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Stephen Hauser

Stephen Hauser: Establishing the Sandler Neurosciences Center at UCSF

The Marion and Herbert Sandler Oral History Project

Interviews conducted by
Martin Meeker
in 2018

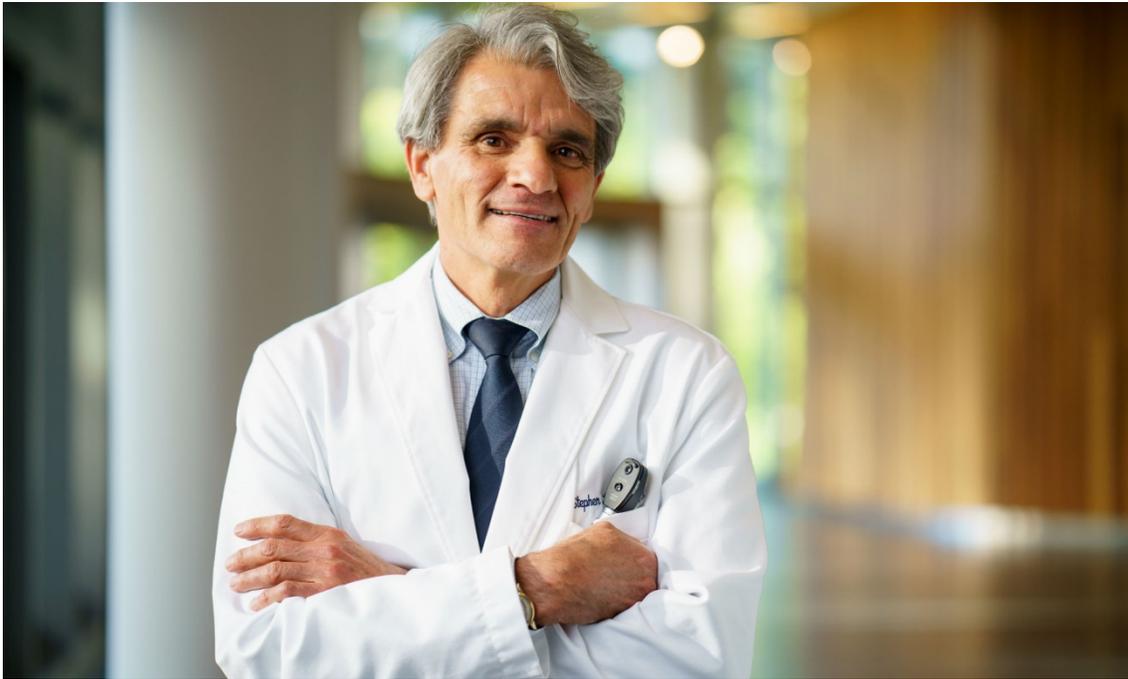
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Dr. Stephen Hauser in 2017

Photo courtesy of the UCSF Weill Institute for Neurosciences

Stephen L. Hauser, M.D. is a graduate of MIT and Harvard Medical School. He trained in internal medicine at the New York Hospital-Cornell Medical Center, in neurology at the Massachusetts General Hospital, and in immunology at Harvard Medical School and the Institute Pasteur in Paris, France, and was a faculty member at Harvard Medical School before moving to UCSF in 1992. A neuroimmunologist, Dr. Hauser's research has advanced our understanding of the genetic basis, immune mechanisms, and treatment of multiple sclerosis. Dr. Hauser is a fellow of the American Academy of Arts and Sciences and the American Academy of Physicians, a member of the Institute of Medicine of the National Academy of Sciences. He has served as President of the American Neurological Association and President of the Medical Staff at UCSF. In 2016, Dr. Hauser was appointed as Director of the new UCSF Weill Institute for Neurosciences. In this interview, Dr. Hauser discusses the following topics: education in science and medicine; neurosciences at UCSF; engaging with Herb and Marion Sandler; the support of scientific research by the Slanders, culminating in the building of the Sandler Neurosciences Center at UCSF in 2012.

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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 Sandler's 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 Sandler's. 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 Sandler's 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 Sandler's 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 Sandler's 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.”

Steve Daetz, “Steve Daetz: Values and Leadership at Golden West Financial and the Sandler Foundation.”

