HELIX

THE TECH ISSUE

Talk to the Hand

Will AI replace human touch?

Power to the People

Lifestyle medicine gives you back your health

Teaching With Tech

Experts expound on AI in the classroom

SUMMER 2025

VOL. 06
NO. 02

ALSO INSIDE

QUANTUM COMPUTING WILL CHANGE EVERYTHING YOU THINK YOU KNOW ABOUT YOUR HEALTH

AMBIENT SCRIBING REWRITES HEALTH CARE

THE MAGAZINE OF ROSALIND FRANKLIN UNIVERSITY

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Scholarships are a vital investment for the next generation of healthcare leaders, affirming the commitment of students who entrust us with their educational journey.

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Your partnership and generosity is more than a gift — **it is a lifeline for students determined to make a difference in the world.**

ROSALIND FRANKLIN UNIVERSITY *of* MEDICINE AND SCIENCE **EMPOWERING SCHOLARS**

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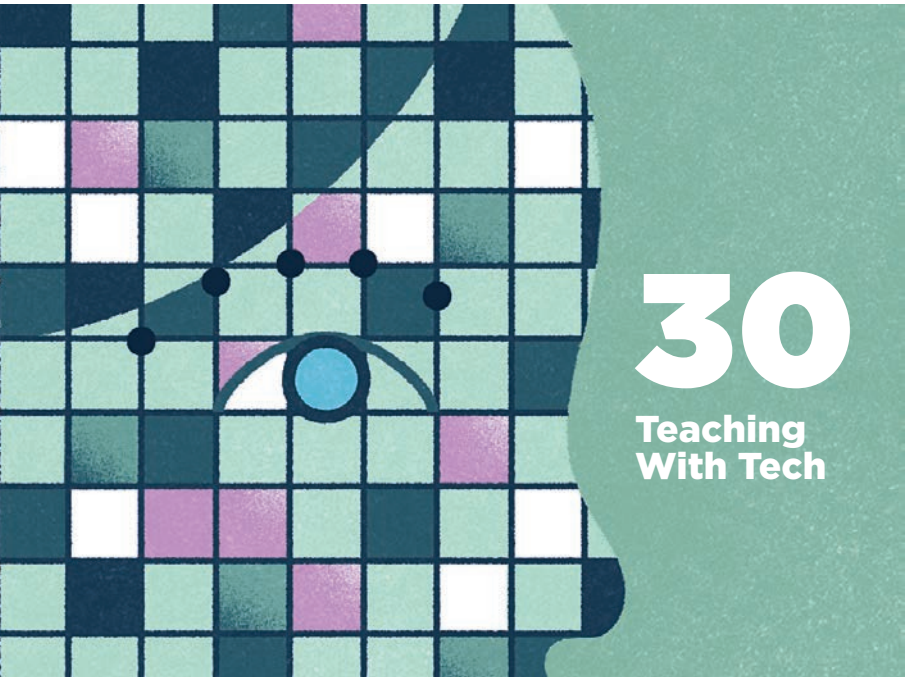

THE TECH ISSUE

ENGAGING AMBIENT SCRIBING to allow more focus on patients, employing quantum computing to shift how we think about health and disease, creating scenarios to mimic real-world situations in a sim-center classroom — the age of technology is already here.

With this evolution of both the teaching and the practice of health care, the possibilities seem limitless. Often, so do the pitfalls.

In this issue of *Helix*, we explore how we are adapting to new opportunities, as artificial intelligence works hand in hand with human intelligence.

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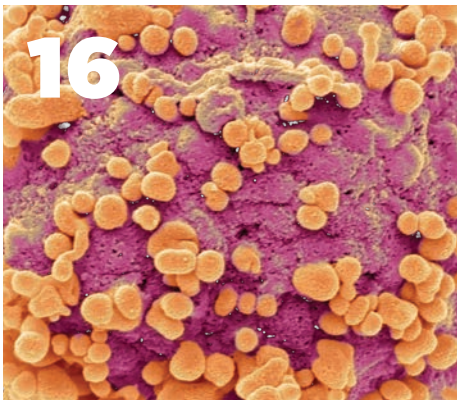

ALSO INSIDE

COVER ART: JOEY GUIDONE

HELIX

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PRESIDENTIAL TRANSITION
The presidential search committee of trustees, faculty, alumni and staff will find RFU's next leader. Dr. Rheault will remain president until her successor arrives. For information about the search and the transition, scan the QR code.

Intentional Relationships

AS A TEEN IN CANADA, I helped care for a child who had cerebral palsy. The physical therapist would visit and spend an hour with the boy. That time spent in empathetic, compassionate care and the integration of care — physical, speech and occupational therapy, psychology, and social work — improved the well-being of the child and his entire family. The relationship-building was a powerful lesson.

Today, as we incorporate artificial intelligence (AI) and other technologies into learning and practice, healthcare professionals' biggest challenges include time and care. Rosalind Franklin University supports an interprofessional team approach to care and a commitment to community health.

Advancements in technology are transforming health professions education, patient expectations and health care, itself. Today, universities need to educate for quality improvement and innovation, data analytics and digital medicine, adaptability, and values-based leadership. We need to be even more intentional about educating for empathy and compassion, which help strengthen the clinician–patient–family relationship.

Health care is a relationship. Patient satisfaction is closely tied to the quality of their relationships with their health caregivers. Do our patients feel listened to? Do they feel respected? Do they feel cared for?

AI tools are already reducing some of the cognitive and documentation burdens of clinical care, giving future and practicing clinicians more time to focus on how they can better support their patients and offer personalized care. As AI learns to better augment human intelligence, we need to learn how to better uphold the human and nurture the relationship at the heart of care.

So much has changed during my nearly 45 years at RFU. I arrived before personal computers were in common use. I'm leaving as humanoid robots are assisting with patient monitoring and providing companionship to the elderly. The faster we hurtle toward more AI- and quantum-driven breakthroughs, the more I'm convinced of the critical importance of compassionate, patient-centered care. People will continue to seek out and value human-to-human interactions. The human touch will continue to promote trust and healing.

As I prepare to step down as president of Rosalind Franklin University, I know our community will continue to flourish in the hands of those who are committed to shaping a culture where the human is always valued, whatever changes come.

*—**Wendy Rheault**, PT, PhD, FASAHP, FNAP, DipACLM, President and CEO*

STRANDS

Science and everyday life cannot and should not be separated.

—DR. ROSALIND FRANKLIN

HANDS ON

AI Is My Copilot

How ambient scribing is changing health care and education

WRITE RIGHT *Dr. James Carlson relies on ambient scribing to capture accurate details of his visit with a patient.*

PHOTOGRAPH: MAX THOMSEN

A TRUSTY AI-POWERED ASSISTANT embedded in an electronic health record (EHR) or a tablet in the exam room listens in on patient–clinician conversations, effortlessly capturing every detail and turning the conversation into a clinical note. This isn't just any notetaker; it's a superpowered HIPAA-compliant copilot that documents the encounter and may even suggest an appropriate differential diagnosis and treatment plan, as well as automate the billing process in seconds. The note is reviewed and signed off on by the clinician to ensure accuracy, but it frees the healthcare team from time-consuming documentation.

This is ambient scribing, and it is making waves in health care and education.

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By capturing every important detail of a patient visit, AI creates more accurate, complete clinical notes, reducing the chance of missed information. With these notes in hand, clinicians may be able to make more accurate decisions more efficiently — leading to improved patient outcomes. Ambient scribing more accurately documents the clinical encounter for more informed decision-making, plus it allows the clinician to spend more time listening and establishing rapport with their patients and families. And with administrative tasks frequently cited as a leading cause of clinician burnout, ambient scribing helps healthcare professionals achieve better work–life balance and focus on what truly matters: spending more time connecting with their patients. As a bonus, ambient scribing improves communication within healthcare teams, ensuring everyone involved in a patient's care is on the same page and working together seamlessly.

In the classroom, AI can be just as transformative. Picture being a student where your learning is customized, helping you hone your strengths and optimize areas that need improvement. Precision learning at its best. As educators, we are exploring how to integrate training around proper use of AI and ambient tools in a student's clinical workflow. We are leveraging ambient technologies to personalize learning, tailoring content and feedback to each student's individual needs. For example, by integrating ambient technologies into training simulations, we are better able to capture and analyze a specific learner's clinical behaviors, pinpoint areas where they need extra help, and offer more targeted and effective feedback. This AI-based precision-learning approach is like having a personal tutor or copilot guiding students through their growth as clinicians.

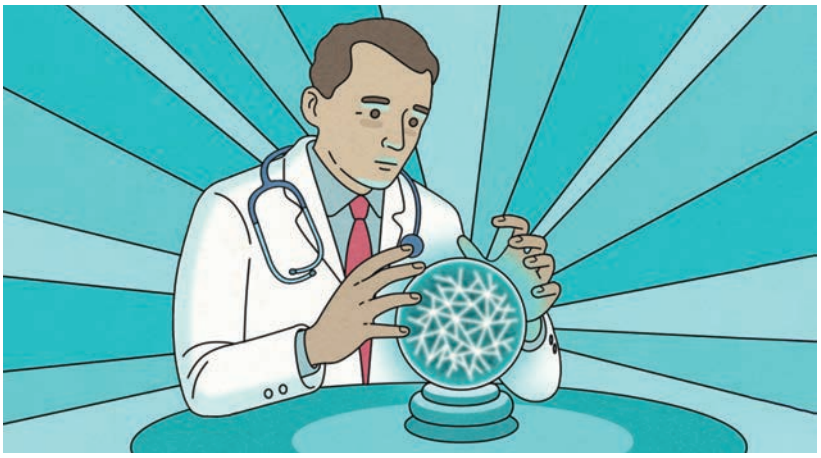
Picture being a student where your learning is customized, helping you hone your strengths and optimize areas that need improvement. Precision learning at its best.

With these amazing advancements, there are important ethical considerations — issues such as data privacy, transparency and societal impact need to be considered. It's crucial that patients and students are fully informed and assured that data gathered is confidential, and that they understand the ethical boundaries around appropriate AI use. These concerns remind us to integrate these tools thoughtfully and responsibly, with the same high level of care and attention we currently devote to our patients and students.

The future of health care and education will, undoubtedly, be deeply affected by AI in many ways we may not even have thought of yet. Ambient scribing is rapidly gaining in usage and clinical decision-support functionality, and it will likely be regularly integrated into the workflow of healthcare teams. It is my hope that AI will continue to free us to do what we do best: build deeper connections with our patients and students.

—James Carlson, PhD '13, MS '01, PA-C, CHSE-A, RFU's interim provost and vice president for interprofessional education and simulation

Support technology and innovation at RFU.



Longitudinal You

How quantum computing will change everything you think you know about your health

QUANTUM COMPUTING, *a paradigm shift in computation, leverages the principles of quantum mechanics to tackle problems currently intractable for even the most powerful classic supercomputers.* ***David T. Feinberg, MD '89, MBA****, chairman of Oracle Health, thinks advances in quantum computing will revolutionize how we think about human health and disease. He elaborates here:*

It's taken 40 years to digitize the medical record, but large language models[1] (LLMs) are moving at spectacular speed to capture and summarize personal health information. Soon we'll have the longitudinal story on you. LLMs will predict when you will have a stroke and when you will die. The technology will literally write the next 5,000 words of your record — before it's happened.

