



Oral History with Steven Lazarus

NVCA-Venture Forward Oral History Collection

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National Venture Capital Association
Venture Capital Oral History Project

STEVEN LAZARUS

Interview Conducted by
Carole Kolker, PhD
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This collection of interviews, *Venture Capital Greats*, recognizes the contributions of individuals who have followed in the footsteps of early venture capital pioneers such as Andrew Mellon and Laurance Rockefeller, J. H. Whitney and Georges Doriot, and the mid-century associations of Draper, Gaither & Anderson and Davis & Rock — families and firms who financed advanced technologies and built iconic US companies.

Each interviewee was asked to reflect on his formative years, his career path, and the subsequent challenges faced as a venture capitalist. Their stories reveal passion and judgment, risk and rewards, and suggest in a variety of ways what the small venture capital industry has contributed to the American economy.

As the venture capital industry prepares for a new market reality in the early years of the 21st century, the National Venture Capital Association reports (2008) that venture capital investments represented 21 percent of US GDP and were responsible for 12.1 million American jobs and 2.9 trillion in sales. These figures, while significant, greatly understate the collective accomplishments of the venture capital industry.

I'm pleased to have initiated and given my early support to this project, which received support from NVCA, and is now funded by the Harvard Business School. I believe these oral histories will advance the understanding of the venture capital industry. This collection, along with Paul Bancroft's Bay Area oral history project at the Bancroft Library at the University of California, Berkeley, and Paul Holland's Silicon Valley project for the Western Association of Venture Capitalists, will add significantly to a growing body of venture capital memoirs available to the public sector.

A special note of gratitude goes to each interviewee who generously gave of his time while candidly sharing his memories. Their recollections bring to life the dynamic story of venture capital in the 20th century, providing a powerful perspective on the history of this industry.

Charles W. Newhall II

2013

VENTURE CAPITAL GREATS



A Conversation with Steven Lazarus

Steven Lazarus is co-founder and Managing Director Emeritus of ARCH Venture Partners. He also is a director of the Rand Corporation. Prior to the founding of ARCH Venture Partners in 1986, Steve served as CEO of ARCH Development Corporation and as Associate Dean of the Graduate School of Business of the University of Chicago. He previously spent thirteen years with Baxter Laboratories in various senior roles, lastly as Group Vice President of the Health Care Services Group of Baxter Travenol Laboratories. Steve was a director of Amgen Corporation for seventeen years.

Steve served in Washington D.C. as Deputy Assistant Secretary of Commerce for East-West Trade for the U.S., a government bureau he both founded and directed. He served in U.S. Navy for twenty-one years, retiring with the rank of captain in 1973.

In 2006, Steve co-authored, *Mind into Matter: ARCH Transforms Science Into Sustainable Enterprise*.

Steve received an MBA with high distinction from the Harvard Graduate School of Business and holds an AB with Honors from Dartmouth College.

The following is an interview with Steven Lazarus, co-founder of Arch Venture Partners. This interview is taking place at Mr. Lazarus's home in Palm Beach Gardens, Florida. Today's date is February 28, 2013. This interview is being conducted for the National Venture Capital Association and the Harvard Business School and is part of Harvard's Venture Capital Oral History Project. My name is Carole Kolker.

THE EARLY YEARS

Carole Kolker: *So, we're going to start from your early years, going all the way back; and so we need, for the record, where you were born, and when.*

Steve Lazarus: Born in Brooklyn, May 31, 1931.

CK: *And how did it happen that you were growing up in Brooklyn?*

SL: My father was a lawyer and an accountant who practiced there.

CK: *His parents had settled in Brooklyn?*

SL: His parents had emigrated there.

CK: *From?*

SL: Belarus, White Russia.

CK: *And do you know what your grandparents were doing when they came to New York — what they did?*

SL: My grandfather, father's side, was I guess what you would call a peddler. No, he was mainly somebody who carried large, detailed bags of stuff — not even sure what they were. And he was neither the most successful nor the most interested in that trade. And I didn't know him real well. He died in the thirties.

CK: *And your father went onto law school?*

SL: Well, first, the military. He lied about his age, and went into the New York division, which I think became what was called the Fighting 69th. That's a movie with Jimmy Cagney. So, he was in that. He was in the medical service. The myth in the family — I can't tell you whether it's true or not — is that he sent all his money home, and his mother, apparently a very interesting character, banked it all and handed him a bankbook when he got back. And he finished high school, tore through college, and got his CPA, started to practice, and, while he was practicing, got his law degree.

CK: *Oh, pretty ambitious.*

SL: He was focused.

CK: *And, obviously, bright. Maybe the military was something that was helpful for him, in some way, do you think?*

SL: It's funny. He never talked about it. My father was a very reticent type, and he was in a couple of firefights in France. And, apparently, they were not pleasant things, and he never wanted to talk about it.

CK: *So, you went to school in Brooklyn?*

SL: No, I left Brooklyn when I was one. I grew up in a town, which has recently been absolutely devastated by Hurricane Sandy, called Long Beach. It's on the south shore of Long Island. I mean, it was like somebody took a great rake and drew it across the island. It was truly a barrier island.

CK: *And what was your father's name?*

SL: Jesse.

CK: *And your mom?*

SL: Dorothy.

CK: *And did she work, or was she able to be at home?*

SL: Never worked.

CK: *Okay. And did you have any sisters or brothers?*

SL: I have a sister, Susan, lives in Melbourne.

CK: *And are you the oldest?*

SL: By eleven years.

CK: *That much. So, what kind of kid were you? Were you a reader, or a tinkerer?*

SL: Clearly, a reader. I think I've been a reader from the cradle. Tinkerer — I was not a tinkerer. Always loved the dramatic arts, was in plays when I was young as single-digit age, and that has transmitted genetically, through my kids and their kids. We have three sons, and they are involved in the entertainment industry. I just got a note from my oldest son, who's a director in California, describing an Oscar night party that he attended at the home of Norman Lear, the guy who created *All in the Family*. And, apparently, they had a contest to see who'd get closest to picking the winners, and he won. Hasn't told me who the big names at the party were, but that's the kind of life he's leading at the moment. At Sundance, he just won third prize in the small documentary contest, which had six hundred entries.

CK: *Oh, so he's quite successful. And what's this son's name?*

SL: Paul.

CK: *And the other two?*

SL: Scott lives in New York, actually, in Westchester. He is probably the busiest young entertainment attorney in New York — *Book of Mormon*, and *Spamalot*, and *War Horse*,

and on, and on, and on. As a matter of fact, I think he has an opening this week, called *Kinky Boots*.

CK: *Yes, I saw that. And your third son?*

SL: Also in New York, his name is Jeff. He has his own business, which is creating orchestras by computer. So, let's say you live in Oshkosh, and you want to put on *Annie*, but you only have money enough for three instruments. He can give you twenty-five more by computer, note by note, instrument by instrument. So, his business has been growing for ten years.

CK: *So, he's the techie.*

SL: He needed the odd combination of technologist and musician, or maybe it's not so odd.

CK: *Well, nobody followed in your footsteps, although they're all entrepreneurial.*

SL: Yeah, they are entrepreneurial, clearly.

CK: *You said you were a reader. Did you play sports at all?*

SL: Yeah, the usual suspects. I played football, and baseball; We lived in a world of kind of pick-up games played at the curb.

CK: *This is in Long Beach?*

SL: In Long Beach, very rural place in those days. The ice delivered by cart, horse-drawn cart. The garbage picked up by horse-drawn cart. Milk delivered to your back door. Iceboxes, which were literally called that because you put the cake of ice in the box, on top of the machine. It was another world. I have been reading a history of the period 1815 to 1848, called *What Hath God Wrought*, and it's very, very good in describing the economic, and culture, and social life of people during that period. And that's how I'm inclined to think of that world that I grew up in

CK: *And how would you describe the values in your home, towards education, or success, or a work ethic? What was absorbed?*

SL: Education prized beyond almost anything. Very serious work ethic. My father had grown up quite poor, and he was always, as a consequence, a very cautious guy, although he struck out and created his own business practice.

