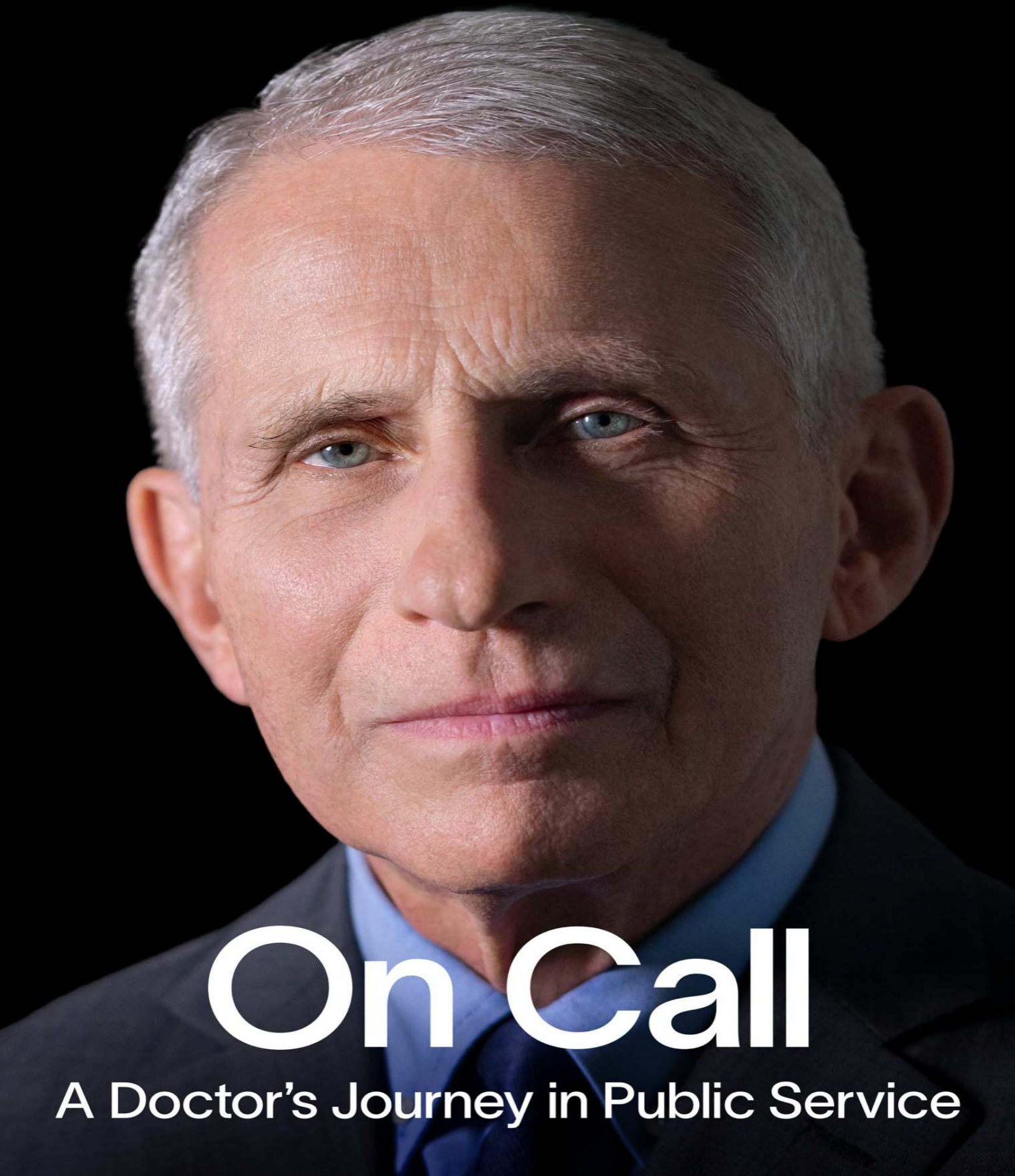
Anthony Fauci, M.D.



