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UNIVERSITY OF COLORADO SCHOOL OF MEDICINE

CUMEDICINE

Today



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BETTER TOGETHER

Last October, I announced that I plan to step down as Dean when my successor is hired, so I expect this issue of CU Medicine Today to be my final opportunity to address this audience. I write to express my sincere appreciation for your support during the past nine years and to celebrate with you the many accomplishments of our faculty, staff, students, trainees, and clinical partners.

When I arrived in April 2015, the Anschutz Medical Campus was already an extraordinary place, and our school was key to its trajectory. On my first day as Dean, we celebrated the opening of the Gates Biomanufacturing Facility, a resource unlike any in the region. Few medical schools have connected to them the capacity to make cell-based therapies for their patients at their affiliated hospitals.

That precious resource – made possible by the generosity of the Gates Frontier Fund – has fueled scientific discovery and advanced patient care on our campus. To date, the facility has completed more than 100 production runs made to the highest quality standards. We are pioneering cancer therapies through clinical trials on our campus that use CAR T cells engineered at the Gates Biomanufacturing Facility.

At the time of my arrival, our campus was often described as one of Colorado's best-kept secrets because visitors were surprised to find a vibrant community of scholars and scientists, educators and caregivers clustered on the abandoned acreage of a shuttered army hospital in Aurora.

That's because many neighbors hadn't visited here yet. In the dozen years after moving from Denver to our campus, two world-class hospitals, thousands of laboratories, and state-of-the-art classrooms were constructed here.

These buildings and equipment are fundamental needs for our work, but to unlock their potential, we know that it's our people who add value and fulfill the promise. This is a community of exceptionally talented people who are constantly focusing their energy on improving the lives of others and exploring the boundaries of human knowledge.

Our faculty and clinical partners led our community through a global pandemic, caring for the sick and organizing vaccination efforts that protected all of us. Our clinicians care for more patients than any other medical practice in the state, handling 4.2 million patient visits in 2023, up from 2.7 million in 2017. Among peer public medical schools, our School of Medicine ranks in the top decile of schools in total practice plan revenue.

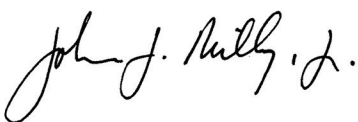
In 2015, the research portfolio of the school was \$359 million, and in 2023, our School of Medicine investigators received \$598 million in extramural funding. This growth in total grant awards is due to the collective success of our investigators working in an environment that supports and encourages their work.

Our medical education team led the innovative restructuring of our curriculum so that all students are trained in longitudinally integrated clerkships that emphasize compassionate and holistic patient care. We established a Department of Biomedical Informatics to offer scholarship and training that is essential for the future of medicine. We welcomed the first class of medical students at our branch in Colorado Springs in 2016, and in 2021, we opened a branch campus in Fort Collins in partnership with Colorado State University,

We have emphasized fairness and equity at our school. In 2015, the number of women serving as department chairs at our school lagged national benchmarks. Today, 12 of the 24 departments in the school are chaired by women, and nine of those 12 chairs were recruited since 2016. By comparison, only 23% of the departments at medical schools across the country are led by women.

I am confident that there are many great accomplishments ahead for our school. We certainly are no longer the best-kept secret in Colorado. Rather, we are one of the premier academic medical centers in the country. It has been a privilege to contribute to the creation of an environment where so many of our colleagues can flourish. I look forward to the continued success of the CU School of Medicine.

With warm regards,



John J. Reilly, Jr., MD
 Richard D. Krugman Endowed Chair
 Dean, School of Medicine
 Vice Chancellor for Health Affairs
 University of Colorado



Reporters locally and nationally turn to the School of Medicine for expertise and research news. Here are some examples from near and far.

James Burton, MD, professor of medicine, described the change in the patients who need liver transplants since the pandemic. He told the Denver Post in January that a typical patient with liver failure from alcohol use is an older man with a long history of heavy drinking, but in recent years, more women and people under 40 need transplants. He said the trend has been occurring for a decade but was fueled after COVID-19 in 2020. “The pandemic poured gasoline on a fire,” he said.

Jarratt Pytell, MD, MHS, assistant professor of medicine, discussed his research on alcohol consumption during the pandemic with the Denver Post in January. His study found increases in the sale of high potency alcohol in 2020, noting that increased consumption could lead to higher alcohol-related health care and societal burden.

Joseph Schacht, PhD, associate professor of psychiatry, told the Denver Post in January that alcohol is a problem if a person has injured themselves or someone else while drinking, or if family or friends have expressed concern about the person’s alcohol use. “If you are questioning how much you’re drinking, you probably should cut back,” he said.

Emmy Betz, MD, MPH, professor of emergency medicine, was quoted by the Washington Post about older adults signing advanced directives agreeing to restrict their driving in cases of cognitive impairment. “This is a big challenge when it comes to driving, because people don’t react appropriately and self-regulate,” she said in January.

Sarah Jolley, MD, associate professor of medicine, offered perspective in a January report by Scripps News on cases of long COVID. “We still have between 50 and 100 referrals coming in a week,” she said. “But with that number of patients coming in, we have more referrals than doctors that can see them. So we certainly need more clinical resources put towards caring for patients with long COVID.”



Suchitra Rao, MD

Suchitra Rao, MD, associate professor of pediatrics, discussed with The New York Times a large analysis of long COVID in children that was published in February by the journal Pediatrics. The review suggested that 10% to 20% of children in the United States who had COVID developed long COVID. However, Rao, who was a co-author on the paper, acknowledged that there are “lots of caveats” with the prevalence estimates used to arrive at that number.

Richard Zane, MD, chair of emergency medicine and UHealth chief innovation officer, in February discussed with the Denver Gazette the impact on the hospital system of providing care for migrants arriving in Denver: “We always put patients first, and we are proud to provide care to everyone who comes to our emergency departments regardless of their insurance or immigration status; however, the demands on our hospitals and providers as well as the amount of uncompensated care we are providing is now unsustainable.”

Kia Washington, MD, professor of surgery, discussed her work on whole eye transplants, which has been funded by the U.S. Department of Defense Joint Warfighter Medical Research Program, with CBS Colorado in a January report.



Ihuoma Eneli, MD

Ihuoma Eneli, MD, visiting professor of pediatrics, was quoted in a December New York Times article about teenagers and obesity. She explained the problem she and other pediatricians struggle with: “How do we reconcile the message when we tell a child that weight doesn’t define them, that it’s just a number,” and then, in the next breath, suggest that the child take a weight loss medication?”

Matthew DeCamp, MD, PhD, associate professor of medicine and member of the Center for Bioethics and Humanities, was quoted in February in a National Public Radio report about a debate about the definition of brain death. “The American Academy of Neurology proposes putting into law only three specific criteria for the determination of death by neurologic criteria. ACP [American College of Physicians] opposes putting only three criteria into law because doing so would be overly narrow and privileges certain brain functions over others,” he said. “The whole-brain standard is a firmer biologic foundation for determining death.”

Eric Campbell, PhD, professor of medicine and director of research at the Center for Bioethics and Humanities, was quoted in a Washington Post article in January about his study finding that only 57% of physicians welcomed disabled patients. “It’s shocking that so many physicians say they don’t want to care for these patients,” he said.



Simran Randhawa, MBBS

Simran Randhawa, MBBS, assistant professor of surgery, was interviewed in January on the NBC affiliate in Denver about lung cancer cases among women. “Lung cancer in never-smokers is on the rise now,” she said. “In fact, about 15 to 20% of patients that I see in clinic with lung cancer have never smoked a single cigarette in their entire lives.”

Amy Feldman, MD, MScS, associate professor of pediatrics, for a report in January about liver donation on the ABC affiliate in Denver, explained: “The liver is really special because it can regenerate. So, you can take a piece of liver out of a grown-up person like you and put it into a child, it will immediately start working in the child and within a couple of weeks it will be regrown back to a full size in both the donor and the recipient.”

Emmy Betz, MD, MPH, professor of emergency medicine and director of the Firearm Injury Prevention Initiative, was quoted by the Wall Street Journal in a December article about how gun shops can help prevent suicide: “It’s not about politics, it’s not an angry argument over gun law, it’s about how we can work together on an option that is voluntary, but might help people in crisis. It feels like a very practical solution.”



Chris McKinney, MD

Chris McKinney, MD, assistant professor of pediatrics, described caring for patients with sickle cell disease after the U.S. Food and Drug Administration in December approved two new gene therapies that can cure the disease. “This is an exciting time for sickle cell . . . and this has radically changed our conversations that we have with patients,” he told Colorado Public Radio in January.

Yoni K. Ashar, PhD, assistant professor of medicine, described pain reprocessing therapy for chronic pain patients in a December article in the Wall Street Journal. Patients’ pain is often resolved within eight to 10 sessions, he said. “One of the really intriguing ideas that comes out of this is reconceptualizing chronic pain as more of a psychiatric or mental health condition,” he said.

Jay Lemery, MD, professor of emergency medicine and director of the Climate and Health Program, was quoted by CNN in December in a report about the climate medicine program he helped create. “This is our first foray into training a climate-savvy health care workforce,” he said. “We need credible, knowledgeable, and effective leaders, and we want to send a message to clinicians that these are critically important skills for mitigating climate-driven health effects.”

Eric McCarty, MD, professor of orthopedics, commented in the Washington Post in December on reports that New York Jets quarterback Aaron Rodgers was considering a return to play after suffering a torn Achilles’ tendon in the first game of the season. “When you first hear that, and you don’t look at every part of it and dive into details, from afar you’re thinking, ‘That’s very fast and too soon,’” he said. “However, as we as sports medicine physicians look into it and see what has occurred and everything he has available to himself, we start thinking, ‘All right . . . it’s in the realm of possibility.’ As sports medicine surgeons and sports medicine physicians, we are always pushing the envelope on trying to get our athletes back out on the playing field.”

Daniel Bessesen, MD, professor of medicine and director of the Anschutz Health and Wellness Center, discussed the impact of obesity-treatment drugs with the Associated Press in November. “It’s something that really changes a lot of things in their life,” he said. “They go from food being a central focus to it’s just not.”

Laura Campos, AuD, clinical instructor of otolaryngology – head and neck surgery, was quoted by National Public Radio in November in a report about her study on how hearing loss can lead to deadly falls, but hearing aids may help reduce the risk. “We found, quite significantly, that individuals that wore hearing aids compared to those that didn’t, did show a significantly lower prevalence,” she said. “They reported fewer falls.”

Alyssa Olenick, PhD, an exercise physiologist and postdoctoral fellow in the energy metabolism lab in the Department of Medicine, was quoted in a November article in The New York Times about the health benefits of walking. Once your body becomes accustomed to walking, you might want to pick up the pace, she said, noting that studies suggest that moderate physical activity strengthens your heart and creates new mitochondria, which produce fuel for your muscles.

BRAIN POWER

Neurosurgeon Daniel Kramer explains the science behind neurological implants

Interviewed by Mara Kalinoski

Daniel Kramer, MD, assistant professor of neurosurgery, studies neural signals and communication between brain areas that produce movement and somatosensation. He is developing a brain-computer interface (BCI) program at the University of Colorado School of Medicine focused on sensorimotor restoration.

Kramer offers an expert look into the science of BCIs and explores the possibilities of that work and discusses the January announcement by Neuralink, which was founded by billionaire Elon Musk, that it had completed its first brain chip implant in a human patient, raising questions about risks, opportunities, and ethics.

WHAT IS A BRAIN COMPUTER INTERFACE?

Although generically a brain-computer interface means any computer interfacing directly with the brain, most commonly people mean a sensorimotor BCI. In this type of BCI, electrodes are placed in or around the brain that can record brain signal changes and interpret them to mean something, then use that meaning to control a robotic limb, a cursor on the screen, an exoskeleton, or really anything. These electrodes can also deliver electricity to the brain and create artificial sensations.