CK: *So, he was somewhat of a risk-taker.*

SL: Well, certainly, his Army service would underscore that. Before he got into the Army to go to France, he tried to sneak into the Army, and go fight Pancho Villa in Mexico, and his parents went down and extracted him back out. But it's an element of his character that you didn't see until much later, but it was there.

CK: *A romantic nature.*

SL: Truly. He favored authors who were Rider Haggard and Rafael Sabatini — talk about romance. And he had a nephew who lived most of his life here, somewhere in Broward County, and he was nine years younger than my father. And I had a chance to chat with him a little bit within the last ten years; he's since died. And he described a man I didn't know, kind of a swashbuckler, romantic guy.

CK: *Well, I guess what he did indicated this other side, but you're his son, so you don't get to see that.*

SL: That's true.

CK: *And what was expected of you?*

SL: Excel. It was not discussed; it was just expected. That's what one did.

CK: *And you said you were a good student. Were you high-energy, competitive?*

SL: I was taking on new things. The town was interestingly split, between, I'd say, 40 percent Jewish population, 40 percent Catholic population, 20 percent other denominations. And my best friend was Catholic, and he and I kind of fused together and did a lot of the creative stuff in terms of the infrastructure of the world young people lived in. We talked the town fathers into creating a recreation center and things like that. He has since died. His wife was also in our class, and since died. I'm watching a lot of that world just go away.

CK: *It's a challenging time. So, did you have any early role models or mentors during this period, before you went off to college?*

SL: Not really.

CK: *No one that just stands out in your mind, no teachers? How about working? Did you ever work after school?*

SL: I was a camp counselor for a lot of years.

CK: *What camp?*

SL: First one was called Costigan. They were always named after the proprietor. And then a very interesting guy who had been a New York Giant, pro football player, came back from the war. And his name was Bob Bauman. And he created a camp in Oceanside, Rockville Centre. It was on the south shore. And I worked for him for five years.

CK: *You liked kids?*

SL: I love them. My favorite group was the eight-year-olds.

CK: *And so what were your plans when you graduated high school?*

SL: I had no idea. I had no target whatsoever.

CK: *You weren't going to follow in your father's footsteps?*

SL: The one thing I knew, I wasn't going to do was be an accountant.

CK: *Because?*

SL: Maybe it was the way he went at it, but it looked to me like highly repetitive drudgery on matters which I was totally disinterested in. His clientele was largely automotive — gas stations, tire stores, and things like that. Had little interest in that, but I did have great interest in the theater.

CK: *So was that a thought in your mind when you went off to school?*

SL: Not to be professionally in it, but to be a great audience. When I was nine, I started to go into New York City, which was about an hour ride on the Long Island Rail Road, every Saturday without fail. And I saw every show on Broadway. I don't mean only the good ones, like *Oklahoma*; I mean *every* show.

CK: *Everything. Did you have to go in the side door?*

SL: No, little guys were allowed in. I was big for my age. Well, as you can tell from the lives of my kids, that has remained a key element in our lives, starting all the way back. That was probably the element in the family that my mother contributed more than anyone else. She was an opera fan, and we had these old seventy-eight shellac records of Chaliapin and Geraldine Farrar. I mean, talk about a bygone era. We had the music of that era.

CK: *So, you were growing up with these sounds in your home.*

SL: Right. It was wind-up Victrolas.

DARTMOUTH COLLEGE 1948-1952

CK: *Oh my. Did you go to Dartmouth right out of high school?*

SL: Mm-hmm.

CK: *And why'd you choose Dartmouth?*

SL: First of all, very few kids from my high school went to the Ivy League. Certainly, even fewer Jewish kids. And from my school, I think the last three classes before mine, the class size was about eighty. Of those eighty, six people went to Ivy League schools, and maybe one or two Jews. So, I never thought much about those odds, but that was the truth of it. And I was accepted into three schools: Yale, Dartmouth, and Syracuse. Syracuse was my safe school. And I had a choice of Yale and Dartmouth, and I said, "Which one is furthest away from Long Beach," because I wanted to get out, wanted to go away. [unintelligible] nice but rather island fever kind of a place. It's a contradiction. Even though I went to the city a lot, I thought of myself as island-limited, suburbs, and limited. And then I read. I started reading about both Dartmouth and Yale, and I liked the idea of being out in the country, and out in the mountains, and it turned out Dartmouth is still, in my view, one of the two or three most beautiful places in the world. Yale, on the other hand, very nice, but urban, and I really wanted the country.

CK: *That's interesting, that, as much as you loved New York, you wanted to get away.*

SL: I loved the theater.

CK: *You loved the theater. And what were your years at Dartmouth?*

SL: Forty-eight to fifty-two.

CK: *And what did you choose to major in, then?*

SL: English.

CK: *I guess I'm not surprised. Okay. Now majoring in English — how is this going to fit into this future? Where were you headed?*

SL: I had no idea. The Korean War just kind of hung over us, like a gigantic cloud in the sky, and we never— It always felt strange to start talking about, thinking about a long-term career, because we were certain, my group, we were certain we were going to be drafted and pulled out of whatever we were doing. So, I did what I liked.

CK: *Was there something that you found at Dartmouth that you really enjoyed?*

SL: There's so much at Dartmouth that I found that I really enjoyed. I enjoyed the faculty, many members of it. Became really quite close personal friends. I started the Literary Society, and was its first president. I rode on the crew when we won the Dad Vail Regatta. I was the director of publicity for the Dartmouth Winter Carnival, which was a lot of fun. We

always used to have a celebrity as a principal guest, and mine was Al Capp. So, the theme of the ice sculptures in front of all the fraternity houses were the Shmoos. You know what the Shmoos are? They were built in ice and snow.

CK: *So, you really had a good college experience, you really immersed yourself. And you said you were personally friendly with the professors. Did any of these professors influence the direction that you were going, anybody specific?*

SL: Certainly, a handful. Allan MacDonald was an English professor who focused principally on the Romantic poets, was a man who never wore a watch. He used to say, "I know as much about the passage of time as I need to."

CK: *That's an interesting message.*

SL: Rosenstock-Huessy was a German philosopher, and come to the United States after World War I. He had been an officer in the German Army, and his was the foundation of a great philosophy, was a discipline of Martin Buber. And he was extremely meaningful. In terms of how you structure your life, how you set out in a kind of architectural framework, to live a life that has sequential meaning to it, and his basic construct was, "You live the early part of your life as a student, the middle part as an active, operational kind of person, a doing person, then the final part as the teaching person." And then, from the beginning, that's been one of the more important constructs in my life.

CK: *That's very interesting. So, Steve, then what were you planning to do when you finished Dartmouth? I mean, what was your plan? After four years of—*

SL: I figured I would probably be somewhere in the military, because people like me were being plucked out to join the military. So, I signed up for officer candidate school in the Navy.

CK: *Was this while you were at Dartmouth, or when you graduated?*

SL: As I was graduating.

U.S. NAVY 1952-1974 - Captain

CK: *So, you joined the Navy, and how was that experience?*

SL: Well, it turned into a large component of my life, because I went into the Navy as the Navy Supply Corps, as a reserve officer, which is what you did when you came in through officer candidate school. Oddly enough, was sent to Philadelphia. I expected to go to sea. Instead, I went to Philadelphia. It seemed probably a little better at the time. The job I had in Philadelphia was not terribly exciting. It was fun. I was the base recreation officer. So, I coached the teams, built facilities like bowling alleys, and expected, after three years, to get out. And, at that point, I started seeking jobs or opportunities in the communications industry. I had had a brief turn between graduation and entering the Navy with a New York advertising agency, doing campaigns for Countess Mara Ties and things like that. But that lasted, I think, eight months before I was called. The officer candidate school was in

Newport, Rhode Island, and, meanwhile, we got married, because we had been dating all through college.