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

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

Russell Kettell, “Russ Kettell: A Career with Golden West Financial.”

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.”

Kenneth Roth, “Kenneth Roth: Human Rights Watch and Achieving Global Impact.”

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.”

William Seaman, “Bill Seaman: The American Asthma Foundation.”

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

Richard Tofel, “Richard Tofel: The Creation and Expansion of ProPublica.”

Keith Yamamoto, “Keith Yamamoto: The Sandler Foundation and the Program in Breakthrough Biomedical Research at UCSF.”

Interview 1: July 30, 2018

01-00:00:00

Meeker: This is Martin Meeker interviewing Dr. Stephen Hauser for the Sandler Foundation Oral History Project. Today is Monday, July 30, 2018, and we are here at the Sandler Neurosciences Center at UCSF, and this is our first and one session together. We begin interviews with everyone the same, and that is tell me your name, and date and place of birth.

01-00:00:43

Hauser: My name is Steve Hauser, born December 14, 1949 in New York City.

01-00:00:50

Meeker: Okay. You attended MIT as an undergrad?

01-00:00:52

Hauser: I did.

01-00:00:53

Meeker: What attracted you to MIT, and what did you study there?

01-00:00:57

Hauser: I came from a hybrid family. My mom was a southerner; my dad was a northerner. They met in New Orleans. We were not an academic family. We were quite poor. My formative years were during the years following World War II, and the South—that was very different than the South is today. We moved north midway through my childhood. I was not a great student. I liked sports. I liked media. I enjoyed science fiction more than science. Although I wasn't a diligent student, I could do the stuff, and MIT took a flier on me when they probably shouldn't have. I've been blessed with great good luck at a number of times during my life, and that was certainly one of those times. So I made it to MIT despite myself, and MIT was absolutely transformative for me.

I was a young kid, much more naïve than many of the others in my class. Socially naïve, academically naïve, geographically naïve, and MIT opened a whole new world. And when I think back about what made MIT so special, it was that the most prominent and most accomplished teachers were engaged in instruction with the youngest students. I remember my first year there were four Nobelists, or soon-to-be Nobelists, teaching the five classes, so it was an amazing place. As is often the case, I had a mentor at an earlier time, a very special teacher in high school who believed in me when I was perhaps not worthy of being believed in. So MIT was a giant sea change for me.

01-00:04:00

Meeker: What do you think it was about your profile that made you attractive to them, and why did you get admitted do you think?

01-00:04:08

Hauser: I think that it was two things. I was a good test-taker, so my test-taking belied my academic record. And second, there were a couple of science teachers who said,

“You should bet on this kid.” And in fact, one of the things that I think is very special about the United States and our educational policy—my wife, who’s a pediatric oncologist, and I, after our training, went to France and spent much of the mid-eighties there doing postdoctoral fellowships. Two of our three boys were born in France, and I remember my wife thinking well, gee—maybe we should settle here. We both had terrific job offers. But the French educational system was the reason that we came back to the United States. In France, at the time—and I think still, to some extent, today—kids are tracked at an early age. At age thirteen a decision is made if you are of the right raw material for one of the *grandes écoles*, one of the great schools. And if it is decided, at age thirteen, that you’re not, then you have a fairly pedestrian academic path ahead of you. Whereas, in the United States, there is more opportunity for late bloomers. And in fact, many of our most creative people have been late bloomers, I think. So that was the reason why we decided to build our careers in the United States rather than in France.

01-00:05:47
Meeker:

What did you focus on at MIT?

01-00:05:50
Hauser:

I was a chemistry major. This was a wild time. It was the late sixties. As students, we were mobilized against the war. There was a clash between the traditional fraternity structure, sports and parties, and the activism of the war movement. I came from a military family. My dad served in the army for twenty-five years, and numerous people in my family were also army servicemen—my dad was a paratrooper and a karate instructor—and he saw me as a communist, I remember, in those days. [laughter] Although his love never waned, he was very disappointed in my political leanings, not to mention my long hair. And what I saw at MIT was that here was an institution that in many respects was a driver and an enabler of the war, particularly through the [Charles Stark] Draper Laboratories, where many of the technologies that were used in the advanced guidance systems were being developed. But at the same time, it was a community of open debate. And Doc Draper became a friend and a mentor to me during those years. So here was this very conservative person who had this national defense lab named in his honor who was also someone who could reach out and connect with the undergraduate students who were hiding draft dodgers in the student center. MIT was an amazing atmosphere of intellectual debate and openness, but also extremely high standards. [Shannon enters room bringing paperwork] [brief interruption]

01-00:08:35
Meeker:

Tell me about—?

