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William Seaman was the Research Director of the American Asthma Foundation Research Program from its inception in 1999 through 2018 when it ceased operations. Dr. Seaman’s research career focused on the innate immune system, especially the mechanisms by which receptors on macrophages and natural killer cells activate and inactivate the functions of these cells. Dr. Seaman received his M.D. from Harvard Medical School. In this interview, Dr. Seaman discusses: the historic lack of research on asthma and its treatment; the establishment of the American Asthma Foundation, and the roles played by Marion and Herb Sandler; developing a program for high-risk, high-reward research; achievements of work supported by the American Asthma Foundation.
Oral History Center, The Bancroft Library, University of California Berkeley

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Project History: the Marion and Herb Sandler Oral History Project

Herb Sandler and Marion Osher Sandler formed one of the most remarkable partnerships in the histories of American business and philanthropy—and, if their friends and associates would have a say in things, in the living memory of marriage writ large. This oral history project documents the lives of Herb and Marion Sandler through their shared pursuits in raising a family, serving as co-CEOs for the savings and loan Golden West Financial, and establishing a remarkably influential philanthropy in the Sandler Foundation. This project consists of eighteen unique oral history interviews, at the center of which is a 24-hour life history interview with Herb Sandler.

Marion Osher Sandler was born October 17, 1930, in Biddeford, Maine, to Samuel and Leah Osher. She was the youngest of five children; all of her siblings were brothers and all went on to distinguished careers in medicine and business. She attended Wellesley as an undergraduate where she was elected into Phi Beta Kappa. Her first postgraduate job was as an assistant buyer with Bloomingdale’s in Manhattan, but she left in pursuit of more lofty goals. She took a job on Wall Street, in the process becoming only the second woman on Wall Street to hold a non-clerical position. She started with Dominick & Dominick in its executive training program and then moved to Oppenheimer and Company where she worked as a highly respected analyst. While building an impressive career on Wall Street, she earned her MBA at New York University.

Herb Sandler was born on November 16, 1931 in New York City. He was the second of two children and remained very close to his brother, Leonard, throughout his life. He grew up in subsidized housing in Manhattan’s Lower East Side neighborhood of Two Bridges. Both his father and brother were attorneys (and both were judges too), so after graduating from City College, he went for his law degree at Columbia. He practiced law both in private practice and for the Waterfront Commission of New York Harbor where he worked on organized crime cases. While still living with his parents at Knickerbocker Village, he engaged in community development work with the local settlement house network, Two Bridges Neighborhood Council. At Two Bridges he was exposed to the work of Episcopal Bishop Bill Wendt, who inspired his burgeoning commitment to social justice.

Given their long and successful careers in business, philanthropy, and marriage, Herb and Marion’s story of how they met has taken on somewhat mythic proportions. Many people interviewed for this project tell the story. Even if the facts don’t all align in these stories, one central feature is shared by all: Marion was a force of nature, self-confident, smart, and, in Herb’s words, “sweet, without pretensions.” Herb, however, always thought of himself as unremarkable, just one of the guys. So when he first met Marion, he wasn’t prepared for this special woman to be actually interested in dating him. The courtship happened reasonably quickly despite some personal issues that needed to be addressed (which Herb discusses in his interview) and introducing one another to their respective families (but, as Herb notes, not to seek approval!).
Within a few years of marriage, Marion was bumping up against the glass ceiling on Wall Street, recognizing that she would not be making partner status any time soon. While working as an analyst, however, she learned that great opportunity for profit existed in the savings and loan sector, which was filled with bloat and inefficiency as well as lack of financial sophistication and incompetence among the executives. They decided to find an investment opportunity in California and, with the help of Marion’s brothers (especially Barney), purchased a tiny two-branch thrift in Oakland, California: Golden West Savings and Loan.

Golden West—which later operated under the retail brand of World Savings—grew by leaps and bounds, in part through acquisition of many regional thrifts and in part through astute research leading to organic expansion into new geographic areas. The remarkable history of Golden West is revealed in great detail in many of the interviews in this project, but most particularly in the interviews with Herb Sandler, Steve Daetz, Russ Kettell, and Mike Roster, all of whom worked at the institution. The savings and loan was marked by key attributes during the forty-three years in which it was run by the Sandlers. Perhaps most important among these is the fact that over that period of time the company was profitable all but two years. This is even more remarkable when considering just how volatile banking was in that era, for there were liquidity crises, deregulation schemes, skyrocketing interest rates, financial recessions, housing recessions, and the savings and loan crisis of the 1980s, in which the entire sector was nearly obliterated through risky or foolish decisions made by Congress, regulators, and managements. Through all of this, however, Golden West delivered consistent returns to their investors. Indeed, the average annual growth in earnings per share over 40 years was 19 percent, a figure that made Golden West second only to Warren Buffett’s Berkshire Hathaway, and the second best record in American corporate history.

Golden West is also remembered for making loans to communities that had been subject to racially and economically restrictive redlining practices. Thus, the Sandlers played a role in opening up the dream of home ownership to more Americans. In the offices too, Herb and Marion made a point of opening positions to women, such as branch manager and loan officer, previously held only by men. And, by the mid-1990s, Golden West began appointing more women and people of color to its board of directors, which already was presided over by Marion Sandler, one of the longest-serving female CEOs of a major company in American history. The Sandlers sold Golden West to Wachovia in 2006. The interviews tell the story of the sale, but at least one major reason for the decision was the fact that the Sandlers were spending a greater percentage of their time in philanthropic work.

One of the first real forays by the Sandlers into philanthropic work came in the wake of the passing of Herb’s brother Leonard in 1988. Herb recalls his brother with great respect and fondness and the historical record shows him to be a just and principled attorney and jurist. Leonard was dedicated to human rights, so after his passing, the Sandlers created a fellowship in his honor at Human Rights Watch. After this, the Sandlers giving grew rapidly in their areas of greatest interest: human rights, civil rights, and medical research. They stepped up to become major donors to Human Rights Watch and, after the arrival of Anthony Romero in 2001, to the American Civil Liberties Union.
The Sandlers’ sponsorship of medical research demonstrates their unique, creative, entrepreneurial, and sometimes controversial approach to philanthropic work. With the American Asthma Foundation, which they founded, the goal was to disrupt existing research patterns and to interest scientists beyond the narrow confines of pulmonology to investigate the disease and to produce new basic research about it. Check out the interview with Bill Seaman for more on this initiative. The Program for Breakthrough Biomedical Research at the University of California, San Francisco likewise seeks out highly-qualified researchers who are willing to engage in high-risk research projects. The interview with program director Keith Yamamoto highlights the impacts and the future promise of the research supported by the Sandlers. The Sandler Fellows program at UCSF selects recent graduate school graduates of unusual promise and provides them with a great deal of independence to pursue their own research agenda, rather than serve as assistants in established labs. Joe DeRisi was one of the first Sandler Fellows and, in his interview, he describes the remarkable work he has accomplished while at UCSF as a fellow and, now, as faculty member who heads his own esteemed lab.

