

VERMONT MEDICINE

THE ROBERT LARNER, M.D. COLLEGE OF MEDICINE AT THE UNIVERSITY OF VERMONT

FALL 2019

ADVOCATES & ADVISORS

LONGITUDINAL INTEGRATED
CLERKSHIP STUDENTS DELVE DEEP
INTO THE PATIENT EXPERIENCE.

ALSO FEATURED:

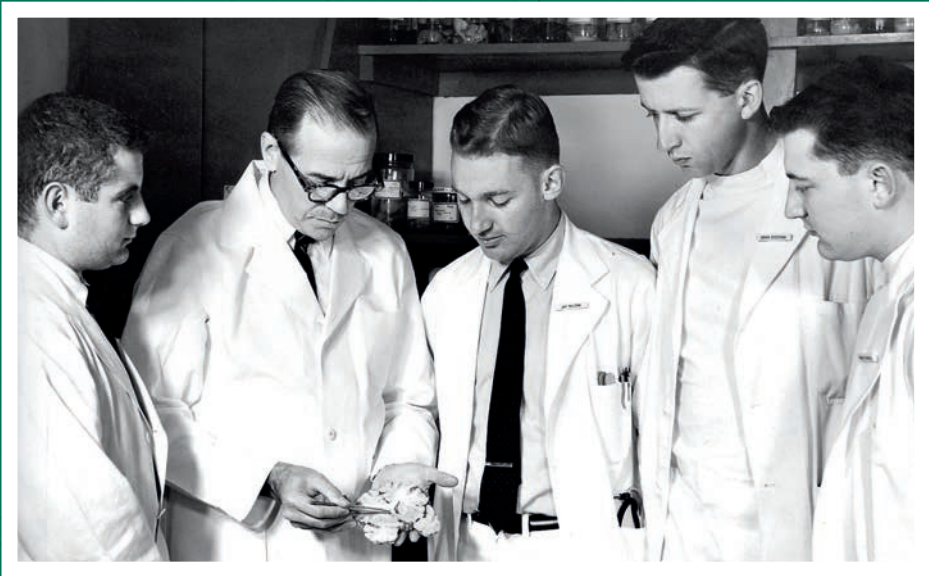
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RESEARCH**

**HONORING
ORGAN DONORS
REUNION 2019**



PROFILE IN GIVING

Honoring a Pioneer in Neurosurgery



Dr. Donaghy, professor of neurosurgery, with members of the classes of 1959 and 1960



As a medical student at UVM in the 1960s, **RONALD J. FAILLE, M.D.'69** had the opportunity to learn from a legend in the field of microvascular neurosurgery: **RAYMOND M.P. "PETE" DONAGHY, M.D.** A faculty member and chair of neurosurgery at the UVM Larner College of Medicine, Donaghy revolutionized how cerebrovascular disease is treated and developed the operating microscope that is still used in neurosurgical procedures today. In gratitude for the opportunity he had to be mentored by Donaghy, Faille has established the **RAYMOND M. DONAGHY ENDOWMENT FUND** to benefit the Division of Neurosurgery. **SUSAN DURHAM, M.D.**, chief of the Division of Neurosurgery, says that the gift is a fitting tribute to a groundbreaking researcher and teacher. "We still use Dr. Donaghy's lab and have preserved some of his equipment, including one of the original microscopes and even his white coat," she says. "His legacy remains strong here at UVM and I want to ensure that all future generations of neurosurgeons at UVM remember his contributions to our field."



The University of Vermont
LARNER COLLEGE OF MEDICINE

THE UNIVERSITY OF VERMONT LARNER COLLEGE OF MEDICINE

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The UVM Medical Center, like other hospitals across the United States, holds honor walks to show respect to patients at the end of life who are donating organs to others. BY TIM LAHEY, M.D., M.M.SC.



On the cover: Jordan Munger '21, a Longitudinal Integrated Clerkship student, examines a young patient at Queensbury Family Health. Photo: David Seaver



Here in Burlington we have enjoyed another gorgeous autumn. While the fall is often thought of as a time to put the garden to bed and stack wood for the winter, the fall semester is a time for new beginnings at the Larner College of Medicine. As our academic year opened, I had the great pleasure to welcome, for the first time since becoming dean, a new class of medical students on their first day on campus.

A few weeks later, I congratulated each of those first-year students as they stepped across the stage of Ira Allen Chapel in their crisp, new white coats. From their very first “day of school,” I emphasized to the Class of 2023 that the road ahead is not easy, but they are not alone. Their success is a key part of our mission, and the entire College stands ready to see them through their path as future physicians.

A clear vision of the pathway for all our missions—education, research, and patient care—is vital to our College. This is why, with the start of this new year, I have engaged the Larner community in a strategic planning exercise called Vision 2025: A Unified Strategic Plan for the Larner College of Medicine. This work will set clear goals and guide decision-making for the College. Our last five-year planning cycle began in 2015, so this is the right time for us to be talking about our goals, strategies and priorities looking ahead for the next five years. This will build on our previous plan, and will incorporate elements of strategic plans for areas within our College that have been developed more recently.

Strategic planning will help guide us through another important effort now underway at the College: our preparation for reaccreditation. The Liaison Committee on Medical Education (LCME) will be performing a site visit at our College in April 2021, as part of our reaccreditation survey. This once-every-eight-year event is critical to our very existence, certifying that our medical education program meets prescribed standards for all U.S. and Canadian medical schools. Our last site visit was in 2013, when the College received a full reaccreditation. As part of the current process, over these 18 months we will conduct a self-study to critically examine our curriculum, resources, procedures, faculty, and students. This stage of self-study will allow us to examine every facet of our institution.

I see preparation for our accreditation site visit as a wonderful opportunity to self-evaluate and make ourselves better, for the sake of our students. Even more than undergoing this periodic assessment, we are initiating an ongoing effort to continually evaluate our college and improve, through a new Committee for Continuous Quality Improvement. This committee will continually prepare us for our next accreditation site visit, all the while allowing for ongoing assessment and positive change through every season.

RICHARD L. PAGE, M.D.
Dean, The Robert Larner, M.D. College of Medicine at The University of Vermont

VERMONT MEDICINE

THE ROBERT LARNER, M.D. COLLEGE OF MEDICINE AT THE UNIVERSITY OF VERMONT
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AROUND THE LARNER COMMUNITY

Alumnus Gift Leads Research Building Plans

Steve Firestone, M.D. '69 has been an annual donor to the UVM Larner College of Medicine since the 1970s, and in the early 2000s donated artwork to help enhance the students’ learning environment. When plans began to take shape for a new biomedical research facility at the College, Dr. Firestone was inspired to step forward with his first major gift to the University. And, as over 200 attendees learned in a ceremony October 3, that gift is an important one.

Pending completion of the fundraising for the project, Dr. Firestone’s leadership gift—the fourth largest in the history of the College—will help construct a laboratory building on



I shared an extraordinary experience and I hope that this building memorializes that formative time.”

the University’s campus. The new facility will be named the Dr. Frederick and Mrs. Bobbie Firestone Medical Research Building, in honor of his parents.

“Lifesaving treatment modalities will be discovered here over the coming years,” said Dr. Firestone. “This building is going to hugely benefit the College of Medicine, the University, and the city of Burlington.”

With his gift, Dr. Firestone has chosen to recognize his peers in the Larner College of Medicine Class of 1969, who celebrated their 50th reunion this year. “I felt very fortunate to be accepted into medical school at UVM and I’ve been grateful ever since,” he added. “My classmates and

Notable

Carney Honored with Prestigious ACP Mastership

Jan K. Carney, M.D., M.P.H., MACP, professor in the Division of Pulmonary Disease and Critical Care Medicine, has been awarded Mastership in the American College of Physicians (ACP). Mastership recognizes outstanding and extraordinary career accomplishments and notable contributions to medicine. Carney, who is also UVM’s associate dean for public health and health policy, is a national leader and innovator; she developed Vermont’s first Master of Public Health degree and other online graduate public health programs. Carney recently served as vice chair of ACP’s Health and Public Policy Committee and was governor of the Vermont ACP chapter from 2015 to 2019. From 1989 to 2003, she served as Vermont Commissioner of Health.

Move Mountains Campaign Success

\$125 million
CAMPAIGN GOAL

SURPASSED BY \$80 MILLION

OVER 30
NEW ENDOWED
SCHOLARSHIP
FUNDS

NEARLY 40
NEW ENDOWED
FACULTY
POSITIONS

Notable



JENSEN APPOINTED TO NEW RESEARCH DIRECTOR ROLE

Gordon Jensen, M.D., Ph.D., professor of medicine and senior associate dean for research, has been appointed to a parallel role as University of Vermont Health Network Director of Research. This new leadership position was collaboratively created by the UVM Health Network, the UVM Health Network Medical Group and the Larner College of Medicine with a goal of expanding opportunities for cutting-edge research and enhancing the partnership and collaboration between the College and all of the UVM Health Network partner sites. In this new role, Jensen will oversee research throughout the Network.

“It is exciting to see our plans to consolidate and focus our research efforts across the College and the Network to benefit our community, and I appreciate the collaborative efforts of Dr. John Brumsted and Dr. Claude Deschamps, president of the UVM Health Network Medical Group, in bringing this to fruition,” said Larner College of Medicine Dean Richard L. Page, M.D.



TANDOJ JOINS VERMONT BOARD OF MEDICAL PRACTICE

Assistant Professor of Surgery and Associate Dean for Diversity and Inclusion **Margaret Tandoh, M.D.**, was recently appointed by Governor Phil Scott to the Vermont Board of Medical Practice. The board’s makeup and mission are set by statute, with the law providing that there are 17 part-time members—all appointed by the Governor—including nine M.D.s, one physician assistant, one podiatrist, and six public members who have no close ties to the practice of medicine. Terms are five years long, and the law limits members to two consecutive full terms. The primary goal of the board is to keep the public safe through licensing and discipline. The board oversees the practice of medical doctors (M.D.s), podiatrists, physician assistants (PAs), anesthesia assistants, radiology assistants, as well as medical and podiatry residents.



DIXON NAMED DIRECTOR OF VERMONT LUNG CENTER

Anne Dixon, M.A., BM BCh, professor of medicine and division chief of pulmonary disease and critical care medicine, has been named the new director of the Vermont Lung Center.

A fellow of the American Thoracic Society, Dr. Dixon joined the UVM faculty in 2001 and has served as director of clinical research at the Vermont Lung Center for the past 18 years. She is a nationally and internationally recognized expert in the areas of asthma and lung disease related to obesity and metabolic dysfunction, and a current and past member of several National Institutes of Health (NIH) and Veterans’ Affairs study sections, national guideline panels, and the American Lung Association’s national Board of Directors. Dr. Dixon takes the reins from **Charles Irvin, Ph.D.**, professor of medicine and associate dean for faculty affairs, who served as the Vermont Lung Center’s director since 1998. During his tenure, he led the center to become a Center of Biomedical Research Excellence, securing 15 years of funding from the NIH’s National Institute of General Medical Sciences. The center was also named one of only 15 American Lung Association Airways Clinical Research Centers in the country.



LARNER FACULTY EARN AAMC CHALLENGE GRANT

A work group, led by **Stephen Berns, M.D.**, associate professor of family medicine, was awarded one of ve \$25,000 grants from the Association of American Medical Colleges’ (AAMC) Opioid Education Challenge Grant Program: Responding to the Training and Development Needs of Academic Health Centers. The “Opioids Education Work Group at the Larner College of Medicine,” also includes **Karen Lounsbury, Ph.D.**, professor of pharmacology, **Elly Riser, M.D.**, clinical instructor in medicine, **Martha Seagrave, PA-C**, associate professor of family medicine, and collaborators in the Department of Psychiatry, the Teaching Academy, the Office of Primary Care, and Champlain College. Their goal is to develop an integrated pain management curriculum throughout medical school and residency that addresses clinicians’ discomfort with prescribing opioids and the challenge of geographically scattered faculty members. To bridge this gap, the grant will be used to develop interactive, online modules containing case studies and assessments that will help clinicians apply skills to real world situations. The team will partner with Champlain College’s Emergent Media Center™ to develop the modules.