01-00:08:37
Hauser:

Let me say a couple more things about that environment.

01-00:08:38
Meeker:

Please do.

01-00:08:40

Hauser:

Medicine seemed a superb career path. I remember professors trying to discourage me, and at MIT not many people chose medicine rather than science or economics as a career path. But the arguments for medicine were in part subliminal, based on my experience, and frankly, in part on the need for a deferment during the war. A Nobelist took me under his wing. I didn't realize how special that was, how lucky I was. Har Gobind Khorana, one of the founders of modern molecular biology, took me on for a year, in his laboratory, under his arm! Knew me, spoke to me, befriended me. I wish I could go back and thank Khorana and many of the others who were remarkably open to young people. Of all of my experiences during the formative years, I think that it was the MIT experience that was most important. The culture at Harvard, where I subsequently went, wasn't quite the same. At MIT there was a commitment to young people that was really inspirational and stands the test of time.

01-00:10:43

Meeker:

Does that explain your move more into teaching and working in an educational institution rather than, for instance, practicing clinical medicine?

01-00:10:55

Hauser:

Yes, when I made the decision to become a physician, my goal was to become a GP in rural Maine. I wanted to get as far away from the Louisiana cockroaches as I could find. And I had this dreamy view of a Currier and Ives New England village where I would be the general practitioner. MIT ruined that. MIT connected medicine and science and an aspiration that comes with it, that one has the possibility not only of helping ten or twenty people a day—but maybe many, many more.

01-00:11:50

Meeker:

So I know that we have limited time today, so maybe we should leapfrog up to 1992 and your arrival here at UCSF. What brought you to UCSF in 1992?

01-00:12:02

Hauser:

It was serendipity. My mentor at Harvard had become dean of the medical school here. There was a search for a neurology chair to replace Bob [Robert A.] Fishman, who had served for twenty-six years. It was not going well. I was five years out of training. It was the wrong time, but the right job. My wife is a San Franciscan, a Bay Area girl. She likes San Francisco; I like Boston. We both love Paris; that's why we had gone to Paris together, but this opportunity arose. I thought that it would interfere with my goal to accomplish something significant in science and medicine, but the culture at UCSF, which very much resembled the culture at MIT, convinced me that I perhaps could continue to make a difference with my own work—but then also would have the opportunity to make an impact through helping other people in a larger way than I could otherwise. So it was a position that I had initially rejected and then was easily talked back into.

01-00:13:37

Meeker:

What sort of evidence was presented to you that helped change your mind about what was possible here at UCSF?

01-00:13:45

Hauser: The academic leaders were making important contributions themselves. They were walking the walk. They were not CEOs of departments. They were scientists and physician-scientists who were teaching, seeing patients, and also exploring the vistas of their areas of interest.

01-00:14:23

Meeker: Your field was neuroimmunology?

01-00:14:27

Hauser: Yes.

01-00:14:28

Meeker: Can you tell me what that means exactly? How would you define that for a broad audience?

01-00:14:34

Hauser: Our immune system is our body's mechanism of defense against invaders. It's biologically perhaps the most fascinating part of our genetic armamentarium. The fact that through 20,000 genes we are able to make 100 million, or so, different receptor proteins that can identify invading organisms, that can see cancers that are forming, but that don't also attack our own tissues that have very similar structures and proteins. It is most remarkable. An understanding of this complex checks-and-balances system, that would revolutionize science, was just coming to the fore in the 1960s.

There are conscious, but even more subconscious, reasons behind the choice of fields. There is serendipity, but there are also other less apparent drivers—and for me I think there were two. The first was that I had a younger brother who was mentally retarded, and from an early age I wanted to understand the reason for this, and that brought me into neurology and neuroscience. And second, I had serious asthma as a child—horrible seasonal asthma in New Orleans, and there was very little that could be done at the time. And from my earliest days at MIT and Harvard, I found myself attracted to courses of immunology. I especially remember one of my early classes at Harvard. The professor taught us the rules of the immune system while spraying epinephrine inhaler for his asthma. I think very often issues that affect us personally become areas of interest. So maybe that was the reason, the combination of a drive to understand neuroscience and immunology.