On Call

A Doctor's Journey in Public Service

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ANTHONY S. FAUCI, M.D.

VIKING

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CONTENTS

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For my wife, Christine Grady, who has been my anchor during difficult times and the wind in my sails when I soar,

and for our three amazing daughters, who inspire me and give me great joy and from whom I continue to learn

Preface

It was Sunday, November 8, 2020, and my wife, Christine, and I were sitting around the fire pit trying to stay warm on this chilly night, balancing plates of shrimp scampi and glasses of wine. We were in the backyard of our longtime next-door neighbors in Northwest Washington, D.C. Christine and I, together with Ellen and Rob, had formed a "COVID pod," as had so many people throughout the country. We were close friends and felt safe and comfortable together. Regardless of the temperature, we shared outdoor dinners almost every weekend during the pandemic, either on our deck or in their backyard. I had been working fourteen to sixteen hours a day for almost a year since the pandemic crashed down on our country and the world in early 2020. Even when the weather found us trying to eat bundled up with scarves and gloves, this brief respite was a welcome relief. New COVID infections were occurring at a rate of about 150,000 per day. There had already been about 10 million infections in the United States, and more than 230,000 people had died. It seemed that our only hope was in vaccines, and several were currently being tested in clinical trials in tens of thousands of people. We had no idea when the trial results would be available or, more importantly, whether the vaccines would work. We were hoping for a vaccine that was at least as effective as the influenza vaccine in a good year and that it might help in containing the pandemic, but there were no guarantees.

About 8:00 p.m. my cell phone rang. "Tony, this is Albert Bourla." Albert is the CEO of the pharmaceutical company Pfizer, which was conducting one of the two mRNA vaccine trials. "Are you sitting down?" he asked. Uh-oh, I thought. This is going to be bad news.

I stood up and walked out to the pathway that separates our front yards to take the call privately. “What’s going on, Albert?” I asked, trying to sound upbeat as my stomach lurched.

“You won’t believe it, Tony!” he exclaimed. “The DSMB looked at the phase 3 data from the COVID vaccine trial, and there is more than 90 percent efficacy.” He was talking about the Data and Safety Monitoring Board, which independently monitors clinical trials to determine if any issues have arisen during the trial that affect the health or safety of patients. At the same time, if results are so good that it would be unethical to continue to give placebo instead of the vaccine, the DSMB can recommend that the trial be terminated early and the data submitted to the Food and Drug Administration (FDA).

This was the case here. Albert continued, “We are planning to announce the news tomorrow.”

After we hung up, tears welled up in my eyes, and I felt as if I had lost my breath. I stood there by myself for a moment trying to regain my composure and comprehend the potential impact of what I had just been told. I had been optimistic about the mRNA vaccines all along, but even so, I was not prepared for such resounding results. Influenza vaccines typically have between 40 and 60 percent effectiveness at best in any given flu season. Often, it is much less. The fact that they were projecting at least 90 percent effectiveness for the COVID vaccine was astonishing.

Nor was I expecting to get a vaccine so quickly. It had been just ten months since my team at the National Institutes of Health together with the Pfizer and Moderna companies began working on the novel mRNA vaccine for COVID.

As promised, Pfizer and its German partner, BioNTech, released the results of the trial the next day. A week after Pfizer’s news release, Moderna announced that its mRNA vaccine also had more than 90 percent efficacy, and the two companies put in for emergency use authorization with the FDA. This would be the ultimate game changer for the ordeal that the United States and the rest of the world had been suffering through. Millions of lives would be saved.

As I made my way back to the fire pit and picked up my glass of wine, I thought, It is six weeks from my eightieth birthday. What an amazing trip my life has been.

This book is the story of that trip, whose day one was in Brooklyn, New York.

