

ONE STEP CLOSER

A Journey through the Final Year of Medical School

The final year of medical school culminates a journey, from donning a white coat for the first time as a nervous, new medical student, to wearing it with a sense of purpose and responsibility as graduation looms ever closer. The fourth year also marks a beginning. It's a time when students make big decisions about what kind of physician they hope to be, both in specialty and in spirit.

At the Larner College of Medicine, the Vermont Integrated Curriculum (VIC) takes the seriousness of these decisions into consideration, giving students over one year — a total of 54 weeks — to complete the third level of the curriculum, called Advanced Integration. Students have time to work with their academic advisor to come up with a residency application plan and career path that's right for them. The VIC also gives students ample opportunity to explore specialties and prepare for the USMLE Step 2 exam, as well as pursue a research project or additional teaching responsibilities. All of this while they juggle residency applications and interviews that for many students mean multiple road trips and plane rides crisscrossing the country.

We asked 11 students in the Class of 2017 to check in with us every so often as they completed Advanced Integration. The following photos and excerpts provide a glimpse into life as a fourth-year student at the Larner College of Medicine.

Opposite: Nicholas Bonenfant, M.D.'17 confirmed his plan to match in pediatrics while completing his acting internship in the specialty at UVM Medical Center. He is now a resident in pediatrics at UVM.

Serving the Underserved ▼

JUNE, 2016 Sarah King, M.D.'17 wanted a closer look at rural health care, so for one of her electives she opted to complete a family medicine rotation at Grace Cottage Hospital in Townshend, Vt. From June 6 to June 30, she participated in what is called an underserved rotation at the outpatient clinic in this rural town in Windham County, allowing her to experience what it's like to treat patients in an area that has a shortage of health professionals. She says she came to understand the value of "community health teams, social workers, and counselors," all of whom provide key leadership and support. She also learned from several UVM alums: King worked with Maurice Geurts, M.D., and Ewa Arnold, M.D., who did their residency at UVM Medical Center, and with Moss Linder, M.D., who graduated from the Larner College of Medicine in 1991.

“ One of the things that I took away from my time at Grace Cottage is how important it is to understand the social situation of each of your patients. In medical school, we learn the best way to treat diseases and we learn the preventative medicine recommendations, but this is entirely dependent on what your patient is able or willing to do. A striking challenge that I noticed in Townshend (although I know this is a problem throughout the country), is the lack of psychiatric care and resources. Grace Cottage had a counselor and a psychiatric nurse practitioner, which was helpful for a number of patients, but many people did not have reliable transportation and could not wait for appointments. I saw many instances when the primary care physician played a crucial role in coordinating psychiatric follow-up and helping to find other resources.”





◀ Studying for the Boards ▶

JUNE, 2016 **I-Hsiang Shu, M.D.'17**, relied on a tried and true combination of prep and study tactics to get ready for a familiar rite of passage for fourth-year medical students across the country: the USMLE Step 2 exam. Separated into two parts, clinical skills and clinical knowledge, preparing for the exam requires intense focus and a lot of time. The VIC takes this into account, allowing students the flexibility to take the exam earlier than most students at other medical schools. Shu took the nine-hour clinical knowledge portion in July in Vermont, and the clinical skills portion at the end of September in Los Angeles, where he was doing a rotation. He opted for a dedicated study month plus two extra vacation weeks to prepare for Step 2, in part based on experience with its precursor, Step 1, completed prior to entering clerkships:

“ I took the vacation time because I felt that my Step 1 studying had felt rushed and I wanted to go into the exam mentally healthy and feeling confident. I would say for the first month I was studying a solid eight hours a day, which was a good amount of studying, but this also enabled me to do relaxing and enjoyable things like hang out with my wife, go out with friends, keep a regular exercise schedule, and attend special events like weddings and my wife’s dragon boat tournament. I backed off a little in the final two weeks studying anywhere from four to six hours per day. I never did any group studying but I did have impromptu group support sessions at the UVM library with fellow classmates, who were also studying for the exam.”