Your physician will start the conversation: "Look, we haven't gotten your blood pressure under control because you're not taking your medication. It looks like you're going to have a stroke in 18 months. You just told me your granddaughter's graduating from high school in two years and you want to be there. I don't think you're going to make it. So let's tweak the model. Let's see if you *did* take your blood pressure medication, would you make that graduation?"

In 10 years, the quantum will have done for the natural sciences what AI is doing for language. It will show us more advanced ways of understanding biology — how proteins fold and interact — which is way more complex than words. And I don't think disease will be organ-specific. We'll be thinking much more systemically, from a genetic, proteomic[2] and epigenetic[3] perspective.

Alzheimer's is a perfect example. In 10 years, the doctor–patient discussion will be, "This biological insult[4] is affecting you, and here's how we're going to change it," not "You have a disease that demonstrates itself as decreased cognition." That frameshift is already happening around cancer, which we're treating at a molecular level. We will understand the complexity of the disease we called Alzheimer's as a final common pathway of insults — diabetes, brain trauma or XYZ — that, way down the line, look like dementia. The discussion will be about how we can manipulate and change your proteins so you don't even get that thing we used to call Alzheimer's.

Five years from now, I'm going to have such a good understanding of you going forward that I will be able to tell you: "You're not going to make it to the kid's graduation. But if we can do a simulation, if we change this medicine or you improve your lifestyle, this is what will happen in your life."

1. LARGE LANGUAGE MODELS: Algorithms that can recognize, predict and generate text based on patterns they identify in data containing hundreds of millions of words.

2. PROTEOMIC: Large-scale study of proteins in biological systems.

3. EPIGENETIC: Heritable changes in gene expression without DNA sequence alteration.

4. BIOLOGICAL INSULT: Harmful disturbance to a living organism.

ILLUSTRATION: DAN PAGE

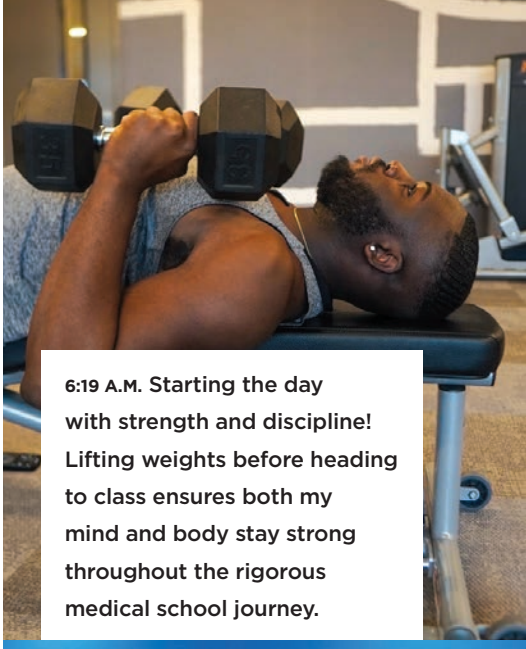
DAY IN THE LIFE

The Long and Short of It

ALWAYS KNOWING he'd pursue a career in medicine, Agbai Kalu, CMS '28, instead found himself doing data analysis at Google, where he worked with life science and healthcare companies. He enjoyed business and technology, but his passion stayed in patient care. Inspired by frontline workers during COVID, he decided it was time to make a change and dive into health care.

"Now, my day-to-day is totally different," Mr. Kalu says. "The 9-to-5 life I used to live is no longer a thing in medical school. I have to go with the flow — some days are gonna be long; some days are gonna be short."

Mr. Kalu is also a self-described social media influencer, so we asked him to use those skills to show us a day in his long and short life as a medical student. *—Sabreen Alfadel*



6:19 A.M. Starting the day with strength and discipline! Lifting weights before heading to class ensures both my mind and body stay strong throughout the rigorous medical school journey.

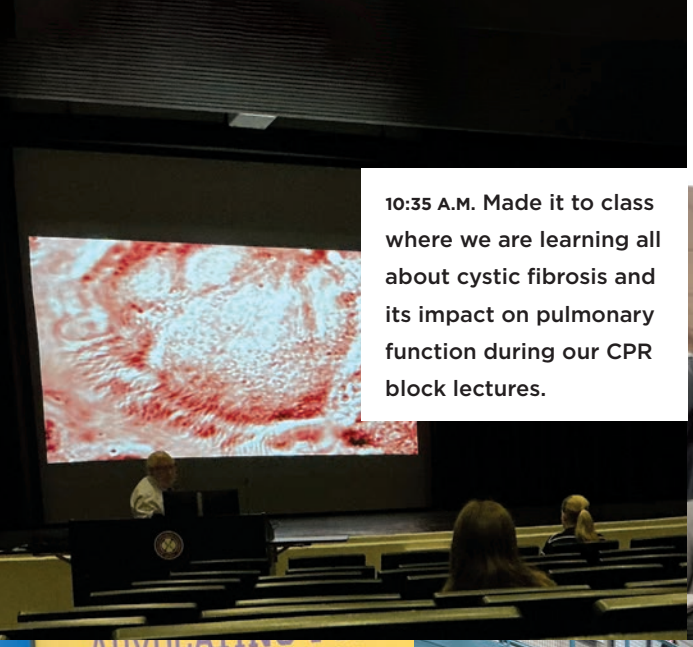
3:30 P.M. I had the privilege of leading a Parent/Hero Academy session, where we are helping parents empower their Black sons to explore careers in health care. Representation matters, and it starts with conversations like these.

MARKERS

PROVOST NANCY PARSLEY RETIRES, JAMES CARLSON NAMED INTERIM PROVOST

Provost Nancy L. Parsley, DPM '93, MHPE, retired in June after 18 years of service to Rosalind Franklin University. A graduate of Dr. William M. Scholl College of Podiatric Medicine (SCPM), she became the first woman dean to lead the college in 2011 and was named provost in 2019. Before returning to SCPM in 2007 as associate dean of academic affairs, she was the director of health policy and practice for the American Podiatric Medical Association.

James Carlson, PhD '13, MS '01, PA-C, CHSE-A, is serving as interim provost while continuing in his leadership roles around innovation, interprofessional education and simulation. Dr. Carlson leads efforts to advance RFU's interprofessional mission and the development of a new 22,000-square-foot simulation center at the North Chicago campus.

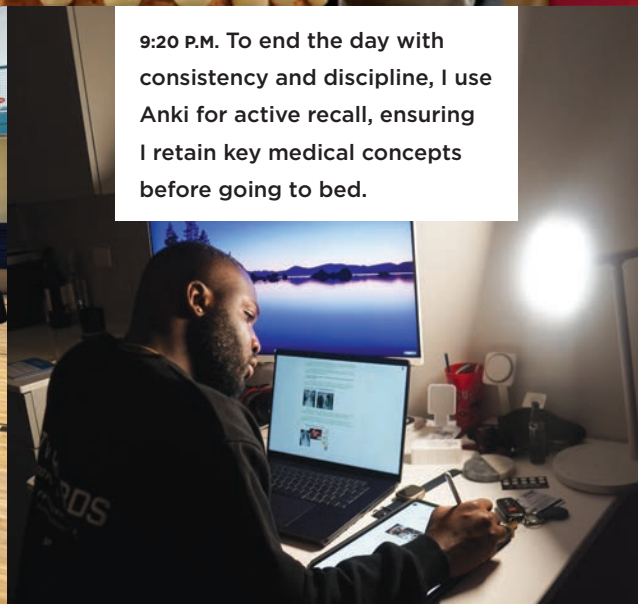


10:35 A.M. Made it to class where we are learning all about cystic fibrosis and its impact on pulmonary function during our CPR block lectures.

1:30 P.M. Celebrating my good friend Iris' birthday surrounded by some of the best people I have gotten to meet throughout my med school journey. Grateful for the laughs, love and moments like these.

5:45 P.M. Pulled up to support my classmates at their last intramural basketball game. They won!

9:20 P.M. To end the day with consistency and discipline, I use Anki for active recall, ensuring I retain key medical concepts before going to bed.



LISA HOPP NAMED DEAN OF COLLEGE OF NURSING

Following a national search, Lisa Hopp, PhD, RN, FAAN, was named dean of the College of Nursing. Dr. Hopp assumed interim deanship on July 1, 2024. She has a wealth of experience in higher education administration, faculty leadership development, synthesis research, curriculum design, and online teaching and learning.

INTERPROFESSIONAL RFU TEAM WINS HEALTH EQUITY INNOVATION AWARD

A team of four students from Rosalind Franklin University's DeWitt C. Baldwin Institute for Interprofessional Education won the Health Equity Innovation Award at the Clarion National Case Competition at the University of Minnesota. Led by Robin Dyer, MD, OTR, CHSE, MS-HPE, and Abbie Lyden, PharmD, the team included Oluwatobi Akinsanya, COP '26, Dyamond Caples, COP '26, Michael George, MD '25, and Kathy Yun, CON '26.

This achievement underscores RFU's commitment to addressing health disparities and advancing equitable healthcare solutions in an interprofessional way. The students' proposal identified scalable innovations targeting systemic inequities in healthcare access, quality and outcomes.

ON COURSE

NNEP508 Sharpens Skills

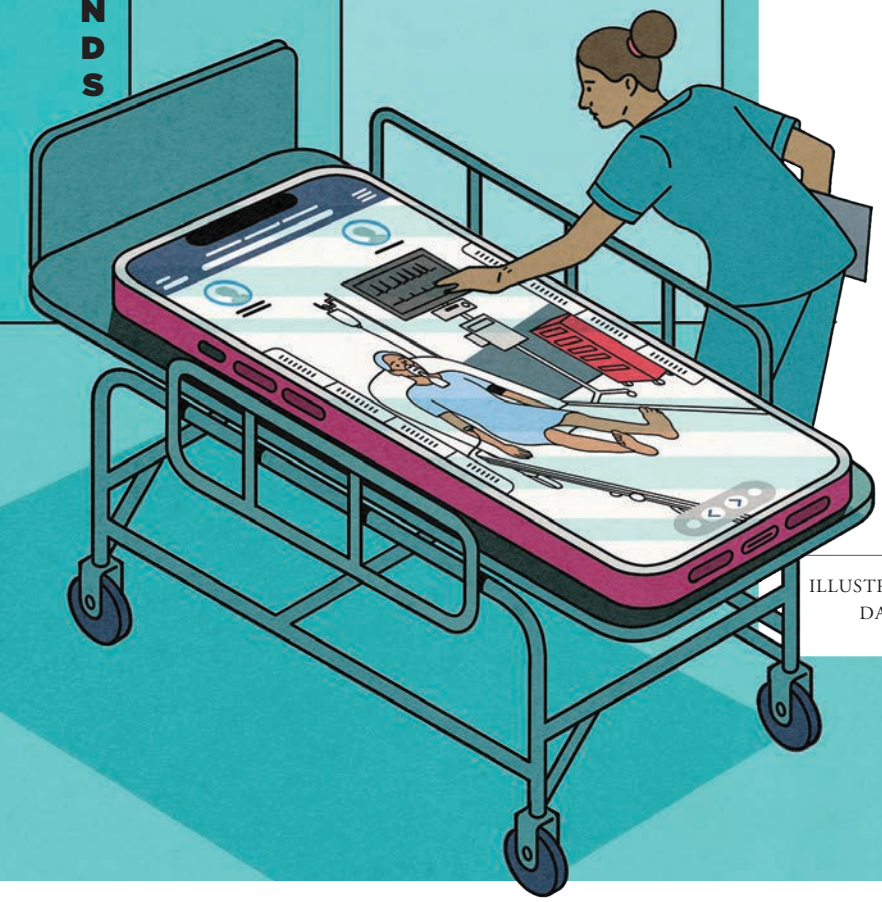


ILLUSTRATION: DAN PAGE

NNEP508 Advanced Physical Assessment in the College of Nursing is designed to sharpen students' critical thinking skills and observation. This case-based course utilizes Full Code Medical, a virtual assessment software that generates realistic medical simulations for students to examine. A core benefit of this course is students' access to essential feedback in real time. Through Full Code Medical, they learn exactly what went right — and what did not — and keep trying.