WHAT KIND OF DISEASES IS THIS TECHNOLOGY TARGETING?

Usually, sensorimotor BCIs are for spinal cord injury patients, those with ALS, or stroke.

There's lots of interesting research going on in the wider field of neuromodulation as well, covering issues such as Parkinson's disease, epilepsy, addiction, post-traumatic stress disorder, Tourette syndrome, and more.

CAN YOU TELL US ABOUT SOME SUCCESSES OF BRAIN-COMPUTER INTERFACES?

There is a small but robust number of groups around the country who are making opportunities to study different applications of BCIs for sensory-motor and visual restoration, and that leads to tons of interesting sub-projects.

For a patient with a spinal cord injury from trauma, they're usually intact above the injury, so they can still talk, for example. But in diseases like ALS (Lou Gehrig's disease), you lose all muscle activity. So, in the area of ALS and similar diseases, there's been a lot of really cool research on decoding, handwriting, and generating speech. During decoding, brain signals indicate what the person wants to do, and we read those signal and convert them into real actions.

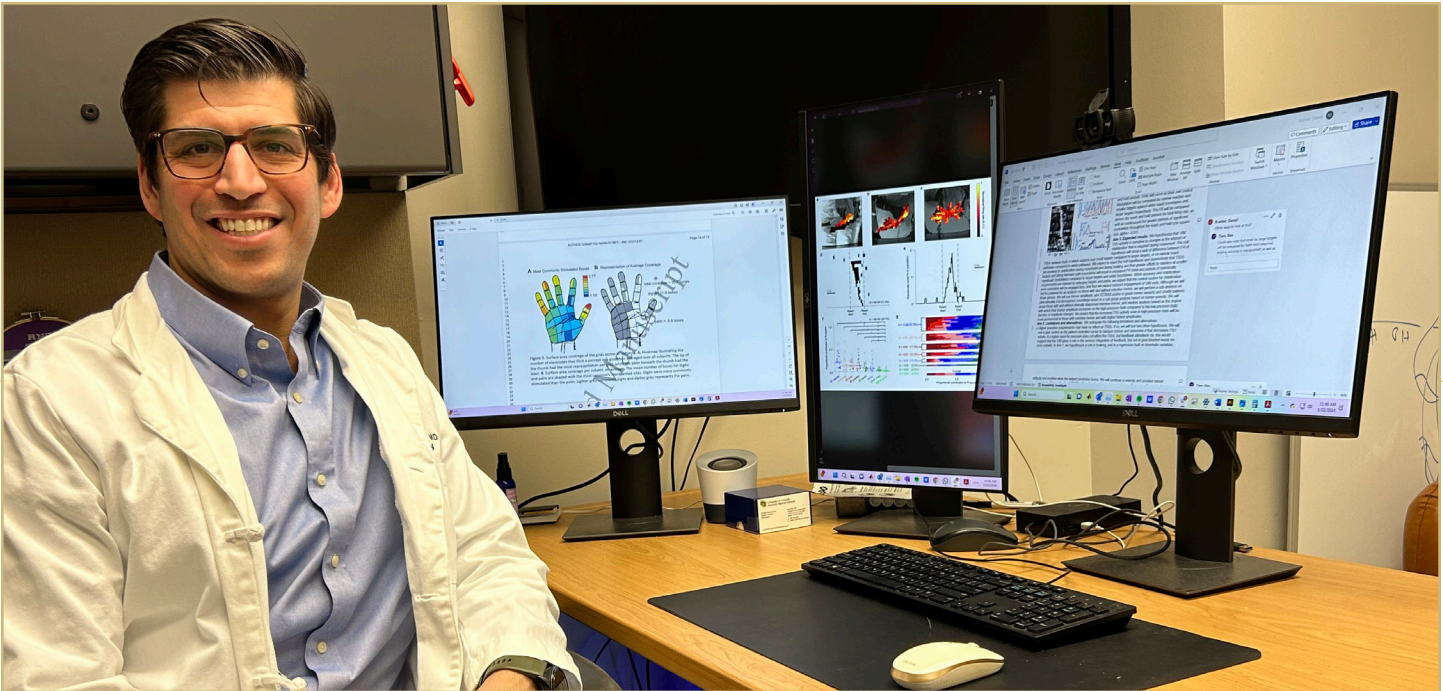
There's also a group that's working on reanimating the muscles of paralyzed limbs by stimulating into the somatosensory cortex. There are highly dexterous robotic arms, which aim to provide the same motion as a real hand, cursors, exoskeletons with

which people can walk, and many more applications.

WHAT ARE SOME OF THE RISKS OF THESE SURGICAL IMPLANTS?

The biggest risks are always infection and wound healing complications. Particularly, the way most brain-computer interfaces are done, like with Blackrock's Utah Arrays (high-channel count microelectrode arrays that record and stimulate neurons), parts stick out of the scalp. That's something that concerns implanting neurosurgeons, because we're always worried about infection, however, so far, they have been well tolerated without wound issues. While implanting the devices, there's always a risk of damage to the underlying cortex. Bleeding

“The barrier at this point for us moving forward has been more logistical than scientific.”



Daniel Kramer, MD

and strokes are always possible. But across all groups who have undergone implantations, there have been very few problems.

CAN YOU TELL US ABOUT NEURALINK'S TECHNOLOGY?

I'll compare it to the traditional Blackrock Utah Arrays. The idea of all these brain-computer interfaces is the same: you record enough brain signals that you can interpret and decode what someone wants to do. In theory, someone just needs to think about or try to reach out and touch something, then that signal gets again decoded. And there's enough variation in the neural activity that you can figure out if they want to move up and to the left or down and to the right, etc. All motor BCIs are the same in that way.

The main difference with Elon Musk's Neuralink is that they made use of a system that is basically an extremely fancy sewing machine that can, in theory, do the surgery without a neurosurgeon, although they still have to open up the skull and manually monitor everything. It aims to implant extremely tiny threads, each of which has multiple electrodes on it, in higher channel counts than other technologies.

The other piece that's unique is that they've established a communication system that aims to communicate through Bluetooth, so theoretically it could be fully implanted, meaning nothing sticking out of the skin.

WHAT ARE THE NEXT STEPS FOR BCIS OR NEURALINK TO BECOME MORE COMMON?

All the tools are in place. This technology has been theorized, and the barrier at this point for us moving forward and getting it out there into the world has been more logistical than scientific. The biggest logistical piece is moving the technology to the next component for U.S. Food and Drug Administration (FDA) approval.

In addition, there are many moving factors, including funding for BCI research. Neuralink had a huge initial investment from Musk, which no other company or group has. Most scientific groups at universities are moving from NIH funding to NIH funding. So, if a company (Blackrock or Neuralink) is persistent enough and well-funded enough to get a fully implantable system, they might just do it.

But it all very much remains to be seen. There are a lot of pieces to it also that aren't trivial at all, such as durability of the implants, how reliable the Bluetooth communication is, recharging, and other real-world concerns.

WHERE IS THIS TECHNOLOGY IN TERMS OF FDA APPROVAL, AND ARE THERE ETHICAL CONCERNS?

Neuralink is not currently FDA approved. It has an IDE, an investigational device exemption, which means you're allowed to implant it under very specific circumstances and careful watch by the FDA. Utah Arrays are FDA-approved for 30-day implants, or longer through an IDE.

There's a divide on ethical concerns in this field in general, not only with Neuralink. Most ethical concerns are theoretical at this point: if a certain problem happens in the future, how would we deal with it? These include things like hacking and even mind-reading. None of these systems have gone live in the sense that patients have been sent home with it to use it unsupervised, so those concerns are worth debating, but not a major concern at this point. The science would have to advance quite a bit, and the usage mainstream before these things would be of real issue.

MENTORSHIP IS A MISSION

CU Department of Medicine aims to launch and boost careers

By Mark Harden

It was 23 years ago that a young man – born in New Delhi, India; schooled in France, Egypt, and Japan; trained in medicine in Mumbai – came to America in hopes of launching his career.

The prospect was daunting for an immigrant. “I was trying to figure out what U.S. health care was all about, how I could be a success story,” he says.

That’s when Vineet Chopra, MD, MSc, encountered a phenomenon that would become a touchstone of his professional life and a central mission of his tenure as chair of the University of Colorado Department of Medicine.

“People took me under their wing,” he says. “People took a chance. They said, ‘Hey, Vineet, we believe in you. But first focus on being a good doctor. That’s job No. 1.’”

He was being mentored, and the guidance he received then and later would transform his career.

“Mentorship provided me with an environment where I was allowed to take measured risks, where I was given the support and correction that I needed, and where I was able to identify practices that allowed me to be successful in my own way,” he says.

Now, Chopra and other Department of Medicine leaders are striving to grow and nurture a culture of mentoring.

Last October, they organized a daylong “Mentorship Academy” on the University of Colorado Anschutz Medical Campus, offering detailed guidance for both mentors and mentees. More than 240 individuals took part.

They recently started a pilot Launch Team program, aimed at mentoring the department’s early-career faculty. And a parallel Boost Team project targeting mid-career faculty is under discussion.

“Mentorship is the lifeblood of an academic medical institution,” Chopra says. “It is the platform on which we create the best educators, researchers, and leaders. It is fundamentally how we support and care for one another. And it is a way of passing the baton to those who will come after us to advance the work that we’ve done. It means a lot to me.”

“Mentorship is the lifeblood of an academic medical institution. It is the platform on which we create the best educators, researchers, and leaders.”

LAUNCHING AND BOOSTING

Other Department of Medicine leaders with key roles in fostering mentorship include Sunita Sharma, MD, appointed vice chair for faculty development and mentorship in 2022 and Christine Jones, MD, MSc, associate vice chair for mentorship.

They bring their own mentorship journeys.

Jones says she encountered Darren DeWalt, MD, MPH, during her research fellowship at the University of North Carolina in Chapel Hill. “He was one of my first and best mentors, and I continue to reach out to him for guidance. He inspired me to mentor others throughout my career.”

“Finding a research mentor proved to be a challenging endeavor for me, and the approach I initially took is not one I would recommend

to others,” Sharma says. “Reflecting on my own experience, I realized that a more thoughtful process around mentorship would have been highly beneficial.” With that experience in mind, she went on to help establish a national mentorship program within the American Thoracic Society aimed at under-represented minorities.

Now their paths are converging. Sharma and Jones are spearheading Launch Teams, a Department of Medicine pilot program that kicked off in January. The program was something Chopra and colleagues conceived and wrote about in a Harvard Business Review article. Sharma says it’s a program that could have helped her early in her career.

“The idea is to create a mentorship team for people who are new to the institution or new to a faculty position who are able to connect

the faculty member with the mentors and resources needed to develop the career they envision for themselves, and help them to address barriers that they may face,” Sharma says.

Each Launch Team consists of the “launchee” – the junior faculty member being mentored – and four advisors, drawn from among leaders of the Department of Medicine (chair, vice chairs, and others) as well as other CU School of Medicine departments and UHealth; a division chief or designee; a senior faculty member of the launchee’s division with related interests; and a senior faculty member outside the launchee’s division or department.

The teams meet for one year – an hourlong meeting each quarter – with launchees engaging in readings, worksheets, and other exercises between meetings.

OUTSIDE THE CHAIN OF COMMAND

Various Department of Medicine divisions already have mentoring programs, and some junior faculty have their own informal mentoring networks in their fields. What’s different about the Launch Teams is that mentees meet regularly with leaders and senior faculty both inside and outside their divisions. Also, the goal is not to mentor someone longitudinally, but to accelerate their trajectory so they can find the right mentors, networks, and resources to help them succeed.

