

Laurie Miller '04 teaches a child to read at a shelter for the homeless (see page 10).



Jefferson Medical College Alumni Bulletin

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On the cover: the Class of 2007 at the White Coat Ceremony, which marks the beginning of becoming a physician (see page 4 and also page 8). At lower left on the front cover are Clara Callahan PD'82, Vice Dean for Academic Affairs, and Dean Thomas J. Nasca '75.

The 229 members of the Class of '07 were selected from 7499 applicants. They range in age from 18 to 35, and half of them are female. Representing 26 states and 3 foreign countries, they come from 92 different undergraduate institutions. Their mean grade point average in science was 3.52; their mean MCAT score, 10.3.

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I have just returned from presiding over Opening Exercises on the quadrangle, and the White Coat Ceremony for the incoming freshmen, the Class of 2007. It brought back many memories, including my White Coat Ceremony address a couple of years back, to the Class of 2005. I have some thoughts about our newest class that I'd like to share with you, which stem from that address. It went as follows:

“President Brucker, Members of the Faculty, Parents and Grandparents, Husbands, Wives and Children, Significant Others, and Members of the Class of 2005:

It is an honor and a privilege to be invited to address you on this very important occasion. I know that many of you have never participated in a ceremony such as this White Coat vesting, so I want to place this event in perspective for you. I'd like to give you my reflections on the significance of this event, not as your dean, but rather as a physician who sat in those seats exactly 30 years ago, and has spent his career educating young physicians, and caring for patients.

One might logically ask, 'why are you making such a big deal out of the donning of a stiff and starchy jacket that shows all the dirt, that wrinkles as soon as you put it on? What is it about this coat that makes it special? Why would the Jefferson Medical College alumni think it so important as to give you your first White Coat?'

Let me try to answer these questions indirectly, by telling you what this White Coat means to me now, after wearing it for nearly 30 years. And to explore that topic, I must delve into what it means to me to be a physician.

The activities of the physician, the day to day tasks which we perform, are sensationalized in the press, are the subject of often trivializing television series, and are derided as expensive and occasionally unnecessary. Physicians are often stereotyped as driven individuals performing their art with secondary gain as their primary motivation. Indeed, the current state of revolution of health care into a publicly traded profitable commodity threatens to de-professionalize the caring professions of medicine and nursing.

So, I struggle with how to convey what I believe is a much greater sense of what it means to be a physician, to the soul of the person who has chosen to be a physician.

I am a creature of my education, and so I revert to the method physicians utilize to communicate with each other in teaching, learning, and the care of patients. This method is called the case presentation. The physician summarizes the salient aspects of a patient's problem in order to ask for, or provide assistance to another physician in the care of their patient. We also use this technique in teaching physicians-in-training. Case based teaching and problem based learning are applications of this methodology.

These cases, or stories as I like to call them, may also tell you much about the author, if you listen between the lines.

And so, let me tell you a story in an attempt to expose parts of the life of one physician. What differentiates this story from traditional case presentations is that this story is not strictly an objective medical case history of the patient. Rather, it is a reflection written by a physician about the impact this patient had on him many years after the actual event. As you listen to the story, try to place yourself in the position of the author. Think about your stereotypes of physicians, and then put them aside.



This story is called, 'In Her Own Time.'

Most physicians, if asked to recall a seminal episode in our education that shaped our approach to caring for patients, can recount at least one in vivid detail. If fortunate, this episode was one in which a patient and a role model physician helped them through a trying situation, and aided in their intellectual and emotional growth. If they were unfortunate, the experiences that molded them were negative ones. They may have learned how not to approach the same problem in the

future, or learned an incorrect approach to a problem which they continue to apply today.

Those of us who are privileged to be teachers of physicians actively model behaviors to young physicians in training, propagating the legacy of teaching, learning, and caring.

My personal epiphany was fortunately a positive one. As a young nephrology fellow, I was assigned to the inpatient service with my chief, Dr. Serafino Garella. I had completed my first rotation in the acute dialysis unit with success, and was again feeling the clinical confidence I had experienced as a chief medical resident the previous year.

Elaine was a 27 year old African American woman with end stage renal disease due to insulin dependent diabetes mellitus. She had endured numerous complications of her disease, including myocardial infarction (three heart attacks), purulent pericarditis (infection of the sac around the heart), malignant external otitis with sloughing of nearly half of her scalp, intractable diabetic diarrhea, and profound autonomic and peripheral sensory neuropathy. Peripheral vascular disease coupled with previous A-V fistula complications had resulted in amputation of a number of her fingers. She also endured repetitive disfiguring staphylococcal skin infections. Elaine received intermittent peritoneal dialysis as her form of renal replacement therapy. Dialysis was provided once per week for 40 hours in the hospital due to intractable abdominal pain which required narcotics for pain control. She weighed 78 pounds, and was described by Dr. Garella as cachectic. She, fortunately, was not blind.