CK: *Did you get married in '52?*

SL: Fifty-three, Philadelphia. We had our first child in Philadelphia; he's the California director person. And, one day, I don't remember exactly how it happened, but one day, we were having dinner with some Navy colleagues of mine, and they started talking about a program the Navy was offering. You had already committed for three years. If you gave them two more, they would send you anyplace in the world you wanted to go. And the two of us looked at each other, and, it sounded like a good idea. Long story short, they sent us to Naples, Italy. We started a reserve there for two years. There was method to the Navy's madness in doing this, because they said, "Well, now you're going to be in five years. Why don't you think about a Navy career?" And we had had so much fun that we thought it may not be a bad idea. So, we thought about it, and decided we would do it. That's when I signed up to be moved from the Naval Reserve to the regular Navy. And then I went to sea, on a destroyer, which also was great fun.

CK: *And how long were you in the Navy?*

SL: Twenty years.

CK: *And you ended up a captain.*

SL: Ended captain. But I had a very odd Navy career. I went from the destroyer to the staff of the Atlantic Fleet, also in Newport, Rhode Island, at which point the Navy selected me to go to the Harvard Business School as a Naval officer. So, I went. And there's where I encountered General Doriot.

HARVARD BUSINESS SCHOOL - MBA 1963 - 1965

CK: *No wonder I had a hard time tracking you. So, while you were in the Navy, they sent you to Harvard. What was their goal there, in sending you to Harvard?*

SL: They were kind of hand-selecting certain people that they had in mind to kind of progress on the top line. And, I mean, I was selected through a highly personalized selection mechanism. It's what Rickover used to do to his entire staff. He would go around, plucking people that he decided had promise, and they would become his staff.

CK: *With the hope of retaining you.*

SL: Oh, absolutely. The Navy wanted you. I was ideal. The Navy wanted you for twenty years, and if you became a senior officer, like an admiral — past that, that was gravy — but they wanted to at least get twenty productive years from you. That was the theory.

CK: *So, when did you start Harvard?*

SL: Sixty-three.

CK: *So, for ten years, you were—*

SL: Ten years, mainly in Naples, Italy.

CK: *And traveling.*

SL: But then what came after was really more interesting. I was finishing my work in the Boston, graduated from Harvard, and one of my professors, Robert Anthony, became comptroller of the Defense Department. And, one day, I got a call from Robert Anthony saying, "How would you like to be my executive assistant?" So I went. My office shared a wall with McNamara's office. That was my entry into the Pentagon. And I was there for four years, and did a whole bunch of interesting things. And in '69, one of my classmates, a woman named Judy Chadwick, came to Washington as assistant to the new maritime administrator, under the new Nixon administration. And he was looking for a vice president, and she suggested me. I had graduated pretty high in the class at Harvard, and I'd been a Baker Scholar, and high distinction, so I was in a limited group. And I said, "Well, you don't understand, Judy. I'm actually in the Navy, and they want me back." She had her boss, Andy Gibson, the maritime administrator, call me, and I said the same thing to him. He said, "No, I've already taken care of that," which he had. Sidebar: The maritime administration was then a component of the Department of Commerce, and the first maritime administrator was Joe Kennedy, Jack Kennedy's father, about whom there's a new book. And he had written into the organic founding documents of the maritime administration, which was supposed to take care of the merchant fleet of the United States,

that they could employ active duty military people, whenever they so chose. And that's how I happened to go over to the maritime administration.

CK: *Wow! And the doors were just opening for you. Well, what do you think you learned about yourself when you were in the Navy? I mean, twenty years is a long time to reflect on, but was there something — because you started out at Dartmouth, in English, and you didn't have a direction, and here it is—*

SL: I loved new things. I loved green fields. I loved things that didn't have a blueprint, where I could be the one creating the blueprint. I loved work that had not been performed by somebody else before me, if I could get access to it. So, I loved the new, and that probably is relevant for what I ended up doing. I found that out about myself. When I was seventeen, I didn't say, "Well, since I love the new—" I just learned it.

CK: *But you loved English and literature — and you probably loved old literature. Okay, tell me about General Doriot, what you remember.*

SL: Well, you know his background, his biography, and everything.

CK: *What was your impression?*

SL: First of all, he liked military people. So, it was clear that I was teacher's pet the day I walked into that class. Then, later on, he would always choose somebody from the graduating class to become his assistant for the next year, if they so chose. And he asked

me to be his assistant, and I went through my speech about the Navy. He couldn't overcome the bureaucracy. He was not as clever as Gibson. So, he picked my best friend.

CK: *But you enjoyed his—*

SL: Well, I've got to tell you about his way of teaching. He lectured, but they were not didactic lectures which you could deconstruct down into a lesson plan. He said, "This is the life of the mind, matched with the life of action, and this is what's involved." He went down to the tiniest and infinitesimal detail. How do you clip an article from the *Wall Street Journal*? And then up — one of his guest lecturers was Leslie Groves, the guy who ran the atomic bomb project in Los Alamos, and built the Pentagon, and another was Ed Land, the inventor of the Polaroid, and people like that. And he would integrate his own thinking about how one proceeded to live a constructive life. And some of it was philosophical; some of it was mundane. And also fun was just being one-on-one with him, and having him respond to you out of this vast experience. He was General Doriot because he was deputy head of Army Research and Development during the war, and had a great hand in developing the Jeep, for example. He was creative, and he felt that was available to anybody who really wanted to work on it. So, why not spend your time finding out how to be creative?

CK: *In what way did you feel that he influenced you, personally?*

SL: I wanted to see if I could internalize that idea about what your action is each day. He asked us, as a class, to form into groups and do a project that would add something to the

American economy — no more discrete than that. Eight of us wrote a book, called *Resolving Business Disputes*, all about arbitration. And the reason we chose that subject is: the American Arbitration Association, the head of it, Donald Strauss, was a friend of Doriot's, and said, "We'd really like to get a text done, but one written from the idea of the growth of arbitration as an idea, as a practice." That's what we did. And we made about \$3,000 with that book, and we contributed it to the school. I mean, ours was not the most interesting project ever done there. The word *automation* was created in one of those Doriot group efforts in his class; *computer-aided design* came out of one of those efforts. He was not unique in my life at Harvard. There was a guy named Hugo Uytterhoeven, one of the business strategy professors, and he and I just became great personal friends, and he was inspiring. And there were others.

CK: *So, Harvard really had an impact on the direction of your life.*

SL: Absolutely. And then Anthony took me with him into the Nixon administration. Well, actually, it was still the Johnson administration. It was McNamara as Secretary of Defense. It was the buildup of the Vietnam War. And then Nixon came in, in '68.

CK: *And what were your responsibilities in the Navy at that time?*

SL: I never had the uniform on that entire time.

CK: *According to my notes, you went on to become the founder and first director of the Bureau of East-West Trade.*

SL: That's later.

CK: *Oh my — I'm skipped something.*

SL: We were in the Maritime Administration, a component of the Department of Commerce.

By this time, Kissinger was the head of national security. Kissinger really wanted to be Secretary of State, a goal he ultimately achieved. One of Kissinger's great friends was Pete Peterson, who was also on the White House staff. Kissinger maneuvered Peterson to become head of the Department of Commerce. Kissinger, meanwhile — during the covert negotiations with both China and USSR, Russia — what he wanted to do was bypass Bill Rogers, the then-Secretary of State. So, when we had reached an agreement to start trade negotiations with the Russians — up until then, we had no trade agreement with Russia whatsoever, very difficult to do business from either direction. So, there was an agreement we would start negotiating. Kissinger designated Peterson, not Rogers, to head that team, provided that he, Peterson, didn't take anybody from the State Department. Peterson's condition — or Kissinger's condition — was he could use nobody from the State Department, from the Secretary of State on.