“Sometimes you need mentors outside of your division or department who can help bring an outsider’s perspective,” Jones says. “Our mission is to build teams that can support people. There might be someone on your team who you’ve not had the chance to work with before, and this is how we start broadening your network.”

Through Launch Teams, junior faculty can get help setting goals for their first faculty years, building rapport with senior faculty, and expanding their mentorship network. Depending on their field, launchees receive advice on building and managing their clinical practice, developing educational curriculum and research, writing grants, managing their



Vineet Chopra, MD, MSc

AVOIDING BAD MENTORS

Not all mentorship is good. In his speaking and writing, Vineet Chopra, MD, MSc, chair of medicine, sounds warning bells about what he calls “mentorship malpractice,” pointing up the need for both mentors and mentees to approach their relationship carefully.

It’s a topic he addressed at last fall’s Mentorship Academy on campus, and in his book, “The Mentoring Guide,” and a 2016 JAMA article, “Mentorship Malpractice.” Drawing on mentorship misdeeds he has observed across his career and those of others, he describes several “classic phenotypes” of poor mentorship:

- **The Hijacker**, a bully who “takes hostage a mentee’s ideas, projects, or grants, labeling them as his or her own for self-gain.”
- **The Exploiter**, who “torpedoes mentees’ success by saddling them with low-yield activities.”
- **The Possessor**, whose priority is “domination of the mentee,” who in turn becomes “isolated from social and collegial interactions.”
- **The Bottleneck**, who is “preoccupied with their own competing priorities and has neither the bandwidth nor the desire to attend to mentees.”
- **The Country Clubber**, who “views mentorship as a ticket to popularity” and doesn’t take responsibility for mentoring.
- **The World Traveler**, someone highly successful and sought after, leaving little time for mentees.

Chopra says mentees can protect themselves from such harmful relationships by avoiding chores with no academic yield that may be imposed by a mentor, setting boundaries in mentorship relationships, communicating needs clearly, and knowing when to walk away.

The best way to avoid bad mentors, he says, is to establish a mentorship team – people from different backgrounds, different skills and expertise, who form different relationships with the mentee.

“Having several mentors,” he says, “allows mentees to not only learn from each advisor, but also more easily recognize and call out dysfunction.”

CLINICAL EXCELLENCE SOCIETY

Twenty MDs and a Doctor of Nursing Practice were inducted February 8 at a banquet in the Anschutz Health Sciences Building as the inaugural class of the University of Colorado Department of Medicine's Clinical Excellence Society (CES), recognized as champions for their patients.

For the inaugural CES class, each division in the department submitted the names of up to two people. Inductees were chosen based on voluminous application files that included testimonials from division leaders, peers, and patients and their families.

"Then we sent them out to the best doctors in the country," who scored the packages, Vineet Chopra, MD, MSc, chair of medicine, said.

CES inductees will serve as advisors to the Department of Medicine leadership team on identifying future inductees, on ways to build clinical excellence, and on addressing such issues as burnout, wellness, and equity.

The full list of inductees in the inaugural class in the Department of Medicine's Clinical Excellence Society is available at tinyurl.com/DOM-CES.



Sunita Sharma, MD

time, gaining leadership skills, and compiling a portfolio for promotion.

The Launch Team pilot program has been started in three of the department's divisions, "with the goal of scaling up in the near future," Sharma says. "After making improvements based on the feedback we get from our pilot program, our plan is to be able to provide a launch team for every new faculty member in the department."

Once the Launch Team program gets established, department leaders are discussing taking a similar mentoring approach with

mid-career faculty by creating Boost Teams.

"Often, after people are promoted to associate professor, there's a time when they're recalibrating and trying to figure out the next chapter," Jones says. "Maybe it's somebody interested in getting into a leadership position, who had been previously focused on clinical work or research or academic work. At that stage you can sometimes feel unmoored, and you might need people who can help you understand what your options are and how you can grow within your academic community."

LET ME TAKE YOU UNDER MY WING

Through the early 2000s, after arriving in the United States from India, Chopra was a medical research assistant in Philadelphia, a resident in New York, and a medical director at a hospital in Arkansas. Then came another professional turn, and mentors again played a part.

"They said, 'If you really think about the clinical care you deliver, you could touch 100 patients this week. But what if you could touch 1,000 patients?' And I got very interested. How do you do that? How do you scale? And my

mentors said, 'One way to scale is by teaching doctors how to do that.' So, great, how do I teach doctors? And they said, 'Well, you've got to learn how to become an investigator. But that path is treacherous and not everyone will make it. But if you're game, let us take you under our wing and show you how to go about it.'

In 2008 Chopra joined the faculty at the University of Michigan School of Medicine, "and my most heartfelt mentorship moments happened with my mentors at Michigan. What mattered most to them was not whether the next grant or paper got accepted; it was that I was doing the things that I was most excited about, that I was producing high-quality work, and that as I had my first few success in my career, I would think of bringing along those around me."

Spurred by his mentors' encouragement, Chopra pursued his interests in health-services research and leadership. He earned a master's degree in health-services research at Michigan and joined leadership training programs at its business school. In 2017 he became the inaugural chief of Michigan's newly created Division of Hospital Medicine in the Department of Medicine. This is where he helped create the original Mentorship Academy and put together models of mentorship for faculty.

Chopra has an infectious interest in the art and science of mentoring. He has studied the mechanics of mentoring, lectured and written papers about it in medical, social, and business journals, and in 2019 co-authored a book, "The Mentoring Guide," with a mentor, Sanjay Saint, MD, MPH, and a mentee, Valerie Vaughn, MD, MS.

He brought that passion and experience to the CU School of Medicine in October 2021 when he became chair of the Department of Medicine.

"When I arrived here, I learned of a number of campus initiatives for supporting junior faculty growth. But I saw that they were sporadic and weren't necessarily aligned with a faculty member who had not figured out what they wanted to do," Chopra says. "And so, under the leadership of Dr. Sharma and Dr. Jones, we started to think programmatically about how to develop junior faculty members in the department."

FINDING PURPOSE

Jones says the department's mentorship goals "are very on mission for me. I'm all in, to have a whole menu of programs we are starting and thinking about strategically throughout the career cycle. I'm excited to be a part of it."

She mentions the department's recent creation of the Clinical Excellence Society and the induction of the inaugural CES class as a form of mentorship – sponsorship – to recognize and celebrate top clinicians. Inductees will serve as mentors for others in the department on ways to develop clinical excellence, and on addressing such issues as faculty burnout, wellness, and equity.

Adds Sharma: "The part I love about my job is how I can help other people find purpose in their careers and be happy at work. Dr. Chopra has a vision for mentorship in our department, which I think is fundamental to helping people develop the careers they envision for themselves. I want to be part of that vision."



Christine Jones, MD, MSc

PROFILES OF COMBAT TRAINEES

Campus center provides advanced medical scholarship and training

By Colleen Miracle

With Colorado home to six military bases, the University of Colorado Anschutz Medical Campus has become a hub for active-duty medical students, fellows, and collaborators. With a commitment to providing a supportive learning and work environment, the CU Center for Combat Medicine and Battlefield (COMBAT) Research has grown its research scholar and fellow programs along with supporting active-duty and National Guardsman research collaborators.

The COMBAT scholar program mentors and guides student investigators through the research process with a lens on military-relevant research and care. The COMBAT fellow program fosters research partnerships with residents and fellows in various departments across campus, many of whom are active duty, guard, and reserve military personnel.

“Beyond our goal to solve the U.S. military’s toughest clinical challenges through research, the Center for COMBAT Research serves as a liaison for military students and collaborators,” says Vik Bebart, MD, professor of emergency medicine and director of the Center for COMBAT Research. “If you deploy, we understand what that means and how to help meet your needs. We are always open to supporting our military health care collaborators and to learning alongside you.”

This report features a COMBAT fellow, scholar, and research collaborator to share their journeys navigating career and research goals on campus while serving in military roles.

DIVING INTO NEW CHALLENGES

For Ian Eisenhauer, MD, a Center for COMBAT Research fellow and lieutenant commander in the U.S. Navy, working in Colorado as an emergency medicine resident is a homecoming. He graduated from the CU School of Medicine in 2017.

Eisenhauer worked as an internal medicine intern after earning his medical degree, then spent three years as a garrison and deploying primary care physician for a naval special warfare unit in Hawaii. He provided care for the U.S. Navy Divers and SEALs aboard submarines during workups and deployments.

“It was a long time to be away from family, but fun to be out on my own and learning in the field,” he says. “In these types of confined and limited-resource settings, known as austere settings, you don’t have the types of support that you would in a hospital. While there were few major injuries, I always had to be prepared for the worst.”



Ian Eisenhauer, MD '17, (on the right) is a Center for COMBAT Research fellow and lieutenant commander in the U.S. Navy. After three years as a garrison and deploying primary care physician for a naval special warfare unit in Hawaii, he returned to Colorado as an emergency medicine resident. Photographed with Sergeant First Class Cory McEvoy, COMBAT Scholar 2021-2023, Brig Gen (Ret) Kathleen Flanty, DNP, PhD, deputy director of the Center for COMBAT Research.

Near the end of his time undersea, the U.S. Navy was encouraging physicians to pursue specialties in emergency medicine to gain a broad combat-relevant skillset. Eisenhower began pursuing residency opportunities, and with the advocacy of the U.S. Navy's emergency medicine consultant, the Center for COMBAT Research, and the Denver Health residency director, he landed at Denver Health.

“One of the highlights of coming back to Colorado for residency and beginning research as a Center for COMBAT Research fellow was being able to reach back out to my colleagues undersea and connect with their medical needs,” he says. Eisenhower stays connected with the U.S. Pacific Fleet surgeon as part of his fellowship in the Center for COMBAT Research.

“Serving active duty as a resident has its pros and cons,” Eisenhower explains. “The upside is that I get treated like every other resident. I get to a lot of freedom to develop my own path, find my niche, and develop my skills as a physician and a leader, but it’s a challenge being away from the military because I’m not as connected to the current needs of my military family. One of the highlights of working with COMBAT is interacting with other active duty military personnel on a weekly basis.”

Eisenhower recently led research on hypothermia that was published in the journal *Military Medicine* and is evaluating current approaches to non-compressible torso hemorrhage. He is now examining intracranial hemorrhage management in prolonged casualty care settings.

Alongside his duties to the center and residency, Eisenhower completes routine active-duty work throughout the year while juggling being a new father.

“There is a lot that I’m excited for in continuing to build the COMBAT fellow program,” he says. “But I’m really excited to get to know my son these next couple years.”

Eisenhower will complete his residency and return to naval service in December 2024.

STRENGTHENING MILITARY COMMUNITIES

One scholar working with Center for COMBAT Research has taken a diligent path in advancing her education and research in veteran and military health.

Since beginning her service in the U.S. Army in 2010, Raiza Deyto has earned two bachelor's degrees, a master's in nursing through the

CU College of Nursing's Veteran and Military Health Care program, became a captain in the Colorado Air National Guard, works as a nurse at the VA Eastern Colorado Health Care System, and began research in suicide prevention with a focus on veteran and military health.

She's not stopping there. Deyto began her Doctor of Nursing Practice program in January 2024 and plans to graduate in December 2025.

Brig Gen (Ret) Kathleen Flarity, DNP, PhD, deputy director for the Center for COMBAT Research and director of the scholars program, met Deyto at the CU College of Nursing's Partnerships for Veteran & Military Health Conference in 2022 and immediately connected her with the center to discuss research opportunities and interests. Flarity introduced Deyto to Emmy Betz, MD, MPH, professor of emergency medicine and director of the CU Firearm Injury Prevention Initiative, whose research on veteran and military populations overlaps closely with the Center for COMBAT Research.

