, Delia Rossetto Chiamonte, Sanjay Goel, Elizabeth Reimet, Sarah Waldman Blecherman, Ashesh Modi and Jeffrey Dunbar*

*Above: Savitri Goel, Sanjay (Sonny) Goel, MD, MCP '93, and Swati Goel at the awards brunch*



*Winners: Drs. Pugliano-Mauro, Hudis, Aryel, Krah and Goel*

## ALUMNI AWARDS

Outstanding alumni were recognized at the Awards Brunch held on Saturday, May 19, at the Logan.

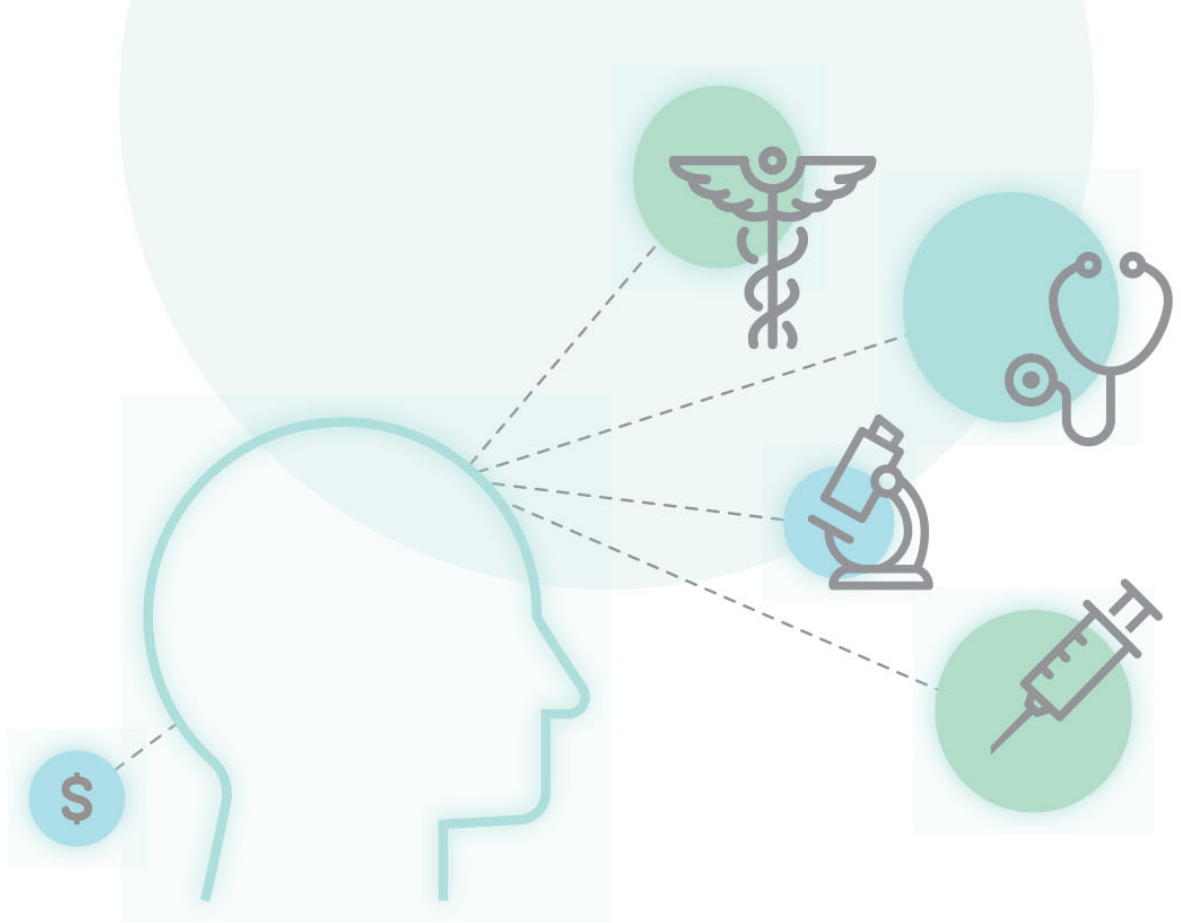
**Distinguished Alumnus Award**  
Ron Aryel, MD, HU '93

**Outstanding Alumnus Award**  
David Krah, PhD, HU '82

**Emerging Leader Award**  
Melissa Pugliano-Mauro, MD '04

**Distinguished Alumnus Award**  
Sanjay Goel, MD, MCP '93

**Lifetime Achievement Award**  
Clifford Hudis, MD, MCP '83



# Great Minds Think Alike

By Nancy West

Two alumnae of the Woman's Medical College Class of 1968 struggled financially to attend medical school. While their families were supportive of their aspirations to become physicians, neither had the financial resources to help their daughters go to Drexel's predecessor medical school. Both women worked their way through medical school, which added significantly to the burden of their studies.