—Margaret Smith

COOL TECH

COME IN HANDY

A handheld screening device that can be used by patients in their own homes, TytoCare's Home Smart Clinic allows patients to conduct remote physical exams themselves while they are connected virtually with their clinicians. The device does a few of the more invasive exams — such as looking in the ear, and listening to the heart and lungs — and allows doctors to prescribe medications or therapies based on the results. Few other devices have this level of capability. It can save someone a trip to the clinic, which is especially helpful in rural areas where travel can be a barrier to access. The Home Smart Clinic helps us bridge those gaps.

—**ROBERT AITCHISON**, MS, PA-C, CHSE, clinical simulation instructor and assistant professor, College of Health Professions

ON CALL

A SHRINK, AN ORTHO BRO, A LAB RAT, A PRINCESS AND A REBEL

SATURDAY … MARCH 23, 2024.

Rosalind Franklin University, Chicago Medical School, North Chicago, Illinois 60064. Dear Mr. Vernon … we accept the fact that we had to sacrifice a whole Saturday morning waiting for a test that never came. But we think you're crazy to make us write this essay telling you what kind of doctors we think we will become. What do you care? You see us as you want to see us … in the simplest terms and the most convenient definitions. You see us as a shrink, an ortho bro, a lab rat, a princess and a rebel. Correct? That's the way we saw each other at 7 o'clock this morning. We were brainwashed …

Students in RFU's Performing Arts Club directed, wrote and starred in the second-ever student-run theater production titled *The Journal Club*, a medical-school parody of the 1985 film, *The Breakfast Club*. The excerpt above transforms the film's famous introductory monologue. The production included students from Chicago Medical School, School of Graduate and Postdoctoral Studies, and College of Health Professions.

"Performative arts is our creative outlet, an escape from the complexities of medical school," said co-director Charmila Meesala, CHP '26. ***—Sabreen Alfadel***

L–R: Michael Letz, CMS '27; Marissa Karpinski, MS '25; Matthew Zimring, CMS '27; Pelvis Presley (skeleton); Dani Hawryluk, CMS '27; Talia Kahn, CMS '27

DOUBLE HELIX

Amanda Simanek, PhD, MPH

Ayesha Arif, MS, SCPM '27

Data-Driven

Collaborating to improve diabetes care

SOCIAL EPIDEMIOLOGIST *Amanda Simanek, PhD, MPH, founding director of the university's Michael Reese Foundation Center for Health Equity Research, mentored podiatric medical student Ayesha Arif, MS, SCPM '27, whose work was supported by a Scholl College NIH research training grant. Ms. Arif looked at the accessibility of healthcare providers who treat diabetes to explain why diabetes rates differ by race and ethnicity in neighborhoods in Lake County, Illinois. Here, they discuss their collaboration.*

AMANDA SIMANEK: Ayesha, I don't know if you knew exactly what you were getting into with this project. But you rose to the challenge of using publicly available data in a way that no one else had before by geocoding provider locations and classifying them based on the scope of diabetes services they provide. We know that, in some census tracts, 80% to 90% of people have diabetes. That's incredibly inequitable.

As a podiatry student, I never expected to learn software or geocoding. I am grateful I did.

—**AYESHA ARIF**, MS, SCPM '27

AYESHA ARIF: The beginning of our project was a little bumpy for me. I had no background in research or data analysis. It became a valuable learning opportunity.

AS: We would have struggled to undertake this project without your help. We relied on your expertise to classify providers, and now we have that as a data resource in our center.

AA: As a podiatry student, I never expected to learn software or geocoding. I am grateful I did. I presented my research at the American Public Health Association. You helped me practice and eased my nerves for a 10-minute presentation that felt like two hours!

AS: I remember being a student and feeling super-nervous and worried about taking on new things for the first time. It's helpful to understand it's not just that you have to talk for 10 minutes, but that there is some very specific information to convey during a presentation.

AA: My research revealed a higher density of diabetes caregivers in southern Lake County, which has a higher socioeconomic base, compared with northern Lake County. There's so much public data related to diabetes that can be used to create more equitable outcomes. I hope to do that.

—Judy Masterson

ILLUSTRATIONS: MICHELLE KONDRICH

CRYSTALLIZED

HOW DOES OUR GARDEN GROW?

A COMMUNITY HEALTH ECOSYSTEM is a complex and interconnected network of partners and other key elements that work together to promote health and well-being — like a garden that requires the right conditions to thrive. *—Judy Masterson*

ILLUSTRATION: LAURA LIEDO

SOCIAL DETERMINANTS OF HEALTH (SDOH), much like good soil, provide the foundation. SDOH is everything that affects people's lives outside of clinical care. It's income, education, access to care, the built environment, the safety and stability of neighborhoods, and the bonds of community.

ENVIRONMENT, our natural surroundings, the quality of our air and water, and proximity to parks and other green spaces directly affect well-being. It includes our exposure to hazards and access to resources. It influences our overall health outcomes. Think of a community garden, where people spend time outdoors, getting to know their neighbors, creating a beautiful space and sharing the joy of growing healthy food.

EDUCATIONAL INSTITUTIONS, including RFU, cultivate a skilled workforce, promote sustainable practices, provide direct health care to the community, foster community engagement and participate in research driven by community priorities, helping to ensure a healthy future.

HEALTHCARE PROVIDERS AND SERVICES, PUBLIC HEALTH AGENCIES, COMMUNITY ORGANIZATIONS, GOVERNMENT AGENCIES AND BUSINESSES are the gardeners, protectors and helpers, offering care and support, meeting unmet needs for food and shelter, and creating and implementing policies and funding that contribute to equitable systems of care.

Match Day 2025

TEARS, SMILES AND TISSUES. The Rosalind Franklin University community celebrated national Match Day on March 21, 2025. Every year, Match Day is a milestone for each new generation of soon-to-be practicing clinicians who tear into envelopes and check emails to discover where they will begin their residency training.

217

Chicago Medical School students matched into 26 different specialties across 30 states, achieving a 97% match rate. The top five states were: 1. Illinois, 2. California, 3. Michigan, 4. Wisconsin, 5. Texas/Florida (tie).

100%

The Clinical Psychology PhD program achieved 100% internship placement for a ninth consecutive year, despite a decline in internship sites and an increase in registered applicants. Students matched to highly competitive and prestigious placements, including Cincinnati Children's Hospital, VA San Diego, VA Palo Alto and Children's Hospital Colorado.

76

students from the Dr. William M. Scholl College of Podiatric Medicine participated in Match Day 2025. The college earned a 100% match rate for the eighth year in a row.

83%

With an 83% postgraduate, year one (PGY1) Phase 1 match rate, the College of Pharmacy (COP) exceeded the national pharmacy match rate of 74%. RFU's COP also has the highest Phase 1 residency match rate of all private schools/colleges of pharmacy within Illinois, Wisconsin and Iowa.

67

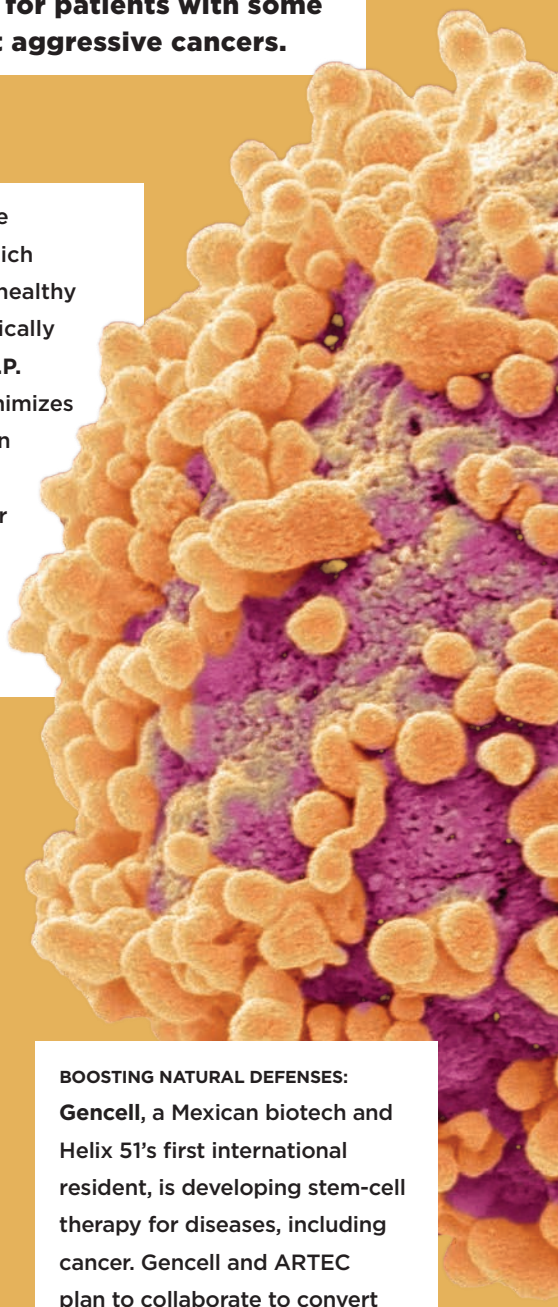
RFU provided 67 boxes of tissues, which were used by students, teachers, staff, family and friends.

DISCOVERY

Science is based on fact, experience and experiment.

—DR. ROSALIND FRANKLIN

RFU's Helix 51 bioscience incubator is the launchpad for these five early-stage companies pursuing treatments for patients with some of the most aggressive cancers.



TARGETING BRAIN CANCER: Unlike traditional chemotherapy, which poisons both cancerous and healthy cells, oncolytic viruses specifically target and kill cancer cells. **U.P. Oncolytics'** direct therapy minimizes collateral damage, resulting in fewer side effects. Injectable oncolytic viruses, unlike other treatments, can bypass the blood–brain barrier and reach the brain, avoiding unnecessary surgery.

AIDING IMMUNITY: Few effective treatments exist to combat cancers such as glioblastomas and leukemias. **ARTEC Biotech**'s approach converts stem cells into natural killer (NK) immune cells and modifies these cells to fight cancers. This immunotherapy treatment is safer than other immunotherapy approaches.

