Different Prescriptions: Philosophy? Dance? Economics? The path to medical school doesn't always start with science

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Different Prescriptions

Philosophy? Dance? Economics? The path to medical school doesn’t always start with science.

By Alexis Grant ’03
In the hospital that has become her latest classroom, Emily Heiss Roan ’97 makes rounds daily, checking on patients, implementing skills she learned during four years in medical school.

Now a first-year resident at New England Medical School in Boston, Roan also uses a less obvious set of skills—skills she gained at Colby, where she majored in a seemingly unrelated discipline: religious studies.

Roan’s background in religion adds an important dimension to her treatment of patients, she said, because she understands how to connect with them spiritually. “I think it’s just so relevant to medicine, because it has to do with people’s attitudes toward the world and themselves and faith,” she said. “Medicine really is dealing with issues of life and death.”

Roan is part of a cohort that medical school administrators say they’re happy to cultivate: students with humanities backgrounds.

She’s still in the minority. Most aspiring doctors who graduate from Colby still focus primarily on science during their years on Mayflower Hill. But about a quarter of those who apply to medical school have some sort of humanities major on their résumé.

Of the 47 Colby students and graduates who applied to begin medical school in 2006—the largest number ever—at least nine were non-science majors, according to the College’s Office of Career Services. “It’s still a majority, by far, who were biology or chemistry majors, no question about it,” said Cindy Parker, senior associate director of career services. “But is [medical school] available and accessible to a non-science major? Absolutely.”

Nationwide, students who major in humanities as undergraduates are becoming more attractive to medical school admissions committees, said Gwen Garrison, assistant vice president of student and application studies for the Association of American Medical Colleges. Medical schools want students who can both excel in their studies and become people-friendly doctors, she said, and humanities majors are likely to have had experiences that have versed them in compassion.

“All of us, as people, want to go to a doctor who’s both competent and compassionate,” Garrison said.

Although they attend medical schools all around the country, most Colby doctors-to-be gravitate toward New England schools. The more popular choices include medical schools at the University of Vermont, Dartmouth College, Boston University, Tufts University, the University of New England, and the University of Massachusetts.

Like most colleges and universities, Colby doesn’t offer a premed major. Students who consider themselves premed usu-
ally major in biology or chemistry and fulfill the basic requirements for medical school while working their way through the major. Most medical schools require a minimum of a year each of biology, chemistry, organic chemistry, and physics. Some also require a year of math, others a year of English. And Colby science majors also benefit from extensive undergraduate research opportunities that increasingly are leading graduates to admission to highly competitive M.D./Ph.D. programs, faculty members say.

Admissions officers at those schools don’t necessarily expect to see a college résumé full of science, said Parker, who also serves as chair of Colby’s Health Professions Preparation Committee, which helps students navigate the application process. Instead they look for signs that the student has seriously tested her or his interest in medicine and devoted time to the community, Parker said. At the University of Massachusetts Medical School, in Worcester, entering classes are typically made up of half science majors and half non-science majors, said John Paraskos, associate dean of admissions. “We don’t see any huge difference in the grades, and some of our best graduates are people who just took the bare minimum of biology and chemistry in undergraduate school,” said Paraskos, whose son graduated from Colby in 1991.

“When people ask me, ‘Should I be a [science] major?’ I tell them, ‘Absolutely—unless there’s something else that attracts your attention more.’”

A liberal arts college offers myriad opportunities, both academic and extracurricular—for humanities, social-science, interdisciplinary and science majors. Kevin Selby ’05, now a third-year student at Harvard Medical School, took the premed route, majoring in chemistry. Because he attended a liberal arts school, he said, he was able to delve into other interests, including a minor in music and rowing for the crew team.

Liberal arts students tend to have multiple interests, which medical school administrators expect. At Dartmouth Medical School, about a third of students are non-science majors, said Andrew Welch, director of admissions. “We don’t care what the student majors in,” Welch said. “Most of the students who make it through a place like Colby and through our admissions process are going to be just fine.”

And those future doctors go through Colby in different ways.

Michelle Stone ’05 started at Colby expecting to be in the premed group. The daughter of two doctors, she had planned to major in biology to prepare for medical school. But early in her first year, she realized she had other interests she wanted to pursue and declared a very different focus: Spanish literature. “I knew that I wanted to go to medical school—that had been the plan all along—so I figured I should do other stuff that I wanted to do, since I was at a liberal arts college,” she said.

Stone managed to feed both interests: she studied Spanish, spent a semester in Ecuador, and also fulfilled basic premed science requirements. But instead of taking the Medical College Admission Test (MCAT) during her junior year, a necessary step to go directly to medical school from Colby, Stone took the test during her senior year, with plans to take a year off.

She worked as a ski instructor (among other things) in Colorado before entering the University of New England College of Osteopathic Medicine in Maine, where she’s now in her second year.

“I could have taken more science classes at Colby and been better prepared,” Stone said. “In the long run, I think it’s not going to make a difference.”
There are a variety of ways to meet medical school science requirements without majoring in biology or chemistry. Some students take only basic science courses and major in another subject, while others skip hard sciences altogether and hope to acquire that knowledge later.

