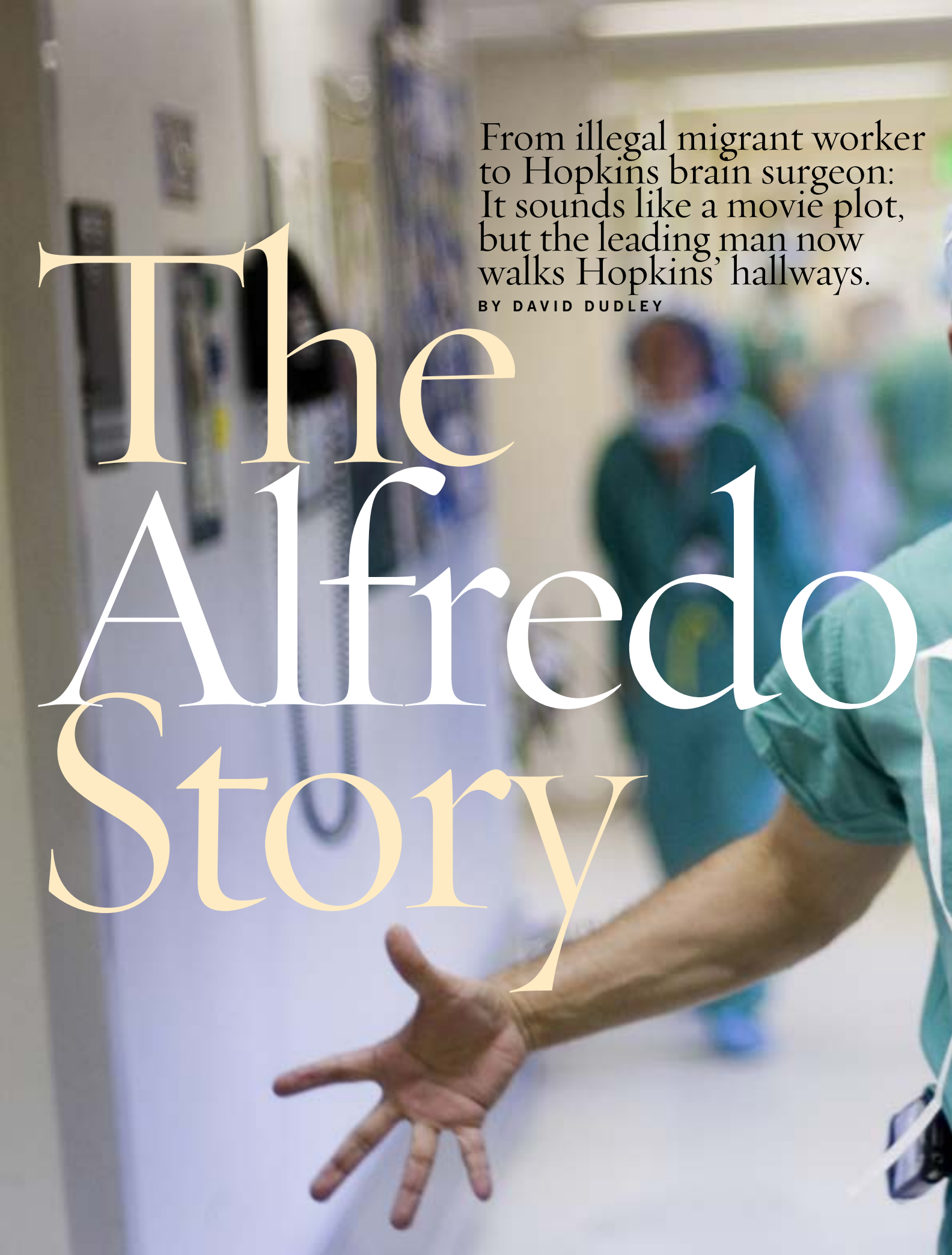

The Alfredo Story

From illegal migrant worker to Hopkins brain surgeon: It sounds like a movie plot, but the leading man now walks Hopkins' hallways.

BY DAVID DUDLEY

There is a handsome black leather couch in the office of Alfredo Quiñones-Hinojosa. Upon it is slumped Quiñones himself, fresh from this morning's emergency surgery and still wearing his green scrubs.

It's early afternoon on a brilliant fall day, and the 38-year-old neurosurgeon—the director of the brain tumor program at Johns Hopkins Bayview—claims to be tired. The pressures of the operating room, he says, often leave him emotionally wrung out. But this exhaustion has manifested itself in a peculiarly Alfredo-like way, as a sort of giddy elation.

