

## **Stanford University, Palo Alto, California (1961-66)**

The name Stanford University conjures up images of palm trees, Spanish-Mexican style architecture and sunshine. What a change after two years in Ithaca, where we were snow bound for a large part of the year, and ran bundled up in winter from building to building to keep warm, and prevent frostbite. Although Ithaca and surroundings were very scenic, the cold got to us, and a reason for choosing Stanford over Indiana (the other possible graduate school with a full fellowship) was weather.

We got into our old Jalopy, an old Buick, running on three cylinders out of four, or was it five out of six, all our worldly possessions, and drove across the USA. We started from Paul Reifer's house (Mimi's uncle) in Connecticut, across the mid -West, and then through the Rockies and Sierras. We had never been West of New York State. It seemed that the further west one drove the larger the portions of food in the restaurants, and the unlimited cups of coffee. In New York we paid for each cup, and here we could have refills as much as we wanted for 25 cents, or was it only in the chains like Denny, and Howard Johnson where we ate most of our meals. It was difficult to call the coffee " coffee"; it was more like brown water with a slight flavor. This was before Starbucks improved the taste of American Coffee. Now it is the other extreme, the coffee is often too bitter. We crossed the country on old high way 40 and 66 then north to the Donner Pass. We crossed the Donner Pass with difficulty, the car chugging along, making a terrible racket, but eventually arriving in Palo Alto, our destination. Even though our car was ancient we passed many steaming cars that could not make it over the pass. These old Buick's with their large fins were " dream cars" and could take one anywhere. We sold or dumped it shortly after our arrival in California. Its rust embarrassed us. In those days, early 1960's, California was still the "promised land", relatively empty and just beginning to undergo development.

We immediately started apartment hunting, and found one that was affordable (at this time, rent in California was not very different from that of the East Coast). This was in a strip of ten apartments perpendicular to the railway line, on the boundaries of Atherton and Menlo Park, a mile or so from campus. The apartment was cheap because of the proximity to the railway but there was little noise, since most of the trains were electric commuters between San Francisco and the Bay area. There was a small area of a Chinese Herb garden separating us from the trains.

Atherton was at that time, and probably still is today one of the wealthiest towns in the USA. Many Hollywood stars lived there in huge mansions. Shirley Temple, the childhood idol of the 1940's was a resident. We of course lived on the wrong side of the railway track. The house was quite close to the El Camino Real, a busy road with non-stop new and used car lots, strip malls, motels and restaurants. It was quite an eye- sore, and shocked us, since we had never before encountered such blatant commercialism.

A Mr. and Mrs. Kwong owned the apartment. The Kwong's grew Chinese Herbs for commercial purposes. Mrs. Kwong spoke very little English, worked in the field all day, dressed like a Chinese peasant, large coolie hat and simple smock. Mr. Kwong on the other hand dressed like a gentleman; small and dapper, he was the property owner and his wife the field hand. They sold their herbs in the Chinese farmers market on Saturday morning in Menlo Park or in Chinatown in San Francisco. The Kwongs were very nice to us, and in quite funny. Mrs. Kwong was always bringing us dumplings filled with pork. She could not understand why Mimi would not eat them (I did eat them). Mimi at that time was a vegetarian and had been since I met her. To Mrs. Kwong it was strange. She also told us in very bad English that her daughter's husband would not eat pork, he was a Canadian and he belonged to some "peculiar" religion that did not allow this. Difficult to understand! Although she was from a peasant background and I am not sure whether literate or not, she was very proud of this daughter who had received a Ph.D. from Stanford, and had been photographed with President Eisenhower. There were photographs of her all over their apartment.

The apartment was quite spacious, however the previous tenants must have had a number of dogs (or cats). The place was alive with fleas. One could see them jumping on the walls. We went around the apartment swatting the fleas, drowning them by washing the walls, and trying to sweep them out. They may have died out or left because of lack of food! At least they did not eat us! We had no furniture and no bed and initially no money since bank transfers were slow, so we left the apartment, after scrubbing it down and drove down to LA to be with Mimi's parents. They had moved west at around the same time, and had rented a small apartment in Los Angeles. Mimi's father (Salo) had found a job in the aerospace industry, working first for North American aviation and later for Hughes industry. This put him back in the correct career track, as an engineer, since most of the previous jobs had been rather menial. He had a degree in mathematics from Czernowitz University, but since the war had not been able to teach or work in

his profession. They had had a very tough life, first the Soviets moved them out of their house as capitalists, then the Nazi's persecuted them and put them in the Ghetto with threats of deportation because they were Jewish, then after the war the Russian's returned. They then fled to Transylvania and finally they were imprisoned by the British in Cyprus on their way to Palestine They both seemed very happy in California, after the travails of Europe, and being laid off every few months in New York.