So, Peterson looked around the Department of Commerce, and asked, "Has anybody been to Russia?" One person had done some kind of business in Russia. That was my boss, Andy Gibson, the maritime administrator, who had been to Russia on a trade tariff-setting

meeting. And he said, "Okay, I've got to pick a team." So, he picked his general counsel, Roy Bowman, and me. And then we, in turn, picked a handful of others, and, together with Peterson, his then-wife Sally — later on, he married Joan Ganz Cooney, of *The Muppets* — to Morocco, and we stayed the three weeks there, preparing for negotiations in Moscow. And it was exciting. It's like pioneering a new world that had not been discovered by anybody before. Who in the United States had prepared for trade negotiations with the Russians? And I'm making this too long. We put together our papers. We had a lot of expert people. And, probably, in some ways, there was a better way to go about it than if we had had a lot of people who had made primitive, earlier efforts and failed, because they would have spent a lot of their time defending their own approach. So, we were all the new, back to the theme of the new.

CK: *Right. How exciting.*

SL: We could spend the day telling the tale of the negotiations, but I think that would make this too long. So, we succeeded, and we got a trade agreement. And it called for the setup of a structure to administer it in Washington. Peterson and Gibson created a Department of Domestic and International Business, DIBA. Some of the acronyms that came out of this are weird. And Gibson became the assistant secretary, heading that, and I became the deputy assistant secretary for East-West Trade, and the head of the Bureau, which was very exciting, because the Bureau is the elemental particle of government — all of the government, not just Commerce and Defense. And I was being given the chance to create

that; it's like starting a new company. And we then took over the negotiations.

Businessmen from all over the country started knocking on our door.

CK: You've done your MBA and here you're involved in creating something.

SL: Meanwhile, I'm being promoted in the Navy. During that period, I was promoted a year early to commander, and then two years early to captain. And I think, at the time, I was the youngest captain in the Navy.

CK: *You were promoted to captain in what year? Do you remember what year that was?*

SL: Probably '72.

CK: *Oh, what an honor. Wow. Was your father alive at this time, just to see this?*

SL: No, he died very young. He died in '63.

BAXTER HEALTHCARE 1974-1986

CK: *You retired from the Navy in '74, and went on to Baxter Healthcare. How did that come about?*

SL: Well, I was reaching the twenty-year point in the Navy. Periodically, in the services, there becomes a need to downsize, and such a moment occurred in '73. And a piece of paper came around, said: Anybody who's been in for twenty years and wants to get out can go. And we looked at each other and said, It sounds like a good chance to go do something else.

I don't know what, but I'm never going to be an admiral, nor did my career suggest I wanted to be an admiral. So, we said, We're out, and the Navy was quite pleased, and happy to see me go. And I went, trying to figure out what would be my next job.

So, I talked to some of the people that I'd been dealing with in the Bureau of East-West Trade, and got advice from David Rockefeller, Don Kendall, the head of PepsiCo, both of whom offered me jobs. And my conditions were, I didn't want to find a job that leveraged what I'd been doing in the government, because the half-life of that advantage is short. I mean, they take you because you've got a certain cachet, but after the first quarter's results, you don't have that cachet anymore. So, I don't want something that would get me there through that connection, and I didn't want a staff job. I knew if I were put into a staff capacity somewhere, where the results of my efforts were going to be reflected by an organizational result that belonged to somebody else, that's where I'd be for the rest of my working life. I said, "Somebody's got to make a bet that I can do a line job, and give it to me without a track record." That line came back into my life later, no track record.

I was introduced to Bill Graham in Chicago — Bill Graham, the chairman/CEO of Baxter Healthcare. That really interested me. I had not been in it before, but here was a chance to do well while doing good — cliché, but it was true. I was connected by some introductions. Graham invited me to Deerfield, Illinois, took me to dinner, and we talked like this for four hours, I think. And Graham liked to collect people. My name had appeared in articles in

the *Times*, and the *Wall Street Journal*, and *Businessweek*. He liked that. And he hired others like me for that reason. And there was a bench. The company was growing like this, so he always had use for a bench strength. He brought me in as executive vice president of the international division. And my responsibilities — this is how he handled the responsibility part of my conditions — I got the rest of world — ROW. Somebody had Europe. Somebody had South America. Somebody had Japan. I had Australia, South Africa, and Israel, where we had plants, in each case. At the end of three months, I also got South America.

CK: *So, you were traveling.*

SL: I was on an airplane all the time, which was great, because the guy who traveled with me was the guy who should have had my job, and could have made life very difficult for me. And he said, "Look, I'll teach you the business."

CK: *I was going to say, what were you learning? What were you learning about yourself and your interests?*

SL: First, it was the kind of business where you had to technologically know the products, and intimately. Those were the days that I could tell you how every part of a blood oxygenator worked, and what were the typical mistakes that were made in manufacture and implementation. I used to scrub in with Fred Loop, who was the leading cardiac surgeon at the Cleveland Clinic. And I must have seen him do twelve operations. I was with DeBakey

and half a dozen. I was with Denton Cooley, Frank Sanders. I mean, this is the royalty of heart surgery. And while we were on the plane, we'd go through these catalogs, and then we'd go through the key customers and what their idiosyncrasies were, on, and on, and on.

In any event, it was marvelous. I had time to learn the business. I had a way of learning the business. I had a tutor. So, I really succeeded as a consequence of all that.

CK: *It's very technical, so far from literature and theater — your passions. What was exciting you about this work?*

SL: Oh, in dialysis, which was our principle product line, kidney dialysis, I could literally see the lives that we were saving. I walked into a dialysis center in Milan, and people got out of their dialysis seats and threw their arms around me. I mean, that type — and it was satisfying in that it was a puzzle that was capable of being unraveled. It was a success. It was built-in successful business, because dialysis patients were present in every country in the world, in a growing number, because it was a disease, which, if treated, would keep the individual alive for twenty years.

CK: *And how about mentors during your period at Baxter? Was there anyone in particular that influenced you?*

SL: This guy whose, essentially, job I took, Jack Ufheil, who went onto be CEO of Mallinckrodt. He could determine if I would succeed or fail.

CK: *Why'd you leave?*

SL: I was trying to think of my promotion stepladder. Got to 1980, and I became head of planning for the company. By that time, I wasn't worried about staff or line jobs. I had had my line job. In 1985, our largest competitor, American Hospital Supply, and our largest customer, Hospital Corporation of America, announced they were going to merge. One thing you don't want to hear is that your largest competitor is merging with your largest customer. So, we essentially went to the mattresses. We hired Bruce Wasserstein. He and a guy named Perella, forming Wasserstein Perella, were the hottest combination in leveraged buyouts and mergers in the country. We hired them and said, Instead of American merging with Hospital Corp, why don't we buy American? They were three times as big as us. So, we did. And early in, I guess, the summer of '85, I found myself in a room with all of American's senior officers and Baxter's senior officers, and I was the second oldest guy in the room.

CK: *Oh, okay. So, you're fifty-five.*

SL: Could be left behind, and I knew that was coming. But, once again, this merger had created a retirement mechanism, my second retirement.

CK: *I was going to say, you're a little young for retiring.*

SL: I'm a chronic retire-er.

ARCH VENTURE PARTNERS 1986 -

CK: *Oh, it's been your path to the future.*

SL: Yeah. So, I retired. Baxter had a provision which allowed you to get job counseling from a job counseling company. And I already had several friends in that industry. I went to see Ned Jannotta — no, I went to see Joe; Ned came later; Joe Jannotta, the head of Jannotta Bray — and then said, "I'm retired, but I'm not anxious to do nothing." And he suggested I have breakfast with John Robson; another one of those critical points in my life. John Robson had a career something like mine. He was a Yale graduate. He had been Donald Rumsfeld's number two, having gone to grade school with Don, number two at Searle. Then he became the CEO of Searle. And he was leaving Searle. He had the same question I had — what was I going to do next? And he had several opportunities, including the deanship at the business school at Emory. And, also, a job which was being created at the University of Chicago, to create a technology movement mechanism, something that would look at the science at the university and do something commercially with it. No venture capital involved at all. John said, "I'm going to go to Emory. Why don't I give them your name, the ones in Chicago?" So, I went down to the university, and saw Walter Massey, this university technology guy. You familiar with the name? Walter later became head of the National Science Foundation, the provost at the University of California, and, finally, the president of Morehouse College. And Walter was the guy who was looking for someone to start this mechanism. And we hit it off very well. Long story short, I went

down to the University of Chicago as associate dean of the business school. I even taught a couple of classes.