◀ Improving Care for LGBTQ Patients ▶

JUNE, 2016 All fourth-year students are required to complete either a teaching month or a scholarly project, both to reinforce foundational sciences and to encourage the development of students as physician-scholars. For his scholarly project, **Nicholas Bonenfant, M.D.'17**, worked with Michael Upton, M.D., assistant professor of psychiatry, to develop a series of eModules and presentations on topics related to LGBTQ health issues. This started with an eModule and presentation to increase primary care providers’ knowledge of and comfort with prescribing pre-exposure prophylaxis (PrEP) for HIV prevention; since then, he has developed modules focused on transgender health and the barriers that face LGBTQ youth of color.

“ During the course of fourth year, I had the unique opportunity to spend time at a ‘safe zone’ drop-in space for LGBTQ youth of color during an extramural rotation in adolescent medicine in Boston, Mass. It was during this experience that the health disparities and difficulties that these adolescents face became so very clear to me. I saw the development of these teaching modules as a way to begin to advocate for these patients. The conversations and stories I’ve heard from LGBTQ patients, particularly the adolescents in Boston, really had a transformative impact on me not only as a person but as a future pediatrician. I hope that the current and future modules that we create will help to better physician-patient interactions and motivate and inspire others to fight for children who face unique and significant challenges related to their gender identity.”

In Service to the Country ▶

JULY, 2016 When **Bridget Colgan, M.D.'17**, arrived at Walter Reed National Military Medical Center for her acting internship in surgery, she was nervous about how she would fit in at this famed institution filled with skilled physicians and researchers. But she quickly found her niche. Commissioned to the U.S. Army a few days before beginning medical school, Colgan went to Walter Reed knowing that she was also looking at it as a potential location for her surgical residency. In the Military Match, the four required active duty training rotations are combined with residency interviews, allowing students to forgo the traditional Match Day experience. The recipient of a Health Professions Scholarship, Colgan says she looks forward to becoming a military surgeon in part because it gives her “the opportunity to do an additional service for our country and the soldiers who give so much of themselves.” At Walter Reed, she worked on the Trauma/Acute Care Service.

“ The rotation at Walter Reed was my first exposure to military medicine, and it helped me gain an awareness of what awaits me in the future. I treated a few wounded warriors and many veterans, including one four-star general from World War II, which was a unique experience. I was able to get a lot of time in the OR. I got to drive the camera for almost all the laparoscopic cholecystectomies that came in, and I got to be really good at this by the end of the rotation. I felt all of my skills improved throughout this rotation. My OR highlight was probably placing a rectal tube for a case of *C. Diff* Colitis, after which the attending told everyone in the room, ‘Watch out, doctor coming through,’ referring to me as the doctor. Even though it was a silly situation, I felt in that moment I had made the next step as a member of the patient care team.”

A Jump Start on Residency ▶

SEPTEMBER, 2016 During the acting internship in medicine, students have the opportunity to assume primary responsibility for patients while supervised by two senior medical residents and a teaching attending. This gives graduating students a first glimpse at what life as an intern is like, albeit with fewer patients at any given time. Students can complete this required course at UVM Medical Center in Burlington, or at Norwalk Hospital or Danbury Hospital, which are both part of the newly designated branch campus at Western Connecticut Health Network. **Mustafa Chopan, M.D.'17** and **Katherine Wang, M.D.'17**, completed their acting internship in medicine at Danbury Hospital, where each served as a member of a general medicine inpatient team. Says Wang:

“ Danbury Hospital’s patient population is very diverse, which serves as a reminder that we must be culturally competent. I had the opportunity to utilize my Spanish skills while there, but despite having a grasp on the language, communicating technicalities of medical jargon proved to be a daily challenge. I often had to rely on the translator phone and native speakers to truly explain the nuances of our treatment plans. It was surprising to see how much I had learned in the past year — sometimes it feels like I’ve already forgotten everything from third year, but it wasn’t as difficult as I expected to pick up where I left off. The acting internship was a great opportunity to continually build on what we’ve already learned in the past.”



