

BLUE SKY FACULTY FOLIO

INSPIRED





Wild Medicine

New frontiers for
emergency care

Head north a couple of hours from the bustle of New York City and the world transforms from canyons of concrete to the heavily wooded hills, studded with lakes and ponds, of the southern Adirondacks. The area was the home of John “Jay” Lemery, MD, Professor of Emergency Medicine at the University of Colorado School of Medicine and Section Chief of Wilderness and Environmental Medicine. He grew up in small-town Glens Falls, New York, about 10 miles from Lake George, a crystalline gem.

The natural beauty of the mountains, lakes and wildlife exerted a powerful influence on

the course of Lemery’s career. After high school, Lemery attended University of Virginia in Charlottesville. As an Echols Scholar in the College of Arts and Sciences, he was encouraged to design his own course of study. Lemery dove into arts and humanities, political economy, and foreign affairs studies. The broad approach ultimately prepared him to think about healthcare as integral to the social fabric rather than an isolated thread.

“The program is very valuable because it gives you permission to explore disparate disciplines,” he says.

“THAT HAS BEEN A HALLMARK OF MY CAREER – BEING ABLE TO PULL TOGETHER SEEMINGLY UNRELATED THINGS AND MESH THEM INTO NEW FRONTIERS.”

GOING BEYOND TRADITIONS

After earning his undergraduate degree, Lemery enrolled in the Geisel School of Medicine at Dartmouth College. Near the end of his studies, a resident colleague convinced him to join a wilderness medicine elective.

The class traveled to Arizona for an 18-day trip through the Grand Canyon on the Colorado River. The team studied scenarios in a wilderness medicine curriculum during the excursion that Lemery described as “mind-blowingly stimulating.”

He put the memories “in the bank” shortly before he began an emergency medicine residency at New York University and Bellevue Hospital, where he was chief resident. Throughout the program, Lemery organized wilderness medicine weekends with his colleagues and designed a curriculum for trips to familiar territory at Lake George.

“Over time, I realized wilderness medicine was a viable niche, with possibilities for resident education, clinical excellence, and research,” he says.

Lemery saw a “real market” for those hungry to understand the most effective ways to care for people living, stranded, or



confined in isolated environments. The approach would be different than “backpack medicine,” romanticized as an intrepid provider venturing into the wild, provisioned only with “scissors, duct tape, a Swiss army knife.”

The more useful idea, he felt, was to develop a subspecialty with specific methods of care formulated through rigorous practice. That meant determining, for example, the high-potency medications and point-of-care diagnostic equipment, such as ultrasound, which would have the most effective “real-world applications” in far-flung locales, Lemery says.

The end goal: codify evidence-based guidelines through peer review. In 2007, Lemery developed Clinical Practice Guidelines (CPGs), based on unbiased, reviewed input from experts. The first 10 were published in the journal *Wilderness and Environmental Medicine*.

“The mindset of the CPGs is steeped in looking objectively at austere and remote care that is not addressed in traditional medical training,” Lemery notes.

GRAND OPPORTUNITY

His wilderness medicine work led Lemery to a realization that humans face a growing health crisis: climate change. He looked at burning forests, deluged coastal cities, hurricane-battered homes, and the death and human suffering caused by intensifying natural disasters.

At the time of the CPG work, Lemery was an instructor in emergency medicine at Weill Cornell Medical College. While he thought about how to help people prepare for and survive in harsh environments, he also saw the planet itself becoming a less hospitable place – even as some politicians, businesspeople and ordinary citizens questioned the reality of climate change and the motives of those who presented evidence supporting it.

Lemery concluded that the time has come for the medical and scientific community to recognize and confront the medical repercussions of climate change. “We have a core mission

to inform the public of the health risks of climate change clearly, unambiguously and without prejudice,” he says. “If we succeed in that, we have a fighting chance of changing policy.”

“I began to see the politicization of science around climate change,” Lemery says. “That was extremely dangerous.” He acknowledges that efforts to promote clean energy sources require policies that help workers in existing industries. There is compelling evidence of planetary warming, concentrations of atmospheric carbon dioxide, and other changes that are having effects on human health. Despite the contentious debates, Lemery sees a “grad opportunity” to elevate the importance of wilderness medicine among academic leaders and policy makers.”

“I BEGAN TO THINK THAT THIS IS WHERE THE FIELD NEEDS TO GO,” HE SAID. “IN WILDERNESS MEDICINE, WE HAVE A DUAL MANDATE OF TAKING CARE OF PATIENTS IN REMOTE AND AUSTERE PLACES, AND OF APPRECIATING THE BEAUTY AND FRAGILITY OF THOSE ECOSYSTEMS. CLIMATE CHANGE AND HEALTH POLICY ARE THE EXTENSION OF WILDERNESS MEDICINE.”

EXPANDING EXPERTISE

Lemery came to CU’s Department of Emergency Medicine in 2012. He created the Wilderness and Environmental Section in 2014, where he serves as Chief. Recognizing it was vital to add voices to the chorus of medical professionals calling for change, he founded the nation’s first non-governmental graduate medical education climate and health science policy fellowship in 2017, which draws in physicians from various medical fields. The fellowship helps physicians develop a “360 view” that places medicine in a larger context of policy and decision making.

“Focusing only on healthcare is not going to work,” Lemery says. “You need to be able to reference geopolitics. Clinicians by nature don’t like to wade in beyond their expertise, but this must be part of our bailiwick and our area of expertise. In our society, patients and their families are under threat. The data supports climate change health impacts are growing and are not going away in our lifetimes.”

His effort to build a cadre of climate-conscious clinicians also includes serving as co-director of CU’s Climate & Health Program. The program aims to understand the impacts of climate change on human health and advocate for smart policy addressing the crisis, all while advancing human dignity. In 2022, Lemery was awarded an Endowed Chair in Climate Medicine to advance this work, made possible by generous donors who facilitate enduring and transformative work.

Now, Lemery is working on questions of how to deliver care effectively on another hostile frontier, at the limits of the universe. ■

