



steadfast *Perseverance*

It's not easy being a mom, a doctor, and an Army captain.

WRITTEN BY JEANNE NORBERG

Her professors still remember her as a young woman who did it right — embraced mentors, asked good questions, weighed all decisions, and seized opportunities to explore career options.

When Allyson Fewell (S'04) was looking for a college, she wasn't at all sure which career path to take, but felt Purdue offered a wide range of world-class options.

"I knew I wanted to get a professional degree, maybe business or law like my father, or medicine like my great-uncle and great-grandfather," Fewell says. "I always liked literature — my mother was an English lit major — and math and science, but beyond that didn't know what I wanted to do.

"So I chose Purdue because it seemed to offer unlimited choices. At Purdue, there wouldn't be any doors closed."

"The campus' atmosphere and values appealed to me. Purdue was closer to my home in Kokomo, a lot of my friends went there, and it was good at sports. So, it just seemed the best option," she says, punctuating her responses with "Yes, Ma'am."

And it didn't hurt that Purdue had its own airport. She'd earned her pilots license at 16, and when she had free time often rented planes — single engine "little mosquitoes" — for short hops home or with her friends.

She enrolled in 1998 without picking a major and took a semester of core classes that were required for any degree. Then she took a pass-fail, one-credit course in which professionals talked about their careers.

"That's when I decided to major in biology. You can do a lot with that degree," says Fewell. Again, though, she was keeping her options open.

Beginning with the counselor who helped her transfer, she says she made her way through college and the launch of her career thanks to "an amazing group of mentors."

Professor Peter Hollenbeck, now associate head of biology, says she was "a gem."

"I teach almost 500 sophomores every fall, and lots of them are smart, but their focus and maturity are all over the map," Hollenbeck says. "Allyson arrived as pretty much a fully actualized adult. She really made the best use of her whole Purdue experience."

He helped smooth a few edges. "She wrote a really great exam but was not using the language of science properly," he recalls. "She would say that an enzyme 'did its job' instead of saying that it 'hydrolyzed its substrate.' I tried hard not to be patronizing when I told her she was really smart but needed to take herself more seriously — and try to use the vocabulary that I knew she understood."

"Basically, in the nicest possible way, I was telling her to grow up as a scientist. I found out later that she went to her research mentor, Professor Joann Otto and said, 'Professor Hollenbeck just told me to grow up.' So she got it!"

Opportunity seeker

Although only an undergraduate, Fewell sought out research opportunities and found they were there for the asking.

"I went to see Dr. Joan Otto, a cell biologist, who gave me work on her projects with *Tetrahymena* — protozoa that swim around like little water bugs," Fewell says. "Dr. Otto was trying to come up with a molecule they would ingest, but to do that, she needed to figure out how their food vacuoles worked."

Fewell and Otto worked together for three semesters, and Otto helped her win a Howard Hughes summer research fellowship. Doors kept opening.

"Having done bench research, though, I realized that wasn't the best fit for me, and I began to think about medicine. I knew I wanted to interact with lots of people and perform some service to humanity."

This came as no surprise to Otto, now chair of biology at Western Washington University. On 9/11, Allyson had walked into her lab about 6:00 p.m. and asked, "What is happening to us?"



SSGT. JOSIE WALCK, U.S. AIR FORCE

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Fewell was not only an “extremely responsible young woman,” Otto says, but she cared deeply about others. Her attention to detail in the lab was exemplary. Otto told her medicine was a good fit.

Fewell discovered that a major in biology at Purdue includes all the classes needed for pre-med and is terrific preparation for taking the MCAT (Medical College Admission Test). It also set her up well for the basic science courses found in the first two years of medical school.

“If you can get through Purdue’s College of Science with As and Bs, you are really prepared,” Fewell says. But first she had to get into med school.

The next step

During the Christmas holiday of her junior year, as she worked at a seasonal job wrapping gifts in Kokomo, the acceptance letter from Indiana University arrived. Now she had to decide how to pay for it.

“I didn’t want to take on \$150,000 in debt,” she says. “So I started considering the military. Both of my grandfathers had served in World War II, and I thought it might be a reasonable option. It was a chance to serve.”

Once again, though, Fewell did her homework, talking to people who had gone the military route and learned from their experiences.

The Army would pay for her tuition and provide a living allowance; in exchange, she agreed to give four years

of service. During her clinical rotations, she also spent a month each summer of her last two years on active duty at military hospitals. The military’s “see the world” promise came through; she was assigned to Tripler Army Medical Center in Honolulu, where she honed her skills in endocrinology and also found time to savor the beach breezes and learn to surf.

The path through Purdue and med school, though, took 10 years because of two little detours named Andrew and Noah. Although she continued classes while expecting her sons, she knew she couldn’t do a good job at both medical school and at raising the boys during their first years. To her surprise, the dean let her stop-out both times.