Part One

FROM BENSONHURST TO WASHINGTON

Brooklyn Boy

The front page of the late city edition of *The New York Times* on Tuesday, December 24, 1940, included headlines such as EVE OF CHRISTMAS FINDS BUSTLING CITY IN FESTIVE SPIRIT juxtaposed next to CHURCHILL BIDS ITALY OUST MUSSOLINI; GREEKS TAKE ANOTHER COASTAL TOWN; GERMANS RAIN BOMBS ON MANCHESTER. That night at 10:24, Anthony Stephen Fauci was born at Brooklyn Hospital to Stephen Anthony Fauci and Eugenia Abys Fauci. My parents were married in 1929, when my mother was nineteen and my father eighteen, and both had just graduated from New Utrecht High School in the Bensonhurst section of Brooklyn. My sister, Denise, was three years old, and now I had arrived to complete the Fauci family. My father told me that my mother went into labor quickly and her obstetrician, who had been called in from a Christmas Eve party, wound up delivering me with a scrub gown worn over his tuxedo. I hope that he had not been celebrating too much before he was called. Nonetheless, everything seemed to turn out all right.

After my father and mother graduated from high school, my father entered Columbia University College of Pharmacy, and my mother entered Hunter College. After getting his degree in pharmacy, my father worked as a clerk for various pharmacies in Brooklyn, and my mother became a full-time homemaker after the birth of my sister. We lived in a two-bedroom apartment on the third floor of a four-story building across the street from New Utrecht High School on Seventy-ninth Street between New Utrecht and Sixteenth Avenues. At that time, the population of Bensonhurst was more than 90 percent Italian immigrants and first-generation Italian Americans and their families. There were both working-class and middle-class families. Few

people were poor and few were wealthy, and virtually every adult male had a job. Most women worked as stay-at-home mothers. People were independent and individualistic, were not intimidated by anyone, and were strongly family oriented.

Both my father and my mother were first-generation Italian Americans, born in the Little Italy section of downtown Manhattan. Their parents had emigrated from Italy at the turn of the twentieth century, my father's parents from Sicily and my mother's parents from Naples. Both families moved from Manhattan to Brooklyn when my parents were children. My grandfather on my mother's side was a bohemian artist who often hung out in Greenwich Village and made a living painting landscapes and designing labels for various products such as those gallon-size Italian olive oil cans. My maternal grandmother was a seamstress whose salary was the major source of income for her family. My grandfather on my father's side was the accountant and financial manager of a stevedore (longshoreman) company working out of New York Harbor that employed mostly Italian immigrants. My paternal grandmother was a homemaker. They were by no means wealthy but lived relatively comfortably. My parents met in elementary school at Public School 163 on Bay Fourteenth Street, and according to them and stories from my grandparents, they fell in love in the eighth grade before going on to attend high school together.

One of my few memories of those early years is the sensual impression of warmth, security, and sunlight on my face as my mother pushed me in my stroller through the streets of Brooklyn while she shopped for the evening meals. I also remember an array of delicious smells that enveloped me as my mother and I went in and out of Italian delicatessens, or salumerias, as they were called. Another impression that stays with me to this day is my lying in bed on a foggy night and hearing the extraordinarily soothing sound of the long, slow foghorn blasts of large vessels coming from the Atlantic Ocean and passing through Gravesend Bay on their way through the Narrows to their destination in New York Harbor. Life in Brooklyn was good, even at that very young age.

Denise and I attended Our Lady of Guadalupe elementary school, which was seven blocks from home. We walked to and from school every day unaccompanied by an adult, even at six or seven years old. The neighborhood was so close-knit and protective that this walk alone by children through several city blocks was considered entirely safe. As we passed by candy stores, grocery stores, and small apartment buildings along the way, there were always a few people sitting or standing in front looking out for children like us going and coming from school.

The nuns of the order of Saint Dominic were in charge of Our Lady of Guadalupe School and introduced me to the experience of tough love. They were strict disciplinarians but taught us excellent work habits. Not that I needed this. My mother was keen on striving for excellence and held high expectations for my performance in school. She constantly bought books for me or borrowed them from the public library for me to read. Although my father was extremely bright, he left the academic pushing to my mother. I soon realized on my own how much I enjoyed school and learning even without outside pressure.