Larner By The Numbers

NEW PH.D. STUDENTS

in programs affiliated with the UVM Larner College of Medicine

66

CELL, MOLECULAR AND BIOMEDICAL SCIENCES

7

CLINICAL AND TRANSLATIONAL SCIENCE

23

NEUROSCIENCE GRADUATE PROGRAM

2

BIOENGINEERING



Sigmon Receives \$6.7 Million Grant to Establish UVM Center on Rural Addiction

Research

The University of Vermont has received a three-year, \$6.7 million grant to establish the UVM Center on Rural Addiction (CRA), one of three new national Centers of Excellence made possible through the Health Resources and Services Administration’s Rural Communities Opioid Response Program. Led by Associate Professor of Psychiatry **Stacey Sigmon, Ph.D.**, the UVM Center on Rural Addiction will serve as a resource for scientific and technical assistance, and will provide information and training to clinicians, programs, and policymakers seeking guidance on how to address substance use disorder challenges in their rural communities. During its initial three years, the center will focus on disseminating evidence-based practices to rural counties in Vermont, New Hampshire, and Maine, relying on partnerships with collaborators throughout New England. With Sigmon as

director, Professor of Psychiatry **Sarah Heil, Ph.D.**, will serve as the center’s associate director. Vermont Center on Behavior and Health Director and Professor of Psychiatry **Stephen Higgins, Ph.D.**, Professor **Richard Rawson, Ph.D.**, Associate Professors **Andrea Villanti, Ph.D., M.P.H.**, **Valerie Harder, Ph.D.**, and **Diann Gaalema, Ph.D.**, and Assistant Professors **Allison Kurti, Ph.D.**, and **Kelly Peck, Ph.D.**, will serve as UVM CRA core directors and faculty. Associate Professor of Obstetrics, Gynecology and Reproductive Sciences **Marjorie Meyer, M.D.**, Assistant Professor of Psychiatry **Sanchit Maruti, M.D.**, and Associate Clinical Professor of Psychiatry **John Brooklyn, M.D.**, will lead the UVM CRA Physician Advisory Group.

“When we followed up with these participants in adulthood, we found these children had higher levels of anxiety and substance use disorders and were also more likely to have a felony charge, spend time in prison, not complete high school and experience significant financial strain.”

– Professor of Psychiatry William Copeland, Ph.D., commenting on a study he led published in *JAMA Network Open* that examined outcomes for offspring of incarcerated parents.



Deans Page and Thomas (at center) were joined by (from left) UVM faculty members Friederike Keating, M.D., Anne Dougherty, M.D., Stuart Whitney, Ed.D., R.N., and Margaret Tandoh, M.D.

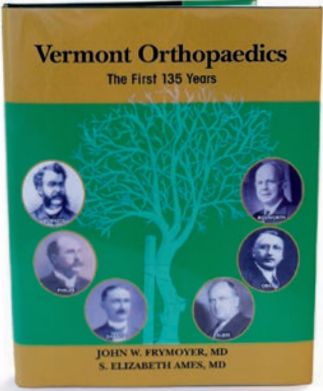
COMMITTING TO GENDER EQUITY

A special signatory ceremony, marking the Larner College of Medicine and College of Nursing and Health Sciences’ commitment to the TIME’S UP Healthcare core commitments to bring safety, equity, and dignity to the healthcare workplace, was held on September 27, in the Hoehl Gallery in the Health Sciences Research Facility. Dozens of members from the Larner College of Medicine and College of Nursing and Health Sciences communities witnessed and celebrated Deans **Richard L. Page, M.D.** and **Scott Thomas, Ph.D.**, signing each school’s respective signatory pledge letter.

Literature

NEW BOOK FOCUSES ON THE HISTORY OF ORTHOPAEDICS AT UVM

A new book co-authored by **John Frymoyer, M.D.**, former dean of the College of Medicine and former chair of the Department of Orthopaedics and Rehabilitation, and **S. Elizabeth Ames, M.D.’96**, professor and director of the orthopaedic surgery residency program, chronicles the history of orthopaedics at the University of Vermont. Titled *Vermont Orthopaedics: The First 135 Years*, the coffee table-style book features archival photography and stories about the evolution of the specialty, from the founding of the New York Orthopaedic Dispensary by a graduate of the program in the 1800s to the founding of the residency program in the 1960s and beyond.



College Hosts Investitures for Green and Gold Professorships

The UVM Larner College of Medicine recently celebrated two new Green and Gold professorships, funded by generous donors who are former faculty members and researchers at UVM. These endowed professorships recognize excellence as well as honor and support the work of faculty pursuing important research.



Mark K. Fung, M.D., Ph.D., professor of pathology and laboratory medicine, was invested as the inaugural **Roy Korson, M.D. and Lorraine Korson, M.S. Green & Gold Professor of Pathology** on August 5, 2019. The professorship was established by the late Roy and Lorraine Korson, both of whom enjoyed long careers at UVM. Lorraine was a researcher in the Departments of Biochemistry and Pathology, while Roy worked as a clinical pathologist and maintained an active research program after serving in the U.S. Army Medical Corps during WWII and the Korean War. A nationally recognized expert in transfusion medicine, Fung is the editor-in-chief of the leading textbook in his field, has dozens of peer-reviewed publications, and has published six book chapters.



Robert K. Williams, M.D., professor of anesthesiology and pediatrics, was invested as the inaugural **Chris Abajian, M.D.’69 and Margaret Abajian Green & Gold Professor in Pediatric Anesthesiology** on June 24, 2019. Family and friends of Chris and Margaret, as well as faculty and staff in the Department of Anesthesiology, made generous gifts to permanently endow the position, which honors Chris and Margaret’s many contributions to UVM as well as Chris’ leadership in the field of pediatric anesthesiology. Williams has carried on the tradition set by Abajian, conducting leading edge research on anesthesia in children. He’s also a dedicated teacher and mentor.



Joining Team Heart

Open Heart Surgery in Rwanda

Andrea Steely, M.D.’12, recently traveled to Rwanda with UVM Professor of Surgery **Bruce Leavitt, M.D.’81**, and Team Heart, an organization dedicated to increasing access to cardiac surgery in locations where rheumatic heart disease is rampant. Dr. Steely wrote about her experience for the Larner College of Medicine blog.

Growing up in southern California with two parents in the movie industry, I never imagined I would one day become a cardiac surgeon. I grew up drawing and painting—always being creative. In fact, I had planned to become an artist until science caught my interest in high school. Fast forward a few years later and I found myself interviewing for medical school.

I absolutely loved the Larner College of Medicine when I interviewed—it was exactly what I had been looking for—it was a small and friendly medical school where the students and faculty knew each other by name. While at UVM, I found the mentors I had hoped for. I was lucky enough to match at UVM for general surgery residency and spent the first four and a half years gearing up for a career in vascular surgery. But when I scrubbed my first cardiac surgery case—a coronary artery bypass grafting—I was mesmerized by every step of the operation. For the first time since starting residency, I thought that maybe vascular was not the path for me. I ultimately realized that cardiac surgery was exactly what I wanted to do.

My interest in cardiac surgery helped me to become involved in some incredible international work. I had the opportunity to work alongside and be mentored by Dr. Chip Bolman and Dr. Bruce Leavitt, also a UVM Larner College of Medicine alum from the Class of 1981 and now a cardiothoracic surgeon at UVM Medical Center. Dr. Bolman

and his wife, Ceeya, started a non-profit organization called Team Heart, now 12 years ago, to help increase access to cardiac surgery in developing nations like Rwanda where rheumatic heart disease is rampant. Despite the high prevalence of cardiac disease, there are only a handful of cardiologists in the country and not a single cardiac surgeon. I had the opportunity to travel with this group, including Dr. Leavitt and Dr. Bolman, for their annual trip to Kigali as a general surgery resident in my final year of training in 2018. The experience was incredible and I found myself trying to find a way back. Dr. Leavitt helped me find a thoracic surgery foundation scholarship that supports the travel of cardiac surgery fellows and young attendings to international sites like King Faisal Hospital in Kigali, Rwanda.

I was lucky enough to win this award and had the opportunity to travel to Kigali again this past February. During the 12 days that I spent in Kigali, we reviewed 40 cases, paired down from the 100-plus that had been screened across the country the week prior, and selected just 16 patients for surgery. We operated on two patients each day for eight days in a row—weekends and

weekdays—these were all surgery days. We brought our own pharmacists, intensivists, nurses, anesthesiologists, and perfusionists and gave these 16 patients a second chance at life. Most of our patients received a single heart valve replacement but about one-third of them had two valves replaced. Our patients ranged from 11 to 47 years old and were incredibly grateful for every aspect of their care.

Performing operations in a developing country is challenging, but doing open heart surgery in this setting, with no resources other than what we’ve brought, is incredible—it’s amazing what a group of people with a shared mission can accomplish. While it is the routine and methodical nature of cardiac surgery that allowed us to be so successful in Rwanda, participating in trips like this, which are hardly routine, reminds me of why I wanted to go to medical school in the first place—to make a difference in the lives of my patients in a unique way.

I am now finishing up my first of two years of cardiothoracic surgery fellowship at Beth Israel Deaconess Medical Center in Boston, Massachusetts. I remain mesmerized with cardiac surgery and cannot imagine doing anything else. I feel incredibly fortunate and privileged to do the job I get to do everyday. I am excited about the next phase of my career and I feel nothing but gratitude to have taken the path that I did because it got me to exactly where I am today. **VM**



L to R: Bruce Leavitt, M.D.’81, Marc Tischler, M.D. and Andrea Steely, M.D.’12

FROM MARINE TO DOCTOR:

Jose Calderon '22 aspires to help communities in need



Jose Calderon '22

When Jose Calderon '22 was six years old, his mother began exhibiting symptoms of schizophrenia. As he watched her cycle in and out of psychiatric units—sometimes enduring run-ins with law enforcement and negative encounters with neighbors and members of their church—he came to understand how the stigma associated with mental illness can devastate a family already struggling to cope with a brutal disease.

Years later, fresh out of high school, he joined the U.S. Marine Corps and went on to serve two tours of duty, one a combat mission in Afghanistan. Peers were killed in action, and others returned home only to suffer through post-traumatic stress disorder.

These two seminal experiences helped to propel him on a career path that led to UVM's Lerner College of Medicine. "I'm a first-generation college student, first-generation medical school student," he says. "I came here fresh and with an open mind, willing to adapt and overcome."

It wasn't an easy path: Growing up in a low-income neighborhood in Houston touched by crime and gang violence, there weren't many role models. His father instilled in his three children a love of learning and a strong work ethic, despite his own education in El Salvador ending at the third-grade level.

"I remember him expecting us to have our homework done by 8 p.m.," he says. "It was a matter of being accountable to ourselves. He really valued education."

Calderon's father came to the U.S. from El Salvador as a teenager, desperate to escape the vicious civil war unfolding in that country. He found work as a construction worker and met Calderon's mother, also a native of El Salvador, in Houston. Calderon's first language was Spanish; he learned English when he entered elementary school. His older twin brothers helped to keep Calderon focused on achieving his goals.

"It was a challenging childhood," he says. "I owe a lot to them being on the right path, and me trying to emulate them."

Calderon's decision to enter the Marine Corps was a tough one for his father, who, after witnessing the devastation war brought to his home country, struggled to understand why his youngest child would volunteer to put himself in harm's way.

But Calderon says his military service gave him courage

and confidence. On his first tour of duty, he traveled around the world, improving military training and tactics while also conducting humanitarian missions in far-flung locations like East Timor, Thailand, Djibouti, and Kuwait. As he painted primary schools alongside local residents and helped to distribute potable water, he realized just how much he had to contribute, especially in communities with the greatest need.

Serving in Afghanistan strengthened his resolve to make a difference.

"I think you're forced to mature at a young age," he says. "You learn to value life differently than others at that age. It's a powerful experience, being there and doing your best to handle stressful situations."

His time in a combat zone also gave him a window into the medical field. He remembers a time when his unit was being hit particularly hard by enemy fire, and personnel were asked to gather at a medical site to give blood. As he waited, an injured Marine arrived by helicopter. A roadside bomb had exploded while he was on patrol with his platoon; he had suffered traumatic injuries including three amputated limbs. Calderon remembers the seamless communication and sharp decision-making of the surgical team as they saved the Marine's life. Watching those surgeons work was key to sparking his interest in medicine, he says.

After his four years of military service, Calderon studied psychology at the University of Southern California. A minor in healthcare studies, an assistantship in USC's Culture and Mental Health Research Lab and volunteer work in the emergency department at L.A. County General Hospital in East Los Angeles all helped him prepare for the career he envisioned.

The decision to come to UVM's Lerner College of Medicine was based in part on the school's mission statement and emphasis on active learning in medical education, but even more on the sense of community he experienced when he visited the campus and Burlington.

Although he has yet to decide on a specialty—he's considering psychiatry, family medicine and emergency medicine—Calderon is committed to serving where he is needed the most. "I want to work in an underserved, low-income, urban community, and I want to work with a Spanish speaking population," he says. "I think I can make the biggest impact there." **VM**

"I'm a first-generation college student, first-generation medical school student. I came here fresh and with an open mind, willing to adapt and overcome."



September 8: Students, faculty and staff march in the 2019 Pride Vermont Parade.



July 2: Caroline Vines '20 works with Sarah Schlein, M.D., during her emergency medicine clerkship.