CK: *How'd you like that?*

SL: Oh, I loved it.

CK: *And what were you expected to do? You're bringing your experience, certainly, from the Navy. You have a degree from Harvard Business School. You've been at Baxter—*

SL: Don't try to make a pattern out of it. I've never been successful at that.

CK: *It is a career change. You're starting all over with technology. Your technology had been in —*

SL: I had a lot of healthcare technology at Baxter. I wouldn't say I was a complete convert. But one great thing about needing to sell a tech-based product: you really need to know a great deal.

CK: *And so you have business, the two—*

SL: Business and technology, particularly in healthcare, which was an important thing at the University of Chicago. Went down, associate dean of the business school, tried to figure out a way to start this new mechanism. There was some writing about it in the press generally — *Chicago Tribune, Crain's Chicago Business, New York Times, Wall Street*

Journal. And, one day, there was a knock on my door — very small office compared to the one I used to have at Baxter — and this kid who looked like he was twelve years old stuck his head around the doorjamb and said, "Are you the ARCH guy?" Now we had created the name ARCH by putting together the AR from the Argonne National Labs and CH from Chicago, because we were responsible for the science and the results of the science at both places. I said, "Yes, I am the ARCH guy." And this was Bob Nelsen, Seattle, Washington, class of '87 or '88, at the University of Chicago. And I said, "Yes, I am." He said, "Is there anything I can do to work with you because I'm really interested in this?" He was thinking of it as a venture capital play. But in any event, I said yes. Within twenty-four hours of that encounter, Keith Crandell did virtually the same thing. Keith was a material scientist before he went to the University of Chicago. Two very different personalities, but with a fit that was made in heaven. And now we're just talking about luck. There descends on me these two kids.

CK: *They're students.*

SL: And what was marvelous about it is, the faculty at the University of Chicago and at Argonne— When these kids came across the threshold, they were not these threatening, gray-haired guys in suits who were condescending; there was a kid with torn dungarees, but knew an awful lot about the subject matter. And I remember Bob going to see a scientist inventor named Graeme Bell, as a biotechnology guy. And we had to convince Bell to give Bob fifteen minutes. Four hours later, Bob came out of there, and we had Graeme's

invention to work on. And then I found —it's a lot like Tom Sawyer's fence — then I found there was a big line outside my office. The University of Chicago was such a theoretical temple of economic and financial practice that to have this practical thing of trying to get money out of inventions that were created at the university or the laboratory — that was so new and so different, and this was before all the business schools had entrepreneurial faculties.

CK: *So, what was the vision for ARCH?*

SL: Well, I had a board of directors that included Dick Morrow, the CEO of Amoco, Bob Halperin, the CEO of Raychem, CEO, CEO, CEO, CEO. Bob Halperin said — and this was a matter of debate quite frequently in the board meetings — Bob Halperin said, "Forget vision; we're here to make money. Got to supplement the scientific grant money we get." One of the others said, "No, we're a teaching institution. Our ability is to create ideas, test hypotheses. This should contribute to the academic mission of the university." Everybody had a different idea; the blind man and the elephant. I wrote a good paper on the way in which I proposed to function. I said, "I'll put money first, because I know I'll have no credential unless I do that. But I like the idea of teaching. I like the idea of bringing new knowledge, and, if we can get there, I like the idea of bringing something to the economy that wasn't there before, and was useful." They liked that. This board were very practical guys. I say guys, but, also, the general counsel of the *New York Times*, Katharine Darrow, who ended up being extremely useful, because one of the great arguments we faced was

conflict of interest — professor being paid, tenured. Should he be allowed to make money, personally, out of his own invention? That was one of the conditions. Katharine enlisted some of her New York ethical crowd and created a conflict of interest document as a code of behavior, and that was very helpful. So, the board members not only sat in judgment, but also contributed a lot. Jim Crown of the Crown family was my second chairman. I had a lot of very high-quality help.

CK: *What was the structure of ARCH?*

SL: ARCH was a 501(3)c, not-for-profit company embedded in the structure of the University of Chicago.

CK: *And so once you formed this, and you have your board— Talk a little bit about the challenges. Were you a VC firm right away, or how did that evolve?*

SL: Not yet. The travel, again — just like being responsible for rest of world, travel began again, and it was all over the country, telling the story in an attempt to raise money. That's where I first heard, "Your track record is all ahead of you." But they liked the story. People uniformly liked the story. One day, through a series of contacts, I was invited out to Bloomington, Illinois, to talk to the vice chairman/chief investment officer of State Farm, Jim Bates. He said, "Come out on Saturday. I've got a tennis game. I'll meet you at the IHOP right after the tennis game." Fine with me. I drove out. Jim said, "Tell me your story." So, I did, with none of the biographical niceties that we've gone over this morning,

but just about the business: Why are you doing it? What do you want to achieve? How long will it take? How much money do you think it will take? And that's when I first started to describe the venture capital nature of what I was being asked to do, and I was being asked to do it in a restricted world that made sense. It was stuff that came out of academic or academic-type institutions. But later, we added company R&D groups. And we would make money. That would be one of our tests. And how long would it take? Pure guess on my part. That's when I had my first contact with the NVCA. It was with Mark's predecessor, whose name I forget. And John Taylor, who has always been—

CK: *Oh, I didn't know him.*

SL: You don't know him? Put that on your schedule. Later on, when I got on the board, I became a chair of the research committee of the board. And John Taylor was the guy on the staff that I worked with, predominantly.

CK: *Just going to back up for one minute, when you were at Baxter, were you working with venture capitalists?*

SL: No. Not at all.

CK: *So, you hadn't been really introduced or experienced venture capital.*

SL: First time I touched the surface of the venture capital world was— I was asked by Mike Herman, who was then running the Kauffman Foundation, to put a program together, not

dissimilar from my student helpers, who I used to call the University of Chicago Irregulars, or the Fifty-eighth Street Irregulars. Mike liked that, and so he invited me and maybe half a dozen other people; the others were largely venture capitalists. I was the only one who had an operation that looked a little bit like venture capital, except it had no money. And people from the NVCA came to help. People from universities, like Jeff Timmons and— That doesn't ring a bell?

CK: *No.*

SL: Another guy you should know: Babson. Jeff passed away. But he was very instrumental in the connection between the Kauffman Foundation and venture capital. That's an element in the work you're doing you need to get to know a lot about. So, I guess I was with Jim Bates. Jim Bates said, "That's an interesting idea. We'll put four million in." That was it; no committee, no nothing. "We'll put four million in." So, the thing about that trip to Bloomington that I remember so clearly is, this was, say, around '88, '89, and you know the condition of portable telephones in those days. They were about this big. You could carry them if you had Gunga Din working for you. I got back in my car. I was alone, back in my car, started driving back toward Chicago, and I kept trying to get Tom Churchwell, who, by this time, was working with me at the university. Tom had been the guy who negotiated NutraSweet for Searle, and he had come through the Jannotta Bray organization, too, looking for a job. So, I finally reached him when I got to, I don't know, somewhere closer, and I said, "We have four million dollars." Kingman Douglass was a member of my board,

very prominent Chicagoan finance guy, the head of the finance committee of the board of trustees of the University of Chicago. Kingman said, "Okay, we'll match that." So, now I had eight million. Then the whole idea of raising a fund had originally come from a guy named Len Batterson, who was at Allstate, and Allstate had a good record as a VC.