As a chief resident in internal medicine the year before starting my nephrology fellowship, I had frequently been asked by the residents and faculty to participate in difficult clinical decisions, including cessation of life support, terminal cancer care, and issues centering around end of life decision making. During that period, I gained experience and what I felt was a reasoned clinical approach to these very difficult issues. Thus, as we made rounds together that first

Wednesday, I felt very confident in asking Dr. Garella, 'Why do we continued to dialyze Elaine? Why do we continue to put her through this torture each week? Would it not be best for her to be permitted to die a quiet death with uremia? Aren't we forcing her to endure the torment that is her life?'

I can remember Dr. Garella's pensive, almost sympathetic look as he responded to my question. Rather than provide me with an answer, he suggested that I come up with the answer to my own question. Further, he suggested that my primary information source be Elaine. In other words, he said, 'Why don't you ask her if she wants us to continue dialysis? In order to answer that question, you need to ask Elaine what she wants from life.'

And so, after about three weeks of getting to know Elaine (and of her getting to know me), I asked her why she continued to submit to this painful process, to return to (at best) a chair ridden existence at home, waiting for the next dialysis or some intercurrent complication to bring her back to the hospital.

Elaine proceeded to tell me that she did, indeed almost daily, question whether she should give up the fight and discontinue dialysis. She hated the pain. But more, she hated the indignity of being unable to care for and provide for herself. She had suffered from diabetes from age two, and felt her life had been stolen from her. She resented not being able to have children, and realized that her life could end at any time.

And so, I asked the question again. She looked at me for a few moments, and then she revealed to me the source of meaning for her in her life. As she told me her inner feelings and motivations, an expression of determination combined with love came over her face. She related that she came from a poor inner city family, and her brother and sister both were IV drug abusers. Three offspring—a nephew and two nieces—had been cared for by her mother, who had also been Elaine's primary caregiver until her death in the past year.

It then fell to Elaine to assure that the welfare checks were channeled into food and clothing for the children, and not to drugs for their parents. She was the physical and moral center of the family, the nurturer and protector, the matriarch. It was she who assured that the children were educated, went to church, and developed values that were consistent with her heritage. Her mission in life was to give these three children as much of a start in life as she was able, shielding them from the horrors of drug abuse and poverty as best she could. To paraphrase her, she said she lived so those three children could live. She understood that someday she would have to make the decision to halt aggressive medical support, but felt that it was 'not yet her time.'

My personal conviction that Elaine should withdraw from dialysis 'for her own good' was exposed to me for what it was: a well meaning projection of my values regarding life and suffering, based on the isolated medical facts of her situation. Actually, Elaine and I shared the same impression of the effects of her illness on the quality of her physical existence in isolation. But the quality of the totality of her life, the importance of her life in the context of her

family, and the positive impact of her life on the young members of her family, placed a premium on each day we could provide for her to be with her nieces and nephew.

In contrast to my fears that this conversation might harm the nascent doctor patient relationship we were establishing, Elaine was gratified by our discussion, somehow strengthened with the knowledge of the level of my (and Dr. Garella's) concern for her suffering.

Our visits then became discussions not only of her medical problems, but celebrations of the milestones of success she and her family achieved.

On reflection, after these many years, she had become the mother she so desperately wanted to be.

In Elaine, I found a heroine. She was stricken with a disease at age two which would cause her death by age 30. She lived not with bitterness or anger as her driving force, but rather selfless love of her family. To care for such a person is an honor, and an experience that changes you forever, if you let it. Because of Elaine, I look for, and usually find, good in all my patients. I look for, and often find, heroism in my patients.

I sometimes think that I will be the best physician I can possibly be, only when I am able to see courage and good in every patient.