The list of projects, programs, and agencies either supported or started by the Sandlers runs too long to list here, but at least two are worth mentioning for these endeavors have produced impacts wide and far: the Center for American Progress and ProPublica. The Center for American Progress had its origins in Herb Sandler’s recognition that there was a need for a liberal policy think tank that could compete in the marketplace of ideas with groups such as the conservative Heritage Foundation and the American Enterprise Institute. The Sandlers researched existing groups and met with many well-connected and highly capable individuals until they forged a partnership with John Podesta, who had served as chief of staff under President Bill Clinton. The Center for American Progress has since grown by leaps and bounds and is now recognized for being just what it set out to be.

The same is also true with ProPublica. The Sandlers had noticed the decline of traditional print journalism in the wake of the internet and lamented what this meant for the state of investigative journalism, which typically requires a meaningful investment of time and money. After spending much time doing due diligence—another Sandler hallmark—and meeting with key players, including Paul Steiger of the Wall Street Journal, they took the leap and established a not-for-profit investigative journalism outfit, which they named ProPublica. ProPublica not only has won several Pulitzer Prizes, it has played a critical role in supporting our democratic institutions by holding leaders accountable to the public. Moreover, the Sandler Foundation is now a minority sponsor of the work of ProPublica, meaning that others have recognized the value of this organization and stepped forward to ensure its continued success. Herb Sandler’s interview as well as several other interviews describe many of the other initiatives created and/or supported by the foundation, including: the Center for Responsible Lending, Oceana, Center on Budget and Policy Priorities, Learning Policy Institute, and more.
A few interviewees shared the idea that when it comes to Herb and Marion Sandler there are actually three people involved: Marion Sandler, Herb Sandler, and “Herb and Marion.” The later creation is a kind of mind-meld between the two which was capable of expressing opinions, making decisions, and forging a united front in the ambitious projects that they accomplished. I think this makes great sense because I find it difficult to fathom that two individuals alone could do what they did. Because Marion Sandler passed away in 2012, I was not able to interview her, but I am confident in my belief that a very large part of her survives in Herb’s love of “Herb and Marion,” which he summons when it is time to make important decisions. And let us not forget that in the midst of all of this work they raised two accomplished children, each of whom make important contributions to the foundation and beyond. Moreover, the Sandlers have developed many meaningful friendships (see the interviews with Tom Laqueur and Ronnie Caplane), some of which have spanned the decades.

The eighteen interviews of the Herb and Marion Sandler oral history project, then, are several projects in one. It is a personal, life history of a remarkable woman and her mate and life partner; it is a substantive history of banking and of the fate of the savings and loan institution in the United States; and it is an examination of the current world of high-stakes philanthropy in our country at a time when the desire to do good has never been more needed and the importance of doing that job skillfully never more necessary.

Martin Meeker, Charles B. Faulhaber Director, Oral History Center, UC Berkeley
List of Interviews of the Marion and Herbert Sandler Oral History Project

Ronnie Caplane, “Ronnie Caplane: On Friendship with Marion and Herb.”


Joseph DeRisi, “Joe DeRisi: From Sandler Fellow to UCSF Professor of Biochemistry.”

Stephen Hauser, “Stephen Hauser: Establishing the Sandler Neurosciences Center at UCSF.”


Thomas Laqueur, “Tom Laqueur: On the Meaning of Friendship.”

Bernard Osher, “Barney Osher: On Marion Osher Sandler.”

John Podesta, “John Podesta: Building Infrastructure for Progressive Politics with the Center for American Progress.”

Anthony Romero, “Anthony Romero: Leadership of the American Civil Liberties Union in Times of Crisis.”

Michael Roster, “Michael Roster: Attorney and Golden West Financial General Counsel.”


Herbert Sandler, “Herbert Sandler: A Life with Marion Osher Sandler in Business and Philanthropy.”

James Sandler, “Jim Sandler: Commitment to the Environment in the Sandler Foundation.”

Susan Sandler, “Susan Sandler: The Sandler Family and Philanthropy.”


Paul Steiger, “Paul Steiger: Business Reporting and the Creation of ProPublica.”


Keith Yamamoto, “Keith Yamamoto: The Sandler Foundation and the Program in Breakthrough Biomedical Research at UCSF.”
Interview 1: May 3, 2018

Meeker: Okay, let’s get started. Today is the 3rd of May, 2018. This is Martin Meeker interviewing William Seaman, Professor William Seaman, for the Sandler Family Oral History Project. And, this is interview session number one. We are here at UCSF [University of California San Francisco] in San Francisco. We begin these interviews the same for everyone. And that is just tell me your name and date and place of birth.

Seaman: I’m William Seaman. I was born in Washington, DC [District of Columbia], May 22, 1942.

Meeker: 1942? Well, thank you for speaking with us today for the Sandler Family Oral History Project. And, these interviews, like I mentioned off camera, are a little bit different than a typical oral history interview where we would now spend a good amount of time talking about your family background and upbringing and everything. But, I’d like to kind of jump forward a little bit and ask you to begin by talking a bit about your first interest in science and medicine.

Seaman: Okay, sure. So, I hadn’t actually planned to go into either science or medicine. I was an English major in college. But I got interested in science there, and so eventually wound up going to medical school after spending a year on the ship Hope. But, in medical school I became interested in immunology, which was then sort of a young field. And I continued in that as I did my training in internal medicine and then rheumatology. And when I’d finished with my training, the chief of medicine here at that time was Holly Smith. He invited me out. And so I’ve been here ever since, mostly doing lab work in immunology, some patient care, and teaching in rheumatology.

Meeker: So, where did you go to undergrad?

Seaman: Princeton.

Meeker: You went to Princeton? And you were studying literature there?

Seaman: Yes.

Meeker: You said the ship Hope. So, were you ROTC [Reserve Officers' Training Corps]? Or were you involved in the service?
Seaman: No, that was a private philanthropy. The people who ran it came by [at Princeton] and were looking for people who wanted to spend a summer on the ship in Ecuador. But I asked if they had a place for a year, which was their next voyage, in Conakry, Guinea. And I went there. Actually, the reason I asked them was I already had a job teaching English in Switzerland. But my draft board had other plans for me. So, they were willing to exempt me, at least for a while, for working on the ship Hope.

Meeker: So, this was a hospital ship?

Seaman: Yeah.

Meeker: Why don’t you tell me about that year that you spent in New Guinea.

Seaman: It was in Guinea.

Meeker: Oh, Guinea? Okay.

Seaman: Yeah. It was a wonderful year for me. I was pretty young. And I went out as the assistant director of the ship, which meant really the person to run errands. But the director had fallen in love with a nurse from the previous voyage, who stayed in the United States. So, after a few weeks he decided to leave and go back there. So, with no background, I became the director of the ship for a year. And, the plan had been to work with all the neighboring countries of Guinea. But I think they had underestimated the political animosity between them. So, we worked mainly in Conakry and somewhat upcountry in Guinea.