CK: *Yeah, they all came from somewhere before they got—*

SL: I'm pretty sure Charlie was Len's predecessor. But we can check that. I was then a member of the board of Amgen.

CK: *Because of Baxter?*

SL: Because of my work in kidney dialysis at Baxter, and because Sandy Robertson had recommended me, and a few other people whose names you would know. And one day, George Rathmann called me and said, "I need to have a businessman who's familiar with these products on my board. Would you be interested?" This was before Amgen had earned a dollar; had one two-story building in Thousand Oaks, California. This was '87. So, on that board was a guy named Bill Bowes. That should be in that—

CK: *He's been interviewed.*

SL: Okay. One of nature's noblemen. I asked Bill, "Just advise me, generally." So, he did. And at the end of the conversation, he said, "Call me when you get going. We'll put some money in, too." Now you know how rare it is for a VC fund to put money in somebody

else's VC fund. But he did. He put \$500,000 in, as did another VC. And I went back to Allstate, who had promised they would put the last million in. By this time, my contact at Allstate had gone. So, I never did get the tenth million, so a nine million dollar fund.

CK: *You had nine million dollars for your first fund. So, you're a venture capitalist.*

SL: All of a sudden. All of a sudden, gradual.

CK: *Did you stop and think, "Is this something I can do?"*

SL: I never had that kind of a thought.

CK: *Where do you think your confidence has come from?*

SL: The only way to answer that is to say the idea that I couldn't do it — in any of these things — never crosses my mind. I don't think you do new things if you are afraid of or conditioned by the possibility of failure. Walter Massey once did a quiet survey of European venture capital, and he came back, and he says, "You know what we've got that they don't have? We've got a respect for failure."

CK: *That's one of my questions that I came across, that I had never talked with anyone about — it's this idea of failure, because you talk about it. And I wonder if you could just discuss that, just as an element of success.*

SL: The toxic quality of failure — failure in its toxic form — is a derivative of the class structure, most visible in a place like Japan. You only get a chance to fail once, and if you do, they never let you back in. The society doesn't let you back in. I think it's changing in Great Britain now, but not all that fast, and there, too, if you go into business, and you stumble, maybe you're somebody's royal cousin, and they put you out in the sticks to manage an estate, or put you into the Queen's Division. But only once.

CK: *And you're saying it's cultural.*

SL: Absolutely. I'm convinced of that. Whereas in the United States, you fail, you probably learned something. Go again. Nobody — I shouldn't say nobody — people in the world that I operate in today, I don't think they think about failure. That's something we discuss a lot within our partnership, where we have our weekly telephone hookup: What's happening with company X? "Well, it's about six months behind in the plan, and we may run out of money before we get to where we have to get to." So, I'll try to find sources of additional funding, other venture funds and so forth, may not find it. If so, we may have to close it down. "Okay, next subject." Or, "Maybe I could help with that, because I've been talking with so-and-so, and they have a casual interest in it." The wonderful thing about the kind of geographical arrangement our partnership has, we're like a web that has nodes in some very interesting locations. We were so early in Seattle, so early in Boston. There were only maybe one or two additional funds of the size that we were heading to be.

CK: *So, what other VC firms did you partner with, at various times?*

SL: The earliest ones were Venrock.

CK: *Is that Peter Crisp?*

SL: I dealt with Peter, but he was in the process, really, of stepping back. Tony Evnin and Bob Nelsen, and Keith, and Clint Bybee, my three main partners. They deal with Brian Roberts a lot. The second most frequent is Polaris, one main guy and then several others. Oddly enough, no one in Chicago. One of my great frustrations is that there's a venture capital community in Chicago, but it doesn't seem to be populated by people who are really interested in longer reach, larger size.

CK: *I was going to ask you about the challenges of being in the Midwest.*

SL: Often — and I think it's more of an easy out — Middle West is big hardware: steel, oil, agricultural implements, not really the kind of bench, test tube, labs to make integrated circuits. Probably that's not a full or even a good answer, but because what's happened in Seattle since we first started there is extraordinary, could have happened in Chicago. Same is true with Austin. It doesn't have to be only Silicon Valley. I think there's a disposition to write about Silicon Valley, as if it was *the* place, and the others are of casual interest. But that's always been something of a mystery to me.

CK: *In dealing with East Coast and West Coast venture firms, do you see a cultural difference in the way they approach venture capital, or in dealing with them?*

SL: There's a fair similarity between, say, San Jose and Boston. I mean, Boston had Peter Brooke very early. It had Dick Testa, as a very active attorney. So, he was a match for Larry Sonsini. And there were many others, but Larry's the first one that you remember. And I think he was involved in putting together the Intel deal. But beyond those two locations, you now have others which are arising, like Seattle, like San Diego — a lot of helpful entities beginning to come in and act in a supportive role. There's a, in my opinion, great shortage of leaders of start-up funds, and there's a contradiction in the whole concept of a start-up. We say when we advertise what we do, that we will invest on a paragraph on the back of a napkin. And to some degree, we do that, not a huge degree, but at least we'll go down that route.

What makes us unusual — and there is so few others that do this — is that we'll not only invest start-up money; we'll stay three rounds, and, if necessary, we may go further. And what we found in Fund II is that that fund could have been four times as successful if we had a fund of an adequate size. But that was the thirty-two million fund. It should have been one hundred, one twenty-five. But we were not quite that brave yet, — and I was still the only fundraiser — nor did we have that much cachet for people to come and—

Although everybody, without exception, felt the idea was different; it was evident why this should be valuable, could these guys make it valuable? These guys being us. There was

criticism and concern about being spread out around the country, and not having that weekly face-to-face meeting. But think about what's happened in technology, during the period that I'm describing, from the end of the 1980s to now. I mean, nobody thinks anything about Facebook, Twitter, Skype, on, on, on, on, on. So, we do so much better electronically.

CK: *So, how has ARCH — your mission evolved or changed over the years that you've been there, since '86.*

SL: The basic themes of the company remain the same. We are technology-based investors. We are very, very early investors in the cycle of development. We have no problem at all being in diverse geographies, and we can hook up two of our associates, working together on a single deal. Either you get on an airplane and rendezvous, or you get on a conference call, or you do it by e-mail. The electronic communications age ushered in by the microprocessor has made all of this possible. I remember Cambridge Associates being very skeptical that we would be likely to have success by institutionalizing the distance between our locations. But they had little understanding of early stage, where, theoretically, you should be on the next block from your investment. Okay, maybe the next town. But to be as far away as we were—

CK: *Something new. That was new.*

SL: So, that remains. I think— I was about to say stability. I think our partnership, having the same cast of characters at the top for thirty years, that is unique. I mean, there are people— Henry McCance has been there, is there, will be there tomorrow. There are often individuals like that. Greylock has been around since the flood.

CK: *So, you've developed a track record.*

SL: We have the track record.

CK: *Yes, yes. You did it.*

SL: The funny thing is, I am now emeritus. From now on, when people ask me what I do, I've got to say, "I do the same thing the Pope does. He's becoming emeritus tomorrow."

CK: *Right; he's going to pray.*

SL: No, he's seriously becoming emeritus tomorrow. This is the ex-Pope.

CK: *Were there any tensions in the group over the direction—*

SL: Nelsen and Crandell have different styles. Nelson, a little bit more flamboyant, ready to roll the dice more times than Keith. Keith operates at a level of detail that is more finite than Bob. But they recognize, and they've made it an absolute within the partnership, that the balance of the partnership depends upon them harmonizing their operating styles and their decision-making process. At the beginning, while I was around, that was pretty easy

to achieve. I was thirty years older than the average age of my partners. It wasn't that I operated like some distant king on a throne; it's just I was around, I was involved, but I had the years I just described to you of other things I had done. So, if it looked like it was going to go out of balance, I would step in and do an outsider's examination of a proposed deal, and then I'd come back with a list of questions. And usually, in the effort to get those questions answered, whatever existed as a difficulty between Crandell and Nelsen went away. Bybee is such a very smooth and comfortable person. I can't imagine him ever raising his voice. He's the perfect foil of the other two. We have three, I think — self-serving remark — personalities who I think we couldn't have chosen better.