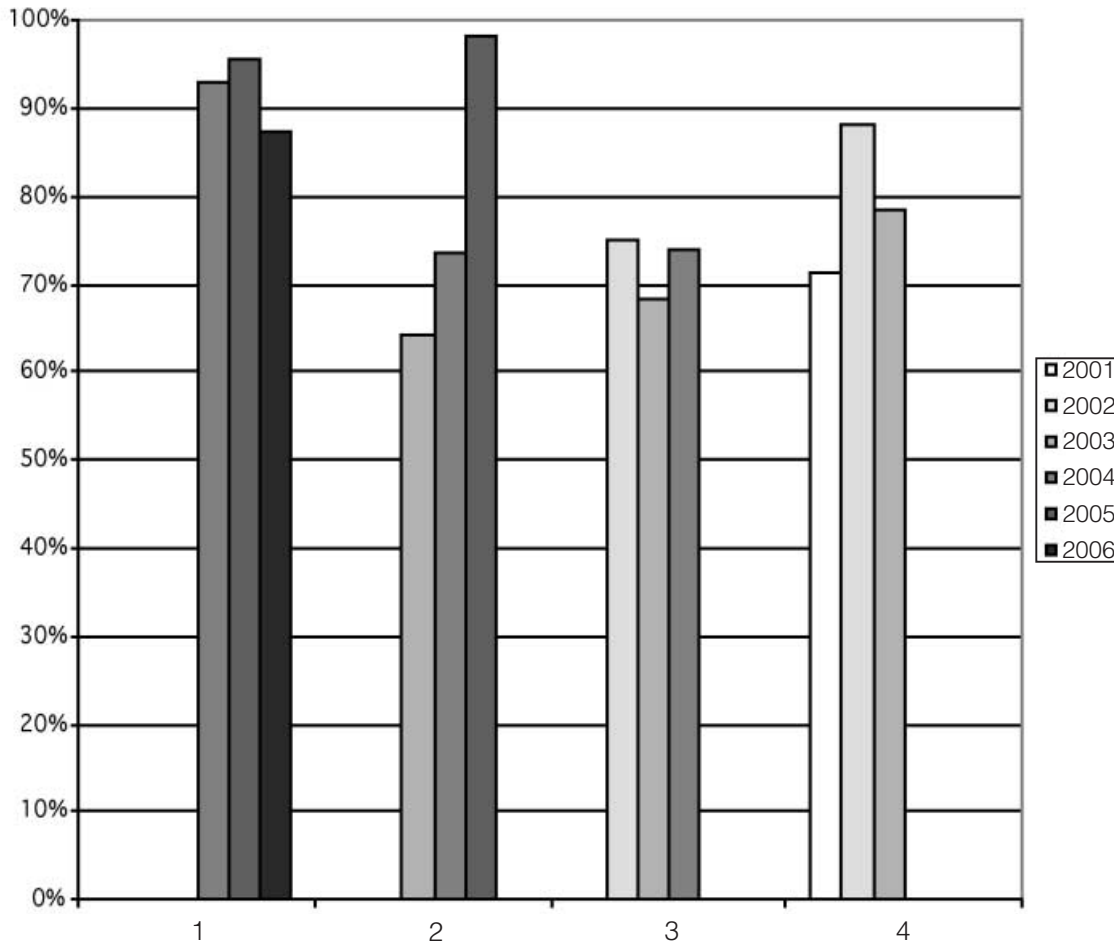
Elaine lived beyond my era as a clinical fellow in nephrology. In speaking with Dr. Garella some years later, I learned that the time did come when Elaine felt that she had done all she could. She died 'in her own time,' having had a meaningful impact on the lives of her family. Her bravery and commitment to those around her lives on in me as a person and physician, in many of my students and residents, and now you, who have heard her story.

I believe that my experiences with Elaine provide examples of the experiences all physicians have, throughout their careers. While each patient encounter may not be as poignant, each visit, each discussion, each telephone call brings the physician in contact with another person who has placed trust in that physician. Indeed, it is the extreme level of trust that defines the physician patient relationship, permitting the sharing of thoughts, feelings, and vulnerability.

The trust afforded the physician rivals the trust we place in our religious leaders. It is instantaneous (not individually earned based on years of personal contact), and it is all encompassing. We share our most private thoughts and feelings, fears, failures, and aspirations with our spiritual confessor without question. We approach our physician with the same degree of openness, baring not only our physical problems, but our deepest thoughts and pains, seeking physical and emotional health. We submit to invasions of physical and emotional privacy to a degree not even afforded to our spouses.

Often on the first visit, to a person we know little of, but call 'Doctor.'

This trusting relationship places a higher standard of performance and a greater level of personal responsibility on each of us. Similar to the religious leader, the physician must place the needs of the patient



Positive response of JMC students in the Class of 2001 through the Class of 2006 to the question, "Would you encourage other students to attend Jefferson?" Their reactions during year one, year two, year three, and year four of their medical school experience.

Source: Annual Medical Student Survey, Office of the Dean, and Center for Research in Medical Education and Health Care, spring 2003.

ahead of his or her own needs. Further, the physician must identify the patient's wishes, and strive to provide for the needs the patient identifies, which may occasionally be in conflict with what the physician thinks is best. The physician becomes the patient's advocate, seeking what is best for that individual.

The combination of the intellectual rigor of the content of medicine, coupled with the human and spiritual aspects of serving one's patients, presents opportunities for lifelong personal growth that are nearly limitless. I believe it is this mixture of the challenge to heal the body, coupled with the opportunity to touch the soul (and have one's own soul touched in the process), which makes the role of the physician so special.

The experiences I had in caring for Elaine, as well as the many patients before and after her, confronted me in many ways. I was forced to recognize, acknowledge, and then shed my personal biases in order to become receptive to the thoughts, feelings, and needs of my patients. I was challenged to provide the same level of empathy and compassion to each patient, regardless of his or her social status, economic means, and level of reciprocation of trust and kindness. I was invited to be open to the gifts each person brought to the

relationship. These gifts include the opportunity to serve, to share in the pain as well as joy of the patient, and to rejoice in the triumph of the human spirit over the physical limitations that we all possess.

Perhaps the greatest gift I have received has been the touching of my soul by my patients.

You, the highly intelligent, goal oriented individuals we accept into medical school, often initially find this level of personal insight, vulnerability, and receptivity threatening or uncomfortable. You will often avoid the opportunities to share these important experiences with your patients. Personal growth, through the interactions with patients during medical school and residency training under the watchful eye of a role model physician, will begin to prepare you for the responsibility and maturity that your patients' trust will demand. But it often takes years of practice before this level of insight and receptivity mature.