BOOSTING NATURAL DEFENSES: **Gencell**, a Mexican biotech and Helix 51's first international resident, is developing stem-cell therapy for diseases, including cancer. Gencell and ARTEC plan to collaborate to convert stem cells into natural killer cells to fight cancer as part of immunotherapy. This treatment would capitalize on the body's natural defenses and precisely target cancerous cells while leaving normal cells intact.

IMAGE: STEVE GSCHMEISSNER / SCIENCE SOURCE

IMPEDING FIBROSIS: Overgrowth of connective tissue, known as fibrosis, can lead to several autoimmune diseases and solid tumors. **BLR Bio** is developing a new class of peptides that impede the development of fibrosis. The company is initially targeting pancreatic cancer, a deadly disease with few effective treatments and a five-year survival rate of only 50%.

RADIATING CANCER CELLS: Radiopharmaceuticals locate tumors and diagnose cancer by binding to specific molecules on the surface of cancerous cells. **Monopar Therapeutics** designed a radiopharmaceutical drug that targets cancer cells, killing them with specific amounts of radiation.

BREAK-THROUGH

BRAIN MATTERS Apoptosis, the process of programmed cell death, happens when a cell becomes old or damaged. As in this brain cancer cell, the cell becomes spherical as its cytoskeleton, which holds cell shape, is digested, and orange blebs form on its surface.

Helix 51: Hatching a Plan

RFU's bioscience incubator accelerates the development of new therapies

BIG IDEAS need a place and space to grow, to transform from a hypothesis into practical solutions for real-world problems. When the proposed solution is something novel, such as better therapeutics for aggressive forms of cancer that resist most treatments and are highly lethal, the path forward requires clearing a seemingly endless series of operational and regulatory hurdles.

For a researcher in a newly established bioscience company with minimal personnel and financial support, just getting your big idea off the ground takes lots of resources and time — resources you don't have, and time that patients with lethal diseases may not have either.

Bioscience incubators, such as Rosalind Franklin University's Helix 51, exist to connect start-ups and early-stage companies with the experts and resources they need to accelerate the development of new therapies now. Not after a lengthy search for affordable office space or months of haggling over leasing fees for expensive equipment. *Now.*

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ANSWERS AROUND THE CORNER

It can take 12 years or more for a new type of cancer drug to develop from the discovery phase to FDA approval and commercialization. That decade might as well be a million years for patients facing cancer diagnoses with statistically low survivability. While incubators can't guarantee instant success or eliminate all the red tape, they can immerse researchers in an environment that puts resources in much closer reach.

How close? The molecular biologist next door might have access to a lab that can analyze your samples in days and walk the results down the hall, saving time and money.

Helix 51 is part of the bioscience corridor in Lake County, Illinois, counting among its neighbors 122 bioscience companies, including Abbott, AbbVie, Pfizer, Fresenius Kabi, Baxter and many others. With 33,000 life-science jobs in Lake County, this is fertile ground for ideas to take root and rise up.

GETTING PERSONAL

Every person's cancer journey is different, and every body has its own reaction to the disease and the methods available to treat it. Cancer is personal, and how we treat it is becoming personal, too.

Researchers are creating directed therapies that can be potent enough to kill cancer cells, but are also programmed to recognize and spare healthy cells. This personalized approach can improve the patient's quality of life by reducing or even eliminating debilitating side effects that accompany more traditional treatments.

Development of a new drug involves a rigorous process divided into multiple stages before the drug can be considered for regulatory approval and authorization to market:

DISCOVERY: New compounds or technologies are developed in the lab targeting a specific disease pathway.

PRECLINICAL RESEARCH: Laboratory testing measures the efficacy, safety and potential side effects of the drug.

CLINICAL RESEARCH: Testing with human subjects via strictly controlled and regulated protocols.

Advance world-class research into innovations that improve patient lives and well-being.

MAKING IT WORK

Clinical-stage biotech company Monopar Therapeutics (Nasdaq: MNPR) is drawing on the resources and expertise of the incubator to develop targeted treatments. Monopar has several radiopharmaceutical drugs under development in discovery, preclinical or early clinical phases (see sidebar), including several specific to the imaging and treatment of advanced solid cancers, such as breast and pancreatic cancers.

Creating such targeted therapies requires expertise from multiple fields, and Helix 51 provides ready access to academic specialists and advanced scientific research equipment.

"Being here gives us access to RFU's scientific experts, resources and facilities, which is helping us accelerate development and optimization of our radiopharmaceuticals to treat aggressive forms of cancer," said Andrew Cittadine, chief operating officer at Monopar.

Incubators foster biomedical advances through shared knowledge and resources, speeding the development of desperately needed therapeutics to treat devastating diseases. They nurture ideas that grow into new hope for those who need it most. ***—Sara Skoog; additional reporting by Margaret Smith***

MATCH

Diabetes Afoot

L–R: Khyati Patel, PharmD, associate professor, RFU College of Pharmacy; Michelle Yost, FNP-C; Druti Shukla, PharmD '24

PHOTOGRAPH: MAX THOMSEN

BENSON LO, PharmD '19, a medical science liaison (MSL) at Abbott Diabetes Care in Philadelphia, was inspired. He saw the importance of medical education programs that keep healthcare practitioners current on diabetes management technology, such as the continuous glucose monitors (CGMs) made by his employer. Dr. Lo also recognized how helpful it would be for this technology to be further incorporated into the doctor of pharmacy curriculum at his alma mater, RFU's College of Pharmacy (COP). So he connected COP to his MSL counterpart for Abbott's midwest region, Michelle Yost, FNP-C, and a partnership was born.

With Ms. Yost's support, COP secured an Abbott Diabetes Care Educational Wear Experience in-kind grant that provides Freestyle Libre CGMs for use in COP's curriculum. When properly applied, the CGMs and their accompanying app can give patients notifications to take corrective measures, such as administering insulin or eating carbohydrates to raise low blood sugar. Pharmacy students now are able to wear the CGMs to measure their own real-time blood-sugar levels, which builds expertise and empathy before they demo them to patients.

This partnership, approaching its third year, is rooted in common goals of improving patient health through education and medical advances.

"Empowering the next generation of practitioners through empathy and innovation is essential," Ms. Yost said. "At the heart of medicine lies patient-centered care. Continuous glucose monitoring is a remarkable tool that acknowledges the unique needs of individuals with diabetes, truly a gift in personalized health care."

Diabetes is 24/7, and the Abbott Labs–College of Pharmacy CGM partnership ensures patients and their providers can monitor it 'round the clock.

—Sara Skoog

PLACEMENT

PHOTOGRAPH: MAX THOMSEN

LIGHTNING FAST

TRADITIONALLY, the instruments used to conduct immunology testing required laborious, hands-on attention from lab technicians. Manually loading individual samples, running specific tests and transferring data were time-consuming and susceptible to oversight. Enter the ThunderBolt®, a self-contained instrument capable of testing multiple assays at once, efficiently detecting the presence of autoimmunity markers and antibodies to infectious diseases in the blood. RFU's ThunderBolt is in the Clinical Immunology Lab, where technicians are able to start the device and let it run, saving time in the laboratory and increasing productivity. Patients benefit, too, as it quickens the testing process, eliminates manual errors and renders incredibly precise results.

—Margaret Smith

EVERYTHING YOU NEED TO KNOW ABOUT ...

WHY PEDIATRIC GUN VIOLENCE IS A PUBLIC HEALTH ISSUE

2,526

gun deaths in 2022 were among 1- to 17-year-olds, an average of nearly seven per day.

Dr. Sheena McKenzie, an RFU clinical assistant professor and physician with Advocate Health Care, co-presented on Feb. 12, 2025, a Chicago Medical School Grand Rounds on pediatric gun violence prevention. To watch a video, please scan the QR code.

I WAS A pediatric hospitalist in Highland Park, Illinois, in 2022. Our hospital received the majority of the victims of a mass shooting that took place on July 4 of that year.

The medical stabilization that was required for the children in the ER that day was unlike anything I had experienced. We saw the spectrum of devastating injuries caused by high-velocity bullets from an assault weapon: from soft tissue shrapnel wounds to lung contusions to life-threatening shock.

I remember sitting with family members holding their hands, hugging, crying together. Everybody was asking: "Why did this happen?" "Why me?" "Why my son?"

Firearms are the leading cause of death for children and teens in the United States. Each death, each shooting, is a preventable tragedy. Each ripples out, a trauma and a secondary trauma to families, health professionals and communities.

That July 4 wasn't the first day I took care of children who were victims of gun violence. And it definitely has not been the last. Every single day something happens that brings me back to that day. Every patient I see who is hospitalized as a consequence of gun violence brings me back to that day.

So how does this happen? Why does it happen? Gun violence is everywhere. Guns are everywhere. This is a personal issue for me and for so many others. But it's a public health issue for all of us.

*—**Sheena McKenzie**, MD, assistant professor of pediatrics*

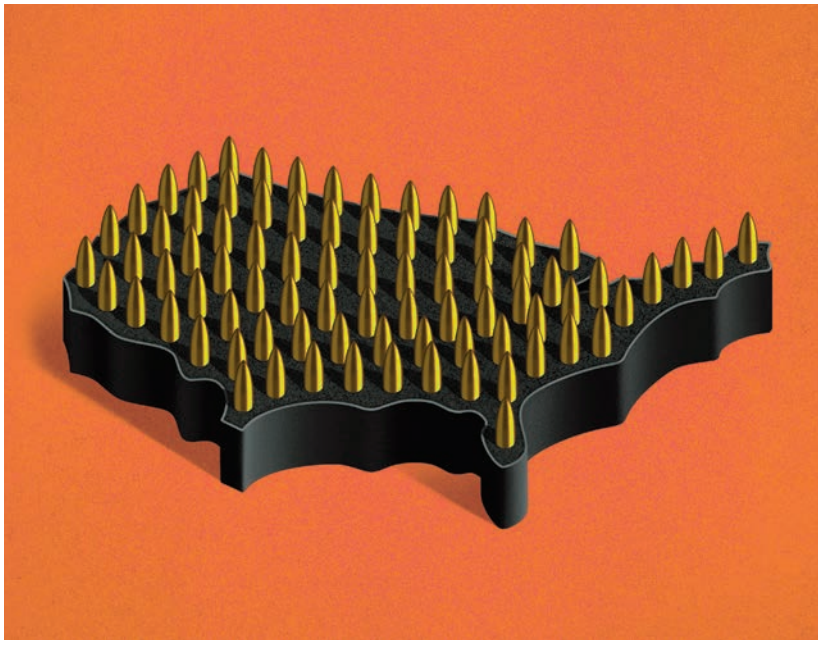


ILLUSTRATION: JOHN KRAUSE / THE ISPOT

Sim Antics

RFU'S VIRTUAL HEALTH SYSTEM will be a state-of-the-art simulation center designed to transform healthcare education and professional development. When completed in 2026, this immersive, multifaceted environment will emulate the full continuum of care, fostering interprofessional collaboration, reducing risk through safe skill-building, and enhancing decision-making to improve outcomes and reduce the cost of care.

EMERGENCY DEPARTMENT: With six treatment rooms and a fully equipped trauma bay, this space engages learners to sharpen their focused history and physical exams, clinical procedure skills, and individual and team decision-making skills.

OUTPATIENT CLINIC: With 14 exam rooms, this zone is a training ground for foundational and advanced communication, clinical reasoning, patient education and optimization of chronic disease management, reflecting the realities of ambulatory practice.

