Deirdre Brazil holds a photo of her sister, Eileen, who died at age 20.

PHOTOGRAPh BY JORD WELTER
At 30, Deirdre Brazil’13 is six years older than most of her P&S classmates. Before applying to medical school, she had been an actuary. But when Ms. Brazil’s beloved younger sister, Eileen, died at the age of 20 from the bone cancer she had battled since age 14, it rocked her world.

“It was a long, long battle where she never really had a remission, and we were constantly in the hospital,” Ms. Brazil recalls. “The doctors there were so busy and so excited that it really made me reconsider what I was doing with my life.”

The fourth of eight children, Ms. Brazil was born in the part of Ireland they call “the bog” – “Pretty, but you can’t grow anything.” Her parents moved to New York after having their fifth child. Although Ms. Brazil’s mother is a nurse, she recalls that her parents were suspicious of education, particularly the English degree that she originally wanted to pursue. “I was always a big fan of reading and writing, and I never got to pursue either of those skills,” she says. “Once I convinced them I could go to college and have a career, they couldn’t wrap their head around an English degree, so I absolutely couldn’t do English.”

And then she came to Columbia and found the narrative medicine program. “I realized it wasn’t a choice of being a doctor or writing; you could have the best of both worlds.”

As a member of the Class of 2013, Ms. Brazil is one of the first cadre of P&S students to be able to explore such passions in greater depth through the scholarly projects program, which gives students four months of protected time following their Major Clinical Year to pursue, under the guidance of a faculty mentor, an area of medical practice or research with the aim of creating new knowledge.

In structuring their research, students may choose from six available tracks: basic science, clinical research, global health, medical education, narrative and social medicine, and population health. “In the six tracks, we can find a home for any student who has an idea of what they want to do,” says Jonathan Amiel’07, assistant dean for curricular affairs, who oversees the Scholarly Projects Program. “About half of the students are doing their projects in clinical research, a fifth are doing them in global health, and the remainder are divided among the other four tracks.”

Senior faculty members direct each of the tracks and are bringing together wide-ranging, multidisciplinary cohorts of individual faculty mentors to provide close supervision and guidance as students pursue their projects.

“Our faculty has a long tradition of mentoring students doing research,” says Dr. Amiel. “In the Scholarly Projects Program, we are helping students pair with faculty known for their prolific work in basic and clinical research and we’re also reaching even more broadly into the academic community, to people who have interests in areas like population health or the humanities. So, for example, this year a student is working with an NIH-funded translational scientist studying the ways in which cells can transfer organelles to one another while one of his classmates is working with an emergency department psychiatrist who used to be a classics professor to undertake a critical analysis of the way mood disorders have been represented in the arts.”

Within the narrative and social medicine track, Ms. Brazil plans to write a memoir to tell her sister’s story in conjunction with her own. “It’s almost like Russian dolls, the way it all nests together. Telling my sister’s story will help me to better understand and tell my patients’ stories,” she says.

For example, she still regrets her family’s decision not to pursue palliative care for Eileen. “Ultimately she died not from cancer, but from graft-vs.-host disease as the result of a bone marrow transplant,” she recalls. “I think the doctors felt that if they had just gotten her to turn around a little bit, she would have gotten better. But she actually asked to stop taking the steroids, which would have killed her very quickly. We didn’t recognize or understand that question as the cry for palliative care that it was. She went through a lot, she was very tired, she was ready for a different type of care, and it wasn’t recognized. It’s what doctors feel in ourselves, sometimes, that makes the patient not get what they want.”

That’s part of the story that Ms. Brazil wants to tell in her scholarly project, and it forms the key thread of another in the first group of scholarly projects.