Deyto has worked with Betz's qualitative team, coding, recruiting, and pulling data. She also presented on military spouse and partner views on lethal means safety at the 2023 National Research Conference for the Prevention of Firearm-Related Harms.

“I learned that military suicides increased from 75 in the first quarter of 2022 to 95 in the first quarter of 2023, and that was something that



Raiza Deyto at NATO. Her service began with the U.S. Army in 2010. She became a captain in the Colorado Air National Guard and works as a nurse at the VA Eastern Colorado Health Care System.



Lt. Col. Steven Schauer, DO, MS, with his research team at the Military Health System Research Symposium in 2022.

immediately struck me as a dual-military spouse,” she says. “I had zero experience in this field of research prior to meeting Drs. Flarity and Betz, so my range of motion working with this initiative feels experimental and unlimited.”

Deyto is also looking forward to assisting with NATO’s largest military medical exercise in Hungary, Vigorous Warrior, in April 2024.

“I would like to work with the Center for COMBAT Research to support global engagement projects like Vigorous Warrior,” she says. “Through international travel in my National Guard unit, interaction with foreign partners is as effective as it is gratifying. I’d also like to find a way to integrate more nurses into combat casualty research.”

MISSION FOR CRITICAL CARE RESEARCH

As a long-time research collaborator with Center for COMBAT Research, Steven Schauer, DO, MS, a lieutenant colonel and active-duty physician in the U.S. Army, is deeply immersed in multiple trauma and critical care research projects. He is also a fellow in anesthesia critical care medicine.

For LTC Schauer, his work with the Center for COMBAT Research encompasses more than a platform to launch trauma research projects.

“Military communities are a motivating group to serve,” Schauer says. “The camaraderie in the military health care system is unmatched, and you always have something in common with those who have

volunteered to serve. It’s a different atmosphere than working in a civilian emergency department.”

Schauer first met Bebart in 2011, prior to the launch of the Center for COMBAT Research, when Bebart was a faculty member during Schauer’s residency at the San Antonio Military Medical Center, now called Brooke Army Medical Center. In 2012, they collaborated on the first randomized controlled trial using ketamine for pain. The two began collaborating on a regular basis through the Center for COMBAT Research starting in 2016.

The next year, while working at the Army Institute of Surgical Research, Schauer expanded his research partnerships by working with Center for COMBAT investigators Nee-Kofi Mould-Millman, MD, associate professor of emergency medicine, and principal investigator for the Cape-Colorado-Combat (C3) Global Trauma Network; and Adit Ginde, MD, professor of emergency medicine and principal investigator for the Airway, Trauma, Lung injury, and Sepsis (ATLAS) Research team.

With Mould-Millman, Schauer worked on methods to better train prehospital trauma care protocols, such as “EMS-TruShoC”, a prospective trial of low-dose, high-frequency, on-site training to improve trauma field care in austere settings. With Ginde, Schauer studied optimizing oxygen in trauma settings. Schauer deployed 2016-2018 while simultaneously working with Ginde on the Strategy to Avoid Excessive Oxygen (SAVE-O2) pilot trial.

“Military communities are a motivating group to serve, the camaraderie in the military health care system is unmatched.”

There were two major factors that played a role in Schauer deciding to return to campus as a critical care fellow in 2023: “The Center for COMBAT and skiing; that’s what drew me to Colorado. Of course, the quality of the anesthesia critical care medicine program was also a major factor.”

Schauer is paving the way for new trauma studies, some of which involve collaboration with the Brooke Army Medical Center in San Antonio, Texas, where Schauer completed his residency. He is working with a team to investigate a novel ultrasound algorithm that interprets chest injuries and studying medicine that can prevent coagulopathy, a bleeding disorder, in trauma patients.

Schauer is also leveraging social media to emphasize the importance of sharing new trauma, critical care, and military research and has amassed 10,000 followers across his platforms.

“As competent as physicians in our field are, it’s impossible to stay up to date on the tens of thousands of journals out there,” he says. “I like to focus on getting the message out to my military health care community about relevant studies and research coming down the line.”

Since starting his critical care fellowship five months ago, Schauer has enjoyed the curriculum and completed rotations in the cardiothoracic intensive care unit (ICU), anesthesia pain service, neurology intensive care unit, pediatric intensive care unit, and acute renal failure.

He will complete his fellowship in 2025 and is most interested in working in a military ICU.

NEXT-GENERATION LEADERS

The Center for COMBAT Research admits up to two new scholars every semester and up to four research fellows per year. The selection process

has become competitive with a growing interest in military and trauma medicine.

“Our scholars are not only meeting but exceeding our expectations,” Flarity says. “This program is not just about building a workforce, but growing our future leaders too. For us, mentoring involves more than research; the value of military and medical partnership is crucial for our scholars to practice.”

Three of the scholars have moved into fellow roles as new residents. One COMBAT scholar, formerly a U.S. Army Ranger and now in a fellow role after graduating from medical school, was instrumental in building the scholar program.

“Dr. Matt Paulson created the vision and direction for our scholar program,” Bebart says. “He’s been a centerpiece of the program from the inception, published several articles, and mentors several studies. He exemplifies what it means to be a mentor and we are so grateful for his leadership.”

The collaborative opportunities within the Center for COMBAT Research highlights CU Anschutz as a key site for active duty and military collaborators to flourish.

“Our campus welcomes and embraces military researchers, students, active duty trainees and fellows,” Bebart says. “With most of our studies funded by the U.S. Department of Defense, we want to give these talented collaborators opportunities to work with our researchers on military-relevant outcomes and set the runway for them to succeed.”



Tristan Chen is known internationally for his mastery of bouldering. Photo courtesy of Tristan Chen.

BETWEEN A ROCK AND A HARD PLACE

Climber Tristan Chen treated for leukemia at CU Cancer Center

By Greg Glasgow

When your life is about being outdoors—about making your way up and around complex rock formations, looking for that flow you get into as every foothold and ledge reveals itself—the last place you want to be is stuck in a hospital bed, enduring the side effects of chemotherapy. Yet that’s just where Colorado rock climber Tristan Chen—well known around the world for his mastery of the art of bouldering—found himself in the spring of 2022. After noticing that his fingertips were starting to bruise easily just from grabbing the edges of rocks, and that his gums were still bleeding from a dental procedure he’d had weeks earlier, he went to get checked out.

“I went to an urgent care to get a blood test, and my platelet count was dangerously low,” Chen says. “I drove to Anschutz (the CU Anschutz Medical Campus), walked into the ER and handed them the blood test and said, ‘I need platelets.’”

Soon after that, Chen—then 25—was diagnosed with acute myeloid leukemia (AML), a type of blood cancer. He was seen by providers from the University of Colorado Cancer Center, including Dan Pollyea, MD, MS, and Clay Smith, MD, who started Chen on a course of chemotherapy to eradicate the cancer.

“It was pretty scary,” says Chen, who moved to Denver from Boston in 2014 to pursue a degree in computer science from the University of Denver. “It’s quite a serious diagnosis. With news like that, it takes a little while to settle in.”

STEM CELLS TO THE RESCUE

After two rounds of chemotherapy, doctors told Chen his cancer was in remission. However, to give him the best chance for cure, he received a stem cell transplant.

“For a younger patient like Tristan, the standard algorithm of treatment is that you receive intensive chemotherapy to try and bring the disease under control initially,” says CU Cancer Center member Jonathan Gutman, MD, who oversaw Chen’s transplant. “The next step is either additional chemotherapy or a stem cell transplant. A stem cell transplant is the original form of immunotherapy. The idea is that small immunologic differences between the patient’s cells and the donor’s cells allow the donor cells to destroy the residual bad leukemia cells. A transplant offers a higher chance of cure, but it comes at a greater risk of complications.”

Doctors look at a number of factors when deciding whether or not to do a stem cell transplant, including specific abnormalities that are present in the leukemia. In Chen's case, they found abnormalities associated with a negative prognosis. That, coupled with the fact that he hadn't had a great response to his first course of chemotherapy, led doctors to recommend the transplant in Chen's case. The stem cell transplant was performed via a transfusion that mixed blood from Chen's brother with donated cord blood, which is rich in blood-forming stem cells and doesn't have to be as closely donor-matched as an adult donor.

"Tristan did not have a perfectly matched sibling and did not have any matched options in the adult donor registry," Gutman says. "Another option for potential donors that has emerged in the past 20 years or so is umbilical cord blood, which is banked publicly around the world and can potentially be used as a donor source for transplant. It doesn't need to be as closely matched as adult donors because of the immunologic nature of these naive cord blood cells."

Chen received what's known as a haploidentical cord blood (or "haplo cord") stem cell transplant, as his brother was a half-match for his specific tissue type. Half of the stem cells came from Chen's brother and half came from donated cord blood. The process helps the cord blood begin to grow more quickly after the transplant. It was a success in Chen's case, though it wasn't easy on his body.

"They zapped me with chemo again for a week before the transplant and gave me radiation to wipe my immune system," Chen says. "It's not like a kidney—you can't just take it out. You have to kill it, basically. They gave me the transplant, and then I was in the hospital for another month because you have to wait for your blood cells to recover."

Unlike the chemotherapy, to which Chen had a fairly mild reaction, the transplant wiped him out, he says.

"The first few rounds of chemo were fine," he says. "I was still fairly active and walking around and mostly felt kind of nauseous. The transplant was significantly harder. I lost a lot of weight, and my sister had to stand next to me while we walked around the block. I was sleeping at least 12 hours a day."

BACK TO THE ROCKS

When Chen first left the hospital, he was so weak he wasn't allowed to drive. His parents had to drive him to a climbing gym, where he slowly regained his strength.

"New Year's Day of 2023 is when I started to feel normal again," he says. "It's been a pretty steady recovery since then."

Early 2023 is also when Chen began bouldering again in earnest, in February making his way to Hueco Tanks State Park in Texas to re-



Photo by Michelle Skuba Gray.

conquer a classic bouldering route known as Esperanza. It's the one he kept thinking about while he was lying in his hospital bed, working out the best route in his mind.

"It was something to strive for," he says. "Climbing has been such a huge part of my life for decades, and it was a way to challenge myself. One of the things that I missed most was just being able to climb with my friends—to hang out and climb together and have fun. I experienced the loss of that, so getting it back, it feels even better now."

Gutman knows how daunting it is for any patient to be diagnosed with AML and face the prospect of a stem cell transplant—it's "like a lightning bolt in their life that comes along and utterly blows things up," he says. Sometimes even more so for patients who are otherwise young and healthy. That's why Gutman—an amateur rock climber himself—is gratified to see Chen back doing the sport he loves.

"As somebody who has done a tiny bit of climbing, I know enough to be able to appreciate at least a little of what he does, and it's quite remarkable and impressive," Gutman says. "It's always wonderful to see people, after a transplant, doing things at the level that they were able to do them before, if not even better."



Alex Cooper at the Backcountry Wilderness Half Marathon in Highlands Ranch, Colo., Nov. 4, 2023. Photo provided by Alex Cooper.

AN IRONMAN FIGHTS BRAIN CANCER

Endurance athlete Alex Cooper gets back in the race

By Mark Harden

Alex Cooper relishes a challenge. Armed with a New Yorker's moxie, an entrepreneur's savvy, and an athlete's determination, he has launched startups, has competed in Ironman triathlons, and offers motivational messages in blogs, videos, and social media posts as the "Iron CEO."

Cooper, 61, lives much of his life on bikes, on skis, in the water, and in running shoes. "Over a lifetime of endurance sports and personal challenges, I have developed the mindset for enduring by building the physical and mental strength to overcome adversity," he says.

He draws on that mindset now as he faces the greatest adversity of his life: an aggressive brain tumor.

Cooper was diagnosed in January 2023 with glioblastoma, a fast-growing form of brain cancer. According to the National Brain Tumor Society, the five-year survival rate for glioblastoma patients is about 7%, and the average length of survival for patients is about 8 months.