"Look—look at this nice leather couch," he crows. "There was a time when I was sleeping in a trailer. Now I'm sitting on this beautiful leather couch. People call me Dr. Q. They think I actually have something important to do." He rubs the couch dreamily. "I feel so lucky to be here. Why me?"

Then he tells the story about how he almost died. This was April 14, 1989, when Quiñones was a 21-year-old illegal immigrant working as a welder on a railroad crew in central California. He fell into an empty petroleum tank, an 18-foot drop, and tried to escape by climbing up a rope that had been tossed down by rescuers. "As I was going up, my whole life unrolled in front of me. I saw my parents crying, my friends, everything." At the top of the tank, he says, he clasped a co-worker's hand and fell back into the tank, overcome by fumes. He woke up in an intensive care unit. It was the first time he had seen the inside of a hospital.

"I've always felt that everything that has happened since then has been a gift," he says. "I don't think I was meant to go beyond that."

The degree to which Quiñones, an assistant professor of neurosurgery since last year, has exceeded expectations is a subject of recurring wonder, for him and for others. The basic narrative—penniless Mexican teenager jumps the border, learns English, and goes to Harvard Medical School to become a brain surgeon—describes such an implausible arc that one is tempted to look, in vain, for the catch. ("It's too good to be true," says a close friend, Harvard neurobiologist Ed Kravitz. "But it's true.")

And then there is the irrepressible star of this unlikely fable, Quiñones himself. Meet him and he will grin broadly, envelope your hand in a handshake, then give your shoulder a proprietorial squeeze. He greets everyone he meets like this, something his parents taught him a long time ago. In lesser hands it might come off as fake-chummy artifice, but Alfredo sells it, effortlessly. "Human behavior is strange—we treat people differently based on where they've been or where they are rather than who they are," he says. "I try to treat everyone with the same respect, whether they are millionaires or the poorest person that you can conceive of. I always shake their hand and touch their shoulder. I try to standardize that."

MEET HIM AND HE WILL GRIN BROADLY, ENVELOPE YOUR HAND IN A HANDSHAKE, THEN GIVE YOUR SHOULDER A PROPRIETORIAL SQUEEZE.

As Henry Brem, chair of neurosurgery here, says of the curiously driven character who joined his brain tumor team last year, "He's not a person who accepts no. He's a person who always wants to go beyond expectations. He wants to do what other people say is impossible."

If that's what he's looking for, Quiñones has definitely come to the right place. His research focuses on the possibility of using neural stem cells to stop or even repair the damage wrought by incurable brain cancer, the devastating high-grade gliomas that, for most patients, are now all but a death sentence. Under Brem, who helped develop the Gliadel chemotherapy wafer treatment that has extended average survival rates for those with recurring malignant brain tumors by a small but significant eight weeks, Hopkins has become a frontline leader in the battle against brain cancer.

It's the sort of hopeless cause that holds a powerful allure for Quiñones, who knows a few things about being told what he can and can't do. "I wonder if subconsciously I was attracted to this field, just like I was attracted to coming to the United States," he says. "Even though people said there's no possible way, I stuck with it and gave it my best." He applies that same attitude, he says, in the laboratory and the operating room. "I could have picked something else and had a better quality of life. My patients, they die. It's depressing. It hurts. But I refuse to believe that there's nothing we can do. I'm absolutely adamant about it."

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THE TOUR of Alfredo Quiñones' past begins with the three pictures, a triptych of artifacts from an earlier life: his family's dusty yellow gas station; the chain-link border fence in Calexico, California, that he climbed in 1987; the beat-up truck camper that served as home when he was a migrant farm worker in the San Joaquin Valley. The snapshots sit on a bookshelf in his office, incongruous amid the framed degrees and awards.

First born of six children, Quiñones

Quiñones' story in pictures (clockwise from top left): The trailer he lived in as a farm worker in 1987-88; the building five miles away, where he went to shower; the illegal border crossing where he entered the United States; working as a welder in 1989.

grew up in a village outside Mexicali, the desert capital of Baja California, a few hours southeast of San Diego. He started working in the gas station by the time he was 5, he says, selling corn and hot dogs to drivers to make some extra money for the family. "I was very advanced for my age," he says. "I couldn't wait for things to happen. I had to go and get them."

His family was poor, especially after the Mexican economic crisis of the early 1980s, which left his father jobless and the family hungry. Nevertheless, Alfredo excelled in the public schools, scoring well enough to earn a place in a local college in his early teens. By the time he was 18, he'd graduated and had a teaching license. But instead of teaching in Mexico, he decided to join his uncles and cousins who had already made the passage to El Norte. "My original plan, just like many people who come to the United States, was to make a lot of money and come back to my country," he says. "It took me about a year to realize that that was a false dream."