As a result of their experiences, Janet Phillips Kramer, MD, and Patricia Crumrine, MD, independently decided to help current Drexel medical students by making a planned gift to establish scholarships for women and other students who might not otherwise be able to afford a medical education.

"When I was going to medical school, I knew a lot of women who wanted to go but couldn't afford it and weren't encouraged," recalls Kramer. "At that time, it was harder for women to get financing for medical school. I was lucky because my parents encouraged me to go, even though we had financial difficulties. My father became ill, had no health insurance and needed some very expensive medical services. He died before my junior year in medical school.

"Woman's Medical College was the only school that was willing to take a risk on me, because I really didn't have any way of paying for it," she continues. "The college helped by giving me a financial assistantship to run the bookstore. As a freshman, you started as a clerk, and by the time you were a senior, you became director of the store. In return, I received my books for free plus a small stipend in my senior year."

The rest of Kramer's funds came from working a lot of odd jobs, from the time she was in high school until she was a junior in medical school, and from education loans for both college and medical school.

Crumrine, as well, paid for her medical education. "My family helped with some of my college education, but I had a sister who also wanted to go to college, and they wanted to help her too," she explains. "So I was on my own for medical school."



Crumrine worked all the way through undergraduate school and also worked in the bookstore at the medical college. She took out loans to pay for her third and fourth years.

Although she graduated with debt, it doesn't compare to the debt that students face now, Crumrine points out. "The magnitude of debt that medical students incur today really hampers their ability to do other things in life as they repay those debts and then try to raise families and buy homes," she remarks. This was a major impetus behind her planned gift to Drexel College of Medicine.

**"I want to help them feel that they don't have to work during medical school but rather spend their time studying and interacting with other people — not worrying about where the next dollar is coming from."**

In addition, future doctors are uncertain about the reimbursement they will receive and whether they are going to be able to pay back those debts. "Medicine has changed," Crumrine says, noting the proliferation of corporate structures. "Many of these corporations are staffing urgent care centers with mid-level providers instead of physicians. This trend in health care will impact the number of people deciding to pursue the medical profession, particularly in the areas of primary care, internal medicine and pediatrics."

Crumrine hopes that her planned gift will help students to consider medical school without incurring such huge debt. "I want to help them feel that they don't have to work during medical school but rather spend their time studying and interacting with other people — not worrying about where the next dollar is coming from."

Kramer and her husband set up a scholarship fund to encourage students who showed a commitment and promise to continue their education in medical school. "Financial need is the major reason for awarding the scholarship," she says. "It can be given to any student who needs the funding."

Both Kramer and Crumrine have enjoyed distinguished careers.

Kramer, now retired, was an internist with a subspecialty in adolescent medicine. After 23 years in private practice, she became director of Adolescent and Young Adult Medicine at Christiana Care Health System in Delaware. She developed and directed the Adolescent Medicine Fellowship and First State School, the first hospital-based school in the country to provide medical services for students with chronic illness, while they receive ongoing onsite education from the public school district.

Also while Kramer was director, Christiana Care won the contract to provide health services for youth in Delaware's residential and correctional facilities. That program continues today. Kramer serves as a physician surveyor for the National

Commission on Correctional Health Care and continues to advocate for health services for incarcerated youth.

Crumrine is a specialist in pediatric neurology. She is a professor of pediatrics at the University of Pittsburgh School of Medicine and an attending physician for the Epilepsy Monitoring Unit at the Children's Hospital of Pittsburgh of UPMC, where she is also an electroencephalographer. She previously served as director of EEG, the Medical Epilepsy program and the Child Neurology Residency program.

Crumrine is a former chair of the American Board of Psychiatry & Neurology and has held leadership roles with numerous professional associations. She has presented her research on anticonvulsant drug treatment of epilepsy in children to national and international conferences. She currently serves on exam writing committees for the American Board of Psychiatry & Neurology and is chair of the Epilepsy Exam Committee.