I'd also say that so many of the rules that taught us about how the immune system works were being developed at MIT while I was an undergraduate, and then when I came to Harvard, the much larger and well-developed immunology group there had a different idea about how the immune system taught itself to recognize invaders and not kill our own tissues—and they were entirely wrong. But watching this debate take place and witnessing that the stronger voice may not always be correct one. This was also an important lesson for me.

But immunology was at the fore of what many people found exciting at the time, and I think just as young physicians who were academically motivated in the 1950s were attracted to endocrinology—endocrinology was a magnet for highly motivated young people in the 1950s—immunology and the neurosciences had captured this position when I was coming of age.

01-00:18:21

Meeker:

When you arrived at UCSF, what did you think was particularly going well here, particularly in the neurosciences program?

01-00:18:32

Hauser:

The word on the street was that we were fabulous scientists, but didn't have any patients. Also, we didn't care enough about patients. And I wanted to change that. And more important—I wanted to connect the science with the medicine. A hard-boiled view of our fabulous science would have said that it was also extremely important, but basic. I don't think that the scientific discoveries or the trajectories of several of the programs were headed in medically important areas. And sometimes, even, there was an overreliance on a desire to do creative science over the equally important linear science that gets us to an answer. So I thought translational science was underdeveloped. From my own work I had already seen that an overreliance on pre-clinical animal models that don't really recapitulate the pattern of tissue damage that happens in real human disease was another problem with our research in the neurosciences, and that also needed to be strengthened through connecting medicine and science more closely. And I had also seen that our most elite institutions, where so much of the octane existed in the areas that I cared about, were separating medicine and science further and further apart, so that great people were taking care of patients, great people were performing the basic science—but there was a hole in between. So my initial plan, and my continuing focus, has been to help connect the worlds of science and medicine for translational purposes.

01-00:21:07

Meeker:

How then did you go about doing that once you arrived here? What were the steps that you took to realize this vision?

01-00:21:15

Hauser:

I had a bully pulpit that I didn't have before. That was extremely helpful. And this school welcomed the message, and that would not have happened at most places. And throughout my career I've seen incredible examples of generosity that have enabled things to happen in the neurosciences. One example was we had many fantastic young residents training in neurology. The vast majority of them are academic and want to be physician-scientists. More than half of them would finish PhD programs before coming into our residency. The residency requires four to five years of intensive clinical work. The first year is the internship in the department of medicine, and the next three years are in neurology, and that's often followed by another year of subspecialization; for pediatric neurologists the training is typically one year longer. By the end of these five years our MD/PhDs are in their mid-thirties. They have spouses, they have kids who want backyards,

and it may not be possible for them to re-embark on a research career after leaving the lab to pursue clinical training. Their science has become little bit stale. What they learned during their PhD is now five years old. Science has moved on, their lives have moved on—and the projects that they worked on before starting their residency often wasn't shaped by their clinical interests. So I wondered, could we reengineer the residency program?

To do that we would have to extract the internship from the Department of Medicine and move it into Neurology. Shorten the internship, make the whole residency experience more efficient, and embed science in the clinical residency. To do this, the chair of the Department of Medicine would have to agree to lose some of the most important workers in the department. That never would have happened in a normal institution, but at UCSF [snapping fingers] that happened immediately, because we were all moving in the same direction with the same priorities. And time and again I've seen examples of generosity by people at UCSF that really, I think, make possible many of the things that we've done, and that also creates and perpetuates a culture where one feels obligated to have that same ethic.

01-00:24:21

Meeker:

There's generosity inside the institution. There's also generosity that comes to the institution from the outside, and the main reason that I'm here speaking with you today is that this is part of the Sandler Foundation Oral History Project, where I've been interviewing people that have worked alongside that organization for a number of years. Can you tell me when you first learned of the Sandlers and the work that they were doing here on campus?