The ship had a milk machine. They manufactured milk. And these white vans, where they would go out, saying Hope on them, and delivered milk into the communities. So, they very rapidly established their identity there. And then beyond that they set up medical care through the local medical systems, helping people. I wasn’t a doctor then, so I couldn’t participate in that. But, it’s really a bunch of laudable people doing this. It was all volunteers for the physicians. I had a great year.

Meeker: Had you started studying medicine by that point?

Seaman: No. In fact, I had decided not to go into medicine even though I had taken the electives to do it. When I was an undergraduate, in my English classes you’d sit out under a tree and discuss the great literature and thoughts of mankind. But then you’d go to organic chemistry where people were very intense and wouldn’t loan
you their notes if you missed a lecture and so on. And I decided, well, I’m not going to do this. But then, when I got on the ship and met these people, I thought this would be great. But how am I going to apply off the west coast of Africa? But I now realize, being on the other side, I couldn’t have thought of a better ploy to say, “I’m writing from a medical ship on the West coast of Africa.” So, that’s how I went to medical school.

01-00:05:19
Meeker: Where did you go?

01-00:05:20
Seaman: To Harvard.

01-00:05:20
Meeker: You went to Harvard? Tell me about your experience at Harvard.

01-00:05:26
Seaman: Well, it was intense. At Princeton they had small classes, limited to eight. So, you really knew your teachers very well. And despite the expertise of the people at Harvard, teaching was largely through lectures to the whole class. So, you didn’t have that personal feeling anymore. So, I would say I did not struggle, but I wasn’t so fond of it the first two years. But as we got into the clinical part of it, the third and fourth years, I really enjoyed that and have since.

01-00:06:01
Meeker: What was the process of coming to your specialty?

01-00:06:05
Seaman: That actually happened a little bit by happenstance. I went to the National Institutes of Health for a couple of years, actually three years in the end. And, I went to study immunology. But I wound up in the arthritis branch there. So I got interested in rheumatology. And, then when that was done I went and sort of finished my real training in rheumatology and made that my specialty.

01-00:06:35
Meeker: What was your goal throughout medical school? Did you want to become a teaching professor? Or did you want to set up a practice or join a hospital?

01-00:06:46
Seaman: I actually went in thinking I’d be a psychiatrist. And I actually don’t think I thought a lot about how I would do this, whether it would be in an academic setting or private or not. But, I grew less interested in that, although I think over 20% of our class went into psychiatry. This was in the sixties. People were very introspective. So, I decided that I was more interested in internal medicine.

01-00:07:16
Meeker: So then, you said that you were brought out to San Francisco by—

01-00:07:20
Seaman: Holly Smith.
Meeker: Holly Smith, that’s right.

Seaman: Actually, I was brought out eventually to the VA where Marvin Sleisenger was the chief of medical service.

Meeker: And you were given a faculty position?

Seaman: Yes, as an assistant professor.

Meeker: Were you also then practicing in the hospital? Was that how the position worked?

Seaman: Yeah, at least for the first couple of decades. I think I did inpatient attending on medicine and then attended in particular in rheumatology and saw patients in the rheumatology clinic.

Meeker: Tell me about your work in rheumatology.

Seaman: So, my work in rheumatology was primarily just teaching. My research was in immunology. And I started out working with mouse models of autoimmunity, then sort of shifted over more towards the role of the immune system in cancer. But I was really studying at the very basic level how our immune cells are activated and regulated. So, you could apply it to either rheumatology or cancer. And, it was a good time to be in medical research then. It was not so difficult to get grants, the way it is now. It was an exciting time. It’s still an exciting time in terms of the research. But it was an easier time, I would say, than it is now.

Meeker: Tell me about the research that you were involved in. Is there anything in particular that stands out in your memory as being particularly interesting for you?

Seaman: Well, in the first part, when we were studying autoimmunity in this mouse model, this was for systemic lupus erythematosus, or SLE. There’s a mouse called the NZB/NZW mouse that develops a very similar disease. And, at that time, monoclonal antibodies were just coming out. So, you could make an antibody against a very specific molecule. And we could make it against different parts of the immune system. So, if we knocked out one part—specifically these are a lymphocyte called a helper T cell — that suppressed the disease and could reverse it, in fact, to some degree. So, that was exciting. It was early in the days of turning the immune system against itself, if you will, to suppress immunity by using an immune approach.
But then after that I got to working more on natural killer cells, which defend against viruses and, to some degree, cancer as well. And there we worked much more at a molecular level. What are the receptors on natural killer cells that turn them on to kill other cells that are infected with virus or tumor cells? And what keeps them from doing that? I can’t say as we had great breakthroughs. But we made slow progress. Natural killer cells at the time actually were called “null” cells because they were thought to have really sort of nothing on their surface. Of course, they had to have things. But, over time, the field grew quite a lot. And natural killer cells were further divided into other types of cells. And I think the role in particularly viral infections, but also in cancer, has stood the test of time.

Given your research interest in immunology and immune disorders, did you spend any time researching in HIV [human immunodeficiency virus]?

No. We came close because the cells we were studying in autoimmunity are the same cells that get infected with HIV. But no, we didn’t do active research in that area, even though that was a huge area both internationally and locally.

Right. I know that off camera we said that you never had any engagement with asthma in the research that you had previously been doing. Was there ever any time that you’d come across this ailment and had thought about it in terms of research?

No, except that I had asthma when I was a child and really into my teens. I didn’t think about it a lot. And that was one of the problems that the Sandlers were trying to address in their programs, was asthma. In basic research, asthma was really not very much thought about. The models that people turned to if you were studying immunity had more to do with cancer or arthritis or diabetes and not so much asthma. I don’t know why that was so. But the research in asthma was largely limited to people who were pulmonologists, MDs, and not so much in the basic science community.

If you were teaching asthma to a first-year medical school student, how would you describe this disease? Or would it have even been called a disease? I’m curious what the categorization of it would be.

Well, there are different categories. I mean, I think that the first thing is it’s a frightening disease because it could come on very suddenly. And although it’s not usually lethal, sometimes it is. About 5,000 people a year in the United States die of asthma. But it has a very large toll, of course, across the general health of the population, and particularly in children—a lot of lost school time, a lot of just general illness. One of the things I would try if I were teaching about asthma is to try to give people an idea of what this is like.
Marion Sandler actually, one time, when we were working on trying to market, I guess, if you will, our research, was involved in making a film about asthma. Although it was a little frightening, one of the clips was of somebody sitting on a park bench, and suddenly somebody puts a bag over their head and they can’t breathe. That was quite dramatically, I think, explaining what it was like to have an asthma attack.

For the science part of it, I think I couldn’t have said then, but now we can say that asthma actually comes in a variety of flavors. Some of it is more allergic, if you will, in nature, and associated with other types of allergy. Other people with asthma don’t seem to have that. And that’s important because they seem to respond differently to different therapies. So, we’re just beginning to realize that over the last decade, that asthma is not just one disease. It’s probably several, maybe many.