As I think back on that time in my life, I wonder what permitted Elaine, and the thousands of other patients I have had the privilege of serving, to trust me, to share with me their fears and aspirations,

to permit me to share my gifts with them. What led them to trust me implicitly?

Elaine's trust in her physician (my mentor) permitted her to believe that I, a young physician in subspecialty training, would do the right thing for the right reason, no matter what the consequences to me as an individual. This trust was based on the trust of those who went before me. The outward manifestation of my eight years of preparation for that encounter was, to Elaine, my white coat. Not a uniform, but an outward sign of purity of motivation, an unspoken statement that I carried within me the knowledge, skills, attitudes, behaviors, and values that those before me had demonstrated to Elaine.

And so, today's White Coat Ceremony is a celebration of that tradition, that passing of the baton of trust. It is a celebration of your entry into the profession of medicine. It is a celebration of the lineage of altruism and service here at Jefferson that began in 1824, and it marks the beginning of participation in this wonderful heritage of healing, the relief of suffering, and caring.

I congratulate the new class and their families on this wonderful beginning, and personally welcome you into the rich and storied legacy of Jefferson Medical College."

To those words which I spoke two years ago, I want to add something profoundly symbolic: it was you, our alumni, who provided the outward sign of the physician to this, and to all our classes since I became dean. Each year the Alumni Association provides our freshman class with their first white coats, which they put on for the first time at this ceremony. This tangible act of giving, the passing on of a legacy, is a rich tradition you have added to Jefferson. No matter how far away, you have a direct connection with each and every Jefferson medical student, from the day they enter, through graduation.

My second reflection, in thinking about the White Coat Ceremony, is a sense of loss. Not a loss related to Elaine's passing (she is in a better place, in her own time). It is a loss of the nurturing educational environment that you and I enjoyed, catalyzed by the presence of mentors with the motivation, professional knowledge, humanistic attributes, and time to dedicate to the rearing of the next generation of physicians. Nationwide the medical environment has changed greatly, and each of you can attest to its impact on you. Whether it is the medical liability insurance crisis, the absence of meaningful tort reform, the devaluation of primary care and nonprocedural services, inadequate reimbursement for physicians and hospitals, or the almost 45 million uninsured Americans, we cannot deny that the setting and context of our profession has changed profoundly, in many cases for the worse for our patients and for us physicians.

It is also worse for our students, the lifeblood of our profession. Whether it is educational debt, the exponentially increasing body of

medical knowledge, the often hostile clinical environment, or the lack of time of the faculty for direct mentoring due to revenue generating or regulatory pressures, the context and setting of their education is being harmed by the national medical environment.

And so, I ask you, as every dean before me has asked you, to be generous to Jefferson this and every year. The legacy given to you by those who went before you required constant nurturing and support. The educational environment you enjoyed requires resources far beyond those provided by tuition and clinical revenue.

I know many of our younger alumni had negative feelings about their educational experiences here at Jefferson at the time of their graduation. It is to them that I direct the graphic on the facing page. As you can see, the morale and satisfaction of our students is soaring with recent enhancements in our curriculum and our evaluation systems. What you wished for, we have accomplished.

The positive response of our students to the question, "I would encourage other students to attend Jefferson" has soared to over 90 percent in each of the classes admitted after our major curriculum initiatives. Even more striking is the escalating positive reaction to this statement in the Class of 2004 between year one and year two, with nearly every student responding "yes" to this statement.

So, I ask each of you to make some annual contribution to Jefferson, to assist us in our mission to continue to produce outstanding clinicians, and to continue your legacy of excellence through these trying times.

I ask our mid career alumni to each consider an annual donation of a thousand dollars or more. I ask our younger alumni to consider a donation of two hundred to five hundred dollars a year. I ask our youngest alumni, still in training, to consider an annual gift of twenty five to one hundred dollars. And finally, I ask our senior alumni to consider an annual gift in keeping with their means, and to consider including Jefferson in their estate planning.

When I go to foundations and other donors for assistance in building Jefferson's future, one of the first questions asked is how much our alumni contribute, and what percentage of all alumni give. I want the answers to force them to assist us. Currently, they do not.

When the annual fund requests arrive, please consider your donation in the context of the Hippocratic Oath, and all that your education at Jefferson has provided you, your family, and your patients.

Please pay it forward by giving back.

Thomas J. Nasca '75
Senior Vice President, Thomas Jefferson University
Dean, Jefferson Medical College
President, Jefferson University Physicians

The Orbit of My Eye

by Risa Ravitz '05

I got new glasses today. They have that new glasses feeling, clear in terms of the correct prescription, but every once in a while as my tired eyes strain to adjust, the world seems to undulate past me. Maybe some of the impulses traveling to my brain never actually make it through the Annulus of Zin. My fatigued mind works in tandem with this strange world as other clips of life appear as they would if they were wrapped around a big glass sphere. I embarked on this journey they call a medical education not long ago. But after a semester of school in a world that has changed more than anyone could fathom, my swirling vision, trippy glasses, twitchy eyes, and exhausted mind feel strangely familiar behind the clear lenses that are now mine. I smile to myself at how appropriate these glasses really are, and remember how this had begun.