After a few days we returned to Palo Alto and settled down in our apartment. I started working in the lab and taking courses. Stanford University had not yet reached its peak of excellence. The Biology Department and Medical School were just beginning to expand although the medical school already had on the faculty future Nobel Prize Winners. These included Joshua Lederberg, Arthur Kornberg, and Paul Berg; I had contact with all three of them and with Esther Lederberg, Josh's wife through course work and research. The Yanofsky lab was in the basement of Jordan Hall part of the quad in the center of the campus. (My life seems to revolve around Jordan Hall, since this was the name of the biology building at Indiana where I had my laboratory. All called after the same Jordan.) The building was relatively old, there was little light from the outside in the lab, and one had to go outside the building to go to the toilet. The story I heard was that Mrs. Stanford did not approve of men's toilets being in the buildings. (I do not know what happened with women's toilets). I quickly adjusted to the laboratory; that year there were three new graduate students, only one of which, myself, completed their studies. Of the other two, one dropped out and one failed his qualifying exam. The latter was an Israeli student, with whom I was a friend. He and Charlie (my mentor) did not really get along, and he thus failed his qualifying exam. He eventually ended up at Indiana University Medical School, and received his Ph.D. from a colleague Ed Hodes. I collaborated with Ed on viral oncolysis many years later. Finally Hanoch returned to Tel Aviv University and was chairman of genetics for many years. He had a successful career. The qualifying exam was certainly subjective.

Mimi found a job as a lab technician working with Dr. Clifford Grobstein, a renowned embryologist. We soon made friends with many of the graduate students in both labs and in the department in general, and had an active social life, going to graduate student parties in the foothills, between Palo Alto and the coast at a house rented by a group of students. Among these

were a number of well-known biologists, now retired such as John Pearse, Mike Soule, and David Cameron. For a change we fitted in and were not “weird foreign students”. If we were regarded as such we were not aware of it! Even the younger faculty were involved in these social events including the eminent environmentalist Paul Ehrlich and the future head of Food and Drug Administration, and later president of Stanford University Don Kennedy. I am sometimes surprised that both Don Kennedy and Paul Berg remember me, and I have had some contacts with the latter on scientific matters. The Stanford campus was very beautiful; Spanish influenced architecture, with a large quad and nearby lawns. We would spend lunch -time on the lawns, lounging around with other students and faculty.

I really did not have the scientific background for the Yanofsky lab, and I remember my first few seminars were a disaster, not knowing how to pronounce correctly scientific terms, and not really having a grasp of the subject matter. Charley called me aside after the first such seminar, which I remember was on a paper by Kaiser and Hogness, both faculty in the medical school and later to be on my thesis committee and instructed me how to pronounce certain terminology. This was a time of great excitement in molecular biology and our lab was trying to solve the “ genetic” code, using mutations of the tryptophan synthetase gene, followed by amino acid analysis correlating changes in DNA with changes in the amino acid sequence. This should have been a very exciting project. I do not know why I decided that my interests were elsewhere, so that rather than joining in the group effort, which was very successful, I looked for an alternative project. Perhaps it was because my first project, to find mutants in E.coli in the tryptophan synthetase gene using a drug called proflavin did not work. I decided to work on a sideline, namely to study the integration of a bacteriophage (bacterial virus) into the host DNA. It was related indirectly to the major lab project since this specific phage, known as phi80 had incorporated into its DNA the host gene for tryptophan synthetase. This project involved collaborating with a research associate in the lab, Dr. Naomi Franklin. She had discovered the relationship between phage 80 and the tryptophan synthetase gene. This was not a good choice since Naomi was very possessive about her work, and worried that I was stealing her ideas. The research led to a couple of publications and a Ph.D. thesis but not to anything great. Looking back not working on the main research topic of the lab was a great mistake. It left me out in the cold scientifically, and was detrimental to my future. My advice to graduate students today is:

become involved in the major topic of the lab and not a fringe project. Better move to another lab if the research is not of interest.