Meeker: How would you explain the response, what’s happening inside the body, when somebody is having an asthmatic attack?

Seaman: Yeah, so a number of things happen. The immune system and the inflammatory system are both unleashed. And what we now know, and have known for a fair amount of time now, is that in between asthma attacks, both the immunity and the inflammation are sort of lurking, ready to be set off. It used to be thought between attacks you were all just fine. And then they would come on. But now we know that at least a substantial number of patients with asthma have underlying inflammation going on all the time. But then, when an attack comes, the muscles around the airways contract, narrowing the airways. So, that’s the part that you can’t breathe.

The cells that line the airways also start pouring out fluid—mucus and sometimes more dilute fluid as well. And that’s actually the major cause of death in asthma. People literally drown in their own secretions. So, the usual consequences for someone is just a very difficult time breathing. And that’s where a lot of the focus for therapy comes. But the inflammation is important as well. So, the therapy right now is really directed at two things. One is the constriction of the muscles that narrow the airways. And the other is the inflammation.

Meeker: Was that the nature of treatment in the 1990s before you got into the work as well?

Seaman: Yeah. And in fact, that was one of the reasons the Sandlers got behind it is that it’s pretty much the way therapy was fifty years ago. I mean, really not a lot had happened in terms of treating the disease. To fight inflammation, people used steroids, glucocorticoids, not the kind that build up your muscle.

Meeker: Like prednisone?
Yeah, like prednisone. And they switched from taking pills to inhaling it. So, that reduced the side effects. That was perhaps the biggest advance. But prednisone has remained a major part of therapy. And then the drugs that dilate the airways are still the other bedrock part of therapy.

And so, that’s remained relatively constant, it sounds like, for decades.

Yeah. There’s been a little progress now. And some new drugs have come on board, particularly for some subtypes of asthma, the allergic type in particular. There are new therapies that are effective in many patients.

What are those therapies? And how do they differ from what came before?

So, one of them is...these more specifically block steps in the immune or the inflammatory pathways. So, some people with asthma have very high levels of a certain type of antibody, IgE. And, IgE, it can sit on the surface of cells that themselves can trigger an allergic response when they release the chemicals inside the cells. So, if you can block that response, in some patients that can block the asthma attack. And so, a monoclonal antibody against IgE or against this receptor is one of the ways that you can treat asthma.

The other is to, or another, is to block the proteins that are called cytokines that help mediate the inflammation. And then, a more recent one that’s just come out is to use antibodies that block the attraction of some of the inflammatory cells to come into the lungs. So, in essence, there are now at least three new approaches. We still need more, for sure. Not everybody responds to these. And some of them are quite expensive. So, things are getting better. But we still have a ways to go.

Why don’t you walk me through the process that leads up to the American Asthma Foundation? Because, I know there were a couple of earlier steps. And, you had to get involved at some point in time.

Sure. Well, it began with the Sandlers having an interest in asthma. And they had, I think, two major reasons. One, Marion had had asthma for the better part of her life. And also, they were interested in the problems of inner city health. Certainly, asthma is a big problem there, particularly among African American children. So, they had decided to try to do something about this. And with their exceptional due diligence they had traveled around the United States and talked to all the experts in the field to find out what needed to be done.

And, they had come to the conclusion that asthma was sort of being left behind in the explosion of biologic research that was going on. It’s not that there was no
research going on. And there were some excellent researchers. But, compared to other fields, it really was, I would say, behind. And, they also saw that nothing new had happened, that these other drugs had not come out when we first started. So, for fifty years there really hadn’t been any new medicine. So, they decided that they would do something about this.

And they were talking in particular with people at UCSF about this, and in particular with a prominent immunologist here, Art Weiss. So, I at the time had taken on some administrative responsibilities as well as research. I was the chief of medicine at the Veterans Hospital here. But I was on sabbatical with Art. And I told Art, I really don’t want to go back to this job. I’m tired of it. I’d rather go back to the laboratory and work in that area. So, he said, well, the Sandlers are thinking of setting up this, or planning to set up this foundation where they would support asthma research. And maybe you could help direct that. And that would help pay my salary, because if I step down as chief of medicine, I’d have to think of some way to do that.

And I said, well, I don’t know anything about asthma. And he said that’s what they’re looking for. They wanted to bring in people from outside. And we could talk more about that, and should, because that was really a revolutionary idea of what to do about supporting science in a disease-related organization. But indeed they were looking for somebody outside the field who wouldn’t be obligated, I think, to the fraternity of people that were working on it. And so, I interviewed with them, went to their offices in Oakland. I have to say I didn’t think the interview was going very well. Marion asked me what was my style of administration. And I didn’t really have a good answer to that.

And then I brought along a budget which had an error in it which Marion immediately saw. So, I thought, well, maybe this is not going to work out. But, at the end of it they said, well, do you have any questions? And I said yes, “When will I know whether or not you want me to work in this job?” And I think they had some little secret code between them, because they sort of looked at each other and then said, “Well, we’ll start now.” So, that’s how I got involved with it.

Was Marion knitting while you were being interviewed?

No, at that time she wasn’t. You’re right, of course. At most of her meetings she knits. I think this helps focus her thinking may be one reason. But I also sort of always admired it. I don’t know if this was her intent, but she was one of the first women on Wall Street to take on that group of men. It must have been really daunting. And her approach, I think, was to just use her own abilities and not to try to be more man-like, abandon feminine ways or something. But I sort of felt, I don’t know if she felt this, that this was sort of a statement that “I’m Marion Sandler. I’m not something else. And let’s get on with business.”
Meeker: Do you recall what else in addition to your management style they were interested in learning about you?

Seaman: Well, I do think they wanted to know what I thought about this idea of bringing people from outside the field. And, frankly, like most people, I was skeptical of this. I felt like this is going to take a long time for somebody who’s not in the field to learn about it and to learn the models and to apply their research to it. But Marion was very convinced, and Herb, too, that people could do this if they were really great scientists. They’d figure out a way. They would either learn it themselves, a post-doc would learn it, or they would collaborate with somebody. And all three of those were, in fact, ways people used to get going.

But she was really completely right. I mean, we did try to help people in their research. We had core facilities that they could use to do some of the basic methods in asthma. And we offered advice to our scientific review board, et cetera. But I think if you chose the right people, they were bright and really interested in doing it rather than just having another source of money for their usual research, they were able to do the job. And that was actually part of the exciting thing, was to see this happen, to see science from one area brought into another, which really shouldn’t be so surprising. I think much of the progress in science comes from somebody looking more broadly at something that’s going on in another field they see applies to what they’re doing. And, that makes it go forward.

Meeker: At what point did you get a sense of the source of their interest in this particular issue?

Seaman: Of asthma?

Meeker: Yeah.

Seaman: Early on. I mean, they stated why they were interested in it and why they had a long-term commitment to it. And, so I think I didn’t have any doubt from the start that they had really thought this through, as their usual way, and knew what they wanted to do and were ready to do it.