Sitting within a sea of new faces on that warm summer day, I could see my family among the many proud parents at the White Coat Ceremony. I smiled at them, and tried to relax. My new starchy white coat felt itchy and uncomfortable. Or maybe it was the unfamiliar words I was hearing and then repeating: "to help and do no harm ..." as I looked at the script of the Hippocratic Oath I was taking. I tried to concentrate on the words, but couldn't help wondering about my future here.

Classes began in earnest the following week. Conversations with peers revolved around endless rumors, lies, and nervous bundles of anxiety.

"I heard anatomy is really tough. We have to get Netter, Grant, Moore, Moore and Persaud, and know all 2,000 pages of it!" an especially excited young medical student exclaimed, her red face reflecting her accelerated pulse.

"You should all be in this for the learning experience," said one professor. "I know we are grading you on performance, but those grades don't matter. Your primary focus should be passing and acquiring knowledge."

"Grades totally matter if you want a good residency," I overheard a student say as I walked out of class the same day.

By the end of that first week, my brain was so overloaded with facts and chores, I decided the only thing to do was to drive the one hour home and hit the beach for the weekend. Surfing seemed like the only reasonable thing to do. A storm was sitting off the coast of South Carolina, and we were getting a nice little ground swell consisting of two- to four-foot waves. It is uncanny how that weekend really represented the calm before the storm. I sat in 75 degree water all weekend, swaying back and forth in the gentle roll

of the ocean, feeling the ebb and flow of the waves, and taking the occasion to ride the energy that had traveled many miles for my surfing pleasure. However, the myriad facts from the last two weeks began to invade my pace like activation of a latent infection. I sadly recalled the anatomy quiz waiting on Monday morning and in the same breath remembered that I also had another class—biochem.

My arrival back at school on Sunday night was met with a scene to which I would soon get accustomed. Students were crouched in cubicles, cramming fact after fact into their heads from many sources of information strewn among highlighters, note cards, tabs, and page after page of red underlined text. It seemed the only thing that stood out on these endless pages of notes were random words in their naked black ink. On this particular evening, all the fuss happened to be over a quiz worth two percent of our grade. So much for grades mattering.

Some comfort arrived in the form of two fourth year students I encountered in the stairwell of my building.

"How are you doing? Are you a first year student?" the one on the right asked me with a cigarette hanging out of his mouth.

"Yes," I replied a little uncertainly. I braced myself for a monologue on all the work that was ahead and all the things I wouldn't be able to do anymore. I couldn't help remembering the comment yesterday from a second year student who had declared prophetically that I would have NO LIFE for the next two years.

"So does stuff seem a little overwhelming?" the one on the left added as he took a drag of his cigarette.

"Yes," I responded casually. "But it doesn't seem that bad," was the little bone I ventured to throw out, hoping for a respite from all of the craziness.

"You can fail a lot of stuff before you actually fail the class, you know. There are lots of quizzes and tests, and it isn't too bad. Don't worry too much."

"Cool," was my eloquent reply as I felt a small sense of relief wash over me. I made two mental notes as I walked out of the stairwell: hang out in the smoking lounge more often, and avoid any student who would remind me that I would have no life. It was the beginning of about a thousand mental notes.

Anatomy Lab and the First Dead Bodies

The next morning my e-mail said to report to the fifth floor of Jefferson Alumni Hall in scrubs for the first anatomy lab. It was my turn to be nervous. I had heard all of the stories of anatomy lab: the smells, the juices, the cutting, the hours, the fat, and the way human tissue dries up like beef jerky if not tended properly. A friend reassured my jittery nerves when she told me that the only exposed part of the body was the section being worked on. I thought I could handle a small surgical field, and, besides, what choice did I have? I couldn't skip anatomy for the entire semester. This didn't stop me from taking extra precautions, however, so I didn't eat anything the

This essay won third prize in the 2002 Helen H. Glaser Student Essay competition held by Alpha Omega Alpha, the national medical honor society, and was printed in the society's national publication, The Pharos.

night before or the day of anatomy. At least if I passed out, I would have nothing to throw up, and someone could just drag me out of the room. I cringed at the image of myself being dragged across the floor by my feet with my head banging against the cold floor.

