

Robert L. Sinsheimer

1920 – 2017

Let's start and the end then wend our way back to his beginnings, then fill in the middle.

Dad had been suffering from competing organ failures for the last couple of years — first his heart, then his kidneys, then his heart They were in a race to the bottom, but he and his doctors kept beating them into a few more months, then a few more weeks, then

I was with Dad beginning three days before he died. He had gone down this last hill very quickly — 12 days before he passed he was at the gym, working out with his trainer Mike.

Things were looking particularly dire that week — we called in hospice, Dad had gotten so he could no longer walk without assistance. His assertion was that he had a particularly nasty bug and that he would beat it and be back to where he had been. This was a fellow who had magazine subscriptions out to the year 2020 — he had no intention of going anywhere.

The morning before Dad died I sat down in the living room with the hospice nurse for an update after she'd checked him out. I was stunned when she asked me if anyone had talked to Dad about the fact he was dying.

I had to admit that I had not, that I knew he was very sick but had not yet resigned myself to that outcome. The nurse suggested that "someone" (not that there was any of his other children there, so she meant me) needed to tell him that he was going to die.

This was not a conversation I wanted to have with anyone, much less my father, but it looked like it was time to stand up and do it.

I went into his bedroom where he was lying, breathing raggedly, and put my hand on his leg to rouse him.

I said "Dad"? He'd been more and more incoherent over the past 24 hours, so I wasn't sure he'd respond. He nodded his head weakly.

I said: "Dad, this is not looking good. You are not just sick, you are dying."

He opened his eyes, something he was doing less and less, and looked straight at me. He roused himself up a bit, pursed his lips, and said clearly: "I refuse!", then settled back into his pillow, satisfied with himself. Here he was at the end, cracking wise.

I responded that I knew that this was not the outcome he wanted, that he had fought more than anyone to live, that we did not want this for him, but it looked like he'd run out of miracles.

He sighed, sank further back into his pillow and appeared to nod off.

Occasionally he'd quietly say "Wow". Other than those exclamations, his stated refusal to accept death were his last words. He passed early the following morning.

It is popular to say of the dearly departed "he broke the mold". In Dad's case there was no mold. He was the son of a magazine journalist from Chicago and a pharmacist's daughter from New York City. These two were wonderful, successful people, but had no comprehension of the path their second son was going to embark on. One of Dad's great disappointments was that they never really understood what it was that he was accomplishing.

Dad was born in 1920 in Washington DC, the family shortly thereafter moved to Chicago. The apartment building where his family lived back then is long gone, just southwest of what is now the Magnificent Mile for those of you who know Chicago, not far from the river. Dad would tell of the bitter cold he had to endure to get to school, having to walk across a bridge over the Chicago River in the dead of winter with those infamous Chicago winds howling and blowing snow at him. He would hide in the lee of a building, then dash across to the protection of a building on the other side, then continue his journey to school shivering from the cold.

But off to school he went, with a vengeance. In high school he was all-city Chess Champion, as any of you bold enough to try to take him on can certainly attest.

He was determined to go to an elite east coast university, but his parents could not afford it. So he worked hard in school and got a full ride to MIT. His parents still did not want him to go; it was only through brute stubbornness that he went anyway. His six years elder brother, Allen Junior, the lawyer, had gone to the University of Chicago, and that's where his parents wanted him to go as well. As you may have encountered, he learned a powerful lesson during this time. Stubbornness was one of his signature traits, one that he felt held him in good stead throughout his life.

At MIT he excelled in math to such an extent that a letter was written to his teachers back in Chicago commending them for having prepared him so well.

His roommate Arthur Graham was studying aerodynamics, one time Art was stumped at a homework problem. Dad said "let me take a look at that" and quickly knocked it out. From his point of view it was "just math", even though the problem was in a field he had not studying.

One thing he never did excel at was doing his own laundry — his parents had a special trunk made and he shipped his laundry back to Chicago by train to have it washed by the maid and returned to him in Boston.

He did outstanding work in school, after four years at MIT he received both his Bachelors and Masters degrees simultaneously and was invited to stay to complete his PhD at MIT.

WWII intervened and he spent the war years working in the “Rad” lab at MIT helping create a short wavelength radar system that could see through clouds, one that was light and compact enough to be mounted inside bombers. He flew inside the rear of B-17s, lamb’s wool jacket and all, to test the radar and report back that they were succeeding. The radar they designed was not deployed during the war, but what they accomplished back in the dawn of electronics was truly astounding. Again, it was “just math”.

Not too shabby for a fellow with degrees in Biophysics and Biological Engineering.