Other ongoing research was exciting: the discovery of bacterial suppressor genes and the structure of the tryptophan synthetase enzyme by two graduate students, Stuart Brodie and Tom Creighton respectively. We were quite friendly with Tom and Judy, who later on moved to Cambridge England. Tom has written an excellent book on protein structure. However he and Judy are no longer together. Another student, Marsha was just completing her Ph.D. She left the lab during my first year, and went onto MIT. There she met Tommy Berman, an old friend from Scotland and the Kibbutz whom I have written about before. Marsha married a physicist, Mathew Allan with Habonim connections from Edinburgh, and after a few years we resumed connections and have become good “old” friends, seeing each other every few years. Interesting how this connection led back to Tommy, and subsequently to other acquaintances of his from his MIT days, including Milton and Sondra Schlessinger, well-known virologists.

The Yanofsky lab was a great one to work in. The atmosphere was very convivial. Charlie as he was called was a very pleasant, and yet a no-nonsense individual. He respected hard work. I think our relationship would have been better if I had stuck with my original project of working on a mainstream topic. He had an open office and open lab, that is, there were no office hours, you could come and go as you pleased, and he was always available for discussion. I tried to run my own lab in the same fashion.

Others in the lab included a group of post-docs. John Hardman (today Professor emeritus at the U. Alabama), Ted Cox (later a dean at Princeton, now still active at Princeton), Ron Somerville who joined Purdue later on and has just retired, Bruce Carlton (Dean at Rutgers University) and Don Helinski (U. Calif. La Jolla). Don became quite well known for his work in genetic engineering. As in any lab there was the usual “hanky-panky” as one of my friends would say. One of the post-docs and one of the lab technicians were having an affair. We had to cover up for him, as his wife was always phoning and we would tell her that he was working and could not be disturbed. I think she later caught on and sued for divorce. Charlie originally had a strict rule that there should be no “affairs” in the lab, and in fact had asked a post-doc to leave because he (or she) was playing around with one of the post-docs of the opposite sex.

As part of the lab routine we had journal club once a week. Each week a different student was assigned to go through the literature and discuss briefly major advances, or controversies, that mostly were related to our work. Charlie invited the lab after journal club, once a week to his house for coffee and ice cream, and to play croquette, which could be done in the balmy evenings of the bay area. Wives were included and thus everyone got to know each other. It was a very democratic atmosphere, everyone who attended journal club made their way to Charlie's house in Faculty Housing, a fancy Eichler home: technicians, graduate students, post-docs and the few undergraduates who worked in the lab. Carol Yanofsky was a gracious hostess. Mimi feels that Charlie owes his success in part to his devoted wife, who took care of everything, leaving him time for science and research. While I was a graduate student Mimi did the same, devoting her time to bringing up the children, first Yuval, born in 1963 and then Jonathan, in 1965. Note both born in California.

On Saturdays, the lab met in the morning and went to a local pub for lunch. This was a particular Haufbrau which served excellent Bratwurst and other sausages. However the main attraction for Charlie was the kosher style pickled cucumbers. I did not attend every Saturday, and at times felt out of things, because scientific discussions often occurred over the lunch. I felt that Saturday mornings were family time, or we went down to Los Angeles at weekends to visit Mimi's parents.

I took a lot of courses at Stanford, but apart from Phys Chemistry in which I did poorly, I did well in the others. There was a course on plant evolution taught by Holmes, the molecular biology courses taught by Yanofsky, which I enjoyed, and after which I fashioned my first course at Indiana University. David Perkins who had an adjoining lab taught a course on Neurospora and yeast genetics, and Grobstein a course in embryology. These courses covered a great deal of material, and the qualifying exam in part was based on course material, this was required in the second year of graduate school. I took a lab course in biochemistry administered by Kornberg, but I do not remember seeing him much in class, but I met the teaching assistant from the course a few years ago at a meeting at Cornell, where he is now on the faculty. He remembered me, but I did not remember him. I don't know whether I created a bad or good impression. I have a feeling that I was a little lost in the course, since my chemistry background was not stellar.