Learning to Listen ▼

OCTOBER, 2016 During his month-long rotation in emergency medicine at UVM Medical Center, **Eric Bennett, M.D.'17**, treated a wide range of patients and conditions, from minor injuries to life threatening illnesses. Regardless of the circumstances, taking the time to get to know patients proved to be invaluable in calming the inevitable fear that a trip to the emergency room brings. Simulation sessions in UVM's Clinical Simulation Lab gave him experience in situations demanding advanced life support and CPR. As of March 2017, emergency medicine is a required course students can complete at UVM or in emergency rooms across the UVM Health Network.

“ I wanted to spend time with patients, get to know them, understand their history, and learn as much as possible. The rotation gave me appreciation for the care of people with acute illness and injury. The emergency department can be a terrifying place for people...the staff always did a great job at helping people be calm. I was involved with caring physicians, nurses and other staff who strived to give the best care possible. I hope to take their kindness and composure and apply it to my future practice of family medicine.”



◀ On the Interview Trail

NOVEMBER, 2016 After applying to 17 pathology residency programs (and getting interview offers at all of them), **Laura Griesinger, M.D.'17**, accepted interviews at 12 of the programs on her list. Then, the logistical coordination began. Although it may seem like a daunting travel schedule, it's not unusual for fourth-year students to spend a lot of time in planes, trains and automobiles. For Griesinger, her search focused on the upper Midwest, where she has family, and the West Coast. And since she'd like to do her residency training at an academic hospital with a strong research focus, she worked closely with her academic advisor to tailor her list to these career goals. As her interview schedule ramped up, she soon learned some important lessons, including the value in carrying a small pharmacy to deal with headaches, chapped lips, sinus congestion, and any number of other ailments that can strike at any time.

“ My long term career goal is to work in an academic hospital where I can be involved with teaching residents and teaching at a medical school. I am also most interested in gynecologic pathology, so I am looking for places that are well-known for their gyn path, and either offer a gynecologic pathology fellowship or have strong connections to a place that offers one. Some things that I've learned — never pass up a proffered bathroom break, because a lot of times people are going to forget that those aren't built into your day. Also, always have questions ready in your mind to ask to avoid looking uninterested (which can be really difficult but particularly important when mentally exhausted), and pay very close attention to how the current residents interact with and treat each other and to how they talk about their program, because you can really learn a lot about the culture that way.”



◀ In the Anatomy Lab

NOVEMBER, 2016 The first year after medical school also brings with it teaching responsibilities, a role that fourth-year students prepare for through the Teaching Practicum. For one month, students who choose this track serve as the teaching assistant for a course in the Vermont Integrated Curriculum. **Bridget Colgan, M.D.'17**, helped first-year students through a course that many experience as a challenge academically and personally. She served as TA for the anatomy section of Foundations of Clinical Sciences, helping students study the abdomen, gastrointestinal tract, genitourinary system, brain, and eyes.

“ The anatomy lab and course is often one of the most overwhelming educational experiences a first-year medical student has ever had. It definitely was for me, and I think many students in this year's course felt similarly. I did have a few conversations in the beginning of the month with students, reassuring them they will be successful, and reminding them they made it this far in their education because they are smart and talented, and they will get through this as they have gotten through all their educational endeavors to date. I think it was also helpful to give students a forward looking perspective — they enjoyed listening to what is to come in the clinical years and as a fourth-year. I think it helped them look beyond where they are at now and remember why they are working so hard.”

Healthcare Simulation Design ▶

JANUARY, 2017 As “Simterns” in UVM’s Clinical Simulation Lab, **Elizabeth Cochrane, M.D.’17**, and **Kiyon Naser Tavakolian, M.D.’17**, learned how to use technology like state-of-the-art manikins, as well as the lab’s team of standardized patients, to design and run an effective simulation. The pair, who not only completed this elective together but matched as a couple, came away with a renewed appreciation for what simulation can teach future doctors, nurses, and other healthcare professionals. Says Tavakolian:

“ Learning how to design a simulation and thinking of all the possible scenarios the group could go through has been an eye opening experience. I never realized how detailed and difficult it was to design a simulation until I helped a group design one for a faculty development day. In my most recent interview we actually discussed my experiences as a healthcare simulation intern and how I could transfer the skills I gained during my time at the simulation center to designing simulations in residency.”