01-00:24:49

Hauser:

Well, their generosity was known to me from the early days. I believe I first met Herb and Marion through [Lloyd] Holly Smith, who introduced us and thought that they would be interested in what was happening in neurology. Their first interest was in migraine, and this was because of an interest in the family. I recall at one of our early meetings being stunned—almost falling out of my seat. They were more sophisticated about migraine than perhaps I was. They had dug deep. They had a vision for what they would like to see accomplished in migraine that I shared.

01-00:25:52

Meeker:

What was this vision?

01-00:25:53

Hauser:

The vision was to make real progress, and to do that through the very best science. And I haven't gone back through my notes, but I believe that they mentioned that they would be interested in supporting a migraine program potentially. And I pulled a proposal together that Herb just ripped apart. [laughter] And he taught me to write a business plan.

01-00:26:32

Meeker:

What was the nature of his critique of the proposal? What was wrong with it according to Herb Sandler?

01-00:26:36

Hauser:

It was vague. He didn't understand the deliverables; he didn't understand the timeline. And he wasn't confident it would have the impact that I had flippantly told him it would—and he was probably right. High, high standards, logic, and impact are hallmarks of everything that they've done, and certainly, Sandler 101 for me was learning how to prepare a businesslike scientific plan. Herb also taught me much about managing a program. I believe that I went back and tried to fix the proposal, and Herb said it was better, but he wasn't sure it was impactful enough to be funded. This was 1998, I believe, and my focus was now on human genetics.

One of the keys to science is that progress is made mostly with new technologies, and mostly by jumping specialties to move from one area to another. Novelty, but *guided* novelty. And in the mid-1990s, the human genetics revolution was gaining steam again after a twenty-five-year period of incremental progress. I had anticipated that this would happen because of my training, especially at MIT but during postdoctoral years as well, and for about a decade had been collecting samples of DNA from thousands of people with inflammations of the nervous system and had been thinking about using modern genetics to understand difficult diseases and especially common diseases. I was not a geneticist, but understood the terrain.

In the mid- to late-1990s, as you probably remember, there were enormous initiatives underway. I had been part of a mid-1990s initiative to map diseases with size markers, markers that could distinguish the size of various pieces of DNA. A new technology was on the horizon that now let us look at individual building blocks and different flavors of those building blocks, so we were transitioning from a restriction fragment length polymorphism approach, an RFLP approach, to single nucleotide polymorphisms—to a SNP approach. And a SNP approach now let us advance from the study of two hundred markers across the genome to a quarter of a million and then, rapidly, a million markers.

There were two big competing groups—this was vintage America: a government group and a private group, Francis Collins's group and [J.] Craig Venter's group, jockeying and pushing 24/7 to develop the first human SNP genetic maps. And finally, there was a brokered shotgun marriage, and in 1999 their result, the first complete map of human DNA, was jointly announced by President Clinton and the prime minister of the UK [Tony Blair].

It was the mid-1990s, and Herb came to me and said, "I don't think that you were that excited by the migraine proposal—I didn't get the feeling that it was in your soul. It was in your heart." And I said, "Herb, you were right. I did what you asked me to do." And he said, "Go back and tell me what we could do that would

be explosive, that would have a huge impact.” So I went back to him with a proposal to build neurogenetics at UCSF, and he thought that the proposal had weaknesses, but the concept was good. [laughter] And that launched, I think, a program that has had *profound* impact for science globally, certainly for neurology and for UCSF.

01-00:32:30

Meeker:

What was the state of neurogenetics at this point, when you made this suggestion—at UCSF?

01-00:32:37

Hauser:

There were a few success stories and great anticipation that important diseases could now be approached more efficiently.

01-00:32:57

Meeker:

Sort of organizationally were there offices supporting this kind of work? Was there a cohort of faculty and other researchers doing this kind of work already, or did that need to really be built out as well?

01-00:33:10

Hauser:

At the time there were faculty with interests in neurogenetics. We were behind many other places, but there wasn't a large community yet at UCSF. The Sandler neurogenetics effort permitted us to help create a community, to bring in new faculty, to support new faculty in neurogenetics so that they could thrive, and also had the enormous advantage of letting us bring what we now saw as a real opportunity, migraine genetics, to UCSF. And in addition, the support for neurogenetics also strengthened our programs for inflammatory conditions such as multiple sclerosis, degenerative diseases like Alzheimer's and Parkinson's disease, pediatric diseases, behavioral problems like autism, and others. And, this gift also helped propel UCSF to become a world leader in understanding migraine.