CK: *So, maybe what made it work is the variety.*

SL: Oh yeah. I mean, who I was and what I was provided a good foundation. But what made it work was that combination. And they became very, very fine rainmakers, too.

CK: *Do you think someone can learn to be a good venture capitalist? Do you think it's a science?*

SL: The answer to your first question is yes. The answer to your second one is no. I don't think it's a science. The first one's got a huge human relations character to it. I'm trying to think of the business books that we read, and I don't think there's set of particulars that can be followed, somebody pick it up and— Did you see *How to Succeed in Business without Really Trying*? There's nothing like that in venture capital. But it's an interesting model.

CK: *Just looking back, is there a company that really challenged you, that you remember as, here's a great story about a company we invested in, that we built, whether it was a success, or just the challenge of it, or maybe even a failure?*

SL: The failures have largely been a function of choosing bad CEOs.

CK: *Well, if you looked at a company, I was going to say, how did you vet a company?*

SL: Well, these days, and I think for the last few years, we typically pull together the people we work with most often from a core of other VCs. We don't really want to go in alone, not because we think that's going to make us fail, but because there is so much uncertainty in what you're doing that you need more eyes on the target than you could bring yourself. I think it's very ego-driven to think you can do a VC deal or a preponderance of successful VC deals by yourself. Cambridge Associates tried to push that idea. They'd go in and analyze individual members of the partnership: This is Keith's deal. This is Bob's deal. And whose deal it is gets known, because that's the individual that appears. That's the member of the board. But we never calculate the track record of one of the individuals of our partnership. The theory that I propounded first, still believe in, is that the success is a consequence of the group interaction.

CK: *I mean, your company is so different, because you do this seed investing in their start-ups. I mean, how much due diligence do you do, before you decide?*

SL: Are you going to give me your due diligence measurement scale so I can answer that?

CK: *No, I want you to correct this, is what I want.*

SL: I don't think due diligence is subject to some kind of metric. I think that there are things you do. Largely, if you don't know the CEO or the prospective CEO very well, you do a Spencer Stuart form of recruitment analysis on who you're going to put in there. One of the worst experiences I had was putting in the CEO in a company that was looking good for an IPO, and not digging deep enough to find out that he had some character flaws that eventually killed the chance of an IPO. And we eventually sold that company, but instead of the twelve-to-one multiple, we got a two-to-one multiple. But that's because I didn't dig hard enough on that prospective CEO. Another is, how is the CEO performing while he or she is in the saddle? And that's a case of being present, watching constantly. But going beyond the character and performance of the CEO, I think the diligence has to go to the characteristics of the market, and what the market is. We've got a huge investment in fuel oil from algae. We've got algae ponds covering half of New Mexico. Now there are outside forces. The price of a BTU can be— On one company we did, it was ninety-seven when we went into it, and then when it came time for a really serious investment, it was ten. Imagine the price of energy these days at that kind of a level. Knowing the market— I watch Steve Gillis a lot. Steve is our newest partner. And have you met Steve?

CK: *No, no.*

SL: Steve was the founder — and for a while, the CEO — of Immunex, which was acquired by Amgen while I was a member of the board. Steve is a trained scientist. Of course, he's

from Dartmouth, which makes him okay with me. But I watch the way he thinks, and he thinks comprehensively. And in analyzing toward a decision, he'll show you the way his mind is working. And if I can find a person connected to a deal or that I could connect to a deal, that would carry that deal quite a ways for me. Or if Larry Bock, he was the discoverer of Caliper [Life Sciences], comes to us with a deal or an idea, we all gather, and sit down and listen, because we know this guy is a goldmine.

CK: *So, you have serial entrepreneurs.*

SL: Oh yeah. They're the best kind. And they don't have to be the people who have had the eureka moment. They can be the person who you show an idea to and say, "Can you get in there and make something happen with this?" And they'll say, "Yeah, I can do that." "What will it cost? You think first round or your second round?" "I need a second round of twenty million, and here's how I would use it." We would make the investment decision at that moment.

CK: *What does a scientific rollup mean?*

SL: You have, let's say, a dozen laboratories around the country, working on a particular thing. Now in the case I'm going to describe to you, it is a substitute for opioids, without the devastating side effects of opioids — the habit formation, the constipation — just all the neat things that you can get when you're taking opioids for pain. Well, in University A, they're working on the deltoid receptor, and it looks like they're going to be successful.

University B is working on the alpha receptor. You put together four or five institutions on that company, and we have to negotiate with each university and their technology control boards. But, usually, our reputation carries us along. There's nobody you could call up and ask the question, "Are these people true to their word, and capable of having business done with?" And come back, "ARCH? Yeah, their word is like gold." Now the way you get there is by never screwing anybody. That doesn't mean you have to overpay. As a matter of fact, a good negotiation usually impresses the person you're negotiating with. It's just like shopping in the Italian marketplace; if you don't bargain, then they worry about your motivation. So, you see me going back to people all the time. You can deal with the science with less of an effort because you, by definition, are working with good scientists, with less of an effort than you can with the character of the people.

Tom Perkins told me a story of one of the things that he and Swanson did on Genentech. And that is, they took, I think it was \$200,000, \$250,000, and they divided it up into three packages, and they negotiated with three institutions to see if the science was repeatable. And they got the same results for each of the three, and then came Genentech. As Tom said, "You have three major risks. You have marketing risk, finance risk, and technological or science risk. That \$250,000 vetted the science risk for us. Maybe not the scale-up part of it, which turned out to be pretty demanding, but you can get at that more easily than the people." There you had Swanson ready to leave Kleiner Perkins and go do it. You don't always have that. Brook Byers, I think, carries Howard Birndorf with him in his back

pocket, because I think Howard has been CEO of at least six of Kleiner's startups. He started as a lab assistant in one of their deals.

CK: *How much do you invest emotionally in these ventures? I mean, how emotionally involved did you get, over the years?*

SL: Well, certainly, in the earlier part of my career doing this, where I was still uncertain whether I was going the right direction or taking the right next step, it was something like the early stages of a love affair. You start out really being in love with it, but you don't know if you're doing all the right things to mature that love affair. You could end up being part of the problem, rather than the solution. I've found that, as I've gone along — it's hard to believe I've been doing this for thirty years — the longer I go, the more I think I see things repeating, the more I place myself in a position to contribute the kind of thing I'm good at contributing, which is mainly about people, and stay away from the other elements of the decision, which, more and more, I leave to my young partners. I say more and more — I mean totally now. I've not been a member of Funds VI, VII, and I won't be a member of Fund VIII.

CK: *So, looking back a bit, what excited you the most or motivated you in ARCH, in this whole venture deal?*

SL: Well, when I first started to understand what I was looking at — and it took a little bit of time — I said, "Oh my gosh," or, as my children would say, "OMG." There is hundreds of

millions of dollars in technology investment present at the University of Chicago and the Argonne Labs, which I can get without paying for. The economics of it were extraordinary, but it still took a while to see it. It's a lot like gold-digging, where this place looks like it might have a vein, and so you mine it. But this is even more evident than that would be. A smart person should be able to leverage the advantage of this access to this extraordinary technology.

CK: *So, you were talking about having this vein of gold.*

SL: It is there. It always puzzled me — still does — how we, ARCH, eventually were the ones who saw that, and no one, to any great extent, emulated what we were doing. Why don't we see some competition out there?

CK: *I was going to ask you, are there any ARCH copycats?*

SL: No. First of all, we're dealing with our antecedents. We started working at a university, started working with the National Laboratory, so that they were not on a map that said "Here be monsters." They were not that intimidating, though they were replete with transaction costs. An institution like a university or a laboratory gives you so many more problems than just finding a deal on the desk of some inventor somewhere.