Once he'd jumped the border, Quiñones pulled weeds in the cotton and tomato fields outside of Fresno. He spoke no English and, at 19, wondered if he'd made a mistake. One day he told a cousin that he wanted to go to school, learn English and leave the farms forever. "He looked at me and said, 'Are you crazy? This is your future. You came to this country, just like us, to work in the fields.'"

This, Quiñones says, was a wake-up call. "If he hadn't told me that, I'd probably still be back there." He called his parents, who by this time had resettled with three of his younger siblings in nearby Stockton. They picked him up and drove him back to live with the family in a one-room apartment in downtown Stockton. He found work at a railroad company, where his first task was shoveling sulfur. "Imagine! I kept asking myself, Why the hell did I leave the farm? But I knew that if I kept working and giving it all I got, eventually things were going to turn around." In 1988, Quiñones signed up for English classes at the local community college. And things turned around.

When Anna Peterson met her future husband at San Joaquin Delta College in 1990, she was just out of high school; Alfredo was the long-haired Mexican guy who seemed to be perpetually late for something. "I was intrigued, because he was always in such a hurry," she says. "He was at sort of a slow run, all the time."

The young Alfredo was clearly headed somewhere, fast. He tutored other Spanish-speaking students in math and science courses and joined the debate

team to practice his English. His preparation was impeccable, but his accent was indecipherable. He won second place in a tournament at San Jose State. "I think our main weapon was the fact that our opponents couldn't understand what I was saying."

By 1992, he had quit the railroad crew for good and won a scholarship to Berkeley, where he decided to major in psychology. "The areas that I found most difficult were where I had to write or speak," he says, "and almost all the psychology tests were papers. I'd have nightmares about those essay exams, but I needed to challenge myself. I kept my GPA up by taking calculus and physics and chemistry, because those were easier."

An early mentor in the psychology department at Berkeley, neurobiologist Joe Martinez, recalls Quiñones as "one of the two best undergraduates I've ever had." Now at the University of Texas at San Antonio, Martinez recalls, "Alfredo knew nothing about neurobiology when he got into my lab, but it really captured his imagination. The level of motivation, but also the people skills he had, were amazing."

Quiñones considered law school, but—inspired in part by a grandmother who had been a respected curandera, or village healer, back in Mexico—he decided on medicine. Medical schools lined up to offer him scholarships. Martinez, who ran an advancement program for minority students, encouraged Quiñones to choose Harvard, introducing him to Ed Kravitz and his famous Harvard neurobiology lab. In a pre-matriculation summer research program in Kravitz's lab, Alfredo earned the nickname "Lucky Quiñones" after his success in a partial cloning project of a receptor involved in lobster molting. For Kravitz, a former Bronx street kid who made full professor at Harvard by 30, there was an immediate connection. "We both traveled an unusual route to get where we were," he says. "We bonded right away."

Quiñones also distinguished himself at Harvard with his efforts on behalf of other students from lower-income backgrounds, becoming a leader in the pre-matriculation program he had once attended. "Alfredo arranged for visits from students, picked them up at the airport and gave them a place to stay," Kravitz says. "That's another of his strong points—he really reaches back to help people."

Quiñones-Hiinojosa offers stipends to minority students who work in his lab: (from top): With his troop of post-docs, residents and med students; in the lab with resident Shaan Raza and Hopkins undergraduate William Tennant; with resident James Frazier.

At this point, the Lucky Quiñones story becomes a blur of accolades: Heaped with research fellowships and academic honors, he graduated cum laude and, now a newly minted American citizen with an infant daughter in tow, gave the commencement speech for his Harvard med class of 1999. Internship and a surgical residency at the University of California, San Francisco, followed. It was here that Quiñones found his medical mission. As a second-year resident, he was brought in to help translate for the Spanish-speaking family of a patient with a malignant brain tumor. The young man,

as Quiñones recalls, was not unlike himself: 19 years old, about to go to Berkeley, "the hope of his family." He died a little over a year later.

"Over the course of the next year, I saw him go from being a strong kid to just deteriorating and dying," Quiñones says. "I saw his body just given up to the disease. I saw his family tormented and in pain. And I thought, 'This could have been me.'"

THERE'S A KNOCK on Quiñones' office door, and Grettel Zamora, one of the researchers in his lab, drags in a large wooden crate. The box reveals an award called the Inspirador, a huge plaque from the Hispanic Scholarship Fund, which recently inducted Quiñones into its alumni hall of fame. "Holy guacamole," he says.