Medicine around the Globe ▼

JANUARY, 2017 Fourth-year students have the opportunity to travel the world in service to patients through the Larner College of Medicine’s Global Health Program in partnership with Western Connecticut Health Network. **Katherine Wang, M.D.’17**, spent six weeks in Uganda for a global health elective at Kawempe Hospital, with a focus on obstetrics and gynecology, her chosen specialty. She also spent time at the African Community Center for Social Sustainability (ACCESS) in Nakaseke, an organization founded to “promote the well-being of local residents and to alleviate the effects of poverty.”

“ Being entrenched in the hospital, working side by side with interns, residents, attendings, nurses, and midwives, I was absolutely able to learn about health care in a very different system than our own. Beyond working with the staff, I’ve met many women and their families along the way. ... I asked in my pre-departure reflection — *cui bono* (who benefits)? I certainly have, but that’s not the only goal. My hope is that I have also offered some insight to the Ugandan health care professionals and students, through informal conversation (on the wards) and formal teaching (at ACCESS), and that I will be able to continue contributing for the rest of my career.”



The Next Step: On to Residency

After months of grueling travel and interviews, moments of self-doubt and exhaustion, the day finally arrives: Match Day. On the third Friday in March, medical students across the country learned where they will complete their residency training in a smorgasbord of ceremonies and celebrations. At the Larner College of Medicine, students celebrated together in the Hoehl Gallery, where they announced their match to gathered classmates, faculty and staff, sometimes with family, children, and other loved ones in tow.

WHERE THEY MATCHED

Eric Bennett, M.D.’17: Family Medicine at Utah Valley Regional Medical Center, Provo, Utah

Nicholas Bonenfant, M.D.’17: Pediatrics at UVM Medical Center, Burlington, Vt.

Elizabeth Cochrane, M.D.’17 and **Kiyon Naser Tavakolian, M.D.’17:** Couples Match in Obstetrics and Gynecology and Diagnostic Radiology at Stony Brook Teaching Hospitals, Stony Brook, NY

Mustafa Chopan, M.D.’17: Plastic Surgery at University of Florida College of Medicine/ Shands Hospital, Gainesville, Fla.

Bridget Colgan, M.D.’17: General Surgery at Tripler Army Medical Center, Honolulu, Hawaii

Kyle Concannon, M.D.’17: Internal Medicine at University of Washington Affiliated Hospitals, Seattle Wash.

Laura Griesinger, M.D.’17: Pathology at University of Michigan Affiliated Hospitals, Ann Arbor, Mich.

Sarah King, M.D.’17: Internal Medicine at Boston University Medical Center, Boston, Mass.

I-Hsiang Shu, M.D.’17: Internal Medicine at Kaiser-Permanente, Los Angeles, Calif.

Katherine Wang, M.D.’17: Obstetrics and Gynecology at Thomas Jefferson University, Philadelphia, Penn.



◀ In the Operating Room

FEBRUARY, 2017 **Kyle Concannon, M.D.’17**, fulfilled two of his four weeks of required surgery-related rotations by completing an anesthesiology elective at UVM Medical Center. He served on the healthcare team in the operating rooms at the hospital, learning first-hand the decision-making involved in anesthesiology, as well as the intricacies of keeping patients safe during surgery.

“ Typically I arrived at 6:30 a.m. and got into scrubs, then I met with my attending or resident to see the patient before the operation. When the patient was ready for surgery we started to put them to sleep and helped them breathe through a mask with a bag and then placed a tube to breathe for them. We stayed with the patients and gave them medications throughout the surgery as well as when they were waking up. There were good teachable moments throughout the rotation, particularly when placing the intubation tubes or when the patients were asleep so we had more time to discuss things. It was particularly useful for me to learn blood pressure management in intubated patients, as well as how to breathe for patients using a bag mask.” VM