After a year and half in Palo Alto our first child was born (Feb 1963). Mimi decided to stop work just a few days before she gave birth to Yuval. We decided on the name Yuval, since at that time we still thought of returning to Israel. Yuval is a modern Hebrew name. It means brook, or tributary. It first appears in Genesis 4, 20-21 and Yuval is considered the ancestor of all who play the lyre and pipes (flute). He was a beautiful baby and developed into a very intelligent and precocious child, who could read at the age of 3 years old.

We moved out of Mr. Kwong's apartment and rented a small house in Menlo Park. This was a small "neat" house owned by a faculty wife (Mrs. Mazur). It had a nice enclosed porch, a living room, dining room and two bedrooms. Although it seemed substantial after a few days, while our baby, Yuval was out in the porch, a segment of the ceiling collapsed, but luckily not on the baby. The nicest feature of the house was the garden, a lawn in front and a wonderful apricot tree on the side. This tree was loaded with the most luscious apricots. In fact the yield was such that we transported them to a nearby fruit drying plant for processing. A pleasant young couple lived in the back of the house in a separate apartment. They were into electronics and built themselves a colored TV. They helped us with setting up a high -fi system, using our old "imported" gramophone.

We drove by a few years ago, and nothing had changed on the street. The house, in Fremont St. is still standing, and has not changed in 40 some years. No apartment complexes, as we discovered in S. California in the place we used to live, and the bountiful apricot tree was still there. It looked as if the same neighbors still lived in the surrounding houses.

Menlo Park was an ideal place to live. We were a few blocks from the center of the town (a real town center), and also close to campus. I could cycle to campus without getting caught in traffic, and there was a park where all the young mothers with their children would meet. Palo Alto was even prettier, with a main street lined with stores and restaurants, and a movie house. It impressed one as very prosperous town. However if one went towards the highway it changed radically to an area of shacks, bars, liquors stores and run down apartments. This was the area of East Palo Alto. It was separated from affluent Palo Alto by a creek and highway. This was the influence of Stanford University, which had a "dry" zone around it. The region near the Highway was known as "whiskey gulch". Ironically whiskey gulch was close to the highway (101), which meant one could easily drop off for a drink before reaching San Francisco or San

Jose. I learned that the area was torn down in 2006 and replaced with a large Four Seasons hotel. A number of our friends lived there because of the low price of housing. This included John Pearse and his wife Cathy with whom, we became very good friends. John Pearse became a professor of biology at Santa Cruz, and Cathy is now an artist in Laguna Beach. The marriage split up still in the 60's and they both remarried.

During this period I taught my first biology course. This was a general biology lab, and I was a teaching assistant. I was most of the time just one lab ahead of the students. Most of the material was completely new to me, and much of it I did not understand myself. Don Kennedy, later to become head of the FDA was in charge, and being a neurobiologist a lot of the labs were about measuring electric currents, and physiological measurements in twitching frogs. I was quite a novice in this area. Luckily I had a fellowship so I was required to teach only one semester.

We have lost contact with most of our Stanford friends, an occasional Xmas card from some, and others no contact. We did get to know a few of the Israeli students during our time there. One was Alan Rosenthal, whom I had previously met through Habonim in England. He was studying film production. I have not seen him since, but I know he has been quite successful as a documentary filmmaker, and lives in Jerusalem. Another was Mordecai Kurtz, who was either a post-doc or new assistant professor of economics. He returned to Israel to the Hebrew University but later in 1966 returned to Stanford as a faculty member.

I should mention another family with whom we became close friends. This was the family of a young assistant professor from Glasgow, named Julian Davidson. His brother Terry had been visiting his family in Glasgow from Jerusalem, where he was a physician. While in Glasgow, my parents who were acquaintances of his parents, contacted him and asked him to deliver regards. It was in the local Glasgow Jewish newspaper, the Jewish Echo, that he would be visiting Stanford. Thus through Terry we met his brother Julian, and wife Ann. Julian was an endocrinologist testing the effects of sex hormones in rats. He bored holes into the rat brains, injected the hormones and studied changes in behavior. We met and discovered we had quite a lot in common, a common kibbutz background and children the same age. We both had spent time in Israel, were from similar Scottish backgrounds and similar youth movements. Julian had been active in Glasgow B'nei Akivah, and had been one of the model characters in Chaim



Bermant's book "Jericho sleep alone". Ben his son and Yuval our son would soon be playing together. We all got along very well. Julian was a bit "far out" more than I was. Later on when I visited the family a few years later, I found that Julian had continued searching for the "truth" by spending time in a Buddhist monastery in Nepal. We would meet quite regularly and after we left Stanford, we made attempts to see them when we occasionally visited the Bay-area.