Meeker: It sounds like you were a bit skeptical. And I imagine part of the skepticism would be like, “Well, if we did this, it’s not going to be cheap to really make enough grants of a size that will attract people into an area that would be risky for them.” How did you get to the point of deciding and figuring out what the scope of it would be?
Well, all of those things were issues. And, some of them remained an issue. These grants became very competitive so that we were funding at the rate of around an average of 4 percent or so. And we were worried that if we dropped much lower than that, that would dissuade people from applying because the odds were so much against it. But, to counter that, we did a number of things to make this more attractive and easier to apply. For one, you didn’t need any preliminary data which is unheard of in applying for a grant. But we figured if you’re bringing people from another field and asking them to come and now work on asthma, you can’t ask them to have done that beforehand, which was frankly the usual way things are in an NIH grant. You almost have to have completed the research to get funded to do it.

So, that was one thing. We were looking for good ideas and good people. And we did not require that they do work [beforehand]. Second, we made the application fairly simple and short, seven pages. And we did not want details of methodology. We assumed they would know how to do this. We wanted a bigger focus on the idea itself. And then, we offered some things. One, the grants were of reasonable size. We started with two types of awards, a senior and a junior. The senior awards were $250,000 a year for up to three years. So that was the equivalent of an NIH grant. So, it wasn’t small. So, that was an attraction. But we also didn’t beleaguer people. The idea was, go do this, and we’ll help you all we can. We’ll judge you periodically. But otherwise we’re relying on your creativity rather than, okay, we’re going to set benchmarks and you have to meet this and so on.

Extensive reporting, exactly, which is so common. At the time, and I think it’s still true to some degree, people in the business world who get involved in supporting disease-related research believe that the real problem is management, and that if you just set your goal and set the benchmarks that lead to that goal and manage it well, you could cure cancer in a few years. But the Sandlers knew better than that. They had seen that the problem in asthma was we didn’t understand the cause very well. And so, you really had to go back to basics and figure out, what are the molecular mechanisms that lead to this disease that would provide us with new targets for therapy? So, they didn’t delude themselves that we would rapidly be at the point where we’re going to produce a drug. And then they stuck with that understanding throughout the duration. So, back to our investigators, they were free to pursue what they wanted. If it turned direction, and if it was a big change, we would talk it over with them. But we almost always let them do it because it usually seemed like a good idea.

How many awardees would you have, typically?
Seaman: So, in a given year, it depended somewhat on the mix between senior and junior investigators and somewhat on the applications themselves. There were some years where we actually didn’t use all the money because there’s a certain level [of science] that the scientific review board wanted to maintain even though they were very competitive. But, usually we would fund something in the range of ten grants a year. I think the highest we ever did one year was fourteen.

Meeker: Given the unique character of this project in terms of individuals who didn’t have expertise in the area that you wanted to fund research in, what was the selection criteria? When you’re reviewing the applications, what are you looking for? What rises to the top?

Seaman: So, the criteria were: The idea itself. Is this really a good idea? The investigator. Are they someone who can do it? The relevance to asthma. Those were the three major things that we focused on, or the scientific review board focused on, in judging the grants. I think we found that there were some other things that we looked for. We looked for innovation, looked for high risk. In fact, we encouraged risk, as this would be a place where you’d take the thing that you always wanted to do but the NIH won’t fund it because it’s just too far out there. We would take a chance on those grants.

So, there were some other aspects of it. I think in the end we found that the person was perhaps the biggest predictor [of success]. If you choose someone who was really a strong scientist, who had a clear and good idea about things, then they would do it. If you had something that seemed like a good idea but weren’t perhaps the person you wanted, those ones were more likely to fail.

Meeker: Can you think of any examples, particularly on the high-risk side, of the more innovative ideas that were funded and kind of walk through what happened in terms?

Seaman: Yeah. Well, there’s one, for example. We don’t know yet where this is going to go. The drugs that are used in asthma, the so-called beta agonists that expand the airways, there’s another set of drugs called beta blockers that do the opposite. And these are used in treating hypertension and in heart failure because they also have effects outside the lung. But they are supposed to never be given to patients with asthma because it would have the reverse effect of what you want.

So, one of our investigators had the idea that really, while a substantial dose of this is obviously bad, that lower doses would be good. And, this was Richard Bond at University of Houston. And he gradually, with his AAF funding, showed in mice that this was true. And in fact, the ultimate thing came when they made a mouse that was unable to respond to beta blockers, had lacked the receptor. They
were very resistant to mice. So, in other words, if you could prevent that signaling pathway, you were protected from asthma.

They’ve gone into clinical trials, which are still under analysis. The first trial, which was more just to see what the dose should be, are there immediate bad effects and so on, so it wasn’t big enough for [testing] therapy. There weren’t dramatic responses to it. But perhaps the more important thing was nobody got worse. The idea had been, if you did that, you would trigger the asthma at great peril to the patients. When they first proposed this and discussed it with the pulmonary world, they were very upset that we’d been thinking about it. So, there was one that was not just risky. It was contraindicated. But it may yet prove to be a good idea. I don’t think we’ve established it yet.

01-00:34:34
Meeker: Is three years a typical timeframe for these kinds of research projects?

01-00:34:38
Seaman: It is. Beginning, early on, we offered “Extension Awards” that would take you for an additional year or even five years. It’s on a year-by-year basis. But these had very specific criteria. This was not just, “the work is going well, we want to continue it.” It was that you had found a new target for therapy. And you actually had found a potential therapy, let’s say a drug that blocks a pathway. And what you need now to do is do research that will add value to that to the extent that pharma will pick it up and carry it forward. So, that was one that could be more than three years. But we felt that if things looked good after three years, then people would have preliminary results in place to have a regular NIH grant.

01-00:35:38
Meeker: How many of those extensions did you guys give out over the period of time?

01-00:35:44
Seaman: I forget the exact number. There were, I think, two or three people that got for two years, and I think about fourteen, if I recall, including those three, that got an extension for it. I think that’s right.

01-00:35:59
Meeker: And have any of those gone into clinical trials at this point?

01-00:36:02
Seaman: Yes. Well, one of them was, in fact, this Richard Bond therapy that we just mentioned. Another one is just starting clinical trials. So, this is Eric Xu from the Van Andel Institute in Michigan. So, he’s a pharmaceutical chemist. And, one of the problems in using prednisone is it has a lot of side effects. They’re reduced by inhaling it. But it’s still somewhat of an issue. And, of course, there are other diseases where you have to take it orally. Arthritis is one, if you’re going to use it. So, his goal was to develop a steroid that had fewer side effects or was more potent with the same side effects. This has been something that the drug companies have tried for years. So, this was another really high-risk venture. But he had some pretty clear ideas about how he would do this chemically. And it
seems that he has succeeded, that he has a drug that’s at least tenfold more powerful without an increase in side effects. So, this is beginning clinical trials.