Thanks to that initial gift, we brought an incredibly dynamic couple to UCSF: Louis Ptacek and Ying-Hui Fu, husband and wife team, who had led the world in understanding the genetics of migraine, but also in understanding problems that sometimes travel with migraine: muscle disease, behavior disease, nerve and muscle problems, and sleep disorders. And Ying-Hui, in addition, had been a leader in understanding how genetics leads to Alzheimer's disease—as well as how genetics can lead to accelerated aging. So these recruitments represented a giant step forward for the neurogenetics community at UCSF. Ying-Hui and Louis are both now members of the National Academy of Sciences. Louis was a Howard Hughes investigator, and I think Herb and Marion were particularly excited about these recruitments because we recruited them six months before other people realized that they were great. [Meeker laughs] That's part of what we try to do at UCSF. As Billy Beane said, “We don't pay for past performance.” We like to find people with great promise and help them thrive and make their major accomplishments here.

01-00:36:38

Meeker: So I understand that the Sandler's made gifts in advance of this particular building that has their name on it?

01-00:36:44

Hauser: Yes.

01-00:36:47

Meeker: I've seen a figure of about \$5 million during this earlier period of time. So this, as you described, helped support research to bring in young promising scholars, and according to your telling of it really places UCSF at the top of the heap in a lot of these different fields. Herb, in his interview, does talk quite a bit about Marion and the health troubles, including the migraines as well as the asthma.

01-00:37:20

Hauser: He does.

01-00:37:25

Meeker: But you know, I think that one of the things, and I just—maybe I have a comment and maybe you can respond to it, and that is that you know, while they certainly invested in exploring the causes of migraines and asthma, they seemed to really recognize that this wasn't necessarily something that Marion was going to benefit from, that these are—that there's a lot of research that needs to be done prior to any real improvements in the condition of people. Is that an impression that you got as well? Did you feel like you ever had to let them know that their investment might produce results, but there's no guarantee of anything in the short run, for instance?

01-00:38:18

Hauser: Yeah, Herb and Marion aren't passive philanthropists.

01-00:38:21

Meeker: Right.

01-00:38:23

Hauser: They are *very* actively involved. For both of them, the degree of due diligence was quite a lesson for me, particularly during my early career, and something that has benefited me enormously. I've learned so much from them. During those early days with the genetics program, they brought in a group of external advisors—very tough people who analyzed every program that we were supporting through their gift and gave very helpful guidance and tough criticism when we weren't reaching the bar. Herb and Marion are very sophisticated. They may not have understood the details of the science, but their acumen for the quality of the person was right on—and *is* right on. And if you see who they have supported at UCSF, they have decided right far more than wrong. I think Herb knows who the fifty best scientists in the United States are, even if he can't tell us exactly the nature of their contribution. So there's an unbelievable sophistication behind their philanthropy, and there was never a question about whether this would help Marion or anyone else in the near future. They understood that the best science can't usually predict the outcomes. They know that we don't know

where we will be a couple of years from now. And they understand that investing in people who are creative and driven and have a green thumb is the best way to get to the finish line.

Almost every time I'd propose an incremental project that could have shorter-term benefit, they always veered to the more fundamental question. There are not many people like that. We sometimes say that the Sandlers are unique in their support of basic science, that in health care institutions most donors want to support disease-based research that is tied closely to their personal sphere of interest. But I think the Sandlers' motivation is even deeper than a wish to support basic science—it's support for *the* most innovative, the deepest exploration of human biology and the biology of that will lead to insights that they are confident, down the road, will serve their humanitarian purpose.

01-00:42:22

Meeker:

Which is interesting, because I think the next question I was going to ask had to do with linking their philanthropy in the sciences with the social philanthropy they do.

01-00:42:32

Hauser:

Yes.

01-00:42:34

Meeker:

And it sounds like you kind of just answered that, where you see there, in fact, is a strong linkage there.