August 13: Class of 2023 students complete community service with Burlington Parks and Recreation during Orientation.



August 15: Farrah Khan, M.D. (at left), and Mary Cushman, M.D., M.Sc., at the American Heart Association Cycle Nation fundraising event.



September 7: The Department of Pediatrics celebrates Lewis First, M.D., who has been chair of the department and chief of UVM Children's Hospital for 25 years.



September 6: Students in the SMILE DOCS Student Interest Group visit Mater Christi School.



Labor Day Weekend: Class of 2023 students hike Stowe Pinnacle at sunrise.

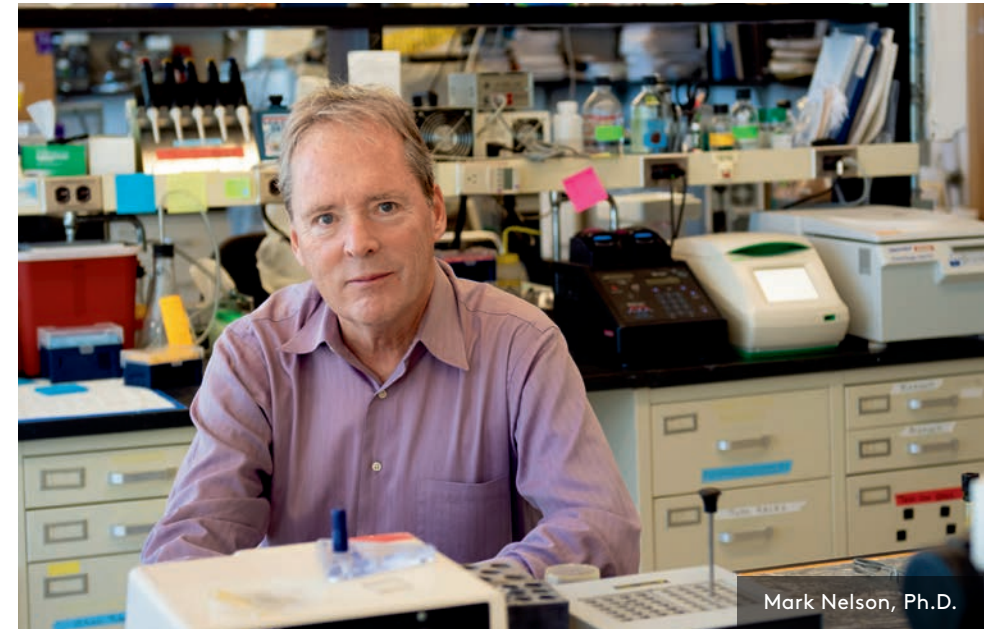
Totman Fund Fuels Cerebrovascular Research

Malone native Ray W. Totman spent the bulk of his professional life concerned with fuel—namely, gasoline and oil that propelled daily life and commerce for thousands of people in the north country. Today, more than 30 years after his death, the philanthropic vision of Totman and his wife, Ildah, continues to power work in a different realm: groundbreaking cerebrovascular research at the University of Vermont concerned with the mechanisms that fuel the human brain—research that points the way toward improvements in care for stroke patients and others throughout the region and beyond.

The Ray W. Totman and Ildah Totman Medical Research Fund was established shortly after Ray Totman's death in 1988 at age 92 (Ildah Totman had predeceased him, in 1977). Totman had worked since the 1920s as a key part of the fuel delivery system of northern New York. His Rae Oil Company began in Malone in 1926, and expanded across the region over the next six decades. Totman was also a founder in 1941 of the Empire State Petroleum Association, a trade group that is still going strong as the Empire State Energy Association.

The Totman Fund, under the board of trustees that has guided its philanthropic work, made its first gift of \$150,000 to fund medical research at the University of Vermont in 1988. That initial gift was quickly followed by more funding, and in 1990 the Totman Laboratory for Cerebrovascular Research was founded in the Department of Pharmacology at what is now the UVM Larner College of Medicine.

The lab was first directed by the late John A. Bevan, M.D., and his wife, Rosemary D. Bevan, M.D. Since 1996 it has been directed by the current Chair of the department, **Mark Nelson, Ph.D.** Nelson is a University Distinguished Professor at UVM (one of only ten faculty members currently so honored), a Fellow of the American Heart Association and the Biophysical Society, a recipient of the prestigious National Institutes of Health MERIT award and an Outstanding Investigator Award from the National Heart, Lung and Blood Institute, and a 2019 inductee to the National Academy of Sciences—the later recognized as among



Mark Nelson, Ph.D.

the greatest honors a U.S. biomedical scientist can receive.

"The Totman Fund's existence gives this laboratory a nimbleness that is really crucial in the field of scientific discovery," says Nelson. "We are able to use the Totman support to fund pilot projects and new areas of research. That gives us a flexibility we need when exploring one of the most complex mechanisms on Earth—the human brain."

The level of that support has been significant. Over the course of the last three decades, the Totman Fund has provided more than \$4 million in funding for cerebrovascular research at UVM. That seed funding has played a major part in securing \$94 million in grants received from the National Institutes of Health and other national and international funding agencies. Those studies have resulted in more than 425 scientific publications by Totman Lab researchers.

Today, the Totman Lab is one of the nation's premier research centers focusing on brain blood vessels—studying them from the most basic molecular level with the aim of finding new clinical applications.

"We're trying to solve a mystery—how do our brain cells communicate to get blood, glucose, and other vital resources to precisely the right place in the brain at exactly the moment they are needed?" asks

Nelson. Those resources are needed in the brain at a vastly disproportionate scale: the brain is 2 percent of average body weight, but consumes 20 percent of the body's energy.

"The brain is a 'just-in-time' machine," Nelson explains. When neurons in a certain area of the brain are active, they send signals to nearby blood vessels to which they are electrically coupled, which then send signals to the surface of the brain to open up arteries and deliver blood within seconds to those active neurons. This happens across the 1,000 miles of blood vessels contained in the brain. Finding the mechanisms for this communication, and ways to enhance it, or repair it when it goes wrong, are key to Nelson's work that the Totman Fund supports.

"Our first step is understanding the normal functions in the brain," says Nelson. "We're developing what is basically a map of the brain. That can lead us to ways to correct deficits in blood flow that cause stroke, dementia, and other cerebrovascular diseases."

The Totmans' great foresight, Nelson says, was in realizing that investing in this kind of basic research taking place in their "backyard" could result in great benefits for everyone.

"Ray and Ildah left a lasting legacy," he says. "And we take fulfilling that legacy very seriously." VM



Erin Bingham, APRN, leads a session for Comprehensive Pain Program participants.

ALTERNATIVES TO OPIOIDS

A UVM Medical Center program offers safer approaches for patients with chronic pain.

Catherine Huskisson spent about three years living with severe pain from fibromyalgia. She never liked taking medications and wanted to stay away from opioids to treat her pain. So she asked her primary doctor, “What else can you do for me?” Ultimately, the doctor referred Huskisson to the new Comprehensive Pain Program at the University of Vermont Medical Center. Over eight weeks this past summer, she participated in group sessions, learned mindfulness exercises and received acupuncture and massage therapy.

Each visit to the clinic, she says, gave her a day with less pain. “That’s huge if you’re in this situation,” Huskisson says.

“I wanted it to give me strategies for dealing with my pain.”

The Comprehensive Pain Program (CPP) began in September 2018 as an integrative approach to addressing chronic pain, one of the first of its kind in the country. The program combines traditional methods of pain management with group psychology sessions, group medical visits, culinary medicine demonstrations and therapies including massage, Reiki, yoga, physical and occupational therapy, and acupuncture.

The CPP offers alternatives to pharmaceuticals for managing not only pain but the complications it causes for those suffering from it. Chronic pain can aggravate many facets of a person’s life and is often

associated with mental health challenges such as anxiety and depression. With that added stress, it’s hard for a person to reach an optimal level of comfort and function.

Some participants, like Huskisson, come to the program because they want to relieve their pain as much as possible without relying on highly addictive, prescription opioids.

Others in the CPP have taken opioids or other pain medications for years, some at very high doses to be effective. Many of them will continue to do so, even as they add the program’s therapeutic components.

The program optimizes the use of traditional medical treatment and give participants insights and awareness strategies to help them “reframe” their approach to life with chronic pain, says UVM Assistant Professor of Family Medicine Jon Porter, M.D., the CPP’s medical director and a pain specialist. A key goal is to enhance participants’ sense of self-agency and ability to manage better while living with, in many cases, extreme discomfort.

“Pain is a medical term,” Porter says. “It doesn’t begin to capture the experience of individuals who have chronic pain in terms of the impact it has on so many aspects of their lives. We think the word ‘suffering’ better describes the experience of our participants, and that’s a universal human experience.”

That understanding informs the CPP’s holistic approach, he says.

“While we won’t be surprised that some participants experience significant relief during their time in the program, our focus is on optimizing function, as well as comfort.”

About four years ago, UVM Medical Center convened a planning group to talk about non-opioid options for managing patients with chronic pain. The group found no other comprehensive programs specifically for pain across the country, so the medical center came up with this unique approach.

“We knew we needed to try something different,” says Maureen Leahy, a planning group leader and the medical center’s

“While we won’t be surprised that some participants experience significant relief during their time in the program, our focus is on optimizing function, as well as comfort.”

– Jon Porter, M.D.

director of neurology and psychiatry.

At the time, primary care physicians had few tools to help patients with chronic pain—other than more opioids—and little chance of making them better, Porter says. They were frustrated with writing multiple prescriptions for these patients while seeing them for 15-minute visits—too short a time to adequately address the challenges they faced, Porter says. This “transactional” approach, he says, has failed patients and providers.

“It’s not that everybody’s not doing the best they can,” Porter says. “We’re just not getting the best outcomes for our patients.”

Most people with chronic pain who use opioids are taking them as prescribed and aren’t addicted or using illegal drugs, though they may be dependent on them. And these medications present serious consequences to their health. If patients try to go off their medication or reduce the dose, they risk possible psychological instability, along with multiple physiological withdrawal symptoms. Doctors must work with these patients with thoughtful care and collaboration, Porter says.

The chance to give other pain sufferers an alternative to starting down that opioid path is the biggest benefit of the CPP, Leahy says.

“What we’re finding is that it’s more of an opportunity, if introduced early enough, to keep people off and it may help people reduce” opioid use, says Laurel Audy, a registered nurse and Reiki practitioner, and a CPP group co-facilitator who prescreens program participants.

At the clinic on Tilley Drive, designed with pastel colors and low lighting for those with sensitivity, the group sessions drive the structure. The CPP takes patients only on referral from their primary care doctors in the UVM Health Network. To qualify for referral, a participant must have experienced at least three months of pain that has interfered with at least one aspect of life—such as causing family stress, an inability to work or isolation.

The CPP has about 50 participants in two tracks, which last either eight or 10 weeks. It’s likely to increase capacity in the coming months, Porter says.

“We do feel confident that people can function better and find more ways to do what they want to do,” he says, “with genuine support, optimizing medical treatment and making use of integrative therapies not formerly used in traditional medical settings.” VM



CLASS OF 2023
CELEBRATES WHITE
COAT CEREMONY

Since arriving at the Larner College of Medicine in August, students in the Class of 2023 have been quietly transforming into true physicians-in-training. On October 4, 2019, they donned the outward symbol of that role—their first doctors’ coats, during the ceremony in UVM’s Ira Allen Chapel. Following a welcome from Interim Senior Associate Dean for Medical Education and Associate Dean for Students **Christa Zehle, M.D.**, and remarks from **Dean Richard L. Page, M.D.**, UVM Health Network Medical Group President and CEO **Claude Deschamps, M.D.**, and UVM Medical Center Interim President **Stephen Le er, M.D. ’90**, attendees heard a Humanism in Medicine keynote address from Leonard Tow Humanism in Medicine Awardee and Assistant Professor of Obstetrics, Gynecology and Reproductive Sciences **Lauren MacAfee, M.D.** She talked about the importance of students finding an inner force to help guide them through the years ahead.

“Passion serves as the guiding light that we all should strive to capture and embrace every day such that in doing so we can provide the best patient care and maintain our resiliency,” she said. “We all enter medicine with different experiences that shape not only who we are but the path we choose to take. Inherent to this journey is the need to find our passions and cultivate them.”

In keeping with a tradition established several years ago at the College, each student received in the pocket of their new white coat a note of encouragement from a Larner College of Medicine alum. With Medical Reunion coinciding with the ceremony this year, alums also had the opportunity to attend the ceremony. VM



Elizabeth Barker '23 shakes the hand of Dean Richard Page, M.D., at the College's White Coat Ceremony in Ira Allen Chapel.