When Crumrine and Kramer began medical school in 1964, they couldn't have imagined all that lay ahead. Now they will help ease the way for those who come after. Kramer hopes that her gift will encourage other alumni to give back. "Those who have benefited from encouragement and a good education should consider supporting the institution and its students. I am very grateful to the College of Medicine for allowing me to pursue a challenging and fulfilling career."



*At the 30th anniversary of First State School: founder Janet Kramer, MD (right), and program director Elizabeth Houser, MSN, RN*



*At the Golden Dragon Ceremony: Patricia Crumrine, MD, and Dean Daniel V. Schidlow, MD*

# A Family Business: The Drs. Ramirez

By Catherine McCorkle



Life revolves around family for Rene Felix Perez Ramirez Jr. and Veronica Araujo Ramirez, both MDs, Class of 2009 — whether it's their three children, their extended families near Fresno or their Drexel College of Medicine family. Since they began medical school as newlyweds, their own family formed hand in hand with their medical training. Children were then part of their residency experiences. Their oldest son seems to be following in his parents' footsteps, even though he's only in elementary school.

While every new medical student must adjust to an intense course load, the rigors of a rotating schedule and, frequently, a new city, the Ramirezes' first concern was being in the same new city. The couple, who met in band camp as undergraduates at California State University, Fresno, were engaged when they applied to medical school.

"When you're pre-med, schools really don't care if you're engaged," Veronica laughs now. A couples Match, the option for medical students who want to enter residency together, isn't a possibility when applying to medical school itself.

At the time, both Rene and Veronica were interviewing at multiple schools. The College of Medicine reached out to Rene, offering him a spot in the Drexel Pathway to Medical School program, which is designed to enhance the skills of talented students from underserved groups. Rene mentioned that his fiancée was also applying to medical schools, and both were invited to interview and accepted into the Pathway program. "It was meant to be," says Rene.

The Ramirezes credit the Pathway program for their success as students, and later as physicians. It oriented them to the medical school curriculum, the faculty and Philadelphia itself. "The support was there. The guidance was there. The education obviously was there. If it wasn't for the program, medical school might have been a very different experience," Rene says. Veronica

concur. "It was a different experience for us than for students who came straight from undergraduate."

Another aspect that made medical school different for them, of course, was being newlyweds. Veronica and Rene see this as a source of strength, because they were able to be a resource to one another during a challenging time. For instance, Veronica says there was no animosity between them about the amount of time given to studying. "In many ways it strengthened our relationship," she says. "It's who we are."

A second benefit of being newly married in medical school is sharing the same schedule, Rene adds. The all-consuming studying was spent together, but the couple shared the same break and vacation times as well, making it easier to return to Fresno to see extended family. "It was a fun ride," Rene says of medical school. "I tell people all the time — I probably wouldn't do high school again. I definitely would not do college again. I don't think I'd want to do residency again. But I would do medical school again."

As graduation neared, both considered staying in the Philadelphia area for residency. Life, however, had other plans. By the end of medical school, the Ramirezes were expecting their first child. With a newborn due in July — and their families back in California — they decided to return west.

Thanks to a successful couples Match, both were placed in the Fresno area. Veronica would do her residency in pediatrics at the University of California San Francisco, Fresno, and Rene matched at UCSF Fresno in emergency medicine.

That match, however, almost didn't happen. At the beginning of residency season, Rene was interviewing only for positions in family medicine. He had worked as an emergency department scribe for two years as an undergraduate, he explains. "I really loved emergency medicine, but I didn't want to go into it just because that was the only thing I knew. I wanted to make sure it was absolutely something that I wanted to do."

Then a moment of truth: Rene was on an away rotation in emergency medicine, and an attending asked what he intended to specialize in. When Rene replied "family medicine," the attending said, "You're not supposed to be a family doctor. You're supposed to be an emergency doctor." The other attendings and the program director agreed, and with their support, Rene started applying to residencies in emergency medicine.

## Shifting Gears

Veronica had only been an intern for a few weeks when she left on maternity leave. "Coming back," she says, "I was kind of behind. So it was a steep learning curve; it was a juggling act." She credits her relationship with Rene for getting them through that time. She's also grateful to her family — especially her mother — for caring for her infant when she had 36-hour shifts, as well as to the College of Medicine for having so thoroughly prepared her.

The results speak for themselves. Both Veronica and Rene were chief residents of their respective programs. Today, Veronica is in practice with Community Medical Providers, a provider-owned medical group. She previously served on the pediatrics faculty at UCSF Fresno.

