Turning medical students into doctors is a job that calls for scientific acumen, medical expertise, and lots of patience. And it calls for patients, too. Many students say that the most powerful lessons they learn—especially those about the importance of the human touch—are insights that they glean from patients. Here are several such sagas.

A uniform finding
By W. Andrew Cronin

Andy Cronin, who earned his undergraduate degree in chemistry from the U.S. Naval Academy, will graduate in June from Dartmouth’s M.D.-M.B.A. program. After a transitional internship in 2009-10 at Balboa Naval Hospital in San Diego, he will serve for three years as an undersea medical officer; he then plans to enter a residency in anesthesiology.

I was a 21-year-old rising senior at the U.S. Naval Academy when an encounter with a 20-year-old Marine changed my career path forever. He had been shot in the neck in Afghanistan but, thanks to the commitment of his fellow soldiers, had been extricated from the battlefield under heavy fire, stabilized by medics in the combat zone, and evacuated to a military hospital, where his left carotid artery was repaired and his life saved. I worked with him for two weeks during his rehabilitation after his return to the U.S. I was amazed that this man, younger than I, who had nearly sacrificed everything for the country he believes in, was determined to return to full health so he could rejoin his unit.

I hadn’t yet learned about the stages of wound healing that his body was undergoing, hadn’t yet mastered the neurologic tests that were being used to monitor the stroke he had suffered due to the incident. But I was able to play a meaningful role in his care simply by taking the time to listen to someone who was half a country away from his family and half a world away from his friends who were still fighting. I went home in the evening after working with him convinced that there was no greater profession than medicine.

When I first came to medical school, my excitement and passion were at an all-time high as I met a community of like-minded classmates, all in pursuit of the same goal: to become doctors. At first, my passion to provide care to patients drove me to learn as much of the science of medicine as possible. However, I gradually began to separate out the caring, compassionate parts of me to the Thursday afternoon On Doctoring sessions, while my disciplined, driven aspects took charge the rest of the week. The more I separated science from the rest of my persona, the...
I spent the next few days investigating all the causes and possible treatments for ascites. But even more important, I spent a lot of time during each day getting to know Mr. Webber better. We traded sea stories. I shared with him everything I was learning about his condition. He and his wife told me how they had met. As I invested time in him, I spent the next few days sharing insights from a patient’s perspective about what makes a good doctor. He even requested that I perform his paracentesis—a procedure to draw out the built-up fluid through a thin, hollow needle, knowing well that I had not performed one before. I thanked Mr. Webber for the experience, and he told me it was an honor to be a part of my education.

Though we continued to run lab tests and consult with experts in gastroenterology, we were unable to determine the underlying cause of his ascites. We discharged him with a plan for frequent follow-up visits, hoping that closer management of his condition would avoid any more long hospitalizations. The day he left for home, one of his last comments to me was that he’d love to have served in the Navy with me and to have seen me in my uniform.

Although I had been unable to identify a cause or cure for his illness, this latter request was one I could fulfill. On Mr. Webber’s first follow-up visit, I surprised him by wearing my dress Navy uniform. I even had someone take a picture of the two of us together. I had one print developed for myself, and he told me it was an honor to be a part of my medical school career.

I was determined to remind me of something I knew but had forgotten since being in medical school. “I am in the Navy. Thank you for your service,” I replied quickly and immediately asked another question: “How soon after you went home did your ascites recur?”

“I am in the Navy. Thank you for your service. Are you in any pain?” I kept my responses to his questions short, hoping to deliver the message that I was in the room to talk about his health, not the Navy. “The Navy is where I met my beautiful wife, sit- ting there,” he said. He was just as persistent at ignoring my questions as I was at deflecting his. After a few more rounds of the two of us talking past each other, his persistence won out. I stopped resisting and spent some time hearing about the ships that he had served on and the deployments he had been on. I discovered that he had been the main contractor of the elementary school that I had attended. He told me about playing cards with his daughters in the summer. I asked him if he’d like to play a deck of playing cards with his daughters. He smiled. I grabbed some cards before dinner, and we played a couple of games of War.

Unfortunately, neither problem resolved as quickly as we’d hoped. His air leak continued for 24 days, and his pain proved very difficult to manage. During the first couple of days, despite the severity of his pain, Mr. DeFelice maintained the firm, steady nature that I recalled from our first meeting. I enjoyed our visits every morning, even though they were brief. We talked about where he was from and I discovered that he had been the main contractor of the elementary school that I had attended. He told me about his family, and I could tell how close they were and how devoted he was to them by the way that he spoke. His daughters visited him daily, at different times, and I would often see them in the hallway as they came and went.

I found those early morning visits, as well as rounds with my whole team, increasingly informative. But I always had to run off to that day’s operations, and I’d leave feeling that my work was not complete. My presentations were getting more frequent, my plans more accurate, my notes more complete. But my first patient was still in the hospital and did not seem to be making any progress. One of Mr. DeFelice’s biggest problems was vivid
There was my comatose patient, standing in front of me, taller than I, smiling and shaking my hand. “It’s nice to meet you,” he said. He laughed a lot, and he and his parents teased each other when their stories about his recuperation differed. They showed me the “Miracle Mikey” video and newspaper clippings about his recovery.