OPEN ACCESS

STORY AND PHOTOS
BY CAT CUTILLO

UVM's Gary Ward, Ph.D., works to make the results of scholarly research available to all who can benefit from them.

Gary Ward, Ph.D., UVM professor of microbiology and molecular genetics, remembers the precise moment he decided to champion for change in scientific publishing.

"I remember it clear as day," says Ward. The "aha moment" was at the 2000 annual meeting of the American Society for Cell Biology. The keynote speaker that year was Nobel laureate Dr. Harold Varmus who was the former director of the National Institutes of Health (NIH).

"Instead of talking about science he talked about publishing," says Dr. Ward.

Historically, the biomedical community has been at the mercy of a scientific publishing system that exclusively owns the copyright on any published material and restricts reader access to that material. Scientific authors sign over all rights and sometimes have to pay the publisher to re-use their own research. >>

Even government-funded research that results in published literature hasn't been freely accessible to everyone who needs and wants those results. Publishers have set a high subscription rate with profit margins approaching 40 percent and a university library's ability to subscribe to a scientific journal has largely been a function of their financial structure resulting in problems with equity, inclusion and blocked access to information on critical issues like world health.

That night in 2000, Varmus talked about a concept that would come to be known as "open access." He wanted to create an NIH-funded publishing platform for people doing NIH-funded work and make results available to the public freely and quickly. Frustrated in that effort, he announced in his keynote that he and his colleagues, Patrick Brown, M.D., Ph.D. and Michael Eisen, Ph.D., were launching a boycott-petition that ultimately collected 35,000 signatures from scientists worldwide who pledged to only publish in, edit, review for, and subscribe to scholarly journals that made their content freely available within six months of publication. PubMed Central was created as an NIH-sponsored archive to host these freely available papers.

"That keynote just completely lit my fire on this issue. Subconsciously, I knew that as scientists we completely hold the cards to how publishing works because we are the workforce," says Dr. Ward. "Yet we're a fairly conservative bunch and afraid to actually execute our leverage. These guys were executing their leverage and it was really exciting to me," says Ward. Over the years his own frustration had grown after repeated instances of not being able to access scientific literature he needed.

Soon after that 2000 encounter, Ward joined the leadership of the American Society for Cell Biology. The initial boycott-petition had raised awareness but it didn't result in immediate change. Instead, Varmus, Brown and Eisen had refocused their efforts and founded the Public Library of Science (PLOS), an open access publishing operation that launched two journals, PLOS Biology and PLOS Medicine. They have since expanded into seven open-source journals.

Over the past two decades, Ward has been a leading advocate to improve access to scientific literature. He was a member of the Executive Committee of the American Society for Cell Biology (ASCB) from 2002 to 2008. He authored ASCB position papers on open access, wrote editorials, submitted testimony to Congress and visited congressional offices to speak in support of legislation requiring authors of government-funded research to make their results available to the public. He was appointed a member of the U.S. National Library of Medicine (NLM) Public Access Working Group and then chair of the NLM National Advisory Committee that oversees the operations of PubMed Central. Additionally, he served as the chair of the PLOS Board of Directors from 2011 to 2018.

"He was pivotal to shepherding PLOS into its next phases of growth and expansion and dedicating countless volunteer hours to the organization and its mission," says Meredith Niles, Ph.D., another open access advocate and assistant professor in the University of Vermont Department of Nutrition and Food Sciences and the Food Systems Program.

Ward identifies six shortcomings in the current system of scientific publishing: access and re-use; time to publication; assessing research reliability and quality; assessing research

significance/impact; literature as a static, non-interactive "graveyard of data;" and the issue of "who pays, and who profits."

Traditionally, scientific journals have required authors to sign over their copyright on everything in their published material.

"I've been in the situation myself where I've published some data and then I want to use a particular figure in a review article I'm writing and I have to either get permission or pay the publisher to use my own data in my own review," says Ward.

According to Ward, the government spends nearly \$40 billion per year on biomedical research but the results of that published research are not available to everyone who needs it or wants it.

"There is a real problem with not everybody having access to taxpayer-funded research," says Dr. Ward.

Additionally, access to the scientific literature is based largely on the library budget of a university, so a library in Sub-Saharan Africa won't be able to afford the same subscriptions as the University of Vermont, who won't be able to afford the same subscriptions as Stanford University. Equity and inclusion are key factors for Ward, particularly for world-health issues. Ward, whose work focuses on parasitic diseases says, "The democratization effect of making information available to everyone will put everybody on a level playing field in terms of their ability to build on that literature."

Christopher Burns, who is the Curator of Manuscripts and University Archivist in the Silver Special Collections Library at the University of Vermont, says the traditional publishing model with its rising costs have had a dramatic impact on library budgets.

"Part of the core mission of libraries and librarians has always been about access to information," says Burns. He says that despite the advent of the Internet and the possibilities of access that exponentially increased, the business model that's evolved to disseminate academic journals has created new barriers of access. "Librarians have been raising their voices about the absurdity of the traditional publishing model and advocating for a much more open model for quite some time now," says Burns.

Ward notes that it often takes 12 to 18 months from a research manuscript submission to its appearing in print. He says the Chan Zuckerberg Initiative in the San Francisco Bay Area calculated that the rate of scientific progress would increase five-fold over 10 years if studies were published as preprints. A preprint is a scientific paper that precedes formal peer review and publication in a scientific journal. Preprints are available for free online before the paper is published in a scientific journal.

"There's a real opportunity cost to the way our current system of publication works that has real ramifications especially when you're talking health. It takes that much longer for those breakthroughs to be translated," says Dr. Ward. "The sooner results become available and the more people that have access to those results, the quicker they'll be built upon and the faster the whole scientific enterprise will proceed."

Two or three people determine the quality and accuracy of each piece of work during a peer review. Ward says not only does this process slow down the publication time, but he feels it also creates a false sense of security in a piece's accuracy.

"There shouldn't be this institutionalized reliance on a single static evaluation of whether something is good or correct," says Ward. "We should be looking at the quality and accuracy of a piece over its whole lifetime." Ward says a prime example of backlash is

"The sooner results become available and the more people have access... the quicker they'll be built upon." – GARY WARD

the controversy around vaccines and autism that was published in *The Lancet*.

"Its arguably one of the most heavily reviewed journals in the world. They really pride themselves on the quality and the rigor of their review. This piece of work was clearly wrong and got published. And because it was published in *The Lancet* and was peer reviewed, there are people today who still believe it. Even though it has been thoroughly disproved," says Ward.

"You need to uncouple the act of publishing from the act of evaluation," says Ward. "So people will look at [research results and conclusions] with appropriate skepticism." Ward would like to eliminate the pre-publication peer review system entirely and establish a post-publication review and evaluation system that evolves over time and invokes the "wisdom of the crowd" through a public commenting system. To go along with that, appointing a peer editorial group to identify particularly good preprints after they are posted would be a useful way to provide the recognition scientists need for their career advancement. In this model, "[Editors] become selectors rather than rejecters," says Ward.

Ward sees the peer review process often failing to evaluate the significance and impact of work, and feels the "impact factor" of certain journals has been overrated.

UVM's Meredith Niles conducted a study that analyzed how the Journal Impact Factor (JIF) is currently used in review, promotion, and tenure at institutions in North America and recently published her findings on the open-source site eLife.

Niles concluded that 40 percent of research-intensive institutions and 18 percent of master's institutions in North America explicitly mention the "impact factor" or very closely related terms in their reappointment promotion tenure documents. And of those 40 percent that mention the "impact factor" of the journal, 63 percent of them specifically associate that metric with quality.

"It has now become an integral part of the academic reward system but it's based on marketing," says Dr. Ward. "The over-reliance of where you publish, the title of the journal that you publish in being a surrogate for quality, that is the problem that perverts the incentive system in science," he says.

Ward says he agrees with social-cognitive psychologist and professor Dr. Brian Nosek's published assertions that what's good for scientists in terms of career advancement is not well aligned with what's good for science.

"The goal becomes to publish in those journals rather than publish what's right," says Dr. Ward. "It leads scientists to consciously or subconsciously cut corners and give the most favorable interpretation of their data and leave out the negative data."

Ward points to data that shows a single paper in the top hierarchy of journals is not a good predictor of future success.

"You have to have a fully baked beautiful narrative to publish in those journals. It creates hyper-competition and a huge amount of stress for post docs out looking for a job. They think that it's a right



of passage," says Dr. Ward.

The first scientific paper was published in England by the Royal Society in 1665. Dr. Ward says the PDF of today is not much different and doesn't effectively capture the richness of collected data and the

way it interconnects. He believes published papers should have the capacity to be modified to reflect new techniques, correct original conclusions that were disproved with, ideally, a public commenting system instituted for conversation.

"It should be a piece of art that's continually evolving," says Dr. Ward.

"When all the papers are housed in the silos of individual publishers and there are these restrictions on what you can do with the content it doesn't allow things to be interconnected," he says.

Instead, he hopes to create a culture for commenting and tap into the same pay-it-forward mindset that drives scientists to donate their time to peer review papers for scholarly journals. He believes commenting will add depth to the literature and allow scientists to share informed experience that accelerates each other's research.

Scientific publishing is a big business, with big profit margins for publishing companies. Ward says this system evolved because, when papers were mostly communicated in print, there were a lot of costs associated with printing and distributing. Many journals only offer online editions now, but subscription prices have not dropped accordingly, and the copyright arrangements have remained.

"We do the work and then we give away our product. It's not like a photographer or a musician. We give our product to the publisher and the publisher then uses the free services oftentimes of editors and almost always from peer reviewers providing expert evaluation. The publishers package it up and make a lot of money."

As for the future, Ward believes in a combination of several instituted changes in scientific publishing, with preprints being at the forefront. Another model Ward watches is SCOAP3, a global partnership of 3,000 libraries, funding agencies, and research institutions from 46 countries and intergovernmental organizations that has formed an agreement with publishers to dedicate some subscription fee money for open access.

Niles says Ward is not only helping to change the future of scientific publishing through his leadership but also through his mentorship.

"He's been an incredible mentor to me—helping me as an early career researcher navigate the academic process and tenure, and giving a voice to early career researchers in the scientific publishing process, which was not really there before," says Niles.

Ward says his message to early career researchers is to not abandon the system altogether but to continue working in the imperfect publishing system to try to change it from within.

"There are things we can do that won't necessarily damage our career in any way but can start to nudge the battleship in a better direction," he says.

For Ward, thinking globally and acting locally boils down to one simple motivating truth.

"The main reason for open access is things will happen faster. When there's human health involved, there's an opportunity cost that we should all care about." VM



THE PATIENT



AT THE CENTER



Through the Longitudinal Integrated Clerkship,
students become advocates and advisors as
they learn the art and science of medicine.



BY ERIN POST



In the spring of 2019, Dan* walked through the doors of a primary care clinic in upstate New York.

Sweating, shaking, and nauseous, he was overwhelmed with the symptoms of severe opioid withdrawal. He was also ready to quit using heroin. A nurse at the clinic asked Dan if he would agree to have UVM Larner College of Medicine student Jordan Munger '21 talk with him. "As long as he's okay with seeing me cry," said Dan.

Munger, in his first few months as a third year student in the Longitudinal Integrated Clerkship (LIC) at Hudson Headwaters Health Network, asked Dan why he visited the clinic that day and what he wanted moving forward. They talked about symptoms and diagnosis, but also had enough time to sit together and dig more deeply into what Dan was hoping for in seeking help.

**Name and some details have been changed to protect patient confidentiality.*



Jordan Munger '21 consults with UVM Clinical Assistant Professor of Pediatrics Irene Flatau, M.D.'88, during a rotation at Queensbury Family Health.

"I did the initial interview on his history of drug use and his goals for suboxone treatments," says Munger. "He had been in and out of the medical system for years. This time he was back to initiate treatment for opioid use disorder."

Since that first encounter several months ago, Munger has become an important member of Dan's care team. He's gone with him to appointments for a wide range of chronic health issues that are now being treated thanks to his reengagement with Hudson Headwaters. Not only is Munger able to learn how to help patients manage long-term conditions by accompanying Dan—an important objective for all third-year medical students—Munger has become a champion and advocate for him

as he navigates what is a critical time in his recovery.

This advocate role has much to teach doctors-to-be, says Hudson Headwaters LIC Site Director and UVM Clinical Assistant Professor of Family Medicine Colleen Quinn, M.D. As students experience the health care system alongside patients, they understand more deeply just how many factors can influence health and well-being, from food insecurity and employment to transportation and insurance. They bring empathy and thoughtfulness to their interactions with patients, fostering relationships that grow throughout the year.

"There's that added value," says Quinn. I don't think the students always understand how valuable [their presence]

is, but it's incredible. It really helps with patient care."