In the half daze that can only be attained by a night consisting of merely four hours of sleep, I ambled into the lab a few minutes late. As soon as I entered, I knew something was wrong. The bodies were lying on the table, completely exposed, in clear plastic bags! I felt as if I had walked in on somebody naked. I attempted to look at nothing, but managed to see, in gross detail, feet with small white tags around their toes, eyes, shaved heads, painted fingernails, breasts, arms, legs, faces, and torsos. I struggled through the maze of appendages and arrived at the table with the little number 34 attached to it, and, much to my chagrin found no lab partners. A wave of nausea washed over me as I stood there staring at the large body (with a face and all!), and from about 30 cadavers away I heard a professor giving instructions. I stood and stared at the large female, silently thanked myself for probably the fifth time already for not eating anything, and wondered if I had ever seen a dead person in the flesh before. The realization that I was not only in the midst of one cadaver, but 50, hit me, just as the bile in my esophagus arrived at the back of my palatoglossus.

It was a less than opportune time for my professor to arrive and ask for help to turn over the body. What could I do? I chewed my gum harder (I think that gum was the only reason I didn't vomit that first day), grabbed a piece of the plastic, and turned the other way. He managed to flip the body over towards me, but the cadaver's large size and subsequent momentum landed 150 pounds of flesh in my arms, and I found myself face to face with—the *face*. Her eyes were translucent and open, and it was then that I got over the pounds of flesh, tissue, and skin I was holding. I didn't even mind the cold, slimy juice dripping down my bare arms, the white wrinkled skin, or the shaved head with the rope holding it together. It was her eyes, the windows to her soul, that made my arms shake, and made me feel that I was violating some unwritten rule of life. My lab partners had finally arrived, and as I stepped back about two feet from the body, I thanked myself again for not eating. They began to unsteadily peel the skin away from her back like an orange.

About an hour and a half was all that I could handle, and I left early with a dizzy and sick feeling that even the fresh air of the outside could not dispel. After scrubbing myself until my arms and hands were raw, I glanced over the schedule for anatomy. Dissections, 47 of them, almost every day from one to five o'clock. I wondered how I would get through all of those dissections, and realized that my stomach was growling even though I was still queasy. I learned later that the smell of the preserving chemicals stimulated appetite, and I am still amazed that every time I stood in that lab my poor stomach growled in the same moments that my mind reeled with distrust and horror. For the next two days of dissection, I stood a little away from the body (I had convinced myself that that was indeed the best

view) and subsisted on little food and sleep.

The night of September 10, my surfer buddy down at the beach called to tell me that the swell was building from another storm, and tomorrow morning promised six foot walls in perfect waves. Being a rare event that had to be capitalized on, I decided to wait until the morning to leave for New Jersey. The right tide wasn't until about noon, so I attended my nine o'clock class. About halfway through the lecture, somewhere around the supercoiling of DNA, I couldn't wait any longer, and snuck out to call the wave report just to whet my appetite for what was to be waiting for me in a few short hours. With the promise of a great surf session overtaking my mind, and the glow of my summer tan still on my epidermis, I ran to the pay phone to call my friend. To my frustration all circuits were busy and a line was forming at the telephones on the morning of September 11. When I returned to class to grab my things to leave for the beach, my professor went to the podium and announced that we were under some sort of terrorist attack and that the World Trade Center had just collapsed.

Just as most people remember where they were when the *Challenger* exploded, and my parents can tell me exactly what they were doing when JFK was shot, I remember watching my professor struggle through the lecture as cellular phones intermittently rang and a quiet murmuring echoed through the remainder of the hour. It was so strange, listening to the intricate details about the latissimus dorsi and intrinsic back muscles, while trying to fathom that two passenger planes had knocked down the twin towers.

I made it home that day after all. I was as glued to the TV as most other Americans, and as I would be for the next five months. After six hours of the news, I went to the beach. I will never forget that night. The waves were perfect, the sky was slightly overcast, but the most incredible thing was the quiet and the perfect sets of waves crashing along the shore at regular intervals. There was no one around, no planes in the normally completely dotted sky.

You could feel the quiet. Everyone was dumbfounded, and it seemed as if the motor of the world had stopped. As each wave crashed onto the sand, I began to think of the magnitude of what had occurred. Bodies flying out of windows, no air traffic, no stock market, no football, no baseball. Two one-hundred-plus-story buildings taken down with our own planes as the instruments of destruction. Four passenger planes had gone down. Americans stared at the apocalyptic skyline of New York City. Even a medical student in the midst of anatomy and biochemistry, with tests coming up in a few days, was forced to pause.

I returned the next day to where I started. It seemed completely the same, 9:00 anatomy, 10:00 biochemistry, 11:00 anatomy, lunch, and anatomy lab 1:00 to 5:00. Or maybe my world was completely upside down. Maybe it was 9:00 biochemistry, 10:00 anatomy, 11:00 biochemistry, lunch, and anatomy 1:00 to 5:00. I can't seem to remember the details. Air traffic was still at a standstill, people were

stranded in airports, and friends and families were still trying to get in touch with loved ones in New York City. Exams crept closer. Hour after hour, I found myself glued to the television, books open in my lap. Maybe osmosis could occur through my legs and the important facts I would need to know in a couple of days would magically travel from my book through my legs, up my aorta, detour through the chambers of my heart, right on through my Purkinje fibers, up my carotid, and ledge themselves somewhere around Menkels cave waiting to come out for exam day.