ILLUSTRATION: BLINDSALIDA

COLLABORATION STUDIO AND IMMERSIVE 360° ROOM: Designed to foster team learning and innovation, this flexible space supports small-group workshops, team decision-making and collaborative problem-solving. The studio includes a 360° interactive video wall, allowing immersive, adaptable environments to be projected for high-impact training. One day, it may replicate the interior of an ambulance; the next, a home environment for hospital-at-home training or an outdoor disaster scene.

SIM ZONES: Every simulation zone is equipped with audio-visual systems for real-time observation and debriefing, allowing learners and faculty to reflect on performance, identify improvement opportunities and reinforce best practices. Simulation modalities include standardized patients, high-fidelity manikins, task trainers and web-based platforms.

SURGICAL AND PROCEDURAL SUITE: Including a full operating room and a procedure room, this area immerses learners in perioperative care, surgical techniques and anesthesia workflows, enhancing their technical skills and familiarity with interprofessional roles in operative environments.

LABOR & DELIVERY SUITE: Students and teams manage standard and emergency situations during delivery and postpartum care using manikin- and standardized patient–based simulations with the goal to enhance maternal and fetal outcomes through collaborative care models.

Will technology help or harm the relationship between patient and provider?

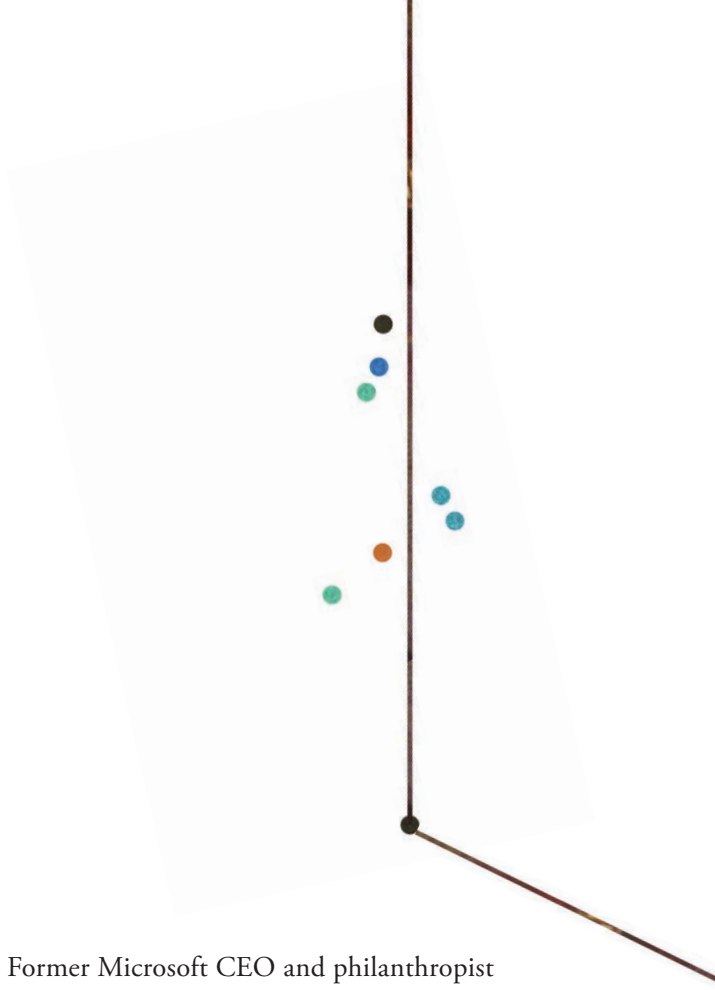
FINDING THE HUMAN TOUCH IN AN AI WORLD

BY JUDY MASTERSON
ILLUSTRATIONS BY KEITH NEGLEY

ROBOTIC FINGERS THAT TAKE A PULSE AND DETECT A LUMP.

CHATBOTS THAT GENERATE MORE EMPATHETIC RESPONSES THAN TRAINED CLINICIANS.

ALGORITHMS THAT PREDICT THE RISK OF DEVELOPING HEART DISEASE OR CANCER.



Former Microsoft CEO and philanthropist Bill Gates insists artificial intelligence will replace doctors and teachers within the next decade. Rosanne Oggoian, DO, BS, a Chicago Medical School (CMS) assistant professor and clinical skills course director, disagrees.

"There's nothing like having a human who has some life experiences make a connection with you and say, 'I am so sorry you're going through that,' or 'Tell me more about that,'" Dr. Oggoian said. "The human connection opens up communication channels — something AI, at least at this point, cannot do."

Scans and tests can't replace the hands-on physical exam, the look in the eye, the hand on the shoulder that are fundamental to the practice of medicine.

"Patients expect their doctor to examine them, talk to them, listen to them — and they expect them to touch them, too," Dr. Oggoian said. "Physical exams promote trust in the patient–doctor relationship. You can't replace that human touch."

But AI-powered brains and fingers are moving fast to try. Researchers at the University of Science and Technology of China have created a robotic "finger" capable of tactile sensing and safely performing routine elements of the physical exam. But is replacing human touch with AI really the point?

"AI is the first sliver of hope for reducing that burden so we can do the thing the very dynamic brain can do better than a computer can do, which is forming a true, lasting connection with a person."

—LALIMA A. HOQ, MD '97, MPH, FACP

SEEING SMARTER

As a student at CMS, Lalima A. Hoq, MD '97, MPH, FACP, learned from textbooks. When she entered practice, she used paper charts. Today, she's an informatics physician. She is medical director of wellness informatics for the Cedars-Sinai Medical Network in Los Angeles, a role akin to a technology therapist.

"I help practicing clinicians learn how to make technology work for them," Dr. Hoq said. "I help them use technology very intentionally as part of their workflow to balance both their human and professional wellness and to preserve the core of medical practice, which is the service of humanity."

AI tools can free up clinicians to see patients in a smarter way, said Dr. Hoq, who uses AI applications to "take away the silly work" — clerical tasks that "don't help you be a better doctor."

Studies show that while the average length of a primary-care visit has been consistently stable for decades, at around 13 to 24 minutes, the time doctors spend on clerical work and documentation for the electronic medical record (EMR) has dramatically increased.

"AI is the first sliver of hope for reducing that burden so we can do the thing the very dynamic brain can do better than a computer can do, which is forming a true, lasting connection with a person," Dr. Hoq said. "That person understands that you care about them — not their numbers or their outcomes or anything else but them as a person."

Ambient voice technology can summarize, frame and chart progress notes in the EMR following a patient exam. AI algorithms can improve diagnostic accuracy and reduce human error. Machine learning models can identify early signs of disease. Dr. Hoq, an internist, embraces these tech advances in support of improving patient outcomes.

"I've been practicing for 25 years," she said. "That's 25 years of seeing and recognizing diseases. But every person is different. AI draws from things that I might not see immediately because I don't happen to look in the right way. AI doesn't have that experience bias.

"But I can connect with the person who's sitting in front of me, because I know them at an intellectual and emotional level and through our shared experience. That's a relationship that AI can't replicate or reproduce."

At least not yet. Researchers are exploring the field of "Emotion AI," also called affective computing, the brainchild of an MIT researcher that dates back to 1995. The goal is to improve human–machine interactions through AI technologies that can understand and respond to human needs and emotions — and potentially simulate human emotions.

REALLY RESPONDING

Health-professions educators are grappling with concerns that increasing reliance on technology and digital tools will erode the focus on empathy, active listening and the careful use of senses, including touch, so crucial to the physical exam and doctor–patient relationship. Cory Krebsbach, BFA, CHSE, director of simulation programming for RFU's North Chicago campus, doesn't think that is happening. When EMRs were introduced in clinical skills training, some feared students would be distracted. They weren't. Comfortable with technology, members of the digital generation shared scans and X-rays and other content from simulated EMRs to educate their patients.

"They knew that their greatest resource was the patient in the room," Mr. Krebsbach said. "There's no piece of technology that could ever replace human-to-human communication and interaction. The future is in finding a way to leverage technology to enhance interpersonal communication."

Students and clinicians are using simulation, including high-fidelity manikins and virtual reality (VR), to practice procedures and decision-making in a safe and controlled environment. An early adopter of simulation technology, Rosalind Franklin University also uses a human modality of simulation training: standardized patients (SPs), or patient actors, who follow scripted scenarios to help train and evaluate medical students in clinical and physical exam skills.

Mr. Krebsbach, a former SP who worked at healthcare institutions throughout Chicagoland, likes hybrid simulations that marry machine and human. SPs might be outfitted with a tracheotomy task trainer that provides students with immediate sensory feedback. Students can use a SimScope — a stethoscope with electrodes or sensors programmed with different heart sounds. Programmed sensors can also be built into the clothing of SPs. Students hear the telltale signs of tachycardia, but they're still able to interact on emotional and social levels with an SP, as opposed to controlled interactions with a manikin, which can be programmed to respond to students through a remote audio device.

Mr. Krebsbach, who admits to skepticism over whether technology can replace the highly responsive training provided by SPs, recently tried out VR simulation-based learning when he donned an Oculus headset.

"The future is in finding a way to leverage technology to enhance interpersonal communication."