Eric Bank’13 began thinking about his project by considering what he would like to learn more about as a medical student. He kept coming back to the difficulties of having conversations about end-of-life care. “I began my project by meeting with Dr. Craig Blinderman [director of adult palliative medicine at Columbia] and other faculty members who are known as being great communicators with their patients.”
Dr. Blinderman will mentor Mr. Bank as he researches the best ways to educate medical students about good communications skills around end-of-life conversations and to work with the curricular heads of the “Foundations of Clinical Medicine” course to develop possible ways to introduce improved educational models for these conversations into the P&S curriculum. “The faculty members I’m working with are very excited about this,” he says. “They acknowledge that there’s always room for improvement in anything, and this is a particularly challenging area.”

Ms. Brazil and Mr. Bank are two of about a dozen students that Rita Charon, M.D., Ph.D., professor of clinical medicine and director of Columbia’s Program in Narrative Medicine, oversees in the Scholarly Projects Program’s narrative and social medicine track.

“I’m having a great deal of pleasure as I meet with the students who are interested in devoting time to my domain,” says Dr. Charon. “They are imaginative, creative students who are going out on an intellectual limb, because they see clearly how medicine – and the practice of medicine – is not restricted to care for the malfunctioning organ, but it’s rather really addressing our health, wellness, and living in the world.”

Ms. Brazil, for example, will not only contemplate her sister’s illness and her own journey into medicine, but also, more broadly, consider both how having a sick sibling affects the healthy children in the family and how the autobiography of the individual doctor influences that person’s formation of professional identity. Dr. Charon has connected Ms. Brazil with child psychiatrist Jonathan Slater’85 as an additional mentor to help explore these complex questions.

Within the clinical research track, students are exploring topics as diverse as laparoscopic banding for obesity in children, exercise in anorexia nervosa, improving results of glioblastoma multiforme resection, postpartum diabetes, hyponatremia prevalence in the United States, predicting results of cataract surgery, and effects of fatigue on injury in baseball pitchers.

“It’s their best early opportunity to do something that may be publishable in medical research, so they’re very wound up about it,” says Henry Spotnitz’66, the George H. Humphreys II Professor of Surgery, who co-directs the clinical research track this year with Daniel Wang, M.D., assistant professor of clinical medicine. “They recognize it as a very important opportunity to be creative and to work with established investigators in their area of interest, to make an important research contribution.”

The fact that they’re the first P&S class to engage in the scholarly project program isn’t lost on the Class of 2013, Dr. Spotnitz says. “There’s definitely a sense of the historical importance of it. But they’re probably also a little apprehensive, because it hasn’t been done before and they don’t have anything to look back at for guidance.”

About a dozen of the approximately 70 students pursuing the clinical research track for scholarly projects have chosen to focus on orthopedics, says Dr. Spotnitz. One of these is

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**Education Highlights**

**Narrative Medicine Techniques Taught to Improve Care for Wounded Vets.** In an effort to increase the satisfaction of veterans and their families with the care they receive at VA hospitals and clinics, Columbia’s program in narrative medicine hosted a first-of-its-kind three-day workshop, “Challenges in VA Health Care: A Narrative Response,” held in March 2012. The workshop aimed to equip the 40 VA doctors, nurses, social workers, and therapists in attendance with the narrative techniques needed to form therapeutic alliances with veterans and their families and improve communication and respect among members of the VA health care team. Participants learned narrative approaches to clinical interviewing and reading and writing interventions to enable them to better hear and understand patient experiences.

**First Narrative Medicine P&S Graduate.** Sneha Mantri’12 became the first medical student to graduate with a master of science degree in narrative medicine. The first degree program of its kind, the narrative medicine master’s degree instills the skills of narrative competence and leadership required to develop and implement narrative-based learning and practice in clinical settings. Dr. Mantri, who served as an adviser for the Lang Youth Medical Program during medical school, matched to a neurology residency at the University of Virginia.

**Bard Hall Gym Gets Makeover.** The Bard Athletic Center within Bard Hall is slated for an upgrade. In response to a user survey, the center will be renovated to include two levels of exercise equipment overlooking the basketball court. Other upgrades will include central air conditioning and ADA-compliant shower and locker amenities.

**Physician Memoir.** 

End-of-Life Care, and Pitching Injuries

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Deirdre Brazil’13

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Physician Memoir.