The Art of Listening

At the foundation of the LIC is the gift of time. The program, which launched at the Hudson Headwaters site in 2017, gives students the opportunity to stay in one location for the entirety of their third year. They complete all of the same core clerkships as medical students across the country, but they do it over 12 months, as opposed to rotating through a different specialty every few weeks. The College launched a second LIC location at Central Vermont Medical Center in the spring of 2019, bringing the current total number of students in the LIC

to eight. UVM Clinical Assistant Professor of Family Medicine Christine Payne, M.D., site director for the Central Vermont LIC, says even in the first year of the program students are contributing to the work of the UVM Health Network location.

"They really form a bridge between different providers," she says, adding that as students get to know patients and their families, they also play an important role in helping to navigate the healthcare system.

Students—in their short white coats emblazoned with the UVM Larner College of Medicine name—become a familiar presence over the course of the LIC. At both Hudson Headwaters and Central Vermont, they are assigned two family medicine or outpatient medicine preceptors and a

pediatric preceptor for the duration of the year. They spend at least half a day per week with each of these providers. They work with a neurologist and psychiatric nurse practitioner two times every month. For obstetrics/gynecology and surgery, they spend half the year focused on each specialty. Students complete "Burst Weeks" for inpatient medicine and psychiatry, where they focus solely on each of these specialties. Rounding out these requirements is "white space," or the unstructured time in the schedule when students take the lead. The opportunities here are many: Students explore specialties they're interested in; they use the time to study for upcoming exams; they see patients they've been adding to their panel over the course of the year.

“The students are getting exposed to almost every facet of the hospital.”

— CHRISTINE PAYNE, M.D.

This panel—consisting of anywhere from 25 to 50 people—gives LIC students opportunities to dig deep into the patient experience. Whether it’s witnessing a birth and then following mother and baby to post-natal check-ups, or accompanying a patient with diabetes through check-ups and consultations, students are there with patients through it all, often becoming trusted advisors.

Catherine Westbom ’21, a student in the Central Vermont LIC, says she’s able to help patients get their questions answered, improving their care in the process.

“One of the benefits of being a medical student is I can spend 20 minutes with any one patient and chit chat,” she says. “And through the chit chat sometimes they’ll say: ‘Oh yeah, I’ve been wondering about this and keep forgetting to ask.’”

At the Hudson Headwaters site, Cassie Nowicki ’21 says this role—liaison between patients and providers—dovetails nicely with their work learning the basics of patient care.

“Across different specialties, physicians are asking questions about what’s relevant,” she says. “You’re actually able to contribute and they’re trusting you to contribute.”

Students in both locations have patients on their panels who live in nursing homes; they go on home visits; they spend time

in the emergency department and with palliative care teams. Depending on their interests, some students fill their white space by spending time with cardiologists, pathologists, or neurologists. Others have accompanied patients to social services appointments, seeing first-hand how issues like homelessness and lack of access to reliable transportation can influence health.

Central Vermont LIC student Alexa Golden ’21 has patients on her panel who have been diagnosed with terminal illnesses. Witnessing how these patients face the end of life with dignity and grace is shaping how she plans to practice medicine.

“There are people in really tough situations who are at the hospital all the time or in the doctor’s office all the time,” she says. “Some of these patients are never going

to get better, but they’re really optimistic. They carry on knowing that they’re going to do the best with what they have left.”

For Jessica Lyon ’21, following up with a physician who hosted a continuing medical education talk she attended led to an opportunity to spend time at a UVM Medical Center clinic for patients who identify as transgender or LGBTQ. She learned more about this interest area and has connected with some patients.

Kalle Fjeld ’21 is building a foundation for life-long wellness through her LIC experience at Hudson Headwaters.

“I’ve gotten to know some people really well, which has been a delight,” says Fjeld. “Some of the most sustaining and fulfilling things that keep people from burning out are those long-term positive relationships.

I think it’s good to be able to start that now rather than in five years when I’m done with residency.”

Through these experiences, students begin to recognize their talents and skillsets, says Quinn, which helps them to chart a course for the future.

“As they go through the program, they learn a lot about themselves,” she says. “It’s an amazing thing to watch as they gain confidence.”

The Future of Health Care Delivery

Hudson Headwaters Health Network, a nonprofit system of 19 community health centers, extends into some of the most

rural regions of the vast Adirondack Park in New York State. As a Federally Qualified Health Center, Hudson Headwaters is the sole “safety net” provider in the Glens Falls area, providing primary care to patients across 5,600 square miles in this medically underserved region. This unique mission has helped to propel Hudson Headwaters to the forefront of innovation in rural health care delivery. They’re piloting an advanced model of team-based care—renovating two clinics and building one from the ground up to better accommodate health professionals from different disciplines working together—and are moving towards a value-based care payment model.

Students at Hudson Headwaters experience these innovations and learn about the future of health care delivery

through a health systems science curriculum. The goal is to introduce students to the “triple aim” in health care, which includes improving the patient experience, improving the health of populations, and reducing the per capita cost of health care. Students attend ten sessions over the course of the year and complete a community project.

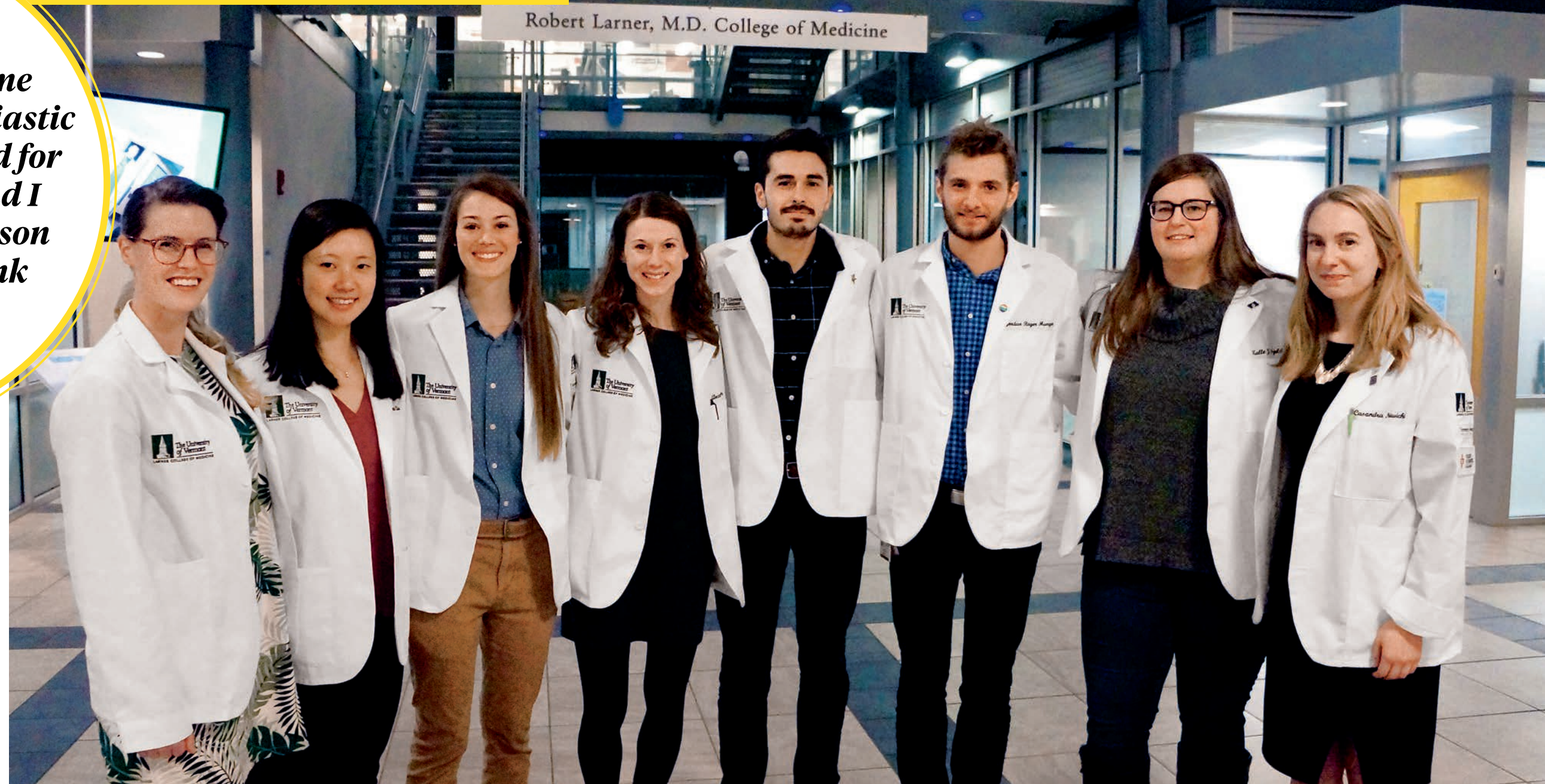
Hudson Headwaters Vice President for Population Health Management Linda Spokane teaches students about value-based care and quality improvement, and helps to guide their projects.

“I would like [students] to understand this concept of whole person care, which to me means addressing the social, the behavioral and the physical health of a person,” she says. “With their time here

Christine Payne, M.D., and Jessica Lyon ’21 at Waterbury Medical Center.

“My third year left me optimistic and enthusiastic and incredibly excited for what comes next, and I have my time at Hudson Headwaters to thank for that.”

— DYLON GOOKIN '20



and through focusing on population health, they become more aware of some of the other factors that contribute to an individual's well-being.”

In central Vermont, the medical center serves 26 communities and is the primary health care provider for about 66,000 people. Although less than an hour from Burlington and about a half an hour from Montpelier, the challenges of delivering care in a rural region still apply, as do the opportunities. In such a tight-knit community, LIC students have already earned a positive reputation and specialists are enthusiastic about opportunities to engage, says site director Christine Payne.

“We’ve had students doing things like rheumatology and palliative care and anesthesia,” she says. “The students are getting exposed to almost every facet of the hospital.”

They’re also making a lasting impact, not only through direct patient care but through their community projects, which students at both locations complete. Last year at Hudson Headwaters, Isabella Kratzer ’20 organized mailings of an at-home colorectal screening test to high risk patients. Chad Serels ’20 traveled to health centers to educate providers on the health effects of vaping products. Students this year have

chosen projects focused on medication-assisted treatment for opioid use disorder, doulas and their role in childbirth, access to healthy food, and more.

“[The community projects] are a great opportunity for students to get out of that medical model mindset and think more globally in terms of whole patient care,” says Spokane.

Shaping a Life in Medicine

When Dylan Gookin ’20 returned to Hudson Headwaters for a fourth-year rotation after spending his third year in the LIC, it felt like a homecoming. For the month he was there to complete his fourth-year scholarly

project—which focused on developing tools for physicians to use in student assessment—he lived with a Hudson Headwaters physician and his family. He also hosted review sessions for current students, something that Class of 2019 student Holly Bachilas also did for his group.

“My third year left me optimistic and enthusiastic and incredibly excited for what comes next, and I have my time [at Hudson Headwaters] to thank for that,” he says. “Because Holly had been such a value to us, I wanted to provide that[support].”

These relationships have encouraged many LIC students to thoughtfully reflect on how they see their lives unfolding as physicians.

For Nowicki, her third year is confirming her interest in practicing family medicine

in a rural location. Westbom at Central Vermont has surgery in mind, but now she’s also considering OB/GYN. Fjeld has found her horizons expanding. A native Vermonter, she knows she’d like to practice in a rural area, but has through the LIC discovered a love for surgery.

“I have the luxury of all of this time to keep exploring what different people’s careers can look like,” she says. “It’s nice to get to know my preceptors, and hear about their lives here and their decision-making process. I think that will help me.”

Regardless of specialty, students know they’ll be keeping the patient at the center of their work.

“People aren’t just the problem that they’re presenting to you for,” says Lyon. “They’re a whole set of characteristics and

health concerns and issues. I don’t know if there will be any other time in my medical training or career where I’ll get to see everything a person goes through.”

This act of bearing witness has clarified for Munger how he wants to practice medicine: By focusing on those who are least likely to seek care. Dan, the patient he met who is struggling with opioid use, has helped him to find his path.