"WHAT I DID TODAY—ENTERING THE BRAIN, ILLEGALLY—IT'S AGAINST NATURE. WE NEED TO FIND A BETTER WAY TO TREAT THIS DISEASE."

Such deliveries have become commonplace around here. In 2006 alone, Quiñones added the $150,000 Howard Hughes Medical Institute Physician-Scientist Early Career Award and the Nickens Faculty Fellowship from the Association of American Medical Colleges, a $15,000 grant that he plans to spend on research stipends for minority students who work in his lab.

As if to justify the acclaim, Quiñones pursues a punishing clinical and research workload. He generally drives in before dawn from his home in rural Belair, Maryland, an hour north of Baltimore. En route, he'll call his research collaborators in Spain. On a good day, he might make it home again by 11 p.m., long after his three young children have gone to bed. Tonight, scheduling an emergency surgery for a tumor patient who's having seizures, he expects to still be in the OR at 1 a.m. "What can I do?" he says. "This is my life. This is what I signed up to do. I'd hope that if my own family member was a patient then somebody else would do that for me."

His work ethic is a source of amazement to his senior colleagues. "He puts in three times the effort of the rest of us," Brem says. "I wish there was a little bit of Alfredo in everyone."

Quiñones credits these feats to a patient wife and a natural facility at multitasking. "I can be typing, and talking to you, and checking my pager, all at once," he says. The lab he has just set up is right down the hall from his office in the new Cancer Research Building, and it appears to run at the same torrid pace. "I'm a very demanding boss," he says. "My goal is always to lead by example, by being the first one to come in and the last one to leave."

Lab assistants have grown accustomed to late-night phone calls from their boss, checking in on experiments on the commute home. "He tells us we are ninjas," says research assistant Roxana Mesias, one of four full-time staffers. "He says, 'If you love what you're doing, it doesn't matter how long it takes.' And somewhere, we find the energy."

Mencias, who was raised in Ecuador, first met Quiñones when she was an undergraduate at Wheaton College in Massachusetts, where she was a member of a Latino student organization that brought him to speak on campus. His talk proved so memorable that, after graduation, she was determined to work in his lab as she pursues a molecular biology degree. "Just seeing him every day, for me, is an inspiration," she says. "I say to myself, He's here. He did it. So, what's stopping me?"

Quiñones says his enthusiasm and otherworldly ebullience sometimes lead observers to wonder if he's bipolar. "I'm not, but I am a little hypomanic," he says. "And I feel like this all the time, ever since I was a little boy. I feel like a horse on Lasix." He makes no apologies for this. "Sometimes we try to be too stoic—the role of the brain surgeon is to be stoic and in command. I think that might have been true at one time, but you can't succeed in today's world without being open, without having feelings." He picks up a book from his desk, a gift from his new chairman—a biography of Hopkins neurosurgery pioneer Harvey Cushing, whose portrait scowls forth from the cover. "Look at the picture—stoic! Back then, people like this were considered gods. That's not right. You can literally train a monkey to do what we do. The challenge in what we do is not in the surgery—it's in the emotional connection you form with the patients."

With his research, Quiñones is essentially exploring the possibility of leaving Cushing's century-old notion of brain surgery behind, replacing knives with noninvasive stem cell therapies that could conceivably destroy tumors and repair damaged tissue. It's a distant prospect, but Quiñones is nothing if not enthusiastic. "I don't want my children to have to undergo the same barbaric ways of treating brain tumors as we do," he says. "Don't get me wrong—I love what I do. But the brain is a sanctuary, for God's sake! It wasn't meant to be violated! What I did today—entering the brain, illegally—it's against nature. We need to find a better way to treat this disease."

Such a breakthrough in brain treatment is probably many years away, and it may come from some other nearby Hopkins laboratory, where Quiñones' colleagues are trying to unravel the disease's genetic components and studying the possibility of developing vaccines that stimulate a tumor-fighting immune response. "I may never achieve anything, or find a cure for brain cancer," he says. "But if I can motivate a young mind, someone in my laboratory, another resident who can conceive of better experiments and better treatments, then that is a triumph for me."

Among the many awards on the walls of his office at home is one from his parents, who now live in San Diego. Like all parents, they worry about Alfredo, that he works too hard and never sees his children. "I don't think they really understand what I do. My mother grew up as an orphan in Mexico; my dad never went to school. They ask me if I'm happy, and I say yes."

It's possible they understand more that Alfredo realizes. When he graduated from Harvard, they gave him a plaque to hang next to his medical degree. "In the very last sentence," he says, "they ask me to continue to give to others what others have given to me, and to be thankful and helpful both to those who have and those who do not have." For a moment, he is uncharacteristically quiet. "That's been my life." ★