— Jen Talmadge ’09

**Reminder of resilience**

By Jennifer Murray Talmadge

Jen Talmadge, currently a fourth-year medical student at Dartmouth, also did her undergraduate work at Dartmouth, majoring in biochemistry. She hopes to enter a residency in radiology this summer.

As a medical student, we get a lot of practice with change. We are an intimate part of people’s lives, often when they are at their most vulnerable, and from day to day we are exposed to the same families again and again. It is sometimes hard to keep track of who has been clothed in this way for the longest time.

I decided to dive into the case and asked for one day out of the OR to spend some time looking into it. I called the psychiatric consultant and discussed the case with him. I told him about a journal article I had found which laid out a medication protocol to treat pain and deal with hallucinations in postoperative patients. He supported my thoughts, and I ran the protocol by the team. We implemented the new plan that evening. As I explained the case to Mr. DeFelice and his daughters, it was clear they were desperately hoping for some improvement.

I made my own rounds that evening, checking in on all my patients. When I got to Mr. DeFelice’s room, we talked about various things. He told me about his daughters and his grandchildren and about his favorite times—playing cards with them at the lake in the summer. I asked if he’d like to play some cards before dinner, and he smiled. I walked down to the voluntary snack room, often grabbed a deck of playing cards. We played a couple of games of War, and I left the cards in his room for the following evening.

About two weeks later, I received a letter in the mail from his daughters, thanking me for taking such good care of their dad. They told me what a difference it had made for him when I went back to see him at the end of the day. I felt like I’d gone to battle and had won the war.

Diane had been at the hospital day and night for Mike’s entire stay, and Rob had visited daily; I quickly remembered the fragile, human side that had shared. I sat down with them, as though I were catching up with old friends, and listened to the story of Mike’s amazing recovery.

Soon after leaving the hospital, Mike had begun opening his eyes, responding to verbal cues, and even speaking—at first mostly crying at those around him. A few months into his physical and mentally demanding rehabilitation, he took his first step with a walker, after a few more months of practice, he’d learned to walk again. By the time I ran into Diane and Rob, he was living at home, walking, talking, using a treadmill, and attending school part-time. As I recalled my last glimpse of his broken and motionless body, it sounded like the closest thing to a miracle I had ever witnessed. Indeed, a local TV station had covered his story under the headline “Miracle Mikey.”

Mike and Rob were at the hospital that day because Mike had just been readmitted with a relatively minor upper respiratory tract infection. “He is in room 519,” Diane said. “Do you have time to come visit him?”

This time, I entered the pediatric floor as a guest of Mike’s parents, not as a member of his care team. I was wearing jeans and a fleece jacket—to white coat, no scrubs, no reference book. It was the first time since the accident that I had left my face, his spinal brace was gone, and the ventilator tubes were missing, but I recognized the blue eyes of the young man sitting on the hospital bed, playing a video game. He politely turned off the television and stood up.

There was my comatose patient, standing in front of me, taller than I, smiling and shaking my hand. “It’s nice to meet you,” he said. He laughed a lot, and he and his parents teased each other when their stories about his recuperation differed. They showed me the “Miracle Mikey” video and newspaper clippings about his recovery.
I suddenly started sobbing. My attending put her arm around me and just sat there with me while I cried. After a few moments, I pulled myself together and apologized for my behavior, but my attending said, “There’s no reason to apologize. You just are having a human day.” —Kandice Nielson ’08

**Embracing emotion**

By Kandice Nielson, M.D.

Kandice Nielson graduated from DMS in 2008 and is currently a first-year resident in internal medicine at Barnes-Jewish Hospital in St. Louis. Her undergradua 
degree is in English, from Princeton.

In the medical profession, we become familiar with change, death, disease, and uncertainty. At times it can feel overwhelming. But I believe all health-care providers can recall a patient like Mike—someone who reminds us that even in the darkest of times, in one way or another, hope and humanity prevail. These are the patients who inspire us to go to work every day. These are the patients who remind us to continue with change, death, disease, and uncertainty. At times it can feel overwhelming. But I believe all health-care providers can recall a patient like Mike—someone who reminds us that even in the darkest of times, in one way or another, hope and humanity prevail. These are the patients who inspire us to go to work every day. These are the patients who remind us to continue

**Part of patients’ lives**

By Heather Sateia, M.D.

Heather Sateia graduated from DMS in 2009 and is currently a first-year resident in internal medicine at Barnes-Jewish Hospital in St. Louis. Her undergradua 
degree is in English, from Princeton.

It was the final two weeks of my medicine subin 
ternship, during my fourth year of medical school, and I was feeling pretty confident about my medical knowledge and clinical skills. Until I met Mr. Miller, that is, and was reminded of how much I still needed to learn and even a few of lessons I had already forgotten.