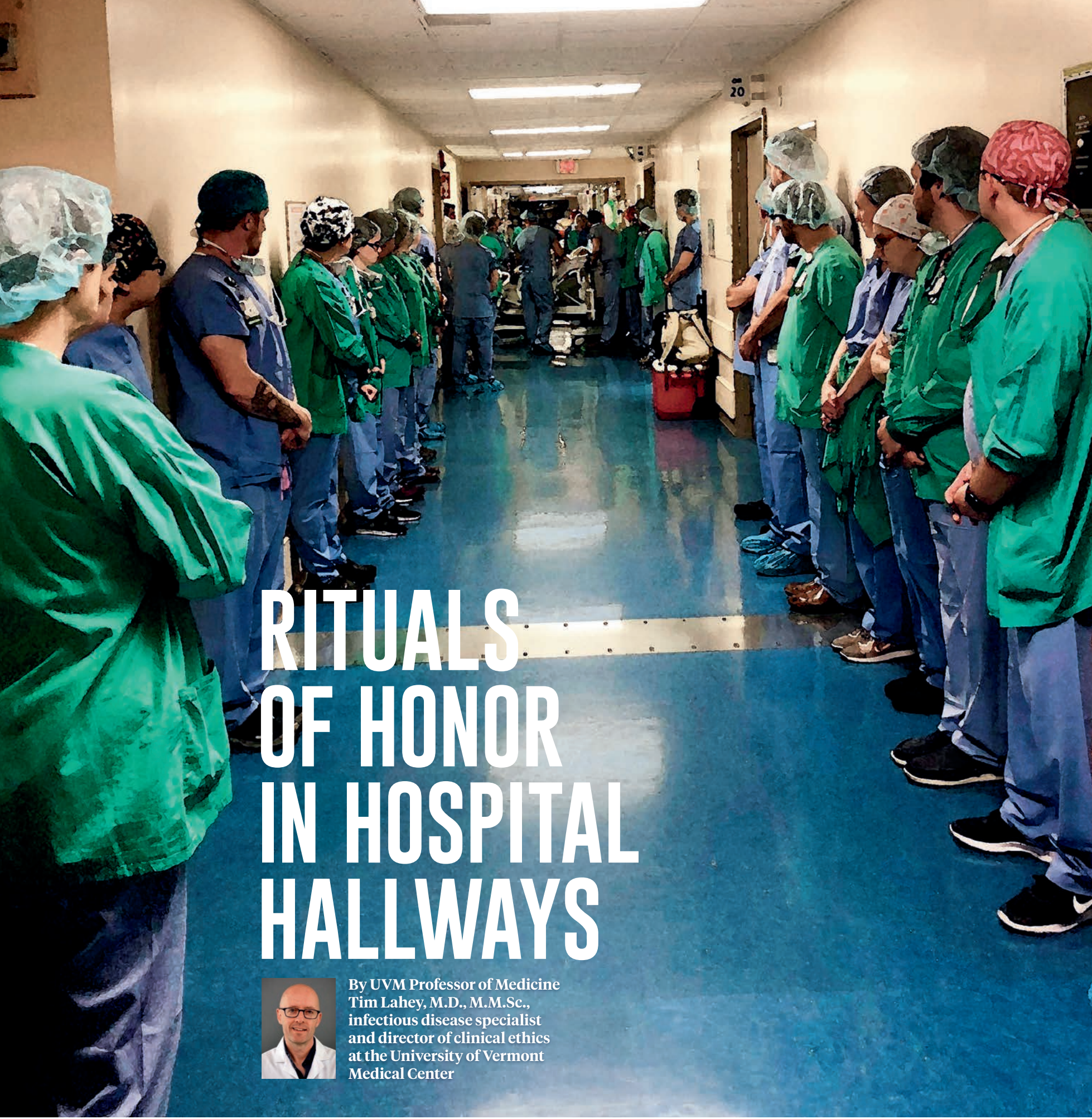
“What has made me interested in

LIC students from the Class of 2021 (above, L to R): Catherine Westbom, Flora Liu, Jessica Lyon, Alexa Golden, Connor Scagnelli, Jordan Munger, Kalle Fjeld, Cassie Nowicki

addiction medicine is that it almost by definition represents a stigmatized, marginalized type of people,” he says. “That’s going to stay with me now that I’ve had the chance to do it. And I keep getting the chance to do it.” VM



WATCH A VIDEO SERIES PRODUCED BY KALLE FJELD ’21 FOR HER COMMUNITY PROJECT. A FORMER CHEF, SHE INSTRUCTS VIEWERS HOW TO PREPARE SEASONAL VEGETABLES THEY RECEIVE THROUGH THE HUDSON HEADWATERS FOOD FARMACY PROGRAM.



RITUALS OF HONOR IN HOSPITAL HALLWAYS



By UVM Professor of Medicine
Tim Lahey, M.D., M.M.Sc.,
infectious disease specialist
and director of clinical ethics
at the University of Vermont
Medical Center

Hospitals across the United States are holding honor walks to show respect to patients at the end of life who are donating organs to others.

The double doors of the surgical intensive care unit opened into a hallway crowded with dozens of hospital employees. A hospital bed emerged, and we all fell silent.

Most beds roll out of the I.C.U. briskly, en route to radiology or an operating room, whirring with the beeps and blinks of monitors and the quick conversation of busy nurses.

This bed was different. It moved at a stately pace, and the team that accompanied it was changed as well. Nurses steered, but there was no chitchat this time. A tall anesthesiologist leaned over the head of the bed to squeeze a bag valve oxygen mask with clocklike regularity.

People in street clothes trailed close behind the bed, unsure of where to look. These were the parents of the young woman in the bed, the one we had all come to honor.

This was an “honor walk” for a dying patient about to donate her organs to others.

Whether in Idaho or Tennessee or Oregon, hospitals across the United States are holding honor walks as dignified ways to honor each patient’s final contribution.

With the consent of loved ones, and with the operating room ready for organ donation to begin, hospital leadership invites all staff members to participate. In my hospital, the University of Vermont Medical Center, the clothing in the crowd reflected the different jobs we’d been pulled away from: There were white coats and ties, crumpled blue scrubs, bouffant surgical hats and expensive pinstripe suits. A priest who wore a neon pink Hawaiian shirt over his clerical collar looked up and down the hallway and smiled.

The honor walk takes place at an odd pause between life and death: Either brain death has been declared already in a donor whose heart still beats, or the donor’s heart will soon stop beating.

I looked at the woman in the bed. Her eyes were closed. Her skin was sallow. She wore the usual hospital gown and identity bracelet. IV tubing and telemetry wires still snaked onto the bed. It all looked so superfluous, there in the final minutes of a life whose exact end was already known.

An honor walk is a powerful act of community.

Something solemn, even sacred, happens in those 15 minutes in the hallway. We wait and talk with people from all professions and all walks of life. Together, we honor a great sacrifice. We give thanks. We hope to help a grieving family in a moment of fathomless loss.

Jennifer DeMaroney is an organ donation coordinator who brought the honor walk to my hospital in an unconventional way. Instead of working the byzantine committees of a billion-dollar hospital bureaucracy, Ms. DeMaroney says she stormed in unannounced to the office of Eileen Whalen, the hospital’s president, with a photograph of another state’s honor walk, asking if we could do the same thing.

Ms. Whalen, a former trauma nurse and governing board chair of the Center for Donation and Transplant of New York and Vermont, approved our first honor walk on the spot.

Ms. Whalen said it was an easy decision. She wanted to provide grieving families with a way to give back, and for everyone to help those families endure their loss. She agreed with Ms. DeMaroney that the honor walk lets families know “we think the people who donate to save a life are heroes.”

We need those heroes—desperately. The United Network for Organ Sharing estimates that more than 113,000 people are waiting to receive organ transplants. More people donate organs each year, but still, in 2017 over 6,500 people died while on the waiting list.

I spoke with Missy Holliday, organ operations director at LifeCenter in Cincinnati, where an honor walk garnered national social media attention. Ms. Holliday said LifeCenter began honor walks in December 2017 in response, in part, to intensive care unit nurses who wanted a way to honor former patients who donated. The staff has learned to place a chair in the hallway the day of an honor walk in case a family member needs a moment to sit and cry and receive support.

And the ritual has entered the popular culture as well: Last week an episode of “Grey’s Anatomy” adapted the hallway ceremony for a powerful scene involving a victim of sexual assault.

Back in my hospital, as the young woman’s bed rolled out of sight, we knew a private ritual would soon begin. Somehow, her parents would say their final farewells. Then in a brightly lit operating room with all the high-tech tools of modern surgery at the ready, a masked surgeon would reach into a young woman’s still-warm body in order to turn one family’s devastating loss into new hope for numberless strangers. **VM**

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WATCH A VIDEO OF AN HONOR WALK HELD AT UVM MEDICAL CENTER: MED.UVM.EDU/VTMEDICINE/WEB-EXTRAS

President's Corner

Move Mountains: The Campaign for the University of Vermont launched in October of 2015 with a goal to raise \$500 million, an ambitious undertaking with the power to transform our University. In June of this year, UVM celebrated the campaign's successful completion. Collectively, alums, faculty, staff, students, and friends helped the Larner College of Medicine surpass our fundraising goal of \$125 million by over \$80 million. The College has much to be proud of—our donors established nearly 40 new endowed faculty positions, created over 30 new endowed scholarship funds, helped to support our medical education infrastructure, and gave generously to the College of Medicine Fund, the backbone of our annual giving efforts. A sincere thank you to all of our loyal alums and donors for making *Move Mountains* such a resounding success.

Students appreciate your generosity—we know this through the heartfelt thank you notes that we receive. From scholarships to research grants to travel grants, current medical students are thriving through the opportunities you help provide for them. One student who received a Medical Alumni Association Scholarship shared: “As a non-traditional student, having the support of so many has been a huge encouragement and motivation to do the best I can. Your generosity is allowing me to make my goals and dreams a reality. Thank you again—I hope to one day be able to give back to other

students in the future.” And another student who received a research grant: “With your generous assistance, I will have the privilege to work on this project and help understand how to improve the quality of eye care in Vermont.” We want to continue to share students’ gratitude with you; see more examples of thank you notes from students on page 33 in a regular column we’ve created for *Vermont Medicine*.

Alums recently had the chance to reconnect with each other and with current students at Medical Reunion 2019, held for the first time in the fall to coincide with the College’s White Coat Ceremony and UVM Alumni Weekend festivities. It was certainly a fun-filled and action packed couple of days! The weekend featured a celebration of our Medical Alumni Association award winners—always a welcome opportunity to recognize achievement across the class years. Thanks to everyone who returned to the Larner College of Medicine to share memories. For those of you who are in reunion year 2020, we hope you will start thinking about making plans to return to Burlington October 2-4. We look forward to hosting you and showing you around campus!

Betsy Sussman



Dean Richard L. Page, M.D. (seated, third from left), with members of the Alumni Executive Committee

University of Vermont Medical Alumni Association

Alumni Executive Committee

OFFICERS (TWO-YEAR TERMS)

PRESIDENT

Betsy L. Sussman, M.D.'81 (2018-2020)

PRESIDENT-ELECT

Omar A. Khan, M.D.'03 (2018-2020)

SECRETARY

Mary Cushman, M.D.'89 (2018-2020)

EXECUTIVE SECRETARY

John Tampas, M.D.'54 (Ongoing)

MEMBERS-AT-LARGE (SIX-YEAR TERMS)

Annie Coates, M.D.'07 (2018-2024)
Sean Diehl, Ph.D.'03 (2016-2022)
Seth Dolsky, M.D.'10 (2016-2022)
Janice M. Gallant, M.D.'89 (2015-2021)
Albert J. Hebert, Jr., M.D.'74 (2015-2021)
Christopher J. Hebert, M.D.'02 (2015-2021)
Danie Leahy, M.D.'17 (2018-2024)
Gus Papadakis, M.D.'92 (2018-2024)
Suzanne R. Parker, M.D.'73 (2016-2022)
Heidi K. Schumacher, M.D.'10 (2015-2021)
Michael D. Upton, M.D.'94 (2015-2021)
Pramila R. Yadav, M.D.'99 (2015-2021)

EX OFFICIO MEMBERS

Richard L. Page, M.D., Dean
Kevin McAteer, UVM Foundation

Share your news or updated contact information at go.uvm.edu/infoupdate, or contact your class agent, or the Larner Development & Alumni Relations office at medalumni.relations@uvm.edu or (802) 656-4014.

1960s

REUNION 2019: 1964 + 1969

'61 **Priscilla S. Martin** of Pittsford, N.Y., has now retired.

1970s

REUNION 2019: 1974 + 1979

'75 **Steve Haines** writes: “I am finally stepping away from 37 years of academic neurosurgery in December. Jennifer and I will be living in Blaine, Washington and happy to see anyone who is passing through the Pacific Northwest.” Haines was recently honored with the Neurological Society of America’s NSA Medal, awarded to “an individual who, in the opinion of the membership, most significantly influenced the clinical practice of neurosurgery through personal achievement.”

'79 **James Jarvis** of Buffalo, N.Y., was named Master of the American College of Rheumatology, one of the highest honors bestowed by College members to members who have made outstanding contributions to the field of rheumatology through scholarly achievement and/or service to their patients, students, and profession.

1980s

REUNION 2019: 1984 + 1989

'83 **Leigh LoPresti** of Pittsfield, Mass., has joined the primary care team at Community Health Partners’ North Adams Family Medical and Dental in North Adams, Mass.