End-of-Life Care, and Pitching Injuries

Deirdre Brazil’13
Jeff Grantham’13, who has channeled his college baseball career and lifelong love of the sport into research on pitching mechanics.

While playing shortstop at the Queens campus of St. John’s University, Mr. Grantham made connections that eventually allowed him to meet the team physician for the New York Yankees, Christopher Ahmad, M.D., associate professor of clinical orthopedic surgery at P&S. Even before his Major Clinical Year, Mr. Grantham was eager to begin his research.

“I started three projects in the summer after my first year,” he says. “One was a project looking at the baseball community’s perception of ‘Tommy John’ surgery and its indications. Another project is looking at the use of platelet-rich plasma injections in the treatment of ligament injuries in the elbow.” The third, which Mr. Grantham wrote the IRB application for that summer, became his scholarly project, under Dr. Ahmad’s mentorship: a study of the kinematics of the baseball throwing motion. “Everyone postulates that pitch count is directly related to injury in young pitchers, and even competitive pitchers. We want to see if fatigue has any impact on the throwing motion and possibly increasing the pitcher’s risk of injury.”

Mr. Grantham plans to videotape players in game situations to see if their throwing motion changes over the course of the game. Videotaping players throughout the season will assess if their pitching motion changes over the long term and whether the mechanics change in a way that predisposes them to injury. Mr. Grantham is videotaping players at the Little League, high school, and college levels.

“I know orthopedics is my route,” he says. “I’m not sure if it’s sports medicine necessarily, but these projects are fun and interesting and they give me a good jump start on the future. I’ve been very impressed by how encouraging everyone has been, and how everyone seems to be interested in helping medical students do research.”

The scholarly projects have had a ripple effect on the rest of the curriculum. For example, developing the first set of projects for the global health track has also spurred a more cohesive approach to global health studies at P&S in general. “Once we got into the process of trying to line students up with a mentor here in New York and a mentor in a foreign country, we realized the global health track, without any doubt, is far more complicated than any of the others,” says Stephen Nicholas, M.D., professor of clinical pediatrics at P&S and of clinical population & family health at Mailman School of Public Health, who directs the global health track. “Indeed, we discovered that we need to strengthen our preclinical curriculum and add content so that we are doing a better job of educating students about global health as an entity – all students, not just those who will do their scholarly projects in this track.”

About 15 students in the Class of 2013 have chosen global health projects that include clinical competency training for cardiac life support for physicians in Nicaragua, a study of the effect of temperature variations on complication rates in cleft lip and palate repairs in India, and a retrospective survey of the impact of global health experiences on the careers of medical school graduates who have done programs in the Dominican Republic.

“One thing we saw early on was that a significant number of students began thinking about what they might do for a scholarly project as they began planning their summer between their first and second years,” says Dr. Nicholas, who also is associate dean for admissions. “We realized that we didn’t have that much of a preparatory process for them.”

That changed with the presentation of Columbia’s first Global Experience Pre-departure Symposium, a full-day session held in April 2012 to brief students on everything from safety and insurance to cultural and ethical concerns. Students had the opportunity to get first-hand information from other students who had traveled abroad.

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— Jeff Grantham’13

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Education Highlights

International Residency Program. Surgical residents at Columbia have the opportunity to gain valuable surgical experience in underserved countries through a program that sends them on six- to eight-week surgical rotations in foreign hospitals that are generally not equipped with the kind of technology used in American hospitals. Run by David X U’15, the program allows residents and faculty to teach foreign residents and staff the newest surgical techniques developed in the United States. A new program allows the exchange of NYP/Columbia and Korean Hallym University surgical faculty with local senior surgeons in underserved nations. The American Board of Surgery and the Resident Review Committee have also agreed to selectively approve some of the resident foreign country rotations and even provide accreditation for some appropriately supervised cases performed by fourth-year and fifth-year residents at foreign institutions.