Rene is an assistant clinical professor of emergency medicine at UCSF Fresno, as well as director of the Emergency Scribe program. He gives good marks to the Drexel medical students who rotate through the emergency room at Community Regional Medical Center where he works. "I have high standards for the medical students," he says. "The Drexel students are always well prepared."

## A New Crop of Docs?

As the son of two College of Medicine alumni, 8-year-old Andrew Ramirez (the baby who attended medical school in utero) was also well prepared when a classmate started to choke during a Valentine's party at school. Andrew noticed that her face was red and she was clutching her throat. So he performed the Heimlich maneuver and saved the second-grade girl.

When Rene heard of the rescue that afternoon, he asked Andrew how he knew what to do. Andrew reminded his dad that when the two were reading a Boy Scout magazine, a cartoon prompted a discussion of life-saving techniques. "He asked what the Heimlich maneuver was and I showed him," Rene says. "So I remember having that whole conversation with him. Obviously he remembered, because he did it that day."

Veronica and Rene also have two daughters, Samantha, 6, and Danielle, 3, who are following their older brother's example. All three say they want to be doctors "like Mommy and Daddy." The children sometimes accompany their parents on outreach visits to local junior high and high schools. The kids learn about planning, setting goals, and taking steps to achieve them. As a 4-year-old, Andrew was already telling the teenagers that he was going to go to medical school, Rene recalls, but before that he had to "take the MCAT, go to college, and do well in high school." All in good time.



Silvia Flores

## Cannabis and GI Complaints: Study Challenges Current Knowledge

Does cannabis use cause or increase gastrointestinal problems? That may be the case, according to a study presented at Digestive Disease Week by Shelini Sooklal, MD, a Drexel/Hahnemann Gastroenterology fellow. The findings have implications for both recreational marijuana and medical marijuana, calling into question a therapeutic role of cannabis for GI symptoms.

The retrospective case-control study comprised 2,371 patient charts. A total of 772 patients were documented cannabis users; controls were randomly selected from the remaining 1,599 charts, creating a 2:1 test-to-control ratio.

The most frequent symptoms reported by the cannabis group were abdominal pain (25% vs. 8% in the control group), heartburn (15% vs. 9%), and nausea and vomiting (7% vs. 1%). Each of these results was statistically different from the control group ( $p < .0001$ ). Daily users were more likely to suffer those symptoms than less frequent users. Endoscopy findings showed that users were more likely to be diagnosed with esophagitis, as well as erosive gastritis and non-erosive gastritis.

Also, Sooklal says, “cannabis users were less likely to have a normal manometry study, leading to the suggestion that there’s an upper GI tract motility disorder associated with chronic cannabis use, possibly similar to the motility disorder associated with opioid use ... Our results suggest that cannabis use may potentiate or fail to alleviate a variety of GI complaints, which challenges current knowledge.”

She points out the need to look further at the results in light of comorbidities, especially concurrent use of opioids, which could contribute to physical findings.



## Music and Medicine

The vibrant Anthony J. Drexel Picture Gallery was an inspired setting for DUCOM Classical’s spring concert.

The student group’s mission is to foster involvement in classical music, both by increasing student exposure to the music and by providing a space where students who play instruments can share their talents with others. The gallery, built in 1902 and restored to its original state, was a new venue for the group, which has performed in several different places over the years, but none like this jewel box.

DUCOM Classical has a strong lineage, engaging even fourth-year students; music is simply part of their lives. Happily, an anonymous donor has volunteered to match all gifts in support of DUCOM Classical, up to a total of \$25,000. (If this appeals to you, please contact Andrea Pesce at [adp77@drexel.edu](mailto:adp77@drexel.edu).)

Above: Brian Lefchak, pianist; Dean Daniel V. Schidlow, MD, baritone; faculty adviser Kim Kahng, MD, pianist; and Amanda Curry, mezzosoprano. Lefchak and Curry graduated in 2018.



## Drexel in Top 100 Innovators

The most recent report issued by the National Academy of Inventors and the Intellectual Property Owners Association puts Drexel University at number 54 of the top 100 worldwide universities granted U.S. utility patents in 2017. Drexel advanced by 18 places year-over-year.

The rankings are calculated using the number of utility patents granted by the U.S. Patent and Trademark Office that list a university as the first assignee. Drexel received 45 in 2017.