Later that week, the deans came to speak to us about the resources available to anyone feeling nervous or anxious about the events that had transpired. I couldn't think of a reason to feel worried, so I ignored my strange dreams and lack of ability to sleep, and tried to make myself be concerned with the upcoming exams. On the weekend, President Bush addressed the nation. Among other things, he promised retaliation to those parties responsible for the acts of terror. As Americans, we were instructed to fight back by going to work, traveling, flying, eating out, and not letting terrorism ruin our way of life by doing what we normally do. Well, in that case, I thought to myself sadly, I think I will just dive right back into the good old latissimus dorsi, Krebs cycle, and innervation of the erector spinae. That'll be my good old contribution to the fight against terrorism. Thanks, Mr. President, I feel much better.

Exams were pretty annoying, watching TV was worse, and lying awake hour after hour in bed was a nightmare. It was right around the time that grades were released and my biochemistry professor was trying to deal with the fact that 22 percent of the class had failed the exam that the first anthrax victim died in Florida. My scientifically trained mind mulled over the facts. Anthrax was pretty rare, it was transmitted by spores, and manifested in three different forms: inhalation, intestinal, and cutaneous. I searched the Internet for information and found that the three forms covered a huge range of symptoms, most similar to the common cold or flu. Authorities claimed that the victim had been exposed through the mail system or through something in the building in which he worked. They told us not to worry. Despair and anxiety came over me, even as I hoped my prediction that we would see new, unexplainable anthrax cases would not come true. It was only a few days later that a member of the U.S. Senate and a New York news anchorman received anthrax-tainted letters. It wasn't long before there were new victims of anthrax, and it seemed just the time for hysteria to erupt.

A few incidents immediately after our second set of exams stand out in my mind. Since exams had been the previous week, most of us were sleep deprived, and probably hadn't eaten the best foods, nor followed the protocol for a healthy lifestyle. Naturally, I came down with a bad flu and the normal symptoms: fever, aches, joint pain, earache, and cough. The symptoms seemed to worsen as time passed. I woke up at about four o'clock in the morning, convinced I had pain directly in my mediastinum.

Must be inhalation anthrax, I thought, as I broke into a cold sweat, got up, and dressed to go to the library to look up the symptoms again. I figured I could go right to the hospital across the street after I confirmed my diagnosis on the computer, and would start

Ciprofloxacin before the sun came up. The fever and delirium resulted in my passing out fully dressed in my bed, still wondering about my poor mediastinum. The flu went away in a few days. I guess that behavior can be considered crazy, but the fever of anxiety and paranoia soon spread. My friend's story was even better. He liked to study in the hospital building that had classrooms. Late at night and on weekends he had to go in the back way through the hospital to reach his house of Zen via a labyrinth of hallways and corridors. One Sunday night, with the intention of preparing for a Monday morning quiz, he was walking around there alone, his backpack full of books, when he noticed a man sort of following him through the corridors. He also just happened to notice that the man was Middle Eastern, and with recent scares compounded with the late hour and weirdness of life, he got nervous and decided at the next group of doors to stop, and let the man walk ahead of him.

He said to the man: "After you, my friend."

And the man replied in very broken English: "No, sir, you go, what in the bag?"

"Books. I have a quiz tomorrow," my friend said uneasily.

"What did you want to be?" the strange man asked in the past tense.

"A doctor," was my friend's reply as he quickened his pace through the doors. Much to my friend's chagrin, the man continued to follow him.

At this point, my colleague decided it was a bad situation, turned around, murmured something to the man about forgetting something, and rushed back to his apartment.

Coincidentally, the next morning he woke up with a bad cold.

As he told me the story I began to share his nervousness. A tingling in my right Hallucis came as he began his ridiculous proposal of a story that I knew at the bottom of my heart I could believe actually occurred. He recalled the events of the night before, and we discussed the possibility of that man throwing anthrax spores at the back of my friend's head. We talked about it for hours as the TV spewed ludicrous news about the crazy events going on in the world. When would the insanity peak? I remember waking up every morning prepared for and expecting almost anything. Whether it was a story about new air security, a new anthrax case, an exam that covered 60 lectures, a student licking a cadaver's gastrocnemius muscle for 10 dollars, or that most people were losing their jobs, it was all preposterous but acceptable in my mind.

Life Back to Normal?

Meanwhile, life at school was beginning to return to normal. Well, almost. I remember standing in the elevator of my building on the way up to my apartment with two pieces of mail in my hand, realizing that the doorman had been wearing latex gloves as he sorted the mail, and that I didn't want to put my mail in my apartment. I threw the letters away. I found a somewhat effective cure for sleeping. I spent hours every day playing basketball, so that when I finally did

get into bed, my body was so exhausted that sometimes I just fell asleep. That was a treat. But anatomy lab still proved to be very difficult for me. I never seemed to lose that nauseated feeling, or to get used to the sounds of body fluid dripping into buckets under the table.