01-00:37:21
Meeker: How would you describe the drug? Is it a steroid, or what is it exactly?

01-00:37:26
Seaman: So, it is a steroid. He basically took prednisone, if you will, or a similar drug, and modified it. He felt he could separate, and had proved that he could, the pharmacologic activity from the side effect activity. And, I think there was a lot of skepticism about that. But the payoff was so large it seemed worth a try. And so, he got a year’s extension on that. And I’d be surprised if that isn’t picked up by pharma pretty soon, at least we hope so.

01-00:38:04
Meeker: Well, you know, when you first started giving these grants out, what was the response, maybe even just on the campus here? You know, it really does run against expertise. And, not surprisingly, expertise is prized at a place like this.

01-00:38:24
Seaman: Yeah, I think there was the pulmonary world. And I think some people were offended by this.

01-00:38:32
Meeker: Right, because they wouldn’t have been eligible.

01-00:38:36
Seaman: Well, we did have a provision that if you were a pulmonary researcher and you had a new idea that was high-risk, you could submit that. And we did fund a couple of those. But by and large they went to researchers outside the field. So, there was some skepticism and even disgruntlement about that. For people outside the field, I think they saw an opportunity and began thinking about how their work might apply to asthma. But, it was difficult to market because, you know, it’s hard enough to get a grant. And you know you [usually] have to have preliminary data. You know you have to have a track record in the field. It helps if you know the people in the field that might be reviewing your grant and so on.

So, if you get a flyer that says asthma, you throw [it away] unless you’re in the field. So, we had to have something that would draw people in from the start and to get them thinking about it. So, for the first five years or so, I think, that was a big challenge for us. But I think eventually we became so well known that it wasn’t as difficult. Perhaps in some of the more far-flung basic sciences it was still true. But, in general, I think we established a reputation that helped us there.

01-00:39:58
Meeker: What were you doing to get the word out? What was the messaging?

01-00:40:03
Seaman: Yeah, so actually we were helped here by Marion. Aside from co-running the bank with Herb, she was particularly interested in marketing. And, at first, she
was hands-off. We developed our own marketing and so on. But I think it must have been painful for her to see our amateurish attempts at this. So, she finally stepped in and helped us and got professional people involved in it. And so, this was really interesting for me to see how this is done, in fact, the sorts of people that are involved in creating copy, the different ideas that came out of that.

But, so what we tried to do is keep asthma not so prominent [in our marketing]. For example, the envelope might just say, on the outside, you know, “new opportunity for funding up to $750,000” or something like that, to get someone to at least look at it and to think that that might apply to them. And, in various ways, initially we’d send out a letter and brochure. Eventually, we moved to all emailing but in letter format. We would try to start very early on by saying, you know, you might think this doesn’t apply to you. But, you’re the very person we’re looking for, you know?

Start right off the bat by saying we’re looking for people outside the field of asthma. And then we would hit on the various things, the attractions, if you will, of the award. The money, for one, of course, the lack of need for preliminary data, the looking for high-risk types of things, freedom to pursue your best ideas. Those would be featured. And, as we designed the marketing materials with professionals doing it, those were also set up so that those were very clearly highlighted as you looked at the brochure.

And then, you know, we had such prominent people who were researchers that that became an important part of our advertising to say, you’ll be, you know, rubbing ideas with these people, and list them, because most people would know a substantial number of the people that we were funding.

Meeker: Did you host conferences and opportunities for these people to get together?

Seaman: Absolutely. We had a yearly meeting of our awardees that was also attended by people from UCSF because there’s a local program in asthma here as well. I’m going to break for just a moment.

[Break in audio]

Meeker: I was just asking you about the opportunities for the fellows to gather and share their ideas.

Seaman: Right. So, each year in San Francisco, we had a meeting of all of the awardees together with people who were working on asthma at UCSF. And, we paid for everything except the transportation. They were encouraged to bring someone from their lab, a post-doc. And, in fact, we thought maybe we’d have trouble convincing people to do that. But in fact we had the opposite problem. We had to
limit people who wanted to bring more people to the conference than we could squeeze into a building or a hall. And we wanted to keep it a reasonable size because we wanted to have a lot of time focusing on conversations between themselves and to maybe develop collaborations.

And that sort of thing is exactly what happened. People sitting in the audience would hear from somebody else, the research that they were doing, and see it connected to their own work. And so, a number of collaborations were set up this way. There’s an interesting thing there, actually. So, the meeting lasted for two days. And, on the middle of that we had a dinner. And, one of the purposes of that was to have people talk to each other and, again, share ideas, et cetera.

So, that is an example, I think, of how Herb and Marion would really focus in on something and get the most out of it. They’d say, well, if that’s your plan, have you designed the dinner so it works that way? And of course we hadn’t. We had everybody come sit at a table. And you would only talk to the people next to you. So, they said, no, you should have it so either you’re not sitting down at all—you know, have a buffet or you carry a small plate around—or that you change seats.

And so, that was exactly what we did. We had small plates. And at first we gave everybody a place to sit. But then when they went up to get more, they were expected to move somewhere else. And we told people not to be offended if the person they were talking to didn’t return. And we staffed it so that places were immediately reset to facilitate people moving around. And, that became a very popular part of the meeting, science speed dating. And I think it really did facilitate interactions between the investigators, and also a chance for them to talk to people that ran our core facilities here, discover there are ways that they could use the core facilities, and to talk with the faculty here. So, the meetings were really a pleasure and got very high marks by the people that attended them.

Meeker: Have you heard of any collaborations that were born at these meetings that continue?

Seaman: Yeah. There was one [example]. I’ll have to remember the details of this. Perhaps I can’t. But, the investigator was studying a potassium channel that is in a way a pore on a cell [that] would open up to let potassium come into a cell. And he thought this might somehow relate to asthma. And when he was here he learned that actually one of the core facilities we have that run by Esteban Burchard, has a large number of samples from patients that they could run, looking for mutations in this gene. And when they did they found, in fact, that patients with a certain heritage had mutations that were associated with asthma. So, that really validated the idea that this channel had something to do with asthma, which before they’d only been able to show in mice.
There were lots of ones that used the core facility that studied asthma in mice, because that’s a rather tricky thing to do. There was a woman, Xiaozhu Huang, who unfortunately just recently passed away. But she ran a great facility where she could measure asthma in mice. And so, people would send either their drug or their mouse that had a genetic change or something to use and use that as their testing.

And they just had a symposium honoring Xiaozhu. And one of our investigators asked to come to it because he had been helped so much by it, Sven-Eric Jordt. So, Sven was studying actually another type of opening of the cell. But this one lets in calcium. And, she did so much work for him that it really advanced his work to go ahead. So, he’s very actively pursuing that now, even though his grant ended a number of years ago.

Meeker: Was Xiaozhu here at UCSF?

Seaman: She was here, yeah.

Meeker: Did Herb and Marion attend any of these conferences? Did they sit in on any of the presentations?