When I was eight years old, my father, with financial help from his father, bought his own pharmacy and the two-story building in which the drugstore was contained. The building was located on Thirteenth Avenue and Eighty-third Street, only eight city blocks away, but it seemed as if we were moving out of the country, so tight was our neighborhood culture. Actually, it did strictly speaking take us out of Bensonhurst and put us into the lower end of Dyker Heights, a slight move up the economic ladder. We now lived in a three-bedroom apartment (Denise and I finally got our own bedrooms) immediately above Fauci Pharmacy. It also took us out of the district of Our Lady of Guadalupe parish, but my new parish, St. Bernadette, did not have its own elementary school at the time. I was the top student in the class (the nuns graded every subject numerically with 100 being the top score and the average of subject scores calculated to one decimal place—talk about pressure). They did not want to lose their 98.8 grade point average student, and so I was allowed to stay at Our Lady of Guadalupe. After all, there would be citywide spelling bees and the like, and they told me years after I had

graduated that I was their “ringer,” and they did not mind cheating a bit to keep me at Our Lady of Guadalupe. You have to love those nuns!

The move to Dyker Heights and St. Bernadette parish introduced me to a whole new group of friends and, importantly, to the culture of organized sports. My love of basketball and baseball began at age nine and became progressively more intense as I became a teenager. I grew almost obsessed with both sports and soon found out that I was a good athlete. I relished the competitive nature of team sports. Mostly, I just had a lot of fun playing them. The various age brackets of sandlot baseball clubs in Brooklyn served as the breeding grounds for several major-league baseball players including Sandy Koufax, Joe Pepitone, Joe and Frank Torre, Ken and Bobby Aspromonte, and Jerry Casale. My enduring baseball-playing memory is my lining a double down the left field line off Joe Pepitone, the future New York Yankees first baseman, when he pitched against my St. Bernadette team for his sandlot team sponsored by Nathan’s Famous hot dog stand in the fourteen-to-sixteen-year-old category of the Coney Island League.

In between league play, we relished street games like stickball, which we played using a sawed-off broom handle as a bat and a pink Spaldeen ball. You were a wimp if you could not hit the ball the distance of two Brooklyn sewer manhole covers. In the fall, just prior to the beginning of the official basketball season, the half-court pickup games on the outdoor courts of the local public elementary school went on until dark every afternoon. In the neighborhood, you were either an athlete or a tough guy, or hood, who hung around with the wrong people and sometimes got into trouble. No bookworms, or at least no one who admitted to being one. My friends and I were mostly athletes who never deliberately bothered anyone, but were not afraid of anyone. We didn’t start trouble, but we did get into fistfights with guys from other neighborhoods when provoked. We were not serious troublemakers.

All was good in Brooklyn.

MY MOTHER WAS PHYSICALLY BEAUTIFUL, PETITE, WITH DARK BROWN HAIR AND bright blue eyes. She was soft-spoken and somewhat reserved. Of all her good qualities, kindness and empathy for the suffering of others stand out. When I was almost five years old, and the first photographs of the mushroom cloud appeared on the front page of the *New York Daily News* following the dropping of the atomic bombs on Hiroshima and Nagasaki, she was sitting on the couch, tears flowing down her cheeks. As a young boy toward the end of World War II who frequently played soldiers with his friends, and whose games consisted of shooting and killing enemy soldiers, I thought that what I saw in the newspaper that day was a good thing. I asked her why she was crying. She just looked at me and said, "Anthony, you do not understand now, but this is one of the worst things that could have happened in this world. So many innocent people killed or maimed." It would be many years before I fully understood why she felt that way.