The issued patents cover the range of research areas that Drexel investigators explore every day; just for example:

- New compounds to treat Parkinson’s disease, designed by Sandhya Kortagere, PhD, an associate professor in the College of Medicine’s Department of Microbiology & Immunology, and being developed by the Drexel start-up company PolyCore.
- A noninvasive tumor detector developed by faculty in the School of Biomedical Engineering, Science & Health Systems and the College of Engineering, brought to market by UE Lifesciences.
- On another note, a multi-touch piano keyboard developed by a professor in the College of Engineering, also on the market.

*Patent pending:* The baking process, developed by Alexandra Zeitz, manager of the Drexel Food Lab, that turns out a consistently flaky, *gluten-free* croissant.



## A Custom-Printed Prosthesis

This story begins with a fourth-grader who plays the violin. Which is an accomplishment for any young boy but all the more so for Julian Caraballo, who was born with only limited use of his right hand. He could play, but he couldn’t reach his full potential without some assistance.

Looking on the internet for help, Julian’s music teacher discovered e-NABLE Community Foundation, a network of volunteers who use 3D printing to create prosthetics. As it happens, three graduate students at the College of Medicine also discovered e-NABLE, while searching for a service project for their course in Community Dimensions of Medicine.

e-NABLE made the connection, and everyone got to work.

The Drexel trio — Alex Hahn, Kimanthi Gicovi and Tyler Bogaczyk — were delighted to have Julian as their client. The e-NABLE community creates a lot of prosthetic hands, according to Hahn, so there are vast numbers of existing patterns. “We were lucky to get Julian, who really challenged us, and we were able to do something on our own instead of just following a template,” Hahn says.

The goal was to design a comfortable lightweight device to securely hold the violin bow in place while permitting Julian to perform essential bowing techniques. The first iteration was bulky and limited wrist flexion, but after some fine-tuning, the second prototype struck just the right chord.

The device consists of a 3D-printed plastic pad, which attaches to the bow. Julian grips the pad and wraps a Velcro strap around everything to hold it in place. The pad can be adjusted on the fly to allow for easier transitions.

Proof of concept: Julian’s performance at the school concert, eagerly attended by his Drexel friends, was a resounding success. “Julian loves them,” says his mom, Dana Sarubin. “They did a great thing for him.”



# Jazz Brunch

Putting a face to a name, speaking with someone who shares your goals, listening to some fine jazz in a new hotel — all were on the menu for the Benefactors Jazz Brunch, held Sunday, April 15, at The Study at University City. Students came to meet and honor the generous donors who help to lighten their financial load.



- 1 Joseph Capo, MD, MCP '82, and Robert DeSilverio, MD, HU '59
- 2 Our speakers, J. Kenneth Brubaker, MD, HU '70, and medical student Sheena Amin, Class of 2020, with Pamela Brubaker
- 3 Alumnae (back) Lynnette McNeal, MD, WMC '61; Barbara Schindler, MD, WMC '70; Barbara Steinberg, DDS, residency MCP '76; and Louise Sonnenberg, MD, WMC '67; (front) Mary Cote, MD, WMC '59; and Anna Meadows, MD, WMC '69
- 4 Mutual admiration society: (back) Irene Kirkland-Mintz, MD, MCP '86; Kwesi Boateng '20; Christina Chen '21; Sheena Amin '20; Andrew Tran '21; Allison Gutierrez '18; Dominique Jones '21; Kingsley Ozongwu '21; Jacqueline Koomson '21; Cynthia Niño '21; Nga Ying Eng '21; Blake Adnani '21; Andrea Verghese '19; Melissa Hoffman '20; Austin Coley, PhD candidate; Sanjay Goel, MD, MCP '93; (front) Adam Sundholm '21; Bettie Yeboah '21; J. Kenneth Brubaker, MD, HU '70; Madeleine L. Long, MD, MCP '80; Ashlyn Brown '21; Aria Attia '20; Adrian Rainero Garcia '20



Jim Greipp

# Q&A

As chair of the Department of Neurobiology & Anatomy, Itzhak Fischer, PhD, oversees one of the largest and most renowned spinal cord research programs in the country. His NIH-supported research focuses on the development of cellular and molecular strategies to promote the regeneration and recovery of function in the injured spinal cord. Yet, another aspect of his work is very important to him: He supports a number of community outreach programs, including a summer Neuroscience Camp, Medical Student for a Day for high-schoolers, an anatomy course for advanced art students, and a unique group of summer remediation courses for medical students.