Musicians’ Guild Presents First P&S Messiah Sing. In December 2011, members of the student-run P&S Musicians’ Guild presented the campus’ first official performance of George F. Handel’s well-known oratorio, “Messiah,” with instrumental musicians and vocalists. Vocalists Michael Ayers’14 and Jennifer Russo'15 were among the singers who led an audience composed of students from all medical center schools, faculty and administrators, pre-medical applicants, and community members.

Physician Memoir: End-of-Life Care, and Pitching Injuries

medical student is not a very powerful figure,” says Dr. Charon. The scholarly projects program demonstrates the positive side of being a small medical student in a big institution. “They have an open door to all this brilliance. There’s the law school, the journalism school, the school of the arts, the Millennium Villages, and the Earth Institute.”

For example, another student Dr. Charon mentors is interested in the economics of health care, specifically the role that private investors, drug companies, and device manufacturers might play in questions of equity in health care, health care disparities, and the agenda of medical research. That is a topic that could engage not just P&S faculty, but also faculty in public health, business, economics, and biomedical engineering.

“I have one student who had been a Spanish literature major in college, who was a real reader and missed it terribly,” says Dr. Charon. “One of the things I said to her in planning her scholarly project was that she could take the time to enroll in a course on the main campus, in the English department or in writing. She came back to me with the dazzling news that she had gotten into a writing seminar taught during the spring by novelist Colm Toibin, whom Columbia somehow managed to recruit away from Princeton. She was only one of eight students accepted, but it conflicted with one of the seminars in my March elective. We were happy to make arrangements for her to be able to be in that writing seminar.”

Scholarly projects have some inherent limitations, admits Dr. Spotnitz. “Even with a lead time of close to two years, it’s difficult for a student and a mentor to come up with a specific, fully developed research project and achieve IRB approval in that time frame. So, for the most part, the majority of these projects must be some sort of compromise between the student’s interest and drive and what can practically be achieved in the space that’s available.”

Other medical schools have developed programs like P&S’s Scholarly Projects Program, but Dr. Amiel notes that the P&S program is notable in that it encourages a wide scope of study that allows students to immerse themselves in projects according to their intellectual passion. “Here, we want to think very broadly about scholarship and allow students the maximum flexibility. Many will want to do clinical, basic, and translational research. Others will want to work in the community or to travel abroad and learn about health systems overseas. Still others will want to think critically about medical education, either in our own curriculum or elsewhere. And some will want to reflect and write about the experience of being a health care provider, or pursue areas like bioethics, the business of finance and medicine, intellectual property and intellectual history, within the narrative medicine track. In our program, we want to encourage our students to find their scholarly voice as they integrate the core qualities of medicine they learned at the beginning of their time at P&S and differentiate into the doctors they want to be.”

Dr. Amiel says it is enlightening to see how the scholarly projects are taking shape in this first year. “We’ve known that our students are adept at joining a clinical research or wet lab project, but here we’re seeing them broaden their view to access the breadth and depth of the faculty in an unprecedented block of protected time within the curriculum.”

The program has plenty of room to grow. “We want to get smarter about this and develop a faculty development program for student-centered mentoring,” says Dr. Amiel. Such a program would teach mentors how to be responsive to students’ needs and talents and help scholarly projects develop around the student’s trajectory rather than the mentor’s, or, at least, find a synergy between the two.

“We don’t want a student to simply join a project and do work that would otherwise have been done by a research assistant,” Dr. Amiel says. “We want to provide cohesion, a thread that will allow the student to develop and grow so that by the time they’re applying to residency, they have a sense of what their passion is and what they bring to the table, so that they not only have the clinical skills to prepare them for residency but are also ready to engage academic medicine in a real way.”

Other track directors are Richard Kessin, Ph.D., professor of pathology & cell biology (basic science track); Marc Dickstein’87, professor of clinical anesthesiology (medical education track); and Neil Schluger, M.D., professor of medicine at P&S and professor of epidemiology and environmental health sciences at Mailman (population health track).