Mr. Miller was a typical admission to the medi 
cine service: an older man with diabetes, high blood pressure, high cholesterol, and ulcerated feet that resisted healing. He’d had multiple revascularization 
surgeries and was facing another bypass operation, on the large arteries of his left leg, in the hope that it would improve his circulation enough to heal a large foot ulcer. But that wasn’t his most pressing problem; he’d been admitted this time for treatment of osteomyelitis, a bone infection that is a frequent complication of diabetic foot ulcers.

Medical students on a care team are often asked to “take a history” from patients—interview them about the details of their current and past health status. This both helps students appreciate the pro 
gression of disease and the complexity of health-care problems and brings another set of eyes and ears to bear on patients’ care.

The patient and Mr. Miller’s history had been taken many times before, my attending had asked me to take it again. I walked into his room, intro 
duced myself to Mr. Miller and his daughter, and began to ask my questions. As the conversation progressed, I noticed that Mr. Miller seemed to expect me to remember certain past events in his life and was surprised when I didn’t. I was surprised because, as a first-year resident, I was expected to remember a great deal about Mr. Miller and the kind of person he was.

The palliative-care team was fortunate to be pres 
sent at his death, which was one of the most moving 
and educational experiences of the entire year. Mr. Miller was admitted for a rare slow afternoon on the medicine floor, so my attending, Dr. Edward Merrens, decided to have a teaching session. Rather than sit in a conference 
room and discuss in the abstract the intricacies of diabetes management or the new cholesterol guide 

—Heather Sateia ’08
The Supply Side of Medicine

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with first-year enrollment expected to surpass 5,000 next fall—a 40% increase over just the past five years.

Even Dartmouth Medical School has answered the call to grow. “Our senior class size a few years ago was about 68 to 70 a year, and in a year or two I think it will top out at about 83,” says Nierenberg. “Something like 83 is probably what Dartmouth can do to help the country and still have the resources to do a superb job of training students.”

Still, all that growth might not result in a significant increase in the actual number of doctors. Those medical-school graduates must go on to train as residents at teaching hospitals before entering practice, and most of the funding for residencies is provided by Medicare. But as part of the 1997 Balanced Budget Act, Medicare funding for this purpose remains capped at 1996 levels—about 80,000 residency slots—and it would take action by Congress to lift that cap. For now, at least, what seems likely to happen is that the growing number of U.S. medical graduates will displace some of the graduates of international medical schools, who currently fill about one-fourth of residency slots.

TDI researcher Elliott Fisher doubts that Congress will lift the cap anytime soon on spending for graduate medical education (GME). Russell Robertson, the chair of the Council on Graduate Medical Education, agrees. COGME has not officially revisited its stance on the physician workforce, but Robertson says at this point he doesn’t recommend an increase in GME funding. “I’m increasingly convinced that lifting the GME cap isn’t a good idea,” he says. “I’m more and more convinced that what we’re doing right now is probably going to produce a surplus of physicians.”

The AAMC, however, has urged Congress to increase Medicare funding for residencies. That call seems likely to grow louder as medical-school enrollment increases.

Clearly, the debate over the physician workforce is far from settled. Goodman, for one, has no plans to stop asking the questions raised by his experiences two decades ago in Colebrook. The difference is that now, they no longer seem quite so heretical.

Worthy of Note

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Corrine Kravitz, a fourth-year medical student, won second prize for her poster presentation at the northeast meeting of the Society of Teachers of Family Medicine. Her poster was titled “Adolescent Motivation as it Relates to Self-Image and Concrete Planning.”

Françoise Righini, director of records management and health information at DHMC, was elected to the board of directors of the Northeast Health Care Quality Foundation.

Erratum: A story in the “Vital Signs” section of the Winter 2008 issue of the magazine incorrectly asserted that “snowboarders are more likely to hit the back of their head than the front.” In fact, the research led by Dr. Susan Durham showed the opposite—that snowboarders are more likely to hit the front of their head than the back. Our apologies for getting our facts . . . well, backward.

Patient Teachers

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preciated being part of the process and interacting with the health-care team. It was an incredible educational experience for me—certainly from a physiological perspective (I did learn a lot about diabetes management that day) but also from a humanistic perspective. Dr. Merrens was able to seamlessly incorporate teaching the two of us students with building a relationship with the patient and his family. It was a technique and an experience that I will not soon forget.

The two weeks I spent caring for Mr. Miller were, in essence, a syllabus in the practice of humanistic medicine. Mr. Miller reminded me from the moment I met him of the incredible role that physicians play in patients’ lives and of the responsibility that comes with that role. He also was pivotal in demonstrating how caregivers’ interactions with their peers and coworkers are another component in the practice of humanistic medicine and of how seamlessly those relationships can dovetail with direct patient care.

I feel lucky to have seen such a stunning example of how humanistic medicine can be practiced. I hope I spend my career working to remember these lessons and to incorporate them into my own practice.