Most humanities-majors-turned-medical-students interviewed for this story said they don’t have problems keeping up with their science-major peers, despite having taken fewer science classes before medical school. But not all.

“Right now I definitely feel like I’m at a disadvantage not being a science major,” said James Albright ’92, now a pediatric ear, nose, and throat surgeon in Houston, began practicing after medical school, a five-year residency, and a two-year fellowship. “It’s a long road,” said Albright, a government major. “My twenties were pretty much taken up with training and school. It was eleven years after Colby before I could collect a paycheck.”

Albright sees patients three days a week at his private practice in Houston and spends two days a week in the operating room at Texas Children’s Hospital. On a recent workday, one of his patients, a toddler with blond hair, wheeled herself into Albright’s operating room mid-morning, in a red toy car, her feet propelling her toward the room where she would receive anesthesia. In just 10 minutes, Albright had inserted tubes in her ears and removed her adenoids. That will help her hear and breathe better and avoid the persistent ear infections that had plagued her over the last year, he said.

How does his government major help him now? It helped make him a strong writer, a skill he said some doctors lack. But most important, he said, is the way it helps him communicate with his patients and their parents.

Albright fulfilled his basic science requirements at Colby, and he chose to go directly to medical school afterwards. But he’s in the minority for Colby graduates: nearly three quarters of those who attend medical school take at least a year off before starting the long process of becoming a doctor. “We have many students who have known they are going to apply to medical school, but they choose to work for several years before they do it,” Parker said.

Nationally, the average age of students entering medical school is 24, according to the Association of American Medical Colleges. Once enrolled, medical students take about two years of classes before the transition into clinical rotations. The workload and schedule can be challenging in a variety of ways. Tim Clark ’03, a second-year student at the Philadelphia College of Osteopathic Medicine, said his biggest adjustment was learning to take multiple-choice tests. As a history major at Colby (he also worked for the ambulance service in Waterville while an undergraduate), most of his Colby exams were short answers or essays.

“At Colby, you never didn’t know the answer,” Clark said. “It was a matter of degree—how much you knew.”

But at medical school he either knows the answer or he doesn’t. Though his first trimester was tough, Clark said that, once he figured out how to manage his time and sort through the tremendous amount of information he was expected to learn, he did well.

Medical school is a challenge for nearly everyone, regardless of the route taken to get there. Some say it’s the complexity of the material; others point to the huge volume of information. “Medical school is very difficult,” said Nick Markham ’04, a third-year student in the M.D./Ph.D. program at Vanderbilt University School of Medicine and a biology major at Colby. “Anyone who tells you otherwise isn’t working hard enough.”

Indeed, medical school doesn’t leave much time for anything else. Once students become residents, they work 12- and 18-hour days, with some shifts going even longer.

Christy Person Cummings ’02, a French literature and biology major who is now a second-year pediatric resident at Yale-New Haven Children’s Hospital, said she has moments when she realizes all her hard work was worth it. “Sometimes after a thirty-hour shift you get to play with a newborn baby and [be with] their parents,” she said, “and you realize why you’re doing [medicine].”

And yes, Cummings still uses her French. In fact, her language skills make her a better doctor, she said, because she can communicate with non-English speaking patients who visit the clinic.

There are, of course, plenty of aspiring doctors who make their way to medical school the traditional way—the majority who tackle a full load of biology and chemistry at Colby. And they say they are well pre-
Answering the Call

Last fall, to get ready for her first class at the University of Vermont, Megan Gossling ’02 needed school supplies. Not books. Surgical tools.

“I’m used to going to Bobs and getting my psych books,” Gossling said. “Now I’m going to the bookstore and [saying], ‘I need five twenty blades.’”

A so-called 20 blade (the 20 refers to size) is a surgical tool she would soon use to dissect a cadaver at the UVM College of Medicine.

Learning as much as possible from the donated body is a responsibility Gossling doesn’t take lightly. “If I don’t get my butt in gear and know what I’m doing, I’ve completely wasted their dying wish,” she said. “That’s a lot of pressure. But I guess that’s what medicine is—pressure.”

Unlike some of her peers who have been on the fast track to a career in medicine, the psychology major detoured a bit after college before realizing she wanted to become a doctor. But now she’s ready for the challenge.

After Colby, she enrolled in a master’s program in student affairs and counseling psychology at Ohio State University. Partway into the second year of the program, when she began working directly with patients, Gossling realized she wasn’t satisfied. “When I started counseling patients, I realized there was more than just talking,” she said. “It wasn’t just a mind thing, it was a body thing, too.”

Several months into her first semester, Gossling said she’s right where she wants to be. Medicine may not have been the obvious choice at graduation, she says, but it was the right one.

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Gossling had no experience in medicine. She had never volunteered at a hospital or clinic. At Colby she had taken one chemistry course and biology for non-science majors, to fulfill the science distribution requirement. Then, rather suddenly, she wanted to become a physician.

Eighteen months into her studies at Ohio, Gossling left. She moved to Boston, where she worked in an allergy clinic for a year to confirm her interest in medicine. Then she fulfilled her science prerequisites through a post-baccalaureate program at Wellesley while working weekends as a patient-care associate, tending to surgical patients. Soon she was applying to medical schools.

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