01-00:42:39

Hauser:

Yes. I'd also say that Herb has had standards for our institution that at times have been even higher than our standards for ourselves. And at so many times, along the path of the last twenty-five years, he has spoken to me about doing really big things, some of which, may have been seen as overly ambitious, but in retrospect I wish we had taken a flier on his suggestions. When we didn't, we lost opportunities.

01-00:43:47

Meeker:

Could you give an example of one of these more grandiose ideas that weren't pursued?

01-00:43:54

Hauser:

During the horrible economic downturn of 2008 and 2009, property on the east side of San Francisco tanked in terms of their value. Herb had a plan, that he discussed with other potential benefactors, for UCSF to purchase three hundred acres adjacent to Mission Bay and move the entire campus here, creating an unequalled campus for the future. And we didn't do that. That was a tremendous missed opportunity. He believed that we—

01-00:44:54

Meeker:

Interesting, so actually move the Parnassus campus over—?

01-00:44:56

Hauser: Move Parnassus, move San Francisco General, move the entire VA system here, find ways to open our doors to biotechnology, to Silicon Valley, and create a unique university. And he was going to help lead the effort to make that happen.

01-00:45:23

Meeker: Well, something that did happen is where we currently are, which is the Sandler neurosciences building, opened in May 2012. Does that sound right to you?

01-00:45:33

Hauser: Yes.

01-00:45:36

Meeker: And it involved a major gift from the Sandlers. There was a need for matching funds as well. Can you tell me about the idea behind this building? Because it's not just a building, it's a container of a certain way of doing science.

01-00:45:49

Hauser: Right. I mentioned earlier that my ethos has always been to bring medicine and science together, and to support individuals who on a day-to-day basis are walking between the laboratory and the clinic, people who are true physicians but also deeply interested in science. Mission Bay represented a fantastic opportunity for growth, particularly after the Presidio, which was our earlier hope for growth, became unavailable to us. But the initial plan for Mission Bay was to be a home for the basic sciences. This created a huge challenge. It was the opposite of a vision to integrate and co-locate medicine with science, and yet it was also what other great institutions were doing as well. So for physician-scientists, this was a disappointing and problematic situation.

In neurology, where we had focused on building the science of our field, our most talented, most attractive, most magnetic young faculty, who are superb role models for our trainees at Parnassus, and needed to interact with them on a daily basis, were faced with a decision that they had to make—do they move to Mission Bay, which is a half hour away, during traffic—and an hour away during Giants games? Or do they stay with the mother ship, but then they're cut off from their basic science colleagues? So it forced physician-scientists to choose between being a physician and being a scientist. And we had always believed that what's called the triple threat—the clinical-scientist-educator—was still a very viable model. It didn't matter that *Time* magazine said that triple threats are dead. We believed, and we knew, that this worked. One couldn't be as broad as in the past—there was just too much to know, but in narrower areas of specialty, one could be a great scientist, a superb clinician, a terrific teacher, and a true role model. So for those of us who weren't moving to the glittery new campus on the hill, to Mission Bay, but were interested in science, this created a problem at UCSF, and Herb understood that.

There was a personal element of this for me also. I was thinking of moving elsewhere for an administrative position in New York City. And more importantly

Holly and Herb wondered what could be done to solve that larger problem, which was the disconnection between physicians and scientists. And with our vice chancellor, Bruce [W.] Spaulding, who is a fantastic, under recognized transformational figure at UCSF, Herb, Stan [Stanley B.] Prusiner, Bruce Spaulding and I met on a number of occasions. I remember one very important meeting when Stan and I met with Herb right before Christmas in his offices in Oakland at Golden West. And Herb said, “What would it take for you to stay here?” And I said, “That vision, which is being threatened, needs to be fixed.” I didn’t say that. [I said something like,] “This vision which is being threatened is dispiriting.” And he said, “What if we could create a model in the neurosciences that *brings* medicine and science together? Would that work?” And I said, “Herb, I think that that would change the world!” And he made it happen—and concocted a *way* to make it happen that was just stunning.

And I must say, I lost sleep many nights worried about everyone who would be angry at us for doing this. Fundamentally, a support group was built to serve as a vehicle for conveyance of land from the Regents, land that belonged to UCSF, for the purpose of building a commercial building very efficiently, at an extremely low cost, that could be a home for integrating medicine and science in the neurosciences. And Herb did it. He said, “I’m going to make a gift that will make this happen, if you stay.” It was simple—“Of course!”