Matters worsened one morning when the twilight zone, in all of its glory, arrived after my anatomy professor got up to propose a question to the students. It had been a long semester in every way imaginable, and this weekend there was to be a formal ball. A quiz was scheduled for Monday, which tended to put a burden on the weekend, and, as an act of kindness, the professor gave us the choice of having the quiz cover three lectures or nine lectures. Most of the class voted for choice B, to have the quiz cover nine lectures. Amazing to me, absolutely amazing! I guess they all figured that it would make them study the material, and what was the point of having a more relaxed weekend? I wasn't sure which would feel better, to hit someone in the temporalis or to get hit in the temporalis. But again, under the circumstances, I wasn't surprised.

It was right around this time I noticed that people were losing it. Some people were experiencing mood swings and crying a lot. Others who weren't normally affected by little things began to fuss over the dressing on their salads. A lot of us couldn't sleep at night. I personally discovered a new addiction to chocolate. I bought bag after bag of Nestle's chocolate chips, put them in the freezer, and went through the crunchy delights like there was no tomorrow. My dad went to Costco and bought me a six pound bag of ambrosia chocolate chips. Six pounds of chocolate chips is a lot of chips. I received them right after Thanksgiving. They were gone in three weeks. The chips definitely helped me, and I managed to convince myself that they were little bunches of energy that I needed. I bought another six pound bag and started on them immediately.

Finals week was creeping up slowly, and the stress levels here were topping at their max. I was sick of school, studying, looking at books, looking at bodies, and we were about to start on the head and neck in anatomy. I despised every minute I spent in the lab section. Skulls were broken in four different ways. Eyes were dissected out, and it seemed like every time I went in there people would crack the pieces of cranium together. I think I reached my lowest point around this time. The world was not recognizable outside the United States, or in the United States. The cadavers were hardly in human form anymore; there were tongues hanging out in every direction, eyes sliced open, and entire heads removed from the top of the spine. Each day it was harder to get up. I had to go to the lab, and then to the library, and then to the lab, and then to read more, and then to the lab, and then to the lab again. Everywhere I turned seemed ugly and horrible.

The lecture on the orbit of the eye struck me as grossly unexceptional. It was described as the cavern in which the eye sits; a set of walls that offer protection for that delicate little ball that literally opens up the world to us. I could only wonder, if the eye is indeed the window to the soul, is the orbit the tunnel of protection for this delicate window? Another plane had gone down last week in New York, a little pile of white powder caused a cascade of hysteria, and a little cough or snuffle still brought a fire of anxiety in the pit of my

stomach. How could the ethmoid plate, zygomatic arch, and maxilla, the walls that make up our orbits, hold up to the ever pressing issues that were literally banging down our doors? Was it my orbit's function to protect my soul from these shocks, as well as from the minor jerks of my head that shook my eyeballs? I guess those little bones had a big job ahead of them if they were arches to protect the eyeball and preserve the soul. But my orbits felt weak, and my eyes were tired of what they were seeing. I longed to see something beautiful.

There was about a week until exams, and I should have spent most of my time studying, but I had bought a huge canvas a couple of weeks earlier. My painting and drawing materials had been virtually untouched since entering medical school, as other commitments had occupied my time. So at about two o'clock in the morning, what else does one have to do with oneself but lock the door, rip the mirror off the bedroom wall, and put it up into the bathroom with the extra lights from the living room? A perfect makeshift little art studio now stood in my bathroom. It struck me that I might be a little crazy as I grabbed the canvas and my charcoal, took my clothes off, and stood in the shower making long feverish strokes on the canvas.

It only took about 45 minutes, but it was by far one of the best drawings I have ever composed. I looked at the picture, and at the mirror, and back at the picture. I was covered in the dark charcoal. It was me, and it wasn't me. That is, what I saw on the canvas resembled me and didn't, and, likewise, what I glimpsed in the mirror was and wasn't me.

The beautiful thing about drawing is that you almost never know what you will get on the canvas. The posture of the figure looking at me was somewhat downtrodden. The back was not perfectly straight, the line of the shoulder and clavicles were not perfectly horizontal, and one of the arms seemed to hang as if under a weight. However, there was an unmistakable upward tilt of the head, a look of strength. I noticed that the shadow I had created loomed very large in proportion to the rest of the body, and although I couldn't see myself clearly, the figure before my eyes was unquestionably me.

I felt strangely better and couldn't help but feel the smile creep onto my mouth as I remembered the addendum to the Hippocratic Oath that I had written to myself the night before school began. With no disrespect to Hippocrates, my addendum to the oath is as follows:

- I am a surfer, first and foremost.
- I am an artist.
- I am a sister.
- I am a daughter.
- I am a friend.
- Under no circumstances will I give up these things for anyone. For that would be the biggest disservice I could commit as a doctor. But as a result of my selfishness you will get the best of me as well.
- If indeed my life and art are all derived from my experiences, I will do everything to make the canvas beautiful.

Maybe I was wiser six months before I wrote this essay. Maybe not. Regardless I am adding to my canvas and so I must thank you, little orbits of my eyes. You are stronger than I thought, and you don't get enough recognition in anatomy class. JMC