A team at the University of Colorado Cancer Center has helped Cooper fight his cancer through surgery, radiation treatment, and chemotherapy.

MORE THAN A JOURNEY

Cooper, a New Yorker who moved to Colorado six years ago, is the son of two Holocaust survivors who immigrated from Hungary. His father died when he was 3 months old; his mother lived with breast cancer for more than 25 years. That background "informs my life in a number of

ways, including my own experience dealing with cancer, and has a lot to do with my own mindset as a survivor," says Cooper.

When he turned 52 in 2014, he graduated from shorter triathlons to a longer, Ironman-distance event: a 2.4-mile swim, a 112-mile bicycle ride, and a 26.2-mile run. "I finished it, and said, OK, I checked it off the list and I'm good," Cooper says. "A couple of days later, I realized it just spoke to me. I really liked it. It had some meaning for me beyond all the other things I had done."

He decided he would strive to finish one Ironman per year for 10 years. Instead, it took him nine years; he finished his 10th in Wisconsin on Sept. 11, 2022.

"That whole Ironman journey, it became more than a journey, it became more than just something I love doing," he says. "It became who I am. It became my brand. It became my website. It became me."

And Cooper says his Ironman experiences helped "prepare me for the journey I'm on now."

NOTICING SYMPTOMS

Cooper had already decided that his September 2022 Ironman would probably be his last "for now." A month later, he says, "I started to notice weird things, a few physical symptoms. My right arm felt like it didn't know where it was. When I was driving, sometimes I thought my foot

had moved from the brake to the gas, but it was still on the brake.” He had trouble typing.

He went to a general practitioner who performed basic neurological and blood tests and advised him to see a specialist, who advised him to get an MRI exam. Then came the glioblastoma diagnosis in early January.

Cooper waited until he and his wife returned from a long-planned vacation in Belize in Central America to break the news to her, and then to his grown kids. Two weeks later, he had surgery to remove as much of the tumor as possible.

When he first met with his surgeon, D. Ryan Ormond, MD, PhD, a CU Cancer Center member and associate professor of neurosurgery, Cooper said Ormond inspired confidence. The surgeon “shook my hand and my wife’s hand, looked us in the eye, got to know us, and that meant everything to me. He treated me as a human being.”

Cooper says he readily agreed to stay awake through the surgery on his brain tumor so he could communicate with the surgical team and undergo cognitive tests through the process. “To make a bad pun, it was a no brainer. I thought, here was my chance to stay actively involved in my surgery and improve the chances of success. The cognitive therapist was holding my hand and was the most compassionate, understanding person. It was a great experience, it really was.”

GOING ABOVE AND BEYOND

After recovering from surgery, on Valentine’s Day, Cooper encountered Timothy Waxweiler, MD, an assistant professor of radiation oncology, and Douglas Ney, MD, a professor of neurology. They put him through a course of radiation treatments five days a week for six weeks, targeting the tumor site, along with nightly chemotherapy pills. That was followed by maintenance therapy involving daily chemotherapy for five days every four weeks. Cooper has also been treated with speech and occupational therapy.

“He’s done above and beyond all the treatments that we’ve asked of him, and he’s always asking, ‘What else can I do?’” Waxweiler says.

Meanwhile, Cooper quickly resumed his exercise routine. He walked three miles on his first day home from the hospital, was back on a stationary trainer after two weeks, and was skiing after six weeks. Sometimes Cooper would go skiing on Friday mornings before his afternoon radiation session.

“Friends have said to me, ‘A lot of people, given what you’ve gone through, would crawl into a ball on their bed and get ready to die.’ And that’s just not who I am,” Cooper says.

Waxweiler says that Cooper’s case demonstrates the value of seeking help quickly “if there’s something unusual going on and you develop neurological symptoms.”

STOKED AND AMPED

In the U.S., about 80,000 people per year are diagnosed with a primary brain tumor. Ney says that of that total, about 20,000 to 25,000 people per year are diagnosed with a glioma, of which a glioblastoma is an aggressive Grade IV type. “But even though they’re rare, there’s a lot of morbidity, so it’s a pretty serious diagnosis.”



Alex Cooper (center) with his radiation oncologist, Timothy Waxweiler, MD (right), and radiation therapist Tyler Broom (left) at the Backcountry Wilderness Half Marathon in Highlands Ranch, Colo., Nov. 4, 2023. Photo provided by Alex Cooper.

“It’s a tumor that ultimately we expect to come back, and ultimately is terminal,” Waxweiler says of Cooper’s glioblastoma. He, Ney, and their colleagues have been striving to prolong and maintain the quality of Cooper’s life.

Both doctors describe their patient as relentlessly positive through his ongoing treatment.

“He’s always so stoked and amped about life,” Waxweiler says. “He’s insanely impressive. He’s gotten half our staff to run races with him or sign up for races, myself included. He brings everybody up around him and motivates us as much as we’re helping him. He’s certainly motivated me.”

“He’s a very high-energy, gregarious type of type of guy who’s not willing to let things stop him from doing what he wants to do,” Ney says. “It’s great when you can live like that.”

READY TO TAKE ON CANCER

As he faces his future, and as he works on a book about his experiences, Cooper has managed to stay upbeat.

“I try not to project too much into the future,” he says. “It doesn’t do you any good. I’m doing well, but I’m realistic that there is no cure for this cancer. The long-term prognosis is not great. But most of all, I’m grateful. I call it my little cheap parlor trick that I feel so good. My quality of life hasn’t suffered. I’m a man who likes to squeeze the most out of his life, and I have a lot of joy in life. And this has made me appreciate my wife, my children, and my family like nothing else possibly could. So, in that way, I’m better off.”

Or as he wrote in a recent LinkedIn post: “My dedication to endurance has taken me to a great place in my life. It has transformed me physically, emotionally, and mentally into who I am today: a man ready to take on cancer.”

SURGERY WARDS OFF PANCREATIC CANCER

Former Olympic skier Jim Page finds world-class care close to home

By Mark Harden

It's been just over four years since Jim Page entrusted his fate to a University of Colorado Cancer Center surgical oncologist after being diagnosed with precancerous cysts in his pancreas. Four years since he underwent the surgery that he credits with saving his life.

Four years that he has spent continuing to pursue his lifelong passions of skiing, hiking, mountain biking, golfing, and exploring the outdoors. Four years of spending time with his wife, Ginny, and his kids and grandkids instead of succumbing to pancreatic cancer.

"My quality of life's been very good since the operation," says Page, age 82. "I'm very active physically, and that's important to me. Still being able to do the things that I so much want to do is fabulous. I'm going on a long bike ride with a friend this afternoon, going to the gym tomorrow, and going skiing Wednesday."

He talks of recently hiking remote desert trails in Bears Ears National Monument in the wilds of southeast Utah. "It's interesting hiking because you don't have all the trail markers. You have to find where the trail starts and then find your way."

Undoubtedly the luckiest feat of route-finding in Page's life was the path that took him to CU Cancer Center member Marco Del Chiaro, MD, PhD, division chief of surgical oncology in the CU Department of Surgery.



Marco Del Chiaro, MD, PhD (left) and Jim Page at the City Park 5K and 1 Mile Run/Walk of Hope for Pancreatic Research on Nov. 4, 2023. Photo courtesy of Marco Del Chiaro.

POSITIVE AND FULL OF ENERGY

"He was wonderful," Page says of Del Chiaro, "and I just feel really lucky, living in the middle of the country like this, to have a program of this quality in this specialty area nearby."

Del Chiaro returns Page's admiration.

"He's a special person from many perspectives," Del Chiaro says. "I mean, he's an ex-Olympic athlete. He lives his life always at the edge. And probably the excellent recovery he had from this surgery is related to this kind of ability of fighting and of self-caring. When you speak to him, he's positive and full of energy."

The pancreas is an abdominal organ that helps with digestion by producing enzymes that help break down fats, sugars, and starches.

According to the American Cancer Society, more than 60,000 new cases of pancreatic cancer are diagnosed in the U.S. each year, resulting in approximately 48,000 deaths. In Colorado, there are about 810 new cases of pancreatic cancer diagnosed each year. Although pancreatic cancer accounts for only 3% of all cancers in the United States, it leads to about 7% of all cancer deaths. It is the third-leading cause of cancer deaths in the U.S. and No. 2 in Colorado.

Del Chiaro says Page's case points to the importance of prevention and early detection in warding off pancreatic cancer – and the need for further research in that area.

"Until a few years ago, there was no prevention for pancreatic cancer," he says. "So often we speak about how much we have improved in treating pancreatic cancer, but we still do very little to try to make people aware that there is a possibility to prevent it."

AN ACTIVE OUTDOOR LIFE

Page has been skiing since he was a boy growing up in Lake Placid, New York, the site of the Winter Olympics in 1932 and 1980. He was a competitive skier in high school and college, winning three individual NCAA skiing championships at Dartmouth College in the early 1960s and competing at the 1964 Winter Olympics in Innsbruck, Austria, in the Nordic combined event – cross-country skiing and ski jumping.

Page then turned to coaching, first at Dartmouth (where his Big Green team shared the 1976 NCAA skiing championship with the University of Colorado Buffaloes) and then with the U.S. Olympic Ski Team before becoming an official with the U.S. Olympic Committee until retiring in 2005.



Jim Page heading out for a bike ride. Photo courtesy of Jim Page.

In the years since, Page has continued to pursue an active outdoor life. But in 2019, a Colorado Springs doctor near his home who administered an MRI for an unrelated issue told him, “You’ve got something in your pancreas that’s progressive, and you really need to see somebody about it,” Page recalls. “The doctor said, ‘You may require a Whipple surgery, which is a very serious surgery, and you need to find somebody who does a lot of these and who’s good at it.’”

Page started investigating. “I was looking at Cleveland Clinic and Mayo Clinic and places like that back East. I did some research on local options, too, and I was amazed and pleased to find that the CU Cancer Center at the Anschutz Medical Campus is just so good. And the more I read about Dr. Del Chiaro, the more I realized he’s really good at this, and that he was exactly who I needed.”

Page quickly discovered that he and Del Chiaro shared a love of skiing. “We almost talked more about skiing than we did about the pancreas,” Page says. “He said, ‘You really need to have this surgery, and I can do it, and I can fix you.’”

COMPLEX AND AGGRESSIVE

Tests revealed that Page had developed intraductal papillary mucinous neoplasms (IPMNs) – precancerous cysts in the duct system of his pancreas. The Whipple procedure performed by Del Chiaro in August 2019 involved removing part of Page’s pancreas as well as the gall bladder and part of the small intestine, then reconnecting the remaining pancreas.

Del Chiaro described Page’s surgery as “very complex and aggressive. It’s the same surgery that you do for pancreatic cancer.”

Had the MRI not revealed the problem, and had Page had not received the right treatment, his lesions could have led to pancreatic cancer, Del Chiaro says.

At the CU Cancer Center, he says, “we have a clinic dedicated to people with pancreatic cysts. We see a lot of people referred to us. We have people dedicated fully to follow these patients, and once something

changes and become concerning, to discuss potential surgical options.”

The CU Cancer Center is the only National Cancer Institute-designated Comprehensive Cancer Center in the state of Colorado, ranking it among the best cancer centers in the nation. The National Pancreas Foundation has also designated it an Academic Center of Excellence.

Four years later, while Page remains under surveillance, Page says he feels fine and has returned to his previous vigorous lifestyle.

Recently, he participated as a walker in the City Park 5K and 1 Mile Run/Walk of Hope for Pancreatic Research, co-sponsored by the CU Cancer Center and the Division of Surgical Oncology. Del Chiaro helped organize it, and he and Page met up at the event.