Seaman: No. At the very start they sort of came a little bit at the end. But I think they found that it just really wasn’t a benefit to them because you had to have enough of a science background to understand it. In fact, one of the problems we had was, since people come from different fields, it’s very hard even for people in another scientific field to follow the talks by people [in other fields]. The immunologists were the worst because we have all these numbers and letters that designate certain proteins in cells. So, it is hard to follow it.

But, I think the Sandlers in general, they were hands-off with regard to the science. They trusted the scientific review board, their expertise, to tell them, “Are we funding good science and what’s happening with it?” And I think that was one of the reasons that the scientific review board really enjoyed working as part of the program is they too had that, a lot of freedom to pick what they thought was exciting.

Meeker: What kind of reporting were the Sandlers looking for?

Seaman: They were looking for long range. And they were committed to long range. Our initial reporting would be on the usual benchmarks of success in research. How many papers were published? How many grants did we get? How many people were brought into the field? How many stayed in the field? How many of our investigators kept working on asthma after their grant expired? And we did track
all of those things. And they were good. They supported the outcomes of the program.

But the Sandlers were always wanting us to think, you know, where are we going? And are we getting there? And that’s not to say that they wanted by a certain time to have a drug. Certainly, we would have all been thrilled. And I think probably some of the work that’s going on now will lead to new drugs. But that’s really where they wanted us to focus. And to do that, we had the scientific review board, of course.

But we also periodically brought in people from the outside, including people from industry as well as from academics to look at the program and evaluate it to see if the way we thought we were operating was the best way to do things. And are there things that we could do to accelerate the findings in basic science into clinical application?

As you may know, this is a big chasm. You come up with a new target that’s all very exciting. You show in mice that it works. Now, to get it into clinical testing is a really high-risk venture. It’s very expensive. The drug companies do not want to commit until they know it’s going to make money. And so, that’s where it’s tough to get things through. And we were always trying to think, how can we do this? This was one of the reasons for the Extension Award is to try to add value to a drug to carry it forward.

We offered advice to people, I guess you would say. The scientific review board eventually assigned someone from the scientific review board to every awardee to help them understand what they might do in terms of making sure your drug is patented, because if it isn’t, it’s not going to be very interesting to the drug companies. How do you go about moving forward to get it into use, et cetera? So, I would say that the Sandlers had the big picture in mind.

Did you get a sense of what their total commitment was going to be when you joined onto this project? I mean, did they communicate to you that they were in it for a certain period of time?

Yeah, they didn’t name a time. But they said, you know, we’re in it for the long haul, that we want to see this go forward. I think they had hoped that this would eventually become self-sustaining. And they personally put a lot of effort into that project. They set up a 501(c)(3). That’s when we became the American Asthma Foundation. Marion in particular personally brought people together, told them about the program. And, so they initially did raise a fair amount of money. And they had a couple of big gifts from Bill Bowes and from John and Cynthia Gunn.

But it never took off at a national level that it could become self-sustaining. And that’s too bad. I think the Sandlers did the best they could to try to get there. And I think in the end that was one of the reasons that it’s now being closed down, is
basically you couldn’t carry this on forever. We needed to have a larger establishment. There were some other reasons as well. But, so I guess I didn’t doubt their commitment even though we didn’t have a, you know, this is the year we’re going to fund until here, and then we’ll decide what we do after that. It was open-ended.

Meeker: Do you have a sense now of why it was that it didn’t take off in the entrepreneurial sense, that more and more sponsors didn’t jump on?

Seaman: Yeah, I know. It’s something that we thought about a lot. And, why hasn’t somebody else done this? In fact, most diseases have societies that are there to help them. And there are a few [for asthma]. But, they are mainly giving people clinical information, et cetera, or maybe sponsoring some local grants. But there’s not a big group that’s really handing out substantial money in research in asthma. In fact, when the Sandler operation was at maximum, they were handing out much more money than every other group combined, every other non-governmental group. So there really wasn’t a lot, and still is not a lot of support for asthma. So, why hasn’t this happened?

And, I’m not sure. I think first there’s the general belief that asthma is already under control. If people take their drugs, they’ll be okay, which isn’t true. But it’s true that we do pretty well in controlling it. But we still, as I said, have 5,000 deaths a year and a lot of morbidity from asthma. Second, it’s a particular problem in children, although adults have it as well. And perhaps they don’t have as big a voice. But I would think that their parents would. So, we’re a little surprised that there hasn’t been that. The real prevalence of asthma is found in inner city children. And they don’t have a strong voice or much money to give. And so, that may be another reason yet.

I guess I still believe that somehow this should be possible, even though we tried hard. And the scientific review board was involved in trying to find donors as well. But, I don’t have a good answer about why it’s proved so difficult.

Meeker: Historians always ask counterfactuals. And so, in the event additional funding was made available, is there anything that you think could be done to entice a broader support network for this kind of research?

Seaman: I think mainly educating people in the very things that we have that brought the Sandler, that [the] Sandlers understood through their research, that we need this basic science. I mean, let’s take cystic fibrosis. Cystic fibrosis has actually got a new drug that helps a small percent of people. So, they’re moving along. But in cystic fibrosis we know the cause. It’s a gene. It’s mutated. That’s it. We know what it does. So you know where to start. There, you’re very much . . .you
perhaps need less basic research and more research on clinical application, design of drugs in particular. And that’s where they’ve put their money.

And asthma, we really don’t understand the disease. And so, you have to back up. And people have to then see that this is necessary, to fund this basic research, to get the ultimate product of new therapies or prevention. Certainly, all of those things were conveyed. And, as I say, we did get donors, but not long enough or big enough. The Sandlers were willing to go forward and continue support if we could find substantial matching funds.

01-00:58:55
Meeker: Were you surprised in some instances? I imagine you would have applied or had conversations with people, that certain foundations or individuals said no?

01-00:59:10
Seaman: I wasn’t involved so much in the fundraising part itself. That was done more by the Sandler Foundation. We were involved in that we would give presentations to people. And, I think actually people did usually give, but once. So, it was just that it was not sustained. And, I still am surprised. What I’m surprised at is that we even have to think about this, that this hasn’t already happened. And I don’t know the answer to how to make this work. But I think somehow it would. Or it may take a lot of money to prime the pump enough to have it go long enough to succeed. But, I know the Sandlers put a lot of effort into it.

01-01:00:04
Meeker: Do you have any thoughts about, in summation, the contributions, the outcomes, that have resulted from the American Asthma Foundation?

01-01:00:18
Seaman: Yeah, so there’s sort of two categories of outcomes, if you will. One is the actual science itself, which I think has been very successful, even though we don’t yet have a drug that’s out there. As I said, I think we will have because there’s a lot of stuff in the pipeline that’s coming along as a result of the AAF support.

But the other thing is even harder to quantify. And that is, I think, among the basic scientists in the United States, asthma is now a much more part of the world they think about than it was before, because there were very few basic scientists who studied asthma before the American Asthma Foundation came along. And now, there’s quite a lot. And it’s happened at a time where it’s harder and harder to get research money. So, I don’t think it grew out of largesse from the NIH.