Back to her roots

And while her sons grew, she moved with them back close to her family in Kokomo and joined Ivy Tech as part-time administrator and instructor, leading the science program and teaching nursing students classes in anatomy and physiology.

“I believe God opens up opportunities, and if you have your priorities right, it will all work out,” Fewell says.

When beginning an internship in medicine, you also need a big gulp of confidence.

“Holy Moly, I was petrified,” she says. “My first day I was on call at the intensive care unit. It was so much responsibility. At least that’s how it felt, even though in truth, there was always

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By the time her internship was over in 2009, Capt. Fewell had proven herself. She was one of two in her group of almost 250 Army medical school graduates to earn the Maj. John H. Gillespie internship award. Next came her residency at Brooke Army Medical Center in San Antonio, Texas. She was just 28 and on her own with two young sons. She misses Indiana, but as she says, “Well, you know, the ocean IS the ocean. I’m just two hours from the beach.”

She and the boys also are exploring Texas, especially its national parks like Enchanted Rock, where they climb one of the largest batholiths (underground rock formations uncovered by erosion) in the United States. The boys play soccer, cool off in their small backyard pool, and grow tomatoes in their vegetable garden.

Selfless service

Last year, after earthquakes crushed Haiti, she was among those groups of military doctors who volunteered to help for two weeks apiece for 20 consecutive weeks. The clinic was a 90-minute drive over curvy, bumpy, rutted roads that connect Port-au-Prince to Saint-Marc.

“I’ve never been so hot in my life — and I live in San Antonio,” she says. “There were no doors or windows and spotty electricity from the solar generators.”

They treated whatever walked in the door needing care— from pregnancies to surgeries, from toothaches to oozing sores. While she could help with the patients’ immediate needs, her heart ached for their future.

“People talk about the tent cities there, so I was prepared,” she says. But what she saw “just blew me away. The tents go on for as far as you can see, unending blue tarps. They have a beautiful spirit, but no natural resources. Even all the trees have been cut down.”

And without the trees, rains wash away the soil and turn roadways into rivers. “We were on the main road with hills on each side when the water came

and just lifted a little car off its wheels. A truck driver bumped the car to land and the people got out, but the car was washed away.”

“It is overwhelming. They need engineers and infrastructure.”

Multitasking queen

It’s not easy being a mom, a doctor, and an Army captain. Andrew, now 7, just completed first grade while Noah, 5, graduated from preschool. Last year she’d put in a full day at the hospital, hang out with her boys until their bedtime at 8:00 p.m. and then slip out to the gym for a three-mile run on the treadmill, a 45-minute brisk walk at a 45 percent incline, sit-ups, and pushups. Now, given a tighter schedule, she has decided the only way to be sure to work in a workout is by going in the morning. Her day now starts at 4:00 a.m.

“I can still do well on my PT test at age 31,” she says, “but I have to work at it.”

She graduated July 1 with a specialty in internal medicine and is staying on at Brooke Army Medical Center to serve as chief of medical residents, a teaching and administrative role, for the next year.

She credits much of her success to those who opened doors, gave her opportunities, and thought outside of the box to help her excel at motherhood while also pursuing a medical degree. “But it’s also important for young women to know it’s hard to do it all well,” she says. “You have to pick and choose. Try to focus on the area where you can excel.”

“I haven’t done laundry in a week. You can’t be too hard on yourself on the little things. You can’t do it all, so don’t try.”

And above all, she says, don’t go it alone.

“I couldn’t have done what I’ve done without the support of my family and some amazing mentors. Seek them out.”

P Jeanne Norberg (LA’75) is the director of public information for Purdue University News Service.

Research grows in importance for undergrad portfolio

Undergraduate research helped shape alumnus Allyson Fewell’s path to becoming a doctor and now is part of the university’s strategic plan. In fact, earlier this year in *U.S. News & World Report*, Purdue was tied for 12th nationally in a ranking of universities cited by college presidents, provosts, and admissions deans as having an “unusual commitment to undergraduate teaching.”

“There are nearly 2,000 undergraduate research projects that are conducted every year at Purdue, which is considered a national leader in experiential learning,” says Dale Whittaker, vice provost for undergraduate academic affairs. “Many of Purdue’s faculty are dedicated to teaching undergraduate students by enhancing their learning experiences with research opportunities in laboratories and the community.”

Maureen McCann, director of Purdue’s Energy Center, says the rationale is clear: students who will solve the global challenges of tomorrow require a different type of education today, one that fosters interdisciplinary training and undergraduate research experiences.

Now, a new journal devoted to reporting undergraduate research will draw more attention to the specific work taking place and inspire more students to seek these experiences.

“The breadth of research projects that students are involved in from anthropology to zoonotic diseases is amazing,” says Charles Watkinson, director of Purdue University Press, which will oversee publication of the journal. “This journal will give the university a centralized way to highlight them.”

Those interested can sign up for updates at <http://www.jpur.org>.