INVESTMENT IN RESEARCH

Page’s advice to others facing a medical emergency: “Don’t hesitate. When you have a problem, and there’s a possible solution, get it done.”

Del Chiaro adds: “The message is, if you have any concerning information about your pancreas – let’s say you get in a car accident and you get a CT scan and they find a cyst – please go to a specialist, ask what it means, and that maybe can save your life.”

He notes that people with a history of pancreatic cancer in their close family should be screened.

“Now, in the last 20 years, we’ve become more aware of another, highly prevalent category of patient, with cystic neoplasms of the pancreas,” he adds. “In a recent study, they took a healthy population of a range of ages, and they did MRIs, and they learned that cysts of the pancreas are present in about half of the population.

“Some of those are benign, but some potentially can progress to cancer. And that’s a problem, because today we can go to Mars with a rover, but we still don’t have a test to tell us for sure if a cyst can progress to cancer with high accuracy, or when it might happen. So, this is an opportunity for philanthropy. We need investment in research.”

STUDENT PROFILE



CU medical student Michael Nocek on the approach during his ascent and ski of North Maroon Peak in the Maroon Bells Wilderness. Photo courtesy of Michael Nocek.

MEDICAL STUDENT HONORS '1999' SKIER ROBB GAFFNEY

Michael Nocek recreates the ski runs of a legendary alumnus

By Kara Mason

In 1995, Robb Gaffney left behind the life of a full-time dirtbag skier to attend the University of Colorado School of Medicine — or that's how his brother Scott puts it in "1999," a ski film turned cult classic that Scott recorded on 16mm film as a tribute to one of the best winters in ski history.

"Robb skied 80 or more days the next few years, and at the end of a 100-day season in 1999, he was suddenly a doctor, leaving those of us who watched the same four years pass wondering what we have done during that time. This is Dr. Gaffney," Scott says in the film, introducing his brother.

The film, which was awarded Freeskier Magazine's "Movie of the Year," is treasured by skiers around the world, but it was a short clip of Gaffney's composed and skillful skiing in some of the most difficult terrain — including scampering down an exposed and rocky entrance to jump off a 40-foot cliff band on Colorado's Berthoud Pass — that's particularly meaningful to Michael Nocek, a second-year medical student in the School of Medicine's rural program who is following in Gaffney's footsteps on the slopes and in the medical community.

Nocek spent the 2023 ski season recreating Gaffney's "1999" segment on Berthoud Pass.

"When I saw that Robb filmed his segment of the movie while he was in medical school at CU, I realized that this would be a great medium

for me to pay homage to a personal role model and show Robb my appreciation for everything he has done for me," Nocek says. "I was also aware that Robb was fighting acute myeloid leukemia and thought that recreating his legendary edit would bring a smile to his face."

Nocek connected with Gaffney in May 2023 and shared his recreation edit of Gaffney's "1999" segment. Gaffney, 52, died in September 2023, four years after he was diagnosed with myelodysplastic disorder, which typically leads to leukemia.

SKIING LIKE IT'S '1999'

Nocek recaptured exact scenes on the mountain, used the same music, and hit the Winter Park Pub with friends, just as Gaffney does in the film.

"The segment started with Robb standing on top of a melted-out cliff band with a technical entrance and a mandatory 40-foot air out onto the slope below," Nocek explains. "This rock, which is known as Gaffney's Rock and named after Robb himself, is the big cliff staring you in the face as you look west from the summit of Berthoud Pass.

"The rest of the video clip showcases Robb and a few friends putting on a clinic on Berthoud Pass's most famous and difficult terrain. They skied hard and fast; the exact way these zones were meant to be skied."

“Finding people like Robb [...] really inspired me to change careers and pursue my dream of applying to medical school.”

Nearly every Friday afternoon and Saturday morning from March 2023 through May 2023, Nocek would trek to Berthoud Pass with two fellow medical students and his fiancé to make his goal a reality.

“Since the Berthoud Pass Ski Area has been closed for over 20 years, finding some of the lines Robb skied in the film took a bit of investigative work,” Nocek says. “It required a mix of studying the original segment in detail, searching Google Earth and FATMAP for possible leads, and spending time doing exploratory missions on foot up at Berthoud Pass. Once I located the right lines, I spent time probing landings and doing visual inspections.”

From there, he says he kept a close eye on the weather forecasts ensuring an opportunity to capture the reenactment.

After all the film work and editing was complete, Nocek saw the project as a way to thank Gaffney and bring awareness to his diagnosis.



CU medical student Michael Nocek and Kelly Stewart, MD, a rural track alumna, working an emergency department shift at Gunnison Valley Health. Photo courtesy of Michael Nocek.

“Robb has done so much for the entire ski community,” Nocek says.

“Whether it was his patients, his family, the Tahoe ski basin, or people like me who needed some motivation to follow my dreams, he’s positively impacted so many lives, and I thought it was time to show him some appreciation by supporting his fight against cancer.”

COMMUNITY ON AND OFF THE SLOPES

Long before Nocek embarked on the Berthoud Pass project and realized Gaffney skied the same lines he could reach within about an hour’s drive from the CU Anschutz Medical Campus, the prolific skier was an inspiration to Nocek.

“I always wanted to go into medicine, but shifted my focus during college due to my intense commitment to ski racing. Finding people like Robb, who are passionate about skiing and medicine, really inspired me to change careers and pursue my dream of applying to medical school,” Nocek says. “It was crazy that I had stumbled upon that clip doing research about the pass. That’s when it all started to come together that I could recreate it.”

This season, Nocek, who is doing his clerkship year in Gunnison, is a bit closer to Colorado’s famous ski slopes. Nocek is a second-year student in the school’s rural program, which aims to increase the number of CU medical school graduates who eventually enter and remain in practice in rural Colorado.

“It’s been awesome getting to work in a community that I can see myself returning to after training,” he says.

For the rest of the ski season — when he can find time between research, exams, and training — Nocek plans to work on another goal, skiing the five Colorado lines featured in the book “The Fifty Classic Ski Descents of North America.”

“I’ve skied three of the five already, and the last two of the Colorado classics are close to me out here in Gunnison,” he says. “It helps me stay human and follow my passion outside of medicine. Even when I’m busy and stressed with training, I can look to people like Robb and know that you don’t have to give up a big part of who you are to have a career in medicine, and that’s important.”

Watch Robb Gaffney in 1999 at <https://www.youtube.com/watch?v=DtNyu0Wdurs#t=17m57s>.

Watch Nocek recreate Gaffney’s ski runs at <https://vimeo.com/826675074>.

BOOSTING CONFIDENCE

Majority of parents continue to vaccinate their children

By Greg Glasgow

COVID-19 vaccines for children received a good deal of scrutiny when they first became available in 2021. Chatter online and elsewhere indicated that parents were becoming less likely to vaccinate their children due to growing misinformation around the COVID-19 vaccines.

But were parents really becoming more vaccine-hesitant because of rumors about the COVID-19 vaccines? Sean O’Leary, MD, MPH, a professor of pediatrics in the Section of Pediatric Infectious Diseases and an investigator at the Adult & Child Center for Outcomes Research & Delivery Science (ACCORDS), wasn’t so sure.

“Throughout the pandemic, you saw a lot of headlines around COVID vaccine refusal and how that refusal was spilling over into other routine vaccines,” O’Leary says. “But a lot of that was based on stories or personal narratives, interviews with parents or pediatricians or family doctors. I work with a lot of general pediatricians, and I’m married to one, and I was hearing the other side of that coin — that some people who formerly refused vaccines were now asking to catch their kids up. It seemed a lot more complicated than simply, ‘People are refusing COVID vaccines, so now more are refusing other routine childhood vaccines.’”

HOMEGROWN DATA SOURCE

O’Leary and colleagues recognized that there was no national surveillance system for vaccine confidence, so they discussed the best ways to research the issue. With colleagues at the University of Washington, his team published a study based on an ongoing clinical trial that began measuring vaccine attitudes of parents of newborns in September 2019, prior to the onset of the pandemic. That data showed that after the onset of the pandemic, after a brief improvement in vaccine confidence, levels of vaccine hesitancy returned to the pre-pandemic baseline. However, that study only reported data through December 2020.

The team then discussed how to examine the question further, and considered Health eMoms, a survey administered each year by the Colorado Department of Public Health and Environment (CDPHE). The survey randomly samples birthing parents in Colorado on a variety of health topics, including vaccine hesitancy.

“Even before the pandemic, they were asking questions about vaccine confidence and vaccine attitudes,” O’Leary says. “It’s a population-based survey that is demographically representative of Colorado in terms of urban and rural, race and ethnicity. It’s also a validated survey, which means that it has been shown to predict future vaccination behavior. If you administer the survey to parents of young children, and they score as vaccine hesitant, that predicts that they’re likely going to delay or refuse one or more vaccines for their children.”

O’Leary and his colleagues at ACCORDS had worked closely with the immunization branch at CDPHE, so they reached out and there was mutual

interest in examining this question further. ACCORDS research fellow David Higgins, MD, MPH, also spent time at CDPHE as part of his preventive medicine residency.

STUDYING HESITANCY AND TRUST

O’Leary, Higgins, and their fellow researchers divided the data into three time periods: a pre-pandemic period spanning April 2018 to February 2020, a pandemic pre-vaccine period from April 2020 to December 2020, and a pandemic post-vaccine period from January 2021 to August 2021.

The research, published in November in the journal *Pediatrics* with Higgins as lead author, showed that at least in Colorado, news and rumors about the COVID-19 vaccine didn’t result in a change in how parents felt about vaccinations for their children.

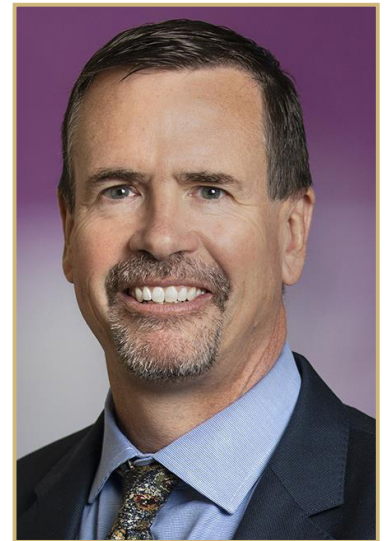
“Throughout all three of the time periods, roughly 20% of respondents scored as vaccine hesitant,” O’Leary says. “That really didn’t change much during any period of the study.”

The researchers, however, did notice a couple of trends in the data indicating that parents’ trust of vaccines vacillated during the pandemic periods. To a question asking respondents to rank their hesitancy around childhood vaccinations in general, for instance, fewer parents checked the “not sure” box during the pandemic time periods, moving either to hesitant or not hesitant answer groups. Similarly, when asked if they trust the information they receive about childhood vaccinations, more parents chose the “not sure” option during the pandemic periods than during the pre-pandemic period.

“You could argue that the data show that some of the misinformation and disinformation that we saw during the pandemic has taken hold, in terms of hitting parental trust in childhood vaccines,” O’Leary says.

COMBATING MISINFORMATION

O’Leary knows there are more national data to be collected, but he is comfortable using the Colorado numbers as a starting point for what is



Sean O’Leary, MD, MPH

VACCINATION IS THE NORM

happening nationwide, especially if it helps to combat potentially dangerous misinformation about vaccine hesitancy.

“One of the reasons we wanted to do this was to say, ‘Let’s look at what’s actually happening, as opposed to what people are saying they think is happening,’” he says. “There is a concern with normalizing vaccine hesitancy, because if it becomes a situation where a parent thinks, ‘Everyone’s refusing vaccines, so I may as well refuse them too,’ that’s a problem. The reality is that the vast majority of parents are still vaccinating their kids.”



David Higgins, MD, MPH

The data can also be used to help create messaging around vaccination, and to give pediatric clinicians better guidelines for communicating with parents, O’Leary says.