—**CORY KREBSBACH**, BFA, CHSE,
DIRECTOR OF SIMULATION PROGRAMMING,
RFU, NORTH CHICAGO

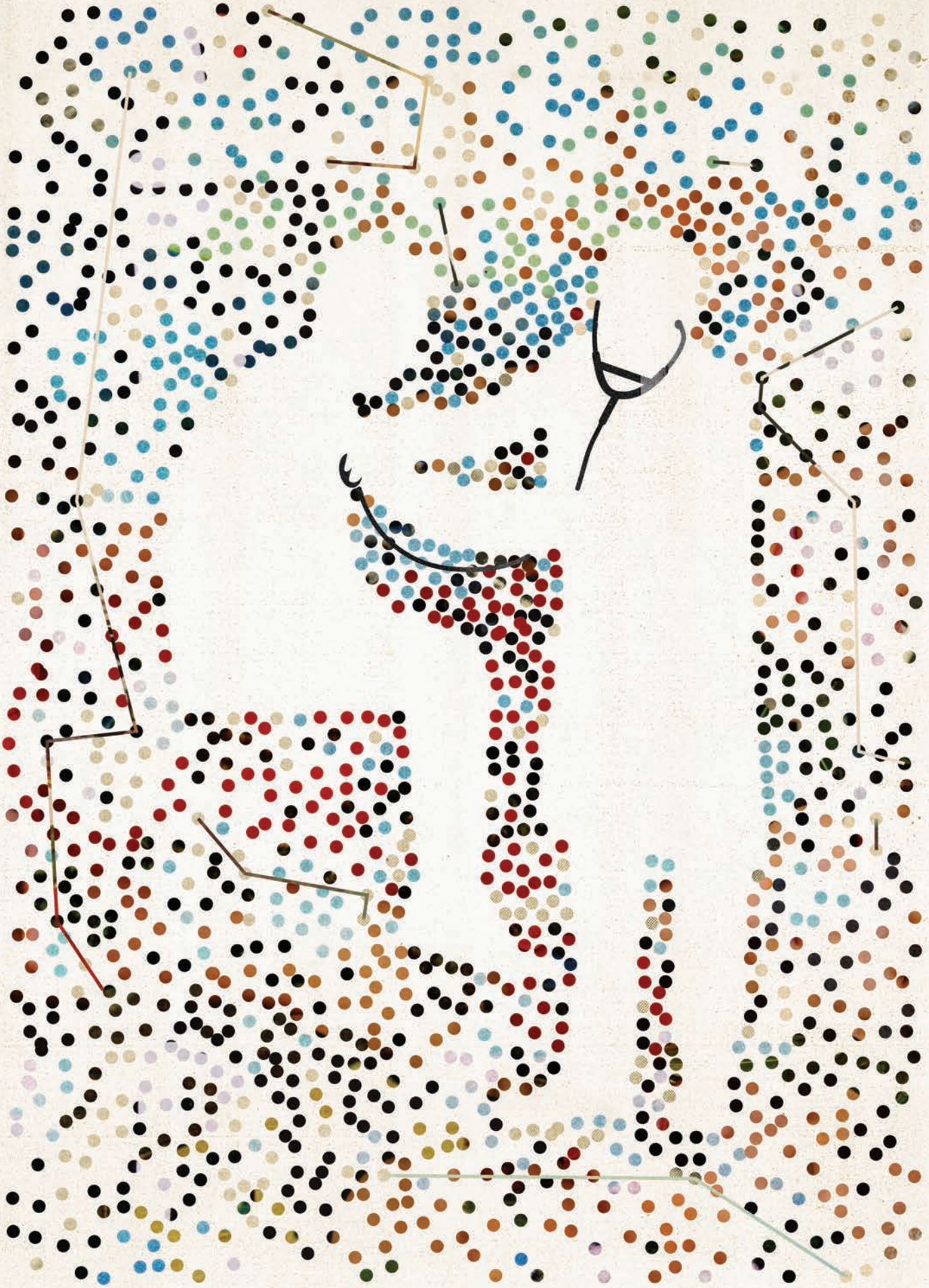
"I was bedside with a patient who was having trouble breathing," he said. "I could use the controls to pick up an oxygen mask or a stethoscope. The patient's spouse on the other side of the bed was growing agitated. I could speak directly to the avatar and its responses were very quick — as long as I said the right thing. But is it able to capture all of the nuances of emotions? That's where you're not getting that true authentic sort of interaction you would get from a human being."

VR is good at teaching skills. Follow the steps for diagnosing an asthma attack, and the user is quickly assessed and graded. But it is not yet able to offer the kind of human empathy and compassion Mr. Krebsbach experienced as an SP.

In one such encounter, a student delivered a devastating diagnosis to Mr. Krebsbach, "the patient," who learned he was in end-stage pancreatic cancer.

"I'll never forget the student," Mr. Krebsbach said. "She was very patient and gave me space. She allowed me to process in that moment. She came up with a plan. And then she asked if she could give me a hug. It was such a human thing to do."

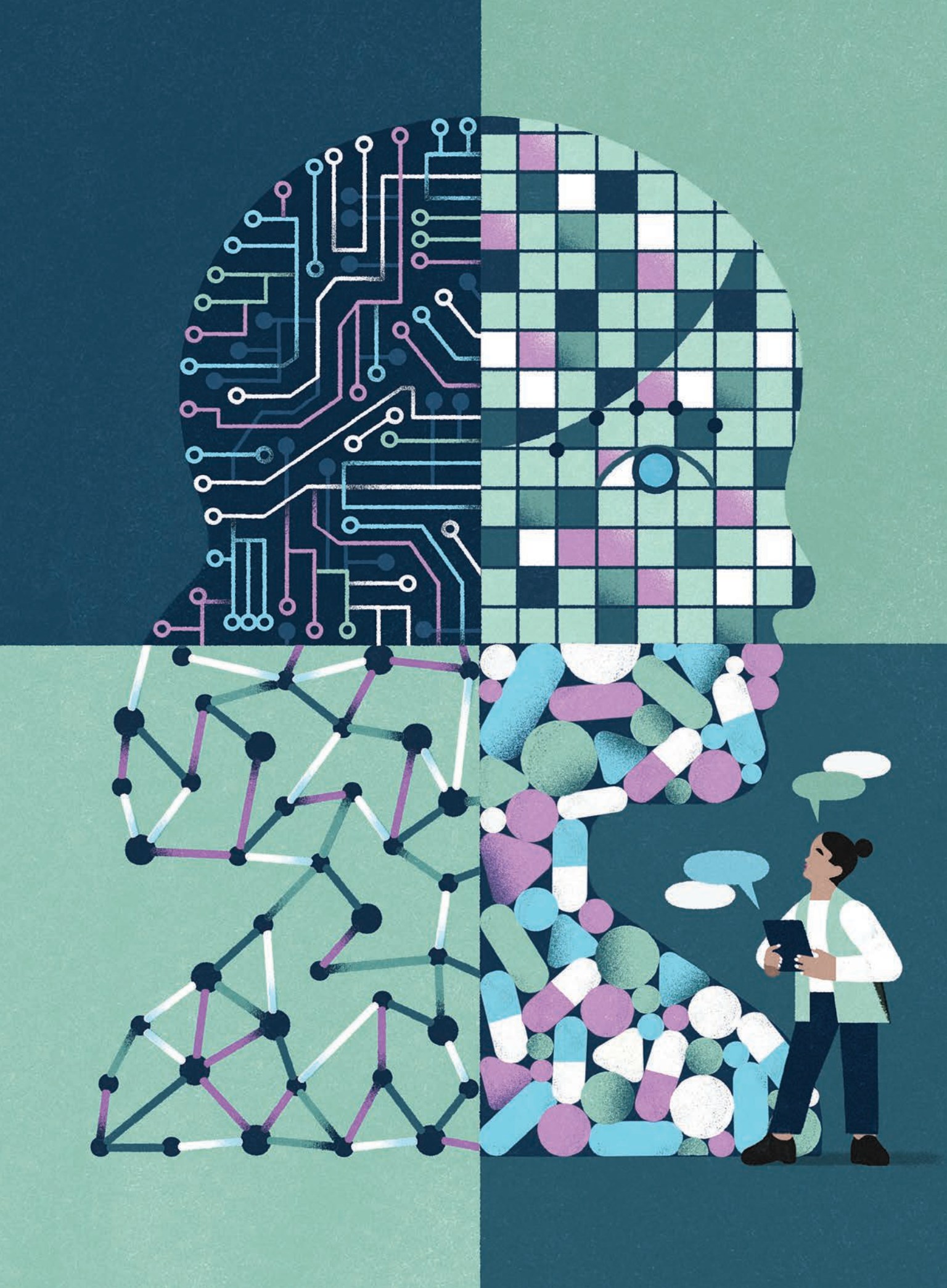
***Judy Masterson** is a staff writer for RFU's Division of Marketing and Brand Management.*



Teaching With Tech

Perspectives on AI in the classroom

BY SARA SKOOG
ILLUSTRATION BY GRACIA LAM



EDUCATORS ARE LIFELONG LEARNERS. They're innately curious — about their chosen fields, about the ways they teach and how they can adapt their teaching methods to enhance student learning. Four members of the university community share their candid thoughts about the opportunities and challenges posed by using AI in the classroom.

PROMPT ENGINEERING

***Marilyn Hanson, EdD**, associate vice president for interprofessional operations, on effectively interfacing with AI …*

AI systems work by producing new content similar to what a human can do. Just as humans learned to write, draw, code, etc., so can generative AI. ChatGPT and Gemini are AI tools for text generation, DALL-E is for image creation, and invideo is for video generation. As you work with the different AI systems, you get a better understanding of their capabilities. Each has strengths and limitations based on the different datasets they use.

What you get from an AI system depends on what you put into it. The more specific your prompt, the more likely AI will produce what you want. The act of crafting or designing effective prompts is called "prompt engineering."

If a student were to prompt AI to learn specifics about patient notes, asking, "What is a patient note?" will produce pages of unfocused responses they need to wade through to find the answer. Phrasing the prompt, "Explain the key components and purposes of a patient note in health care, and how these notes contribute to patient care and recordkeeping" gets a response that details the sections of a patient note, such as chief complaint, patient history, medication list, and even an overview of legal protections and improved patient outcomes that result from comprehensive patient notes.

TESTING: IS THIS THING ON?

***Sean Kane, PharmD**, senior associate dean, assistant dean for assessment and associate professor, College of Pharmacy, on how AI helps him help students prepare for their exams …*

I'm using AI to generate ideas for practice-exam questions for my students. Students crave practice questions. But it's time-consuming to draft 30 brand-new practice questions that aren't the same questions you've already written for your exam. AI tools can provide a great starting point. I can give AI a prompt that specifies how many questions I want, the question format, how many answer options and so on. Many AI tools allow users to upload files such as PowerPoint slides to include even more details in the prompt.

By incorporating a variety of prompt-engineering best practices, I'm telling AI a specific task with detailed instructions so it can give me exactly what I need: "I want multiple-choice questions with four choices for answers; never use 'all of the above' as an option; do create questions that require a higher level of critical thinking and knowledge of multiple facts."

I almost always revise the AI output or use it as inspiration for a similar question. AI is great for idea generation, but I add context based on my experience as a course director — something ChatGPT doesn't have.

"AI is great for idea generation, but I add context based on my experience as a course director — something ChatGPT doesn't have."

FOR EFFICIENCY'S SAKE

***James Carlson, PhD '13, MS '01, PA-C, CHSE-A**, interim provost and vice president for interprofessional education and simulation, on using AI in clinical skills training, assessment and simulation …*

Writing detailed case studies for use in our simulation labs can be very time-consuming — it can take seven or eight hours to write a credible case study grounded in current best clinical practices, and multiple variations of a case study need to be created to ensure our students become proficient clinicians.

We can leverage existing AI chat technology, such as ChatGPT, Google Gemini, NotebookLM or others, along with our department's case-study template, to generate custom case studies. Our current template is about 10–12 pages long and includes all the things you need to know to create a case study for use in the simulation lab.

Working with AI is like having a conversation, asking clarifying questions to refine the answers. For example, I could give AI this prompt: "For a patient presenting with chest pain and shortness of breath for an hour, my presumptive diagnosis would be pulmonary embolus. Create a patient history and physical that supports this diagnosis, and provide other possible diagnoses. Include the patient's social factors and family history. Be sure to reference best-practice guidelines."

Let's say AI didn't turn out exactly what I wanted. Maybe the patient history included high blood pressure but nothing about how it was being managed. I would ask more detailed prompts to get that information: "What blood pressure medications, including doses, is the patient taking? Include the patient's recent blood pressure readings." AI should then provide an updated version of the case that includes the specific details needed for an accurate case study.

By having this back and forth "chat" with AI, I can complete the template in about five minutes and spend another 20–30 minutes reviewing it for accuracy — down from seven to eight hours — and it's ready to go to one of our simulation technicians to prepare for student training.

"AI doesn't always get it right. But even that can be useful. I can take inaccurate information from AI and use it to promote critical thinking."

TEACHING AND LEARNING

***Santipongse Chatchavalvanich, MD, PhD**, assistant professor, basic biomedical science, Dr. William M. Scholl College of Podiatric Medicine, on using AI to enhance critical thinking …*

I'm learning by trying things for myself. I think that immersing yourself in the AI environment helps you understand how these things work, and that gives you ideas for other directions you could take this technology.