So, I actually [believe] that’s perhaps been our greatest long-term contribution, is that it’s now part of the scientific scene. When people who are top-notch scientists are working on something, they will be thinking about asthma as a possible target for their treatments.
Meeker: You know, as this project winds down, are there any other kinds of research within this field that you’re particularly excited about that you think are really promising that you’d like to highlight?

Seaman: I still first of all think that the most important thing is to stay at the basic level, that we haven’t gotten to the level where we need more research, say, on drug design, support of startups, et cetera, which is more part of the portfolio of some disease-related philanthropies. In terms of exact molecule, I would say, no, there’s a number of them that we have good evidence in mice. There are a couple that I’m hopeful about, I wanted to get [out]. One was a really early one.

David Clapham, who was then at Harvard and is now, I think, is the chief scientific officer at the Howard Hughes, he was studying channels in nerve cells that allow calcium to go into the cell, and which would trigger the nerve cell to send a message to the brain that something was happening. And among the nerves he was studying are nerves that are in the lungs. And they detect certain irritants. So, like chlorine, for example, or I can’t remember the other chemicals in particular that, when inhaled, will trigger these nerves. And they’ll trigger a cough to try to get it out of there, and a sense of pain, a sense of itching.

But they’d never been thought to be a part of asthma. But, so through Clapham’s early work, and then some subsequent work by another awardee, Sven-Eric Jordt, it became clear that these are important in asthma. If you take out this particular channel that lets calcium into the nerves in mice, they’re very resistant to asthma.

So, these same channels are used to deliver a message of pain to the brain if they get irritated. So, the major interest at the moment is to block pain if you could block these channels, and maybe to block some of the toxic war chemicals that are used, like chlorine, for example. But my hope is, and it is beginning, is that they’ll be carried over to test in asthma as well. I think these have a fairly good chance of working. And they presumably could be inhaled. So you could probably take them at reasonable dose. Right now the trials in pain are given systemically. But I think that’s one.

I’m hopeful that the steroid that’s more potent will have really widespread application in medicine. I think that’s a biggie. There are a couple others that are high-risk that I’m still hopeful for. There’s a drug that initially actually reached market for treating one of the complications of diabetes, that you have less sensation in your feet and hands. But that drug didn’t pan out, didn’t really work well. It stopped being marketed.

But one of the investigators has good evidence that it works in asthma. And he’s really just looking for funding to get it into clinical trials. And some of the clinical investigators want to do the trials. So, as a fact, if you have a drug that works well in animals, you’re still a long way from knowing it’s going to work in humans. So
I can’t say, “This all looks great, it’s going to happen.” But I certainly would like to see that one tested.

There was one other thing we tested. You spoke to Joe DeRisi. I don’t know if he mentioned this. We sponsored Joe’s initial plate to detect every known virus. And, from the asthma side of things, what that showed was that there’s a lot of viral-associated asthma. We knew that. But the viruses that cause it, there’s much more rhinovirus, the virus that causes colds, than had been believed. And, through this plate, in fact, a whole series of new rhinoviruses that probably weren’t new, [but] new to us, were discovered. So, there’s not a therapy that’s come out and gone forward but a big advance. I mean, Joe developing that was a major step forward in science.

01-01:06:36
Meeker: Those are the precision diagnostic kind of tools that he’s developed.

01-01:06:39
Seaman: Yeah.

01-01:06:40
Meeker: Yeah, he did mention the asthma work that was done around that, too. I think that we can probably wrap up. Do you have any final thoughts or anything maybe that we didn’t talk about that you think should be discussed?

01-01:06:59
Seaman: I guess I’d like to say just a little bit about working with the Sandlers but in particular with Marion because I really enjoyed it. I think they have a reputation as being formidable. And I didn’t find that. I found them to be extremely competent, exceptionally bright, and exceptionally focused. If you sent a report in to them, they read it word by word. And they really disliked fuzzy thinking. If you said this is a good idea, this is a good person, you had to explain what you meant, and why, and what was the rationale behind that.

But, at any rate, I got to work with Marion more closely when we started doing the marketing. And so, I learned that whole field from her, if you will. But I also really liked her very much. She was very direct but very clear. And I just enjoyed working with her. I think she was an exceptional person.

01-01:08:20
Meeker: Did you get to see her near the end of her life? Did you get to exchange with her about what you felt about the disease that really caused her so much pain?

01-01:08:34
Seaman: Not so much near the end of Marion’s life, but yes, a lot during the course of it. And, of course, she had strong feelings about asthma, but even more than that, she and Herb had this particular vision about what needed to be done about asthma. It’s remarkable that two people who aren’t scientists could pursue their idea of bringing in scientists from outside the field, even as most people told them it’s not
going to work. To have enough faith in your own abilities to analyze things that you just go ahead and do it, and stay with it, that was really impressive.

01-01:09:14
Meeker: In retrospect, do you think that that was a good idea on their part?

01-01:09:19
Seaman: I think it was a great idea. And I think that other disease-oriented foundations should use it. I don’t know if they have to turn their whole portfolio over to it. But, I do think they ought to stop just funding people in the field and fund people from other fields to come into it. I think it really worked well. It was really exciting to see the science that came out of it and is still coming out of it.

In fact, we’re now writing up the history of the thing. And there was a short paper about the originality of this, the idea, that we published in Science Translational Medicine in 2016. So, we have that as a little brochure to hand out, if you will. But we also have this in-depth thing of all the things we did and how we did them because we’d like other foundations to think about doing this as well. So far as I know, no one has. But, I think if they do they’ll find that it adds greatly to their program.

01-01:10:32
Meeker: Well, maybe that’s a good note to end on. Thank you very much. This was an excellent overview. I really think that it makes a good contribution to this project.

01-01:10:40
Seaman: Okay. Yeah, I didn’t expect to spend so much time on the AAF itself. I thought we’d talk more about the Sandlers. But, I think it’s fine.

01-01:10:51
Meeker: Well, I think the goal here is that this is the work that they devoted so many resources to. And, right, so I think that from my perspective that’s important. Are there other things about the Sandlers in particular that you would like to talk about?

01-01:11:10
Seaman: To go on for the record, if you will, I’d just say in my life, with my career as a scientist was declining, to be involved with this, it allowed me to do so much more, have contact with such excellent science and such excellent scientists. It was a real pleasure for me. And it was a real pleasure for me to work with them. I really realized that they’re like scientists. They want to know, what are the data? How do you interpret these data? What’s the importance of the data? And, that’s the same way it is in science. So, they would have been good scientists as well as bank managers.

01-01:12:01
Meeker: And philanthropists as well.

01-01:12:02
Seaman: And philanthropists as well, for sure, yeah.
Meeker: Well, great. Thank you again.

Seaman: Thank you.

Meeker: Thank you.

[End of Interview]