“They might need to spend a little more time talking with families about why it’s OK to trust the information they have about shots,” he says. “We’ve also heard anecdotally that since the pandemic began, a lot of pediatricians are spending more time talking about shots. This might give them some information on things they might focus on.”

VACCINATIONS SAVE LIVES

In addition to the information his research provided about vaccine hesitancy, O’Leary says the process also shows how necessary it is to track attitudes about vaccines and develop ways of restoring confidence in their safety and efficacy when needed.

“We need a better understanding, on a national and ultimately a global scale, of vaccine confidence,” he says. “There’s a saying in the world of vaccines that, ‘Vaccines don’t save lives. Vaccinations save lives.’ We have surveillance for lots of diseases so we can understand where we need to put our health care dollars and our personnel. If vaccine confidence truly is going down, and fewer people are getting vaccinated, that will lead to outbreaks of infectious diseases. If you can understand where that’s happening, so you can go into those communities and address the misinformation and rebuild the confidence in these lifesaving products, that is ultimately the goal.”

David Higgins, MD, MPH, and Sean O’Leary, MD, MPH, elevated attention to their research on vaccinations in a perspective article published in *The New England Journal of Medicine* in February. They warned that reports of parental vaccine hesitancy are a form of misinformation that could turn into a harmful self-fulfilling prophecy.

They challenge anecdotes about parental vaccine hesitancy with evidence. While media reports suggest that hesitancy is becoming more common, in-depth studies find the opposite is true.

“For the minority of U.S. parents who do have some hesitancy about childhood vaccines, data suggest that a substantial proportion still choose to have their children vaccinated,” they write. “A recent CDC study showed that 93% of kindergarten students received state-required vaccines.”

“Another study revealed that vaccination coverage for children at 2 years of age remained high and stable during the pandemic. Although the proportion of children with exemptions from state-required vaccines ticked up from 2.6% during the 2021–2022 school year to 3.0% in 2022–2023 — a small but worrisome increase — only 1% of children born in 2019 or 2020 hadn’t received any vaccines by their second birthday.”

The lesson: Most parents are making sure their children are safe from contagious disease. “What should be normalized,” they conclude, “is parents confidently having their children vaccinated: despite all the attention-grabbing misinformation out there, that is still, in fact, the norm.”

ALUMNI CORNER

2023 SILVER & GOLD ALUMNI AWARDS

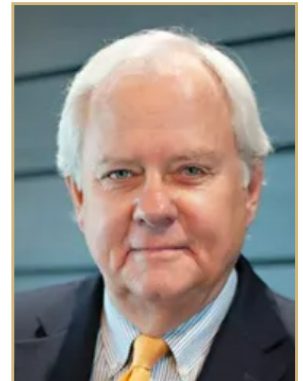
The University of Colorado School of Medicine and the CU Medical Alumni Association honored five outstanding physicians for health care delivery and service to their communities and CU at the Silver & Gold Alumni Awards in December 2023. More than 120 alumni, students, faculty, and staff attended the celebration on the Anschutz Medical Campus.

JACK COCHRAN, MD '73, SILVER & GOLD AWARD

First awarded in 1969, the Silver & Gold Award is the highest honor and recognition bestowed by the Medical Alumni Association. The Silver & Gold Award for Excellence in Humanitarianism, Citizenship, and Professionalism is presented for outstanding service to the community and contributions to transform medicine.

Jack Cochran, MD '73, spent more than 50 years in health care as a plastic surgeon and medical executive. He started in dental school, but decided his path was medicine and he enrolled at the University of Colorado School of Medicine where he enjoyed many clinical rotations, especially surgery with a pediatrics focus. While finishing an ear, nose, and throat residency at Stanford University, he discovered his true calling: plastic surgery. He then completed his plastic surgery residency at the University of Wisconsin where he his training included significant exposure in pediatrics.

From residency, Cochran joined a successful private practice group in Denver. He joined Kaiser Permanente to establish its plastic surgery program in Colorado and spent over 25 years in clinical practice. At Kaiser, he served as Regional President of the Colorado Permanente Medical Group for nine years. He then became the Executive Director (CEO) of the national Permanente Federation of Kaiser's 21,000 physicians. Under his leadership, Kaiser became recognized for clinical quality and completed the largest civilian deployment of an electronic health record.



REGINALD WASHINGTON, MD '75, DISTINGUISHED ACHIEVEMENT AWARD

The Distinguished Achievement Award is given to members of the association who are MD graduates of the University of Colorado School of Medicine and who have made outstanding achievements benefiting their communities, the practice of medicine, the provision of health care, our association, and the University of Colorado School of Medicine.

Reginald Washington, MD '75, was Chief Medical Officer at Presbyterian St. Luke's Medical Center and the Rocky Mountain Hospital for Children and clinical professor in the Department of Pediatrics at the University of Colorado Health Science Center prior to his retirement.

Washington earned a Bachelor of Science in Zoology from Colorado State University before obtaining his MD at the University of Colorado School of Medicine in 1975. Feeling drawn to the challenge and reward of working with children, Washington completed his residency and post-graduate training in pediatric cardiology at CU, after which he was offered the role of Chief Resident.

After working at Children's Hospital, he joined the Rocky Mountain Hospital for Children's Pediatric Cardiology department in 1990, where he would eventually be appointed medical director. Over his career, Washington has published over seventy articles in peer-reviewed publications, on subjects running the gamut from pediatric cardiology to sports medicine.



AUDREY CORSON, MD '82, RICHARD KRUGMAN DISTINGUISHED SERVICE AWARD

The Richard Krugman Award for Distinguished Service is given to board members of the alumni association who are MD graduates of the University of Colorado School of Medicine for outstanding service to the association and the school.

An internal medicine physician and clinical professor of medicine at George Washington University School of Medicine, Audrey Corson, MD '82, found her passion for medicine as a high school volunteer at Hahnemann Hospital in Philadelphia. She went to nursing school at University of Pennsylvania, which allowed her to earn both her RN and her BSN degrees.

After becoming a nurse practitioner and earning her MS at the University of Colorado, Corson wanted to provide more comprehensive care to patients and earned an MD at the University of Colorado School of Medicine in 1982. She matched at Duke University and completed her final residency year at University of California at San Francisco.



She then moved to Washington, D.C., working at the student health clinic at Georgetown University. While there, she worked clinically, published eight academic papers, and raised three children.

Corson has served on the board of the University of Colorado Medical Alumni Association for over a decade. Involved with the Engagement and Activities Committee since 2017, Corson has supported new initiatives, including the Student Specialty Seminar Series, a sequence of virtual meetings that sought to foster community and improve alumni-student connections during the COVID-19 pandemic.

Corson has volunteered as a mentor with FirstUp, a program that pairs first-generation medical students with alumni who were first-generation. After retirement, she began volunteering for Mobile Med, which serves the uninsured and underinsured population.

STEPHEN BERMAN, MD, RESIDENCY 1975 HUMANITARIAN AWARD

The Humanitarian Award recognizes lifelong service to society or to humankind and honors those who have provided extraordinary service to their community, demonstrating leadership through global or local service.

Stephen Berman, MD, professor of pediatrics in the University of Colorado School of Medicine, served as the director of the Center for Global Health in the Colorado School of Public Health. Born in Wilkes-Barre, Penn., he graduated from Wesleyan University in Connecticut, after which he attended Temple University School of Medicine.

After finishing his year as chief resident in the Department of Pediatrics, Berman, along with his new wife Elaine, moved to Cali, Colombia, where he led a research program focused on acute respiratory infections. After two years of living abroad, Berman joined the University of Colorado School of Medicine Department of Pediatrics, where he became the General Academic Pediatrics' youngest section head at the age of 34 in 1981.

Berman was elected president of the American Academy of Pediatrics in 2000, where he launched a pediatric disaster response training initiative. In 2007, he became the inaugural chair of general pediatrics at Children's Hospital Colorado, followed by the director of the Center for Global Health at the Colorado School of Public Health in 2011.



CLEVELAND PIGGOTT, MD, MPH, RESIDENCY 2018 RECENT GRADUATE AWARD

The Recent Graduate Achievement Award honors recognizes a graduate who demonstrates outstanding achievements benefiting their communities, practice of medicine, and the provision of health care.

Cleveland Piggott, MD, MPH, is associate professor of family medicine and inaugural vice chair for diversity, equity, and inclusion for family medicine at the University of Colorado School of Medicine.

Piggott received a scholarship to the University of Georgia, where he studied biology and psychology. Piggott earned his MD and MPH from the University of North Carolina. He also became involved in health policy and Medicaid expansion efforts.

Piggott completed his residency at the CU School of Medicine and became a CU faculty. In addition to maintaining a robust clinical practice, Piggott serves as a preceptor and residency advisor for the Department of Family Medicine, and as a faculty co-advisor for the working group Social Justice League. He is president of the Colorado Academy of Family Physicians and is active on several task forces with the Society of Teachers of Family Medicine. Piggott volunteers as Doctor of the Day at the state capital, as well as with the Dedicated to Aurora's Wellness and Needs (DAWN) Clinic.



NOMINATIONS FOR 2024 ALUMNI AWARDS

The CU Medical Alumni Association is accepting nominations for the 2024 Alumni Awards. To submit a nomination, please email Vanessa.Duran@cuanschutz.edu. Nominations are due April 30, 2024, and will be honored in the fall.

STAY INVOLVED

There are many opportunities to get involved with the CU Medical Alumni Association, from mentoring first generation medical students, serving on alumni panels, joining the CU MAA Board of Directors, participating in your reunion, or attending an upcoming event. For more information, contact Director of Alumni Relations, Vanessa Duran at Vanessa.Duran@cuanschutz.edu.

SAVE THE DATE:

The CU Medical Alumni Association will host the 2024 Alumni Reunion Thursday, September 26 – Saturday, September 28, celebrating class years ending in 4 and 9. Festivities include class dinners, tours of campus, an update from the Dean, family activities and more.

If you are interested in helping with the reunion, please email healthalumni@ucdenver.edu.

STUDY GUIDE

New office helps researchers with regulatory applications

By Kara Mason

Behind all the fanfare that's surrounded new psychedelics research is a heavy dose of paperwork.

"You have to start somewhere," says Andrew Novick, MD, PhD, assistant professor of psychiatry at the University of Colorado School of Medicine who this spring begins a new study on the psychedelic drug psilocybin and whether it is effective as a treatment for major depressive disorder.

He submitted an investigative new drug (IND) application to the U.S. Food and Drug Administration (FDA) last July for permission to use psilocybin in his study.

"We want to specifically study a symptom called anhedonia, which is difficulty with motivation and capacity to feel pleasure," Novick says. "And to do that, you need permission from the FDA because psilocybin is not yet an approved drug."

The application to gain the federal agency's approval to use psilocybin — or any unapproved drug — can be a heavy administrative lift, especially on top of designing a thorough study and acquiring necessary funding.

"This is where we come in," says Heike Newman, program director the newly established Investigational New Drug and Device Office (IND/IDE) on the CU Anschutz Medical Campus.

The office assists investigators with the administrative requirements of the IND/IDE process. There are currently more than 100 locally held active INDs and IDEs across the campus, Newman says. Researchers submitted 48 applications in 2021, 49 in 2022, and 41 in 2023. The total number is expected to grow.

Successful submissions to the FDA rely on a meticulous understanding of the evolving requirements and submission processes. Newman arrived



Andrew Novick, MD, PhD

on the campus in 2012, training researchers how to compile and submit to FDA their own applications. In turn, those researchers were expected to assist and train others. But with the growing number of submissions to the FDA, and continuous significant changes in both format and processes for IND or IDE submissions, this approach no longer seemed reasonable.