Traditionally, we give knowledge to our students through PowerPoints and lectures. A great benefit of AI is that it can spark ideas about how to present the same content but in different formats. It can help you create a diagram, a video or even a podcast — things students might find more palatable for learning.

The accuracy of the information behind it, of course, ultimately relies on you, as a faculty member, to use your expertise. AI doesn't always get it right. But even that can be useful. I can take inaccurate information from AI and use it to promote critical thinking by having students review the information and determine if it is right or wrong based on what they learned in class that day.

The bottom line is we've got to keep ourselves informed on how fast AI is moving and what each tool can actually do. The FDA has a list of over 900 approved AI-enabled devices that is rapidly growing. To really prepare our students for what's coming, we need to be in the loop ourselves. It's all about staying curious and learning right alongside them.

***Sara Skoog** is a staff writer for RFU's Division of Marketing and Brand Management.*


5KM

BY KIM WESTERMAN
ILLUSTRATION BY KATHLEEN FU

Power to the People

Lifestyle medicine gives patients the tools to treat — and even prevent — chronic disease

You walk into your doctor's office desperately hoping she can help. Your anxiety is through the roof. You can't even sleep anymore. Every day, every night — it's the same cycle. You expect her to prescribe an anti-anxiety med and maybe some Ambien. Instead, she suggests you switch to a Mediterranean diet. And the script she gives you isn't for an SSRI, but for exercises to stimulate the vagus nerve. The vagus nerve? Are you saying recovery is up to me?

Actually, yes. Welcome to lifestyle medicine, a new direction in health care that isn't new at all. In fact, Hippocrates (of "first, do no harm" fame) planted the first seeds of lifestyle medicine circa 400 BCE when he suggested that a plant-based diet and a daily habit of walking were good for both our physical and mental health.

Out with the one-size-fits-all, fix-the-symptom approach to medicine. Make room for patients playing a key role in their own treatment.

WHAT IS LIFESTYLE MEDICINE?

"Lifestyle medicine" sounds like a trending hashtag — and it is — but the goal is ancient: to help patients live longer, stay healthier and be happier. Sure, there have been other variations on the theme, such as functional and integrative approaches. But lifestyle medicine is here to stay, perhaps because it also taps into the current cultural climate of personal accountability, self-help and proactivity.

Functional medicine focuses on the root causes of disease from a systems biology approach that seeks to understand the complexity and holistic nature of our bodies and their maladies. Integrative medicine combines conventional approaches, such as pharmaceuticals and surgery, with complementary therapies, such as yoga, acupuncture and nutritional supplements. Lifestyle medicine practitioners have a simpler yet broader approach: Help patients reverse, or even prevent, chronic diseases, such as diabetes and heart disease, through lifestyle changes they can control themselves.

The NIH published an overview in 2023 of significant studies that have advanced lifestyle medicine. And here's the kicker: Even though "prevention" is a term batted about by many doctors and insurance companies, it is largely overlooked in most contemporary medical practices.

While there are endless resources for unvetted medical advice courtesy of Dr. Google, the American College of Lifestyle Medicine (ACLM) is an epicenter for continuing education courses, peer-reviewed research and patient resources in this approach to treatment. Physicians and other healthcare providers of any specialty can incorporate lifestyle medicine into their practices, and doing so acknowledges patients as full collaborators. Founded in 2004 by 100 pioneering MDs, DOs and PhDs, the ACLM now has more than 13,000 members. Twenty years later, the organization was inducted into the American Medical Association House of Delegates, cementing its place in evidence-based medical care. Since certification began in 2017 by the American Board of Lifestyle Medicine (ABLM), 3,075 physicians in the United States have become board-certified in lifestyle medicine.

RFU is at the forefront of lifestyle medicine education. The Lifestyle Medicine program in the College

of Health Professions offers a fully online master of science in lifestyle medicine, as well as a certificate program and electives. While medical schools are not required to provide courses in nutrition, preventable disease or avoiding substance misuse, such courses are in demand at RFU.

Physicians and other healthcare providers of any specialty can incorporate lifestyle medicine into their practices, and doing so acknowledges patients as full collaborators.

SIX WAYS TO GET HEALTHIER ON YOUR OWN

American patients are used to getting a pill for almost everything that ails us: depression, obesity, inflammation, diabetes and many other conditions that might not inherently require medication. Even when they do, they can also be treated by addressing some of the "pillars" of lifestyle medicine: nutrition, physical activity, stress management, restorative sleep, social connections, and avoidance of risky substances and behaviors.

If these six pillars seem like good ole common sense, that's because they're designed that way. Jeff Damaschke, PT, DPT, PhD, and chair of RFU's Lifestyle Medicine program, says: "If we think of food, exercise and sleep as medicine, we can build customized plans for weight loss, cardiovascular health and other commonly shared goals that keep chronic disease at bay. It's a personalized, accessible approach."

Melissa Bernstein, PhD, RD, LD, FAND, DipACLM, FACLM, an associate professor and chair of the Nutrition Department in RFU's College of Health Professions, points to a nutrient-dense, plant-based diet as key to holistic health and longevity. Nutrition is the leading cause of three out of four chronic disease–related deaths in the United States. It's also one of the central tenets of lifestyle medicine.

"Patients deserve fully informed consent that allows for choices between pharmaceutical prescriptions and prescriptions for nutrition, exercise and stress-reduction activities when those are valid options," Dr. Bernstein says.

Success with lifestyle medicine, of course, depends on patient buy-in. One way of engaging patients in their own care is by using technologies that help them more easily manage lifestyle changes.

American patients are used to getting a pill for many conditions that might not inherently require medication.

TECHNOLOGY AS BOTH FRIEND AND FOE

We live in a technology-driven culture, for better and for worse. In some ways, technology is counter to a healthy lifestyle; for example, being glued to a screen might prevent you from taking a brisk walk in the fresh air. But cherry-picking helpful technologies is an exciting aspect of lifestyle medicine.

Dr. Damaschke likes several apps, in particular: Yuka for reading bar codes on food packages and providing detailed information on ingredients, MyFitnessPal for tracking eating and exercise habits, and InsightTimer for regular mindfulness and meditation practice. Perhaps the most transformative use of technology at RFU Health Clinics will be shared virtual appointments, in which patients with similar conditions will come together online with medical caregivers for education, morale-boosting, sharing their lived experience and asking questions. Dr. Damaschke says that when patients can learn from each other, they have better outcomes and are more motivated

to change habits that haven't served their health: "Patients in these virtual groups don't rely entirely on the doctor to tell them what to do. They share what has worked for them and ask questions relevant to others. It helps patients feel less alone with their diagnoses."

Liza Schaffner, MD '01, MS '23, a psychiatrist in Wilmington, North Carolina, was in RFU's first graduating class of the Lifestyle Medicine master's program. She works with a specific demographic, mostly male-identified patients between the ages of 15 and 30 who've experienced a first psychotic episode — a serious condition characterized by thoughts and behaviors that don't correspond with reality. Dr. Schaffner points to one strategy that may work well with this group: using apps that feel like games, otherwise known as gamification.

Perhaps the most transformative use of technology at RFU Health Clinics will be shared virtual appointments, in which patients with similar conditions will come together online with medical caregivers for education, morale-boosting, sharing their lived experience and asking questions.

She says, "Many of our psychiatry patients are prescribed medication that causes weight gain and lethargy, so we need tools to motivate them to eat well and move their bodies more." The simple Fitbit interface wasn't received well, and Dr. Schaffner thinks it wasn't engaging enough for young adults who always had video games front and center in their lives. Her patients tend to prefer the Habitica app, which has avatars, challenges and a social aspect that adds friendly competition to the mix.

Dr. Schaffner adds, "Many of these patients have impairments in executive function skills like planning, organization and time management, and this app seems to check all their boxes for engagement, ease of use and even fun." For example, if a patient sets up the app to remind them to get daily exercise, eat a certain amount of fiber and make a weekly date to see a friend, the app not only notifies them but also rewards them with electronic medallions and tiers of success.

Will daily salads, fitness-tracking apps and shared Zoom appointments cure all that ails us? Nope. But they'll likely make us better. The evidence-based, patient-centered approach of lifestyle medicine is a profound way for us to take charge of our health in partnership with our doctors.

***Kim Westerman**, MFA, EdD, is a travel and wellness writer, coffee expert and longtime university writing teacher based in Berkeley, California.*

PRACTICE

By doing our best we shall succeed in our aims: the improvement of mankind.

—DR. ROSALIND FRANKLIN

Playing the Field

FOR JAMES BUSKIRK, PT, DPT, PhD, AASPT (SCS), MSEd, AIB-CON, MTC, it has always been about getting out on the field — or, at least, the sidelines. That's exactly where you'll find him, thanks to a program he's spearheaded at Rosalind Franklin University Health Clinics (RFUHC) that combines clinic outreach with athletic care.

"I enjoy taking care of patients," says Dr. Buskirk, who is the director of the Physical Therapy Faculty Practice Clinic and assistant professor in the Doctor of Physical Therapy program. "Ultimately, I wanted to be able to branch out into the community and take care of athletes at the high school and, potentially, collegiate levels at the clinic."

Dr. Buskirk's presence at sporting events allows him to accurately gauge the level of care injured players may require. He has partnered with local high school hockey, soccer, volleyball, basketball, and track and field programs. The full-service, immediate care Dr. Buskirk offers on the sidelines at sporting events helps fill the personnel gap faced by many of these institutions.

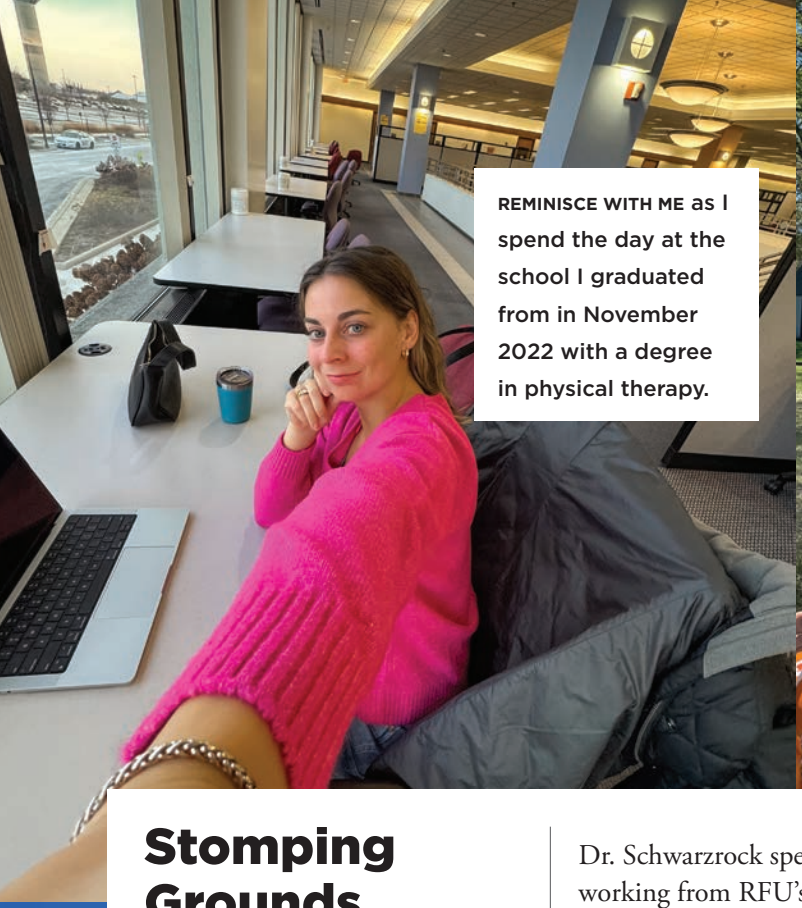
The clinic works with schools in the Waukegan, North Chicago, Gurnee and Northbrook communities. While most of the events are sanctioned by the Illinois High School Association, some are club sports not directly affiliated with the schools. In the absence of a school-appointed sports medicine team, the clinic steps in to provide oversight of these student athletes. Some institutions may have certified athletic trainers on staff, but they lack a physical therapy component, which is a necessity, especially for contact sports. Dr. Buskirk helps fill that need on the sidelines by managing athletes' injuries, especially those who experience a significant head injury or concussion. He manages their immediate care and encourages them to visit the clinic for follow-up care. There, Dr. Buskirk and other PT clinicians provide treatment options and rehabilitation, and evaluate when it is safe for athletes to return to participation in school and sports.