'84 **Mark Albertini** has been honored by the American Academy of Dermatology as a Patient Care Hero for his leadership in launching a melanoma tumor board to optimize care for melanoma patients at the University of Wisconsin School of Medicine and Public Health.

'89 **George Terwilliger** has joined Grace Cottage Hospital in Townshend, Vt., as chief medical officer, emergency department medical director, and hospitalist director.

1990s

REUNION 2019: 1994 + 1999

'91 **Kelly McQueen** of Madison, Wisc., was named chair of the Department of Anesthesiology at the University of Wisconsin School of Medicine and Public Health. She was previously a professor in the departments of anesthesiology and surgery at the Vanderbilt University School of Medicine, where she also directed Vanderbilt Anesthesia Global Health and Development and the Vanderbilt Global Anesthesia Fellowship. She’s also the founder of the non-profit Global Surgical Consortium, and the Alliance for Surgery and Anesthesia Presence.

'96 **Danette Colella** has joined Greater Seacoast Community Health, dividing her time between Families First Health and Support Center in Portsmouth, N.H., and Lilac City Pediatrics in Rochester, N.H.

'99 **Amy Belisle** of Yarmouth, Maine, has been appointed as the State of Maine’s Chief Pediatrician and Chief Child Health Officer. She formerly served as senior medical director and director of child health quality improvement at Quality Counts, a Qualidigm Company, a regional nonprofit dedicated to transforming health care. She led efforts to advance care for substance-exposed infants and created the Maine Child Health Improvement Partnership, which has spearheaded successful initiatives to increase vaccination and developmental screening rates.

2000s

REUNION 2019: 2004 + 2009

'09 **Ananda Boyer** has joined Rutland Women’s Healthcare at Rutland Regional Medical Center in Rutland, Vt. Boyer is board-certified in obstetrics and gynecology with clinical expertise in women’s health.

'09 **Andrew C. Boyer** has joined Rutland Regional Medical Center in the diagnostic imaging

department. Boyer is board-certified in radiology with a clinical expertise in breast and body imaging.

2010s

REUNION 2019: 2014 + 2019

'12 **Brock Libby** has moved from Philadelphia, Penn., where he completed an adolescent medicine fellowship, to Portland, Maine, to work for Maine Medical Center. He will be based primarily at Maine Medical Partners South Portland Pediatrics and Adolescent and Young Adult Medicine but also will work in the gender clinic at the hospital.

'13 **Emily (Crook) Rosenberg** has joined the staff of Cheshire Medical Center in Keene, N.H., as part of the Department of Family Medicine.

'14 **Ashley Miller** has joined Berkshire Orthopaedic Associates based in Massachusetts.

'15 **Matt and Hayley MacKinnon** write that they: “graduated from the University of Washington in psychiatry and ob/gyn residencies respectively in June 2019. Matt will join a private group in Seattle while Hayley completes three years of maternal fetal medicine fellowship at the University of Washington before they come back to Vermont... so save us a place at the table!”

'15 **Hope Yao Yu** of Boston, Mass., started her maternal fetal medicine fellowship at Brigham and Women’s Hospital.

'18 **Mohammad (Mo) Mertaban**, a pediatric resident at the University of California San Francisco, was named Resident of the Year.

'18 **Kathleen Olson** of Phoenix, Ariz., was named Surgery Intern of the Year at Mayo Clinic Arizona. The award goes to the intern with the most “can do attitude” who is also dependable, knowledgeable, and skilled surgically.

COLLEGE EVENTS

MARCH 20, 2020

Match Day
UVM Campus/Hoehl Gallery

MAY 17, 2020

Medical Commencement
UVM Campus, Ira Allen Chapel

OCTOBER 2-4, 2020

Medical Reunion
UVM Campus

For updates on events, visit:
med.uvm.edu/alumni

Larner College of Medicine graduates are also members of the UVM Alumni Association. See those events at:
www.alumni.uvm.edu

SUBMIT CLASS NOTES ONLINE

The UVM Alumni Association now offers an easy-to-use online form to submit class notes. You can also browse class notes by year, school or college, or note type.

Submit your class note and read more from classmates:

go.uvm.edu/medclassnotes

HAINES HONORED BY NEUROLOGICAL SOCIETY OF AMERICA

Stephen Haines, M.D. '75, has been honored with the prestigious Neurological Society of America (NSA) Medal, awarded to “an individual who, in the opinion of the membership, most significantly influenced the clinical practice of neurosurgery through personal achievement.” He received the award at the NSA 2019 Annual Meeting in Banff, Alberta, Canada. In a statement from the University of Minnesota, where Haines is a professor,

Haines credits one of his teachers, former UVM Professor of Medicine Larry Weed, M.D., with instilling in him a passion for elevating the quality of clinical research. Weed developed the problem-oriented medical record (POMR) and the SOAP (Subjective, Objective, Assessment and Plan) medical note format. From 2003 to 2017, Haines served as the Lyle A. French Chair in Neurosurgery and Head of the Department of Neurosurgery at the University of Minnesota. He has authored more than 300 peer-reviewed articles, books, chapters, reviews, abstracts and invited presentations.



Stephen Haines, M.D. '75

UNIVERSITY OF MINNESOTA

Joseph Bosco, M.D. '86, delivers the John W. Frymoyer, M.D. Guest Lecture.



50 YEARS OF EXCELLENCE IN ORTHOPAEDICS

Residents, faculty, and alumni from the Department of Orthopaedics and Rehabilitation celebrated the 50th anniversary of the Orthopaedic Surgery Residency Program on September 11 and 12, 2019. The event featured a series of talks from current and past faculty members, resident case presentations, tours of the new orthopaedic inpatient facility in UVM Medical Center’s new Miller Building, and an alumni, faculty and resident dinner at the Burlington Country Club. **Joseph Bosco, M.D. '86**, professor at NYU Langone Health and director of quality and patient safety at NYU Langone Orthopedic Hospital, hosted the John W. Frymoyer, M.D. Guest Lecture at the Burlington Country Club, titled “The Future of United States Musculoskeletal Care Delivery and Reimbursement.” Attendees also celebrated the publication of *Vermont Orthopaedics: The First 135 Years*, written by the program’s first resident, former dean of the College of Medicine and former chair of the Department of Orthopaedics and Rehabilitation, **John W. Frymoyer, M.D.**, and **S. Elizabeth Ames, M.D. '96**, professor and residency program director.



Ryan Sexton, M.D. '09

SEXTON ADVOCATES FOR MENTAL HEALTH TREATMENT ACCESS

Northeastern Vermont Regional Hospital Emergency Department Medical Director **Ryan Sexton, M.D. '09**, recently participated in the American College of Emergency Physicians’ (ACEP) 2019 Leadership & Advocacy Conference in Washington, D.C., to advocate for a proposed bill that addresses mental health treatment access. Sexton, who serves as president of ACEP’s Vermont chapter, met with staff from the offices of U.S. Senators Bernie Sanders and Patrick Leahy, and U.S. Congressman Peter Welch.

A NOTE OF THANKS

In this new series, Vermont Medicine plans to share a note of thanks from a current student for the support they’ve received from alumni. **Christina “Nina” Dawson '21** addressed Medical Alumni Association President Betsy Sussman, M.D. in her letter:

I wanted to express my sincere gratitude and thanks for the financial support I have received through the Medical Alumni Association Scholarship. As a second year medical student at the Larner College of Medicine I am so fortunate every day to be learning from so many inspiring physicians, and I am eagerly looking forward to March when I get the honor of applying some of what I have learned into the clinics.

I have taken quite a few detours before pursuing my medical education. My first degree in politics and human rights gave me the opportunity to pursue careers in policy, international development, and public health—all of which have been the backbone for my passion to become a doctor. As a non-traditional student, having the support of so many has been a huge encouragement and motivation to do the best I can. Your generosity is allowing me to make my goals and dreams a reality. Thank you again. I hope one day to be able to give back to other students in the future.

Kindest regards,
Christina “Nina” Dawson '21



Nina Dawson '21

UPCOMING CONFERENCE SCHEDULE

UVM CONTINUING MEDICAL & INTERPROFESSIONAL EDUCATION

CURRENT CONCEPTS & CONTROVERSIES IN SURGERY
January 27-29, 2020
The Lodge at Spruce Peak
Stowe, Vt.

EMERGENCY MEDICINE UPDATE
January 26-30, 2020
The Lodge at Spruce Peak
Stowe, Vt.

31ST ANNUAL EASTERN WINTER DERMATOLOGY CONFERENCE
January 30-February 2, 2020
Topnotch Resort
Stowe, Vt.

HOSPITAL MEDICINE 2020
February 9-11, 2020
The Lodge at Spruce Peak
Stowe, Vt.

25TH ANNUAL VERMONT PERSPECTIVES IN ANESTHESIA
March 4-8, 2020
Stowe Lake Mountain
Resort & Spa
Stowe, Vt.

VERMONT GERIATRICS CONFERENCE
April 2, 2020
The DoubleTree Hotel
South Burlington, Vt.

For information contact:
UNIVERSITY OF VERMONT CONTINUING MEDICAL EDUCATION
401 Water Tower Circle
Suite 102
Colchester, VT 05446
(802) 656-2292
UVMCME@med.uvm.edu
www.med.uvm.edu/cme



Reunion 2019

Alumni visiting campus for Medical Reunion 2019, October 4-6, caught up with their classmates through picnics, a nostalgia hour, class dinners and more, while they also had the opportunity to welcome the newest medical students by attending the Class of 2023 White Coat Ceremony.



ENDOWED PROFESSORSHIP ADVANCES DERMATOLOGY RESEARCH AND EDUCATION

A patient-physician relationship that dates back two decades has led to an endowed professorship dedicated to fostering excellence in dermatology at UVM Medical Center. Vermont resident Lenore Broughton established the professorship—named for her parents, **Rogers and Nancy Follansbee**—in honor of the work that **Glenn Goldman, M.D.**, professor of medicine and chief of the Division of Dermatology, has done to advance dermatology care at UVM Medical Center. Broughton’s newest gift continues a history of philanthropic support for Dr. Goldman and the Division of Dermatology: In 2012, she established the Broughton Dermatology Research Fund, which has led to nationally recognized work and many advances in the field. The professorship will sustain Goldman’s legacy and advance his goals for the division, including “fostering education, encouraging research, and promoting the exchange of skill sets with international colleagues.”

A patient-physician relationship that dates back two decades has led to an endowed professorship dedicated to fostering excellence in dermatology at UVM Medical Center.



SCHUMACHER FAMILY FUND TO HONOR DEPARTMENT OF PEDIATRICS

A new endowed fund honors the Schumacher family’s commitment to medicine and the influence the Department of Pediatrics has had on two generations. **Cajsja J. Schumacher, M.D.’74** and **Jeremy Schumacher, M.D.’74**, met while medical students at UVM. They went on to marry and pursue careers in pediatrics. Two of their children, **Erika Cajsja Schumacher, M.D.’08** and **Heidi K. Schumacher, M.D.’10**, also became pediatricians after earning their medical degrees at UVM. Their son, **Ryan Schumacher**, is a doctor of osteopathic medicine candidate at Kansas City University of Medicine and Biosciences. “In gratitude for the outstanding education and inspiration provided by the Department of Pediatrics,” the family has established the **Schumacher Family Endowed Fund**. The goal is to support students, residents, fellows and faculty in the Department of Pediatrics “in their personal wellness, in the continued search for best practices in care and teaching, and in the commitment to the health of the children and families in our beloved Vermont.”



PORTER MEDICAL AND UVM FOUNDATION SHARE \$1.1 MILLION DONATION

The **Frank Ittleman, M.D. Endowed Chair in Cardiac Surgery** at the UVM Medical Center, named in honor of the longtime UVM professor of surgery, has received an additional \$500,000 from anonymous donors, as a part of a joint \$1.1 million gift that also benefited the UVM Health Network-Porter Medical Center. “Dr. Ittleman has been a vital part of the UVM cardiothoracic team for nearly 40 years,” said **Mitchell C. Norotsky, M.D.**, the Stanley S. Fieber M.D.’48 Chair in Surgery. “The generosity of these donors enables us to continue that tradition and provide patients throughout our region with the highest quality care.”

ENDOWED LECTURE FUND FOCUSES ON RETINAL DISEASE AND ANATOMY

UVM Professor of Medicine **Muriel Nathan, M.D., Ph.D.**, has founded the **Ruth Ann Trachimowicz, Ph.D. Lectureship in Ophthalmology** in honor of her lifelong friend who is remembered as a gifted teacher of anatomy. The \$50,000 endowed lecture fund will bring a renowned individual to UVM annually to deliver a lecture focused on retina disease and anatomy. It also honors **Brian Kim, M.D.**, chief of the Division of Ophthalmology at UVM Medical Center, for his “skill and dedication to patients and his contributions to UVM and the community.”