My father was a shy man who possessed a very strong sense of ethics, integrity, and kindness. Above all, he was a religious man. He was also extremely conscientious and a hard worker. He opened the drugstore at 9:00 a.m. and closed it at 10:00 p.m. six days a week (and half a day on Sundays). During the week he took forty-five minutes off at around 6:30 p.m. to have dinner with the family. The drugstore stayed open, tended by a pharmacy clerk—usually a student from a local pharmacy school. Despite these long hours, we were a close-knit, happy family. We lived right across the street from St. Bernadette's church. My mother, sister, and I helped at the store ringing up sales during the after-Mass rush on Sunday mornings. I delivered prescriptions on my Schwinn bicycle on weekends and during school breaks and summers.

As was the case with many Italian American families, every Sunday afternoon we had a big family dinner—either at our house, where things were quiet and reserved, or at the house of one of our sets of grandparents, who lived nearby, where uncles, aunts, and cousins attended, creating a feeling of organized chaos. These meals started off with a wide variety of antipasti

including multiple cuts of salami, mortadella, prosciutto, and provolone cheese. This was followed by a primo piatto (first course) of mounds of pasta topped off by aromatically exquisite and absolutely delicious homemade tomato sauce. Next came a second course of roast chicken or veal scallopini. On the eves of religious holidays (no meat for Catholics) the meat was replaced by fish, usually salt cod (baccala) simmered in a garlic-tinged tomato sauce. Who was the cook depended on which grandparents were the hosts. If we were at my maternal grandparents' house, my grandmother did everything in the kitchen with the aunts (her daughters and daughters-in-law) serving as sous-chefs. My artist grandfather would be upstairs painting until the last minute or reading the Italian newspaper *Il Progresso* in the living room. If we were at my paternal grandparents' house, my grandfather did all the cooking of similar dishes but with a decidedly Sicilian bent (less rich sauces; more olive oil and fish; better pastries), while my grandmother sat in the living room reading *Il Progresso*. In both houses when the children were not supposed to hear what was being said, all of a sudden the language switched to Italian. Our parents probably did not fully realize that even though none of the children could speak Italian, after hearing it so often, we picked up much of what they were saying.

DAD WAS GENEROUS TO A FAULT WHEN IT CAME TO ACCOMMODATING CUSTOMERS who could not afford to pay their pharmacy bills. He kept a running account for them, much to the frustration of the whole family. As children, Denise and I would say, "Dad, why are you giving them the medicines if they don't have the money?" My father simply replied, "They cannot afford it; they are struggling. We will just put it on a tab." Weeks and months might go by before these bills were paid; some never were. The furthest thing from his mind was making money, and in fact, despite the long hours in the drugstore, we got by with the necessities but had little left over for savings or luxuries. Over the years, his drugstore became a combination doctor's office, pharmacy, and psychiatrist's couch. The people in the neighborhood came to talk to him about everything from symptoms for which they were reluctant to

see a physician, to consolation over the death of a loved one, to marital problems or how to handle a delinquent child (and there were quite a few of these in our neighborhood). Everything that Denise and I witnessed in our formative years was geared toward the concept of consideration for and taking care of others. Our father taught us early in life that because we were fortunate, it was our responsibility to help people when we could and making money should not be a primary goal in life. If our forty-five-minute dinners when my father came up from the drugstore to join us had a theme, this was usually it.

People often ask physicians what motivated them to go into the field of medicine. Like so many others, I am sure my reasons are complex. But, without engaging in too much self-psychoanalysis, it seems clear to me that growing up in a household where both parents were strongly motivated to care for others had a profound influence on my career choice.

THE NUNS' DECISION TO ALLOW ME TO STAY AT OUR LADY OF GUADALUPE DID NOT pay off as far as spelling bees were concerned. They rehearsed me relentlessly for the citywide Catholic school eighth-grade spelling bee. I made it to the fourth-to-last round and felt as if I were on a roll. Then the judge asked me to spell "millennium." I thought for a moment and blurted out "millenium." "Sorry, Anthony, two *n*'s, not one." I will never forget this first painful academic failure or how to spell the word "millennium." But I did not fail the nuns in another respect.