CK: *Because it's just institution?*

SL: We've not done a deal with Northwestern, because they have five committees they have to go through before they approve negotiating with a venture group like ours. We felt that was a waste of time. And that's true in fewer and fewer places around the country. The people who are starting to do ARCH-like things are the people at universities who are looking at the original ARCH model — the 1980s, early 1990s — and seeing what they need to do in order to set up something similar. When they get to me, I keep saying, "Number one, you've got to get to a point where your reach is greater than one institution, because one institution is not going to provide the fodder for success. The second thing is, you've got to find an institutionalized way to get some money into the hands of the inventors, the faculty." And usually, the first reaction, "What?" The idea of paying a premium to a tenured university inventor, whose money in the first place is coming from NIH or some government institution, that's a hard idea for a lot of people to swallow. But without that, I don't think it gets done.

CK: *So, you had quite a nut to crack, so to speak.*

SL: But there's an old saying which I've used in a book, and which I like a lot. The University of Chicago — the stereotype people have of it is that it's a very elevated, elitist kind of institution, where Robert Maynard Hutchins, famous university president, vetoed the idea of having anything that looked like a trade school inside the institution. So, there's no engineering school. There is a medical school. He compromised on that. And the truth of the matter is that those institutions, like the department of physics, they do their engineering

school kind of work underground. Everybody knows it's being done. It's not talked about.

So, the line is, "At the University of Chicago, you can try anything you want, as long as you don't do it in the street and frighten the horses."

CK: *How did ARCH fare during the bubble and then the burst?*

SL: Yeah, that was our funds IV and V. We could get a ham sandwich public in those days, as could almost any venture fund around. And so we — particularly internet-based companies — first of all, that wasn't really our strength. And what I should have done and didn't do was, I should have said, "We're going to give ourselves a quota, and we're only going to do this much of our fund in that kind of deal." I didn't do that. My partners had the bit in their teeth, and they were running.

CK: *Oh. Well, it was a fever.*

SL: Yeah. So, neither IV or V is going to return its investment.

CK: *So, did you shift your strategy?*

SL: Oh yeah. We became very, very prudent, very tough-minded in the investment decision, and we agreed, we are only going to invest from one of two kinds of knowledge. One is, we are really expert in that area of the scientific spectrum, or we know the person who wants to do this deal. And there's a codicil to that, and that is, and at least one of us can get in there and help.

CK: *So, that's important. When you were on the board, like you were on the board of Amgen, how much time did that take?*

SL: The formal Amgen meetings are two days in the meeting, including a dinner, and six of those a year. And then there's committee work. I was on the strategic research committee, and I don't remember how many hours I put in, but I worked that subject matter extensively. And then there were board committees [unintelligible] I don't know.

CK: *Well, how about other boards that you've been on, these start-ups? I mean, are you getting calls in the middle of the night?*

SL: Start-ups, a lot of time. But, I mean, I see that, as do my partners, that's the job.

CK: *Could it take 50 percent of your time at one period, or 40 percent, or more?*

SL: Defining the remainder as doing what?

CK: *Well, just looking for companies, or raising funds. I mean, how much time are you handholding and helping the strategies?*

SL: It differs from fund to fund, and stage of fund. And if we're in a harvesting period, and our work is really to get to liquidity, then we'll spend more time working with the individual company. If we're in the very early stages of a fund, then we will spend much more time raising money and hooking up with other venture funds.

REFLECTIONS

CK: *So, would you say that — we're getting back to the romantics — do you see venture capital as a romantic quest in any way?*

SL: I mean, it's easy to call it romantic. Going back to my father—

CK: *For you?*

SL: Okay, not my father. It's not romantic to me anymore, because I'm not a member of an individual fund. When you're a member of an individual fund, that's your baby. It's like being a line executive. You are responsible; you're not sitting in the bleacher.

CK: *So, in those early days—*

SL: Oh, in the early days, I had the best of all worlds. I was not only starting a fund, but starting, really, a new business idea that was getting a commercial and economic outcome from successful science. That's the time when it truly was a romance.

CK: *Are there any venture capitalists that you've worked with in all these years that you would admire?*

SL: A guy who doesn't get called on enough, I think, is Jim Morgan. I'm not sure how active he is anymore. He was the guy who nominated me as a board member of NVCA. And he's kind of a contemporary of mine, and I identify more and more these days with people who not only have gray hair but can stand vertical.

CK: *So, Steve, have you ever stopped along the way and thought, I could have done something else, when there's a lot of tension or things weren't going well? Did you ever just stop and think, I would have liked to have tried some other line?*

SL: No. As you heard, I have done so many different things. I never felt any desire to stop doing this, and go and do that, because in that regard, the world has come to me. Now I've held myself open for that, like the way in which I chose to go to a company like Baxter. I've set up some conditions, and I've been pretty religious about following those conditions.

CK: *So, you don't wish that you had been an English professor.*

SL: No, it's gone. I'm very friendly with Stephen Sondheim, the composer. He did a musical called *Sunday in the Park with George*. Last lines of that musical: "A blank sheet of paper — so many possibilities."

CK: *Oh, I'll have to remember that. So, just to wind up a little bit, how would you describe the contributions that you feel you've been able to make, to the economy, to the country, in your work?*

SL: I've never stopped and tried to do that kind of accounting. I think in terms of individual moments, and what they have meant, currently mean, and might mean in the future. Everyday Learning, Fund I: brand new mathematics curriculum for kindergarten through sixth grade, very unusual approach to elementary school math, now being used in 50 percent of the public elementary schools in the country. Very successful financially, against

the grain of all the conventional wisdom that existed in those days about creating curricula. And that was a Bob Nelsen discovery, which I had a great hand in pushing forward, including selecting the CEO. If we did nothing but that— I'm trying to think of what's the best consequence of Fund II. Probably Neon, whole new system of software for the financial industry, at one point considered the third most valuable new start in its vintage year; ultimately acquired by another company. Its immeasurable value and the fact that it hasn't been replaced by anything encourages me that that was really a good consequence. Illumina, which is such a hot stock performer in Fund VI — that's just the gift which keeps on giving. And I can cite any number of these, in terms of the individual companies.

CK: *And, overall, their contribution to the economy, is there something that you—*

SL: I can say, Everyday Mathematics became Everyday Learning. I mean, how much to the gross national product, or how did it affect the unemployment rate? I can't tell you that. Venture capital deals don't very quickly affect the unemployment rate or major dollars into the economy, unless you have time enough to look at the secondary, and tertiary — and on and on — numbers that occur. If you read the story of the transistor coming out of Bell Labs, and the movement by Shockley to California, and then to Fairchild, and then, finally, to Intel, and then watch the progress of the product, not unlike Google — watch the progress of the product getting more and more powerful, more and more diverse. What in our economy today has not been affected by the semiconductor? But you have to look over

fifty years in order to cap that. So, venture gets you the future; doesn't get you tomorrow.

It gets you the future.

BEYOND VENTURE CAPITAL

CK: *So, Steve, what do you do when you take a break from this work? What are your interests?*

SL: I play with my grandchildren.

CK: *And you said you have four grandchildren — boys, girls?*

SL: Eighteen-year-old Jack, who is a choreographer, dance teacher. Thirteen, fourteen-year-old granddaughter. She's back where I was. She's got to find out where she wants to go.

CK: *Okay. Well, she's got some time. What's her name?*

SL: Sarah. Six-and-a-half-year-old granddaughter lives on the coast, very smart. I think her future still is unlimited. And the conversation with her is a real experience. And her mother is a choreographer. Her name is Keaton. And, finally, a five-and-a-half-year-old grandson, lives in New York, and his name is Jude.

CK: *And we don't know at five-and-a half what the future holds. Well, I want to thank you so much. This has been just delightful, and instructive.*