While working with the community is at the heart of the clinics, for Dr. Buskirk and other researchers, it is not their sole focus. For example, Dr. Buskirk is working with patients at the clinic and the Lovell Federal Health Care Center utilizing the newly FDA-approved i-STAT Alinity, a handheld, portable laboratory device capable of blood biomarker detection for head injuries. With this device, Dr. Buskirk is forging a new protocol for head injuries — one that eliminates unnecessary exposure to radiation via CT scans and offers critical answers to head-trauma patients more quickly than ever before.

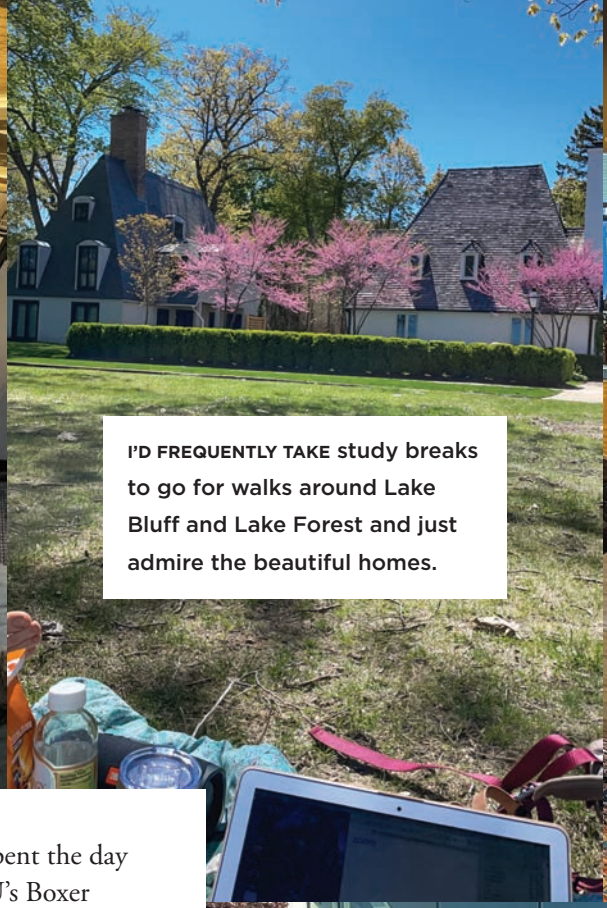
Though traditional evaluations, such as neuropsychological paper-and-pencil tests, are still necessary in head-injury assessment, according to Dr. Buskirk, there's a real need for this new technology. As it continues to develop, he is certain these advances will change the standard protocol, and future, of the field. ***—Margaret Smith***

FURTHER AFIELD *Dr. James Buskirk brings care to high school athletes in local communities.*

PHOTOGRAPH: MAX THOMSEN



REMINISCE WITH ME as I spend the day at the school I graduated from in November 2022 with a degree in physical therapy.



I'D FREQUENTLY TAKE study breaks to go for walks around Lake Bluff and Lake Forest and just admire the beautiful homes.

Stomping Grounds

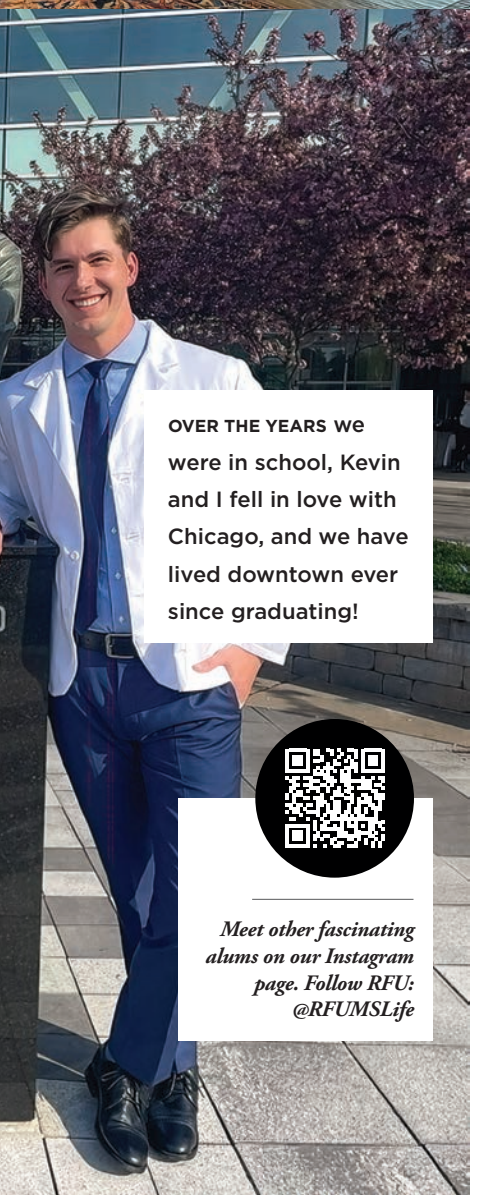
MEAGAN SCHWARZROCK, DPT '22, had no idea what pelvic-floor therapy was until her summer anatomy class. "Everyone knows what a regular physical therapist is, but not everyone knows there's someone you can go to for your leakage or constipation or pain with intercourse," she says.

Two years after graduating from the Doctor of Physical Therapy (DPT) program, Dr. Schwarzrock spent the day working from RFU's Boxer Library, as she so often had as a student. The founder of Pelvic Confidence Physical Therapy in Chicago, she reminisced about her RFU experience — it's where she met her boyfriend, Kevin Hershberger, DPT '22, and first discovered pelvic-floor therapy — and shared her trip down memory lane on her business' social media accounts, where she raises awareness around pelvic-floor health and pelvic-floor physical therapy.

—Sabreen Alfadel

I'D ALSO GO to the beach to relax, read a book, and play volleyball or Spikeball.

I HAD MY third clinical rotation in a private pelvic-health practice downtown in Chicago. I was already in love with pelvic health, but this confirmed my want to start my own pelvic-health business.



OVER THE YEARS WE were in school, Kevin and I fell in love with Chicago, and we have lived downtown ever since graduating!

Meet other fascinating alums on our Instagram page. Follow RFU: @RFUMSLife

FROM PODIATRY PAMPHLETS TO PROBLEM-BASED LEARNING

IN 2023, *Patrick Burns, DPM '00, became director of podiatric medicine and surgery residency at West Virginia University Medicine-Wheeling Hospital, where he is building a new residency program. The program's first residents were announced this past Match Day.*

SHAPE SHIFTING Dr. Patrick Burns credits problem-based learning with shaping his career.

YOU'VE BUILT A DISTINGUISHED PODIATRY CAREER. WHAT WAS THE SPARK?

PB: I was interested in many things, but I knew I wanted to do something in medicine. Then, I had a motorcycle accident and a foot injury — there were pamphlets about podiatry, and I pieced together applying to medical school.

HOW DID THE VALUES OF SCHOLL COLLEGE SHAPE YOUR CAREER?

PB: If you're around a lot of bright people, you're going to push each other. Even if you wanted to go home, eight of your buddies were still studying, so you stuck with it. It was relatively new at the time, but we worked in small groups with one mentor discussing actual cases. We would go over patient history and imaging to solve real-world problems instead of rote memorization. It was the beginning of problem-based learning, and it shaped me a lot.

HOW DO YOU APPLY THESE LESSONS LEARNED NOW WORKING WITH RESIDENTS?

PB: I tell them I've sat through every 6 a.m. Monday and Friday didactic for 18 years, and I still learn something every time. It's fun to see other people have lightbulb moments and manage a group of students in problem-based learning.

—Amy Knutson Strack

The Moment Before

On aerial arts, holistic healing and second chances

BEFORE I CAME TO MEDICINE, I was a professional aerial artist. I was head aerial instructor at the former Toronto Circus School, a choreographer and performer like you might see in Cirque du Soleil.

One day, while I was on tour, word came that a friend, Carolyn, was practicing a piece for flying trapeze — an apparatus she didn't love — when she missed her catch and fell. The way she landed caused her to break several vertebrae in her neck. She was 26, and in that instant she became a quadriplegic. Her way of using her body to communicate with the world and to experience joy in that specific form was forever lost. Carolyn also lost touch with her friends in the circus community, and I never saw her again.

I found myself imagining the moment before Carolyn's life changed forever. For me, performance happened in the interplay between me and my audience, in the space between us. But when I had to go on stage again to perform an aerial solo, I noticed a quiet in my heart. What had once been a gift I could offer my audience to interrupt their lives with wonder and possibility suddenly seemed small and dull. I knew what I wanted: to return to the moment before Carolyn stepped off the platform.

Sometimes, when you're seeking answers, a door opens, even when there is no path to the door. I started thinking medicine might provide answers to some of the questions I was asking. I met an orthopedic surgeon who allowed me to observe a surgery that would ultimately save a man's life — the amputation of his leg. He was a soldier whose Jeep had hit a landmine, and the medical community had an answer to this sorrow. I felt my heart begin to open again. It would be hard, but he would get a second chance. And that's when I knew I was going to med school.

I chose to study at RFU because it was clear from my interviews that the people considering me were receptive to who I was as a whole person and not someone they could mold into a particular shape.

I now work with patients to prevent or reverse chronic illnesses, to help them get back to the moment before their health took something vital away from them. Just as with performance, this narrative unfolds in the space in between, in the interplay between patient and doctor. And I'm here to help my patients return to the moment before, so they can rewrite their own stories.

Just as with performance, this narrative unfolds in the space in between, in the interplay between patient and doctor.

—TONYA CRAMER, MD '12, MPH

ILLUSTRATION: JAMES YATES

Tonya Cramer, MD '12, MPH, DABOM, DACLM, DABPM, DABLM, is quadruple board-certified in preventive medicine, obesity medicine and lifestyle medicine, and is internationally certified as a lifestyle medicine intensivist.

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Welcome to the reimagined *Helix* magazine!

We've renovated everything, from the look and feel, to the words and spirit. Our goal is to engage and inspire you and keep you connected to the transformative things happening at RFU.

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