In New York City at the time, the most academically elite Catholic high school was Regis High School, run by Jesuit priests and located in Manhattan on East Eighty-fourth Street between Madison and Park Avenues. The entering ninth-grade class was selected based on a written test given to the top male student at every Catholic elementary school in the five boroughs of New York City and parts of New Jersey. The Jesuits then took those students with the highest scores and went down the list until they reached the predetermined number of students to fill the freshman class. They offered

those students a full four-year scholarship. Almost no one who makes this competitive cutoff turns the offer down.

I made the cut, but I was at first ambivalent about accepting because I was hesitant to make a daily trip to Manhattan, and all my close friends were attending either public or Catholic high schools in Brooklyn. But after I talked with my parents, I was convinced that this was a unique opportunity. Besides, Regis High School had an excellent basketball team, which I was eager to try out for. Also, the Dominican nuns of Our Lady of Guadalupe would probably have persuaded Pope Pius XII to excommunicate me if I had turned down the offer.

All was still good in Brooklyn, but now my horizons were expanding—at least across the bridge to Manhattan. I had to take three different subway lines to get to school, making the trip sixty minutes each way on a good day.

On the first day of school when we introduced ourselves to Father Michael Flanagan, the assistant principal and dean of discipline, I told him that my name was Anthony Fauci. He shook my hand and said, "Hello, Tony, welcome to Regis." That was the first time anyone had ever called me Tony. I had always been Anthony to my family and Fauch to my friends. There was no way that I was going to correct the dean of discipline in front of my classmates on my first day as a freshman.

From that day onward my name has been Tony Fauci.

REGIS HIGH SCHOOL OPENED UP A WHOLE NEW WORLD FOR ME; IT WAS GOING TO "the next level." The Jesuits provided an atmosphere steeped in intellectual curiosity and academic excellence. The curriculum was heavily weighted to the classics including four years of classical Latin and Greek, two years of a modern language (I chose French), ancient history, and theology as well as the typical core courses of mathematics, chemistry, and biology, among others. I thoroughly enjoyed the academics and being surrounded by bright peers. The Jesuits expected mature behavior and emphasized respect for others. Discipline was swift when such behavior was breached. It did not matter if you came from a tough neighborhood like Bensonhurst or the South

Bronx; being called into Father Flanagan's office even for some minor infraction scared the heck out of you.

Regis used the Jesuit motto "Men for Others," with its emphasis not on personal gain but on service to the public, no matter what profession you chose. This could not have been more of a natural extension of the fundamental philosophy of my family upbringing. I felt very much at home. I studied hard, I learned a lot, and I did very well. I loved everything about the school. Importantly, I was as enamored of the classics and humanities as I was of the sciences. I did not appreciate it at the time, but this double affinity greatly influenced my behavior and choices in my medical career years later.

And then there was basketball. I tried out for the freshman team and became a high-scoring starting point guard and captain. I was ecstatic about playing New York City high school basketball with the overabundance of terrific players as we went up against teams throughout the city's five boroughs. In my sophomore year, I skipped the junior varsity and went straight to the varsity. I played sparingly that year, but was thrilled to even get into the game against teams such as St. Ann's Academy, coached by the legendary Lou Carnesecca, who went on to coach St. John's University and enter the Basketball Hall of Fame. St. Ann's was the breeding ground of New York City high school basketball stars such as All-City player York Larese, who became an All-American at the University of North Carolina and was drafted by the St. Louis Hawks in 1960. I was having a lot of fun. By my senior year I was the starting point guard and captain of the varsity. I had a good year, scored a lot of points, and played against some terrific teams and players. But it soon became apparent to me that my hope of becoming a serious basketball player and playing on a Division I college team was unrealistic. My major assets were sharp reflexes, coordination, and an accurate two-handed set shot popular in the 1950s. Above all, I had speed, speed that allowed me to fast-break or to dribble free from my opponent to get off an open shot and score a bunch of points. I must have inherited this speed from my father, who in his modesty did not talk about it much but was a citywide champion in the 100-yard and 440-yard dash competitions during his junior and senior years in high school thirty years earlier.