## Itzhak Fischer, PhD

Professor and Chair, Department of Neurobiology & Anatomy

### WHAT WAS YOUR GOAL in starting community outreach programs?

Over the years, we have developed many teaching resources. In addition to procuring cadavers for our gross anatomy lab, we have produced online videos of the labs, and almost all of our histology slides have been scanned. We decided to use some of these resources to provide courses for high school students, art students and medical students outside of Drexel College of Medicine as a community service and to attract students to our program. In particular, we wanted to reach out to students in lower socioeconomic areas to give them exposure to medical science and educational opportunities that they might not otherwise have.

### HOW DOES NEUROSCIENCE CAMP benefit students and the College?

Current high school juniors and sophomores who demonstrate a strong interest in neuroscience topics and research can apply for this two-week summer camp, which involves a mix of lectures and participation in a lab project. We receive about 50 applications each year, and we invite 15 students to participate. Graduate students at the College act as mentors in the lab, so it is good experience for them as well as for the high school students, who see firsthand how scientific experiments are conducted. Students break into smaller groups for lab work. At the end of the two weeks, each

group gives a presentation of their experimental findings. Often, some of the high school students later apply to the College as medical students. This program was developed in 2013 by Jed Shumsky, PhD, research associate professor in our department.

### WHAT DO ART STUDENTS learn here?

Since 2009, our department has offered the course Artistic Anatomy, in collaboration with the Fleisher Art Memorial. Taught by Michael Grimaldi of the New York Academy of Art, with support from Bruce Hirsch, PhD, associate professor of neurobiology and anatomy, and Theresa Connors, an instructor in the department, the course provides a unique experience for advanced graduate art students. It is based on the Renaissance tradition, emulating Leonardo da Vinci; art students spend a full day each week in the anatomy lab, working from cadavers, for 15 weeks. The art students study the structure of the body and how it relates to and controls function and appearance, and the application of this knowledge in their own art work. It benefits our medical students, who stay in the lab after their dissection work to communicate with the art students and learn how the art students react. It is a very emotional experience for all of them, emphasizing the relationship between science, and art and the humanities. As far as we know, this is the only such program for art students nationwide. WHY created an excellent video, "The Gross Lab,"

based on interviews with participants ([why.org/segments/the-gross-lab-4/](http://why.org/segments/the-gross-lab-4/)).

### WHAT LED TO THE Medical Student for a Day program?

This community service program evolved out of a request in 2004 from an AP biology teacher in the Philadelphia School District to bring her students to the gross anatomy lab for a field trip. Since then, the program has grown to include over 300 high school students each year from more than 15 schools in the greater Philadelphia region, many in lower socioeconomic areas. The students have the opportunity to interact with medical students, who act as mentors in the gross anatomy lab, as well as graduate students and faculty. We believe that investing early in these students' education will have a greater impact on their futures. Over the years, many who have participated in the program have applied to become medical students at the College.

### WHO CAN TAKE THE summer remediation courses?

We developed web-based summer remediation courses for medical students nationwide who received a failing grade during their initial course in medical neuroscience, histology, embryology or gross anatomy. These courses, now in their tenth year, are still the only ones in the country offered online.

Interview by Nancy West



# The *future* is a place we make.

At Drexel University, the future is not a hazy glow on the horizon. It is a place our students and faculty actively create.

Your investment in the College of Medicine fuels the ambition and talent of students from all backgrounds, year after year.

By funding scholarships, you sustain our legacy of inclusion for those underrepresented in medicine. Since scholarships minimize excessive debt for graduates, you also encourage future physicians and scientists to follow their passion for primary care and other medical careers that improve quality of life for all.

Join us as we take the next leap in shaping the future of health care!

Go to [future.drexel.edu](https://future.drexel.edu) and make your mark with the College of Medicine.



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# Alumni Calendar

# 2018-2019

**AUG 10**

**White Coat Ceremony, Class of 2022**

Kimmel Center for the Performing Arts, 11 a.m.

**SEP 13**

**Global Night of Networking**

Locations throughout the country

**OCT 16**

**Alumni/Student Career Panel**

Queen Lane Campus, 6 p.m.

**23**

**Discovery Day**

Pennsylvania Convention Center

**28**

**American Association for Laboratory  
Animal Science Reception**

Baltimore, Maryland

**DEC 13**

**Turkey Project**

University City Campus, all day

**MAY 16-18**

**Alumni Weekend**

**17**

**Commencement**

**Details: Please email [medical.alumni@drexel.edu](mailto:medical.alumni@drexel.edu)  
or call toll-free 888.DU.GRADS (384.7237)**