After her death, the students voted to have her permanently named as Best First Year Teacher. Kim says the lectureship honors this legacy of teaching and helps his division break new ground.

After meeting in graduate school, Nathan continued on to receive her medical degree, while Trachimowicz taught anatomy at the Illinois College of Optometry, where she excelled. She won an Excellence in Education and First Year Teacher of the Year awards. After her death, the students voted to have her permanently named as Best First Year Teacher. Kim says the lectureship honors this legacy of teaching and helps his division break new ground.

“Retinal disease continues to be a leading cause of blindness worldwide,” says Kim. “As UVM Ophthalmology strives to continue its research aimed at treating this issue, gifts like the Trachimowicz lecture are invaluable: It will allow us access to the brightest minds in the field.”

A HEARTY HANDSHAKE

The back of this old 8 X 10 print just carries the obvious label “Anatomy Photo,” and it was clearly taken in the Gross Anatomy Lab on the fourth floor of the Given Building. As all alumni of this College from the 40s through the 90s will know, the gentleman in the center is the legendary anatomy instructor Dallas Boushey, seen inspecting the hand of the skeleton model nicknamed “Killer.” But who are the other people in this group? Send your thoughts to erin.post@uvm.edu and we’ll include them in the next issue of *Vermont Medicine*.



FROM THE PREVIOUS ISSUE

We’ve received Flashback Feedback about the photos in both of the last two issues.



About the picture of students opening their mailboxes on Match Day, Allan Farquhar M.D.’98 wrote: “I am the bald guy bending away from the camera with dark long sleeve shirt. I think the guy bending in the plaid shirt is Ed Pomicter. Pretty sure the woman facing camera standing in the distance near the lockers is Carole Bibeau. The guy in the baseball hat facing the lockers looks like Pat Keith. I’m not sure if the handsome guy (with hair) opening the locker behind me is Gavin Webb but it looks close. I think on the far top right the guy whose face is cut off facing the lockers is Marcus Mercier, and the guy facing camera with tie behind baseball hat looks like Stephen Messier.



An anonymous contributor whose letter bore a Boston postmark wrote in to theorize about the photo in the Spring 2019 issue: “Could the person in the center be Jacob Martin, M.D.’03?” UVM Professor of Medicine Gil Allen, M.D., also guessed Dr. Martin via email.

You too can support the next generation of society’s caregivers. For more information, please contact the UVM Larner College of Medicine Medical Development & Alumni Relations Office. (802) 656-4014 | medical.giving@uvm.edu | www.med.uvm.edu/alumni

Obituaries

'48 Stanley Fieber, M.D.

Dr. Fieber, 95, of Lake Worth, Fla., died July 21, 2019. Born and raised in Brooklyn, N.Y., Dr. Fieber was a World War II veteran and a surgeon in Essex County for 50 years. He was affiliated with St. Barnabas Medical Center, Montclair Community Hospital, and the Veterans Hospital in East Orange, N.J. Dr. Fieber was the town doctor in Roseland, N.J., and the physician for the Mountain High School football team. He authored articles on innovative surgical practices that were published in prominent medical journals. In 2002, he established the Stanley S. Fieber '48 Chair in Surgery at the University of Vermont.

'53 John R. Eddy, M.D.

Dr. Eddy, 92, longtime resident of Manchester, Conn., died March 16, 2019. Born May 10, 1926, in Burlington, Vt., he pursued a profession in medicine and found deep satisfaction in healing people.

'57 Larry Coletti, M.D.

Dr. Coletti, 89, of Norwich, Conn., died July 24, 2019. Born on December 27, 1929, he graduated from Brown University in 1951, and received his medical degree in 1957. After completing a general/vascular surgery residency at St. Luke's Hospital, he served two years as Lt. Commander, Chief of Surgery, at the naval base in Groton, Conn., followed by two years as a surgical practitioner at the Backus Hospital. In 1969, he opened a private surgical practice in Norwich, which he operated for 35 years. Dr. Coletti completed his career as chair of the Department of Surgery in 2004, retiring as advisor and mentor to his son, David. Dr. Coletti was a fellow of the American College of Surgeons. He received the UVM Larner College of Medicine A. Bradley Soule Award in 1993.

'59 Alan Weisel, M.D.

Dr. Weisel died at his home in Stamford, Conn., on July 4, 2019. Born November 2, 1934, he graduated from the University of Connecticut and received his medical degree from UVM. After completing internships at Albany Medical Center and Greenwich Hospital, and his orthopaedic surgery residency at the Albert Einstein Medical Center, he entered the United States Army in 1964 with

the rank of Captain. He served in the Vietnam War as Chief of Orthopaedic Surgery of the 93rd Evacuation Hospital at Long Binh. Dr. Weisel was an orthopaedic surgeon in Stamford for more than fifty years, serving as chief of orthopaedic surgery of Stamford Hospital and of St. Joseph's Hospital.

'61 Herbert G. Prakelt, M.D.

Dr. Prakelt died July 4, 2019, at the age of 88. Born September 11, 1930, his family emigrated to the United States from Germany in 1936 and settled in New Jersey. Later they moved to Townshend, Vt. A graduate of Springfield College, he served in the U.S. Navy during the Korean War. Dr. Prakelt is remembered as a well-respected family doctor in Essex Junction, Vt.

'62 Dean S. Louis, M.D.

Dr. Louis, 83, of Ann Arbor, Mich., died June 16, 2019, at the University of Michigan Hospital, Ann Arbor, where he worked as an orthopedic surgeon and educator for 44 years. Born in Dayton, Ohio, he earned a bachelor's degree from the University of New Hampshire and his medical degree from UVM. He completed his internship at Maine Medical Center before serving for two years with the U.S. Public Health Service. In 1970, Dr. Louis completed his orthopedic surgery residency at the University of Michigan and began a one-year hand surgery fellowship at the New York Presbyterian Hospital. He was the first physician in the state of Michigan to complete a one-year hand surgery fellowship and obtain a Certificate of Added Qualification in Surgery of the Hand from the American Society for Surgery of the Hand. Dr. Louis was nominated to the Council of the American Society for Surgery of the Hand and became its 51st president in 1997.

'72 John E. Bassett, M.D.

Dr. Bassett died June 16, 2019, at the age of 74. Born October 22, 1944 in Elmira, N.Y., he graduated from Harvard University and received his medical training at UVM and the University of Iowa. Dr. Bassett worked for almost 50 years as a cardiologist and physician. He particularly enjoyed teaching and advising medical students and young doctors.

'72 Adrienne Buuck Butler, M.D.

Dr. Butler died at her home in Blackshear, Ga., on April 29, 2019, at the age of 72. She graduated from Regis College in 1968 and received her medical degree from UVM in 1972. Dr. Butler was commissioned as an officer in the U.S. Army in 1970, serving on active duty until 1982. She was an accomplished pediatrician in Waycross, Ga., and especially enjoyed serving patients with special healthcare needs.

Faculty

Julian Joseph Jaeger, Ph.D.

Dr. Jaeger died July 31, 2019, at the age of 93. Dr. Jaeger, professor emeritus of pharmacology, joined UVM as a professor in 1961, and was honored as a University Scholar in 1985 before retiring in 1989 after 28 years of service. He made seminal contributions to the understanding of biochemical determinants of the action drugs for use in treatment of cancer and of parasitic diseases. Dr. Jaeger served on numerous national and international scientific committees including the Parasitic Diseases Panel of the U.S. - Japan Cooperative Medical Sciences Program, the Tropical Diseases Study Section of the National Institutes of Health, and the Filariasis Scientific Working Group of the World Health Organization.

Anne M. Johnston, M.D.

Dr. Johnston died June 4, 2019. A neonatologist and UVM associate professor of pediatrics, she received her medical degree from McMaster University and completed her neonatal-perinatal fellowship at UVM Children's Hospital. In 2000, she founded a neonatal medical follow-up program for very premature infants and other infants with complicated medical needs at UVM Children's Hospital. A founding member of the ChARM (Children and Recovering Mothers) Program, Dr. Johnston created with her team a nationally-recognized, novel way of caring for infants exposed to opioids.

Edward Krawitt, M.D.

Dr. Krawitt died July 18, 2019, at the age of 84. A professor emeritus of medicine, he served on the UVM faculty for over 40 years, including 17 as the unit director of gastroenterology. In 1987, he was honored as Teacher of the Year. Dr. Krawitt's research involved the study of autoimmune hepatitis and the treatment of chronic hepatitis C. He authored over 40 chapters and more than 100 articles in peer-reviewed medical journals. He designed and co-edited the first two editions of *Autoimmune Liver Diseases*, and was also editor of the textbook *Medical Management of Liver Diseases*. Dr. Krawitt served as chair of the International Liaison Committee of the American Gastroenterological Association and was a co-founder of the U.S.-Japan Society for Autoimmune Liver Diseases.

Carlene (Cardy) Raper, Ph.D.

Dr. Raper died September 5, 2019. She joined the Department of Microbiology and Molecular Genetics as a research professor in 1983 and retired as an emerita faculty member in 1994. Her research, focused on mating-type mutants of the mushroom *Schizophyllum commune*, garnered over 20 grants from the National Science Foundation, the National Institutes of Health, and the United States Department of Agriculture, among others. In 2012, Dr. Raper was elected as a fellow of the American Association for the Advancement of Science in recognition of her distinguished contributions to the field of biological science.

Johanna M. (Yoka) Ruess, M.D.

Dr. Ruess died September 16, 2019, at the age of 89. She was a physician in rehabilitation medicine at the University of Vermont for 22 years. Dr. Ruess'



special interests included the rehabilitation of persons with multiple sclerosis and persons with head injuries. She served on the advisory boards of the Multiple Sclerosis Society, the Vermont Head Injury and Stroke Independence Project, and the Lenny Burke Farm Independent Living Project for Persons with Traumatic Brain Injuries. In October of 1995, she was honored by the State of Vermont Division of Vocational Rehabilitation for her work with people with head injuries. Dr. Ruess retired in 1996 and was granted emeritus faculty status in 2000.

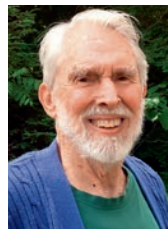
George D. Webb II, Ph.D.

Dr. Webb, 84, of Burlington, Vt., died May 30, 2019. He was associate professor emeritus of molecular physiology and biophysics. Dr. Webb graduated from the University of Colorado School of Medicine in 1962 with a Ph.D. in physiology before completing post-doctoral research in Copenhagen, Denmark, and serving as a post-doctoral fellow at Columbia University Medical School. In 1966, he became an associate professor of physiology at UVM, where he began a long career in basic research. He was the co-author of many scientific articles and a book called *The K Factor*, which proposed changes in diet and lifestyle to control high blood pressure without using medications.

In Memoriam

Lewis Robert Dan, M.D.'59

Dr. Dan died August 15, 2019. His obituary will appear in the next issue of *Vermont Medicine*.



October 4, 2019
7:34 p.m.

At this year's Celebration of Achievements reception during Reunion 2019, Mike Cross, longtime custodian in the Given Building and friend to students, faculty, staff, and alumni for decades, shared a laugh with Omar Khan, M.D.'03, Salwa Khan, M.D.'05, and Mimi Reardon, M.D.'67. After 43 years at UVM, Cross retired on October 31. He promises to come back often to alumni events.

PHOTO: ANDY DUBACK



ALUMS FROM ACROSS THE YEARS SHARE MEMORIES AND STORIES ABOUT MIKE:
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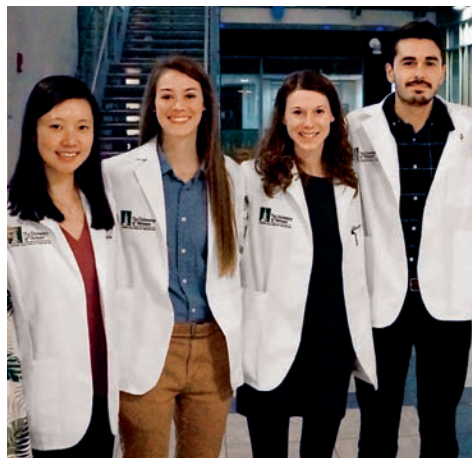
16 Open Access

UVM's Gary Ward, Ph.D., is a national leader in working to make the results of scholarly research available to all who can benefit from them.



20 The Patient at the Center

Through the Longitudinal Integrated Clerkship, students become advocates and advisors as they learn the art and science of medicine.



28 Rituals of Honor

Hospitals across the U.S., including the UVM Medical Center, hold honor walks to show respect to end-of-life patient organ donors.