At a very early age of 59 Julian developed Alzheimer's disease. We visited him at the early stages of the disease, and he could not remember his way back from the physiology building to his house. It was very sad. Ann his wife has written a book of her experiences of nursing and living with someone at the late stages of Alzheimer's. It is called "Alzheimer's a love story: one year in my life husband's journey". It is a very sad book, a description of Julian's deterioration, her struggles with breast cancer, an ailing father, and yet her love for Julian as he deteriorates to the stage of a "toddler". Julian died after the long illness in 2001, at the age of 70. We have kept contact with Ann and have visited a few times. Their children went in very different directions. Ben is advisor to the LGBT program in Stanford, a younger son, Jeffrey became a professional dancer, musician and composer and their daughter Karen a reporter for the San Jose Mercury news.

California in those days was relatively cheap and empty compared with today. Palo Alto had a wonderful climate, sunny and warm. We explored California, going quite often to the National Parks with the children, and camping at the foothills of the Sierras. Our camping was quite primitive, sleeping outside with sleeping bags, rather than having a tent. Other campers thought us very poor. We were not into fancy camping equipment. We even had others give us items thinking we were too poor to afford them. There certainly was a feeling of camaraderie among the campers. We would drive up North to Lassen National Park, which was always empty. Occasionally we would go to the opera in San Francisco. We were always surprised by the difference in climate between San Francisco and Palo Alto. Whereas in Palo Alto it was warm and sunny, we would travel 20 miles into the fog and cold. It was like living in two different worlds.

Towards the end of my Ph.D., I started to think about a post-doc position. We wanted to stay in California, primarily because of Salo and Ruta (Mimi's parents), and the close relationship they had to the children. I discussed the options with Charlie, and although I thought of

Dulbecco's lab at La Jolla, he suggested I work with John Holland at University of California Irvine, which had just opened up. I wanted to continue working in the field of virology. I think he did not think I was "high powered enough" for the Dulbecco lab, a very large group. John Holland on the other hand had a very small group and was not as well known as Dulbecco. Looking back I think it was a mistake, since John and I never really hit it off. However we did move in 1966 to southern California, found a house in Laguna Beach and for a year or so lived a blissful life near the beach.

While in Palo Alto both our children were born, in nearby Redwood City to be exact. Yuval was born in February of 1963 and Jonathan in August of 1965. They were both beautiful children, very intelligent. Mimi stopped work after Yuval was born and devoted full time to the caring of the children. With the moving of Mimi's parents to California they would visit us often, and we would drive down to Los Angeles to visit them. By this time they had bought a small house in the Inglewood district and were settled and happy. Mimi's father worked for the aerospace industry as a materials engineer, and was successful. He first worked for North American Aviation and later for Hughes. By this time the Reifer family had followed, his brother Paul, his wife Dushka, and daughters, Madeline and Claudie with their respective families. Dushka's family followed later. Thus our immigration to California triggered a "mass migration" west.

Mimi's parents, as expected for grandparents, doted on the children. We even took an extended vacation in Mexico and left Yuval with them. He quickly got used to them and was not terribly happy at our return. This was our first of many trips to Mexico, and we visited Mexico City, Taxco and Guanajuato.

Looking back, our time in Menlo Park/Palo Alto was a happy period. We got along personally, my studies went well, despite being in a high-pressure laboratory and department, we made lots of friends, in some cases the friendship has lasted to this day and our family was growing. While in California we began to note changes that were worrying. El Camino Real, as stated above became the main shopping drag and new shopping centers and chain stores went up at an alarming rate. The street looked very tacky and was a forerunner of what was to happen in California, which was becoming a very consumer oriented and hedonistic society. A lot of money was spent on "dining out". Chain restaurants popped up everywhere. This was a not a

very attractive picture of what California, in particular Southern California and the Bay area was to be. Cemented over with strip Malls, large shopping Malls, and chain stores galore. At this time, until we moved to Laguna Beach, we were not aware of the drug problems of S. California.