Since July 2023, the IND/IDE office steps in and takes some of the complex administrative

work off the plates of researchers like Novick and allows them to focus on their science and on operationalizing their studies.

The IND/IDE Office staff emphasize that they aren't subject matter experts for each individual study, and are not involved in recruitment and consent processes, data collection, communicating with drug or device manufacturers, budget development or securing funding for studies. Other campus support teams can assist with those aspects.

But without IND approval, Novick could not conduct his research.

"The FDA's sign-off is the crucial piece," he says. "They're the ones that have the federal mandate to ensure safety of individuals who will use these drugs. There is no moving ahead without them."

He says the IND/IDE Office guided him through the IND application process — his first — and freed him to focus on other aspects of the study.

"I think there's an assumption in the public that research just happens, but it's under the involvement of federal agencies, even when you want to use an existing treatment in a new way," he explains. "There's a big 'do not pass go' that guarantees safety."

Medical researchers face a lengthy process if they envision getting a new drug or device to market. The average lifecycle of drug development from discovery to approval is about 10 to 12 years, and only about 10% of drug products from the preclinical phase become FDA-approved products.

"We want to give our researchers the best prospect in conducting meaningful research and creating safe studies for participants," Newman says. "We will help you through the regulatory steps."

For Novick, beginning his psilocybin study has been a long time coming, but he's excited for what it could mean for people with treatment-resistant depression and for researchers, academics, and students who want to continue investigating the drug.

"We want to demonstrate whether this can be an effective option for patients that haven't responded to other treatments and whether this is targeting the right parts of the brain," he explains. "A successful study will tell us whether we should continue to investigate this compound."



Heike Newman

ANCHOR CENTER CLINIC

Partnership with CU physicians provides eye care for blind children

By Kara Mason



Lauren Mehner, MD, MPH

For the past year, clinicians in the University of Colorado Department of Ophthalmology have been helping craft community-based care for visually impaired and blind children and their families.

Lauren Mehner, MD, MPH, assistant professor of ophthalmology, and Emily McCourt, MD, associate professor of ophthalmology, spend a day each month at Denver's Anchor Center for Blind Children to provide care in an environment that's familiar, convenient, and comfortable for patients and their families.

The center can provide the care thanks to money raised by Colorado ophthalmologist Robert King, MD, an alum of the CU School of Medicine, to create eye exam lanes at the center. Mehner and McCourt's work builds upon King's vision.

"These are patients who need us the most," Mehner says. "They also have access to important services, which make this experience even more special."

Anchor Center, established in 1982, serves nearly 400 children and their families each year through educational, therapeutic, and ophthalmic services provided through collaborations with CU Department of Ophthalmology faculty members, Children's Hospital Colorado, and private practice physicians across the Denver metro region.

"This partnership has created a beautiful canvas where we can bring research, clinical care, and communication with the entirety of a child's vision team all to one spot," McCourt says.

EXCELLENCE IN CARE

Meeting patients in a place where they're already comfortable and having a teacher certified in visual impairment (TVI) available during appointments is a big perk for patients, the families, ophthalmologists, and staff at the center.

"This model allows for families to have more time with each doctor and therefore get questions answered and leave the appointment having had a comprehensive exam," says Anchor Center executive director Meghan Klassen. "Because TVIs also sit in on appointments, they get to act as

a bridge between the medical and educational side of things. They can help guide the conversations to make sure families understand visual conditions and the implications visual impairments have on overall development, as well as implications for the school setting, which we also share with our team to guide intervention strategies."

Mehner and McCourt explain that comprehensive care is aided by access to additional services on site.

"Kids grow and change, and that's what makes it fun to work with them," Mehner says. "You get to see their progress and make a difference. Establishing a diagnosis and figuring out what they need early on sets them on a good track. Regular follow-up care and making sure that they can access resources — like a TVI — is so critical."

The partnership also presents opportunities for important research and education.

Last year, Mehner and the center teamed up at Vision 2023, an international conference co-hosted by the CU Department of Ophthalmology and Anchor Center on low vision research and rehabilitation, to present a workshop for identifying cerebral visual impairment (CVI) patients in the clinical setting. Later this year, Mehner will take her Anchor research experience to the annual meeting of the American Association for Pediatric Ophthalmology and Strabismus to present on CVI referral patterns.

Anchor Center staff say having CU ophthalmologists on site encourages conversations about streamlining processes for research. For example, Mehner and colleagues have focused on whether a screening assessment already validated for older children with potential brain-based visual impairment would be appropriate for younger populations.

"It's quite quick, non-invasive, and utilizes instruments readily available in a pediatric ophthalmology clinic," Mehner says. "From there, depending on the assessment score, doctors have a better idea of visual impairment. Ideally, this could become a standard of care in NICUs to identify at-risk babies and get them scheduled for the appropriate examinations, make a diagnosis, and match them with services that they need earlier."



Emily McCourt, MD



Not a Drill by Maddison Fritz, RN

TRAVELING EXHIBIT: 'WE ARE ALL ARTISTS'

Campus caregivers build resilience through creative expression

By Greg Glasgow

The hopes, dreams, fears, and anxieties of health care workers across Colorado, including the University of Colorado Anschutz Medical Campus, were on display last fall in an art exhibit in the lobby of Children's Hospital Colorado.

"We Are All Artists: Creations By Healthcare Workers" featured artwork created by participants in the Colorado Resiliency Arts Lab (CORAL), a 12-week creative arts therapy program aimed at lowering rates of stress, anxiety, and burnout.

Filling a hallway just off the main lobby of Children's Colorado with swirls of bright color, stunning text panels, and striking images of people and places on the CU Anschutz Campus and beyond, the exhibition spotlighted all the art forms created by CORAL participants, including visual art, music, writing, and dance.

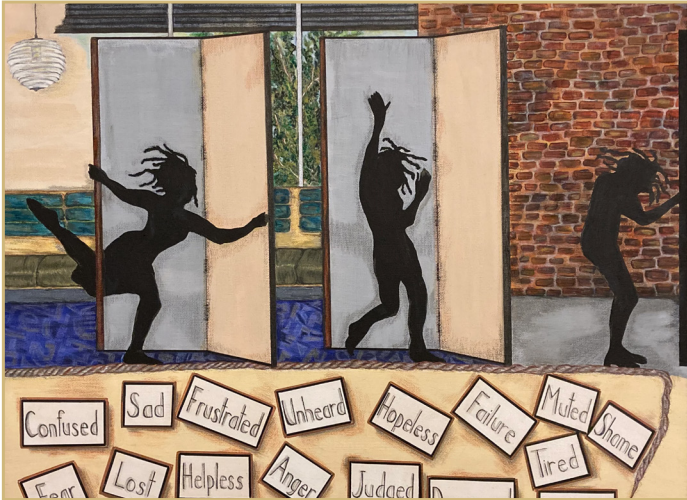
"There have been several articles published in various journals about the impact of CORAL," says Jasmine Chu, arts coordinator for Children's Colorado. "We wanted to break that impact out of scientific journals and into a forum that's more accessible to more people."

THERAPY AND CATHARSIS

Funded by the National Endowment for the Arts, the CORAL program is a partnership among the University of Colorado School of Medicine, the Ponzio Creative Arts Therapy Program at Children's Colorado, and the Denver-based Lighthouse Writers Workshop. The initiative has welcomed seven cohorts since its inception in fall 2020, and organizers of the "We Are All Artists" exhibit reached out to participants in all seven to solicit submissions.

Every artist who wanted to participate is included in the show, which was on display from November 16 through January 19 at Children's Colorado. The exhibit then traveled to Lighthouse Writers Workshop headquarters before going on display at the Colorado state capital.

"Art gives people a medium to express themselves about traumas or difficulties that are hard to talk about," says CORAL director Marc Moss, MD, a professor of medicine in the Division of Pulmonary Sciences and Critical Care Medicine. "By putting it down, either writing, painting, making a song, or dancing, CORAL allows you a



Breaking Through by Audrey Jackson

way to get those feelings out there. CORAL allows you to talk about issues with people who understand what you're dealing with. It builds a sense of community and gives people skills to better cope with the stresses in their job."

INTROSPECTION AND EXPRESSION

The artwork bears that out — in the text accompanying her piece "Data," a self-portrait of the artist surrounded by snippets of medical instructions, orders, and reviews, Jennifer Jung, MD, associate professor of ophthalmology, writes that "My time at CORAL was an opportunity to pause from the busyness of work to acknowledge my emotions and find strength through introspection and expression. My art is a reflection of what has been lying beneath the surface — what I hesitated to unveil and confront. Through CORAL, I was reminded that there is strength and beauty in vulnerability."

Other pieces employ media beyond the traditional canvas — "Not a Drill," by nurse Maddison Fritz, RN, is a harrowing account of being on the frontlines of the COVID-19 pandemic, written on the front of a transparent plastic medical shield; other pieces incorporate scrubs and surgical gloves. The exhibit also includes video of movement-based pieces, portfolios of work created by writing program participants, and QR code links to songs created by CORAL participants and facilitators.

"Most of the artists here have never exhibited in a gallery before," Chu says. "This is the first time they've done this, and it's been powerful to see them witnessing their own art in the gallery or seeing their teams come over to see their art down here. It's in a high-traffic area, and it's been cool to see the response people have to the show."

Some of the pieces depict medical settings, while others capture the joys and struggles of life outside the hospital walls.

"As a pulmonary critical care doctor, I thought most of the work should be focused on the stresses and traumas that occur in the workplace," Moss says. "People bring things with them to work — stresses they have outside of work or societal issues. Some of the



Data by Jennifer Jung, MD

artwork deals with stresses from work, but some of it come from the feeling that issues that they bring with them to work are not being addressed effectively."

EFFECTIVENESS AND GRATITUDE

"We Are All Artists" is a testament to the resiliency and expressiveness of its featured artists, but it's also a testament to the effectiveness of CORAL, which was shown by Moss and others to measurably lower rates of stress and anxiety.

"It's really helping people. The data shows it," Moss says. "We also have anecdotal data where people have written to us to say things like, 'Thank you so much. I wish I'd done this years ago. I'm so much happier in my life and my job, and my family notices it. It's really remarkable.'"

The Colorado Resiliency Arts Lab is among the 2024 recipients of the Colorado Business Committee for the Arts' Business for the Arts Awards, a statewide event honoring companies and individuals for their partnerships and engagement with the arts.



Coral Tree by Katherine Reed

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THE TARU HAYS, MD, ENDOWED CHAIR IN PEDIATRIC HEMATOLOGY



The first endowed chair in pediatric hematology in the Department of Pediatrics was recently established by Taru Hays, MD, and Bill Hays, MD, to provide support for the next generation of clinicians and researchers focused exclusively on pediatric hematology. The fund serves to honor Taru's decades of invaluable work in pediatric hematology and is a meaningful reflection of her lasting legacy at the School of Medicine.

After attending medical school at Seth GS Medical College of KEM Hospital in Mumbai, Taru came to the United States for her residency and completed her fellowship in pediatric hematology and oncology. She is passionate about providing professional development opportunities for new talent in pediatric hematology. This visionary gift from the Hays assures pediatric hematology will be a central focus of the Department of Pediatrics and School of Medicine for years to come. Equally important, the fund honors Taru's decades of immeasurable contributions to CU and future clinicians and researchers who aim to improve the lives and outcomes of pediatric patients facing a hematological diagnosis.

“ It is my hope that the endowed funds will enhance appropriate and accelerated care for children with pediatric hematologic disorders and will provide educational and research opportunities for present and future generations of pediatric hematologists.”

– Dr. Taru Hays

To learn more about the Taru Hays, MD Endowed Chair, please contact Travis Leiker in the Office of Advancement at 303-724-2754 or email travis.leiker@cuanschutz.edu. To make a gift, please visit giving.cu.edu/taruhayschair



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