He went on to earn his PhD in Biophysics in 1948, one of if not the first PhD given in that discipline.

While doing all this he met my mother in Chicago, wooed her and married her in 1943.

My Mom's father was incredibly impressed that Dad was a scientist, he thought Dad was a real catch.

Mom’s parents, as with Dad’s, had seen the seeming miracles that had been created by science during their lifetimes.

Dad’s grandfather was a merchant, his father a journalist who had reported on the Silicon Valley of their day, Detroit. When Dad was born they were living in Washington DC, they had moved there so my grandfather could report on the military’s transition from cavalry to mechanized warfare during the Great War, what we now call World War I.

My grandparents had seen the world transition from gas light to electric light, from the icebox to the electric refrigerator, the horse and buggy to the automobile, the telegraph to the telephone, the orchestra to the record player and then to the radio, from birds to airplanes. Science had created miracles right before their eyes. They wanted more and respected the heck out of the heroes of their day: Henry Ford, the Dodge Brothers, Bill Durant (the founder of GM), Walter P. Chrysler, Ransom Olds, Louis Chevrolet, Charles Nash (all of whom my grandfather met during his reporting career) and the pantheon of other famous scientists and technologists from the early 20th century.

After MIT Dad moved on to do his post doc work at the Iowa State College in Ames as Assistant Professor in the Physics department, he was then recruited by Max Delbrück (later a Nobel Prize winner) to come to the Caltech Biology Department in Pasadena in 1957.

He chose to study the Tobacco Mosaic and ϕ X 174 viruses, he became an expert on both of these. In the mid 1960s he partnered with Arthur Kornberg and Mehran Goulian to “build” a ϕ X 174 virus.

For this last work he was named California Scientist of the Year in 1968 and was recipient of the 1969 Beijerinck Virology Medal.

Before I review Dad's career in detail, I should mention that he told me many times that ten years was enough of doing one thing. As you'll see, his actions certainly followed his words:

In 1938 Dad began his undergrad work at MIT.

In 1942 he received simultaneous degrees of Bachelor of Science in Biophysics and Master of Science in Biological Engineering. This unusual simultaneity of degrees presumably had something to do with the beginning of WWII six months earlier. That said, a Masters degree after four years of school is quite the accomplishment. He immediately started work at the Rad Lab.

Now it's 1948 — he received his Doctor of Philosophy "In Recognition of His Scientific Attainments and Ability to Carry on Original Research as Demonstrated by a Thesis in the Field of Biophysics entitled: 'Development of Methods of Microspectroscopy and Low Temperature Spectroscopy for Biological Research'" Again, he received his PhD in record time considering that he had spent 3 out of the intervening six years working at the Rad Lab.

I should mention that Dad met a researcher in the 1960s who told him that he'd been doing work in the area of low temperature spectroscopy and that Dad's thesis was the leaping off point for this gentleman's work 15 years later — as no more definitive work had been done in this area in the intervening years.

1949 – He starts his post-doc work at Iowa State College. Dad presumably was thrown off his 10-year plan a bit — one whole year! — by his WWII stint at the Rad lab.

1957 – Recruited to Caltech by Max Delbrück

1968 – Became Chairman of the Caltech Biology Department

1977 – Became Chancellor at UCSC

1987 – Retires to Santa Barbara, becomes a Professor Emeritus at UCSB.

2017 -- Passes away after 30 years of retirement.

While he was doing all of the above he became renowned as a microbiology ethicist and for the 1985 meeting he organized at UCSC that ultimately resulted in the Human Genome project. He

was a big supporter of the W. M. Keck Observatory in Hawaii and was instrumental in finding the funding for that effort.

In 1967 he was invited to join the National Academy of Science, an institution he strongly supported for the rest of his life.

As Chancellor of UCSC he laid the path for the university to grow from a small overflow school to a major power in the academic world creating many university – industry tie-ins.

It took him three tries to find a woman who could match him in the stubbornness department, I'm sure many of you have fond memories of Karen who passed away in 2015 from pancreatic cancer.

He will be remembered by many as the mentor who greatly challenged them but at the same time drove them to learn immense amounts under his tutelage, the students and colleagues who worked in his labs — and his peers.

He will be missed.

I want to acknowledge his friends and colleagues here in Santa Barbara, Tom Harriman, Stephen Poole and others with whom he collaborated and had fun.

I especially want to acknowledge my sister Kathy who tirelessly visited and supported Dad from her home base in Oakland, especially in these last few, especially difficult years.

All of you here today, and those who could not be here but are here in spirit — thank you for being his friend.