01-00:52:06

Meeker:

You had mentioned opposition to this idea. What was the nature of that opposition? What were people opposed to?

01-00:52:14

Hauser:

So, I think that there were two components to it. The first was a concept for Mission Bay at the time that didn’t include medicine in a big way, and this was disruptive to that. And the second, which is a much more reasonable argument, was that major decisions of this type should not be made in a closed room. They should be made as part of a strategic plan for the campus, and that this plan was benefiting one part of the campus, perhaps, at the expense of others. The neurosciences and neurology was already robust—we were doing very well, and the plan was making the strong stronger instead of, perhaps, making the campus more uniformly strong. So there were numerous reasons for concern. And also, the whole maverick nature of the way that this was being done was problematic for some.

01-00:53:43

Meeker:

Was the center created then apart from USCF?

01-00:53:45

Hauser:

No.

01-00:53:46

Meeker:

Okay.

01-00:53:47

Hauser:

This was part of UCSF and led by our vice chancellor for planning, but it didn't follow the usual academic planning process. It was certainly not the way that Genentech Hall was developed. But there were a number of projects ongoing at that time that were also opportunistic in that way. I think the new home for the CVRI, the Cardiovascular Research Institute, had a similar model, with Shaun [R.] Coughlin, as the driver of that enterprise, and also the fact that Shaun might have left had it not happened. So it was opportunistic at the time. I think that, looking back from a 2018 vantage point, we would now see the Sandler Center and the CVRI as beachheads for integrating medicine and science at Mission Bay.

01-00:55:00

Meeker:

Can you talk a little bit more about that, then, your vision for what would actually take place in this building?

01-00:55:07

Hauser:

The goal was to advance brain science by bringing our very best scientists and clinicians together with patients, and proving that by doing this things would happen. Advances would take place that would benefit patients and that otherwise would not have happened. The vision was for the entrance of this magnificent building to be a place for medical science, where patients and physicians and scientists interact deeply on a daily basis. So the first floor—as everyone walks in, they see a clinical center. And the expectation was that with the most creative clinical scientists having coffee in the morning with our basic scientists, that a momentum would be established that otherwise wouldn't be possible.

One of our early successes, I think, drove home this point. My personal area of interest is multiple sclerosis. And my work has always been on understanding the cause of multiple sclerosis, and using that understanding to develop effective and safe therapies. But multiple sclerosis is a disease where the immune system attacks, primarily, the fatty coating of nerve projections, the myelin surrounding axons. We have 110 billion nerve cells in our body. Each one connects with about 50,000 others. Some travel six feet to connect cell one to cell two, and that connection is made possible and is made efficient by electrical signaling that's insulated by myelin. Without the insulation, our brain would have to be ten times larger to do what it now does. In multiple sclerosis, that insulation is attacked. The impulses short-circuit and the nerves die. So my focus was on the attack, but an equally important area of research is how can we repair the damaged insulation? And a spectacular cell biologist, Jonah Chan, began to see patients hobbling into the center and thought—I need to develop medicines that repair faulty insulation. Jonah came to UCSF only because the blueprint for the building was there.

01-00:58:37

Meeker:

That included a clinical office?

01-00:58:41

Hauser:

That included a clinical office. He bought into the vision. Lou [Louis F.] Reichardt, who was head of the neuroscience program at the time, as we were plotting together how to build a repair program, he said, “There’s this guy Jonah Chan, who I think is a guy we should go after, and you’ll love him, because not only is he a great scientist and a great guy, but he has a sweet jump shot.” So we were basketball players together, in addition. [laughing] Jonah came, and said, “I never realized that this was so important a problem.” And “But I don’t know how to develop an assay to look at myelin repair, to look at wiring repair, in a way that could let us screen drugs.” And by serendipity, one day in the laboratory the nerve cells in his assay were killed and myelin-producing cells were added to the cultures. Every textbook, for the last fifty years, said that living nerve cells provide a signal to myelin-producing cells instructing them to myelinate, to wrap the fatty insulation around the nerve cell. So a dead nerve cell can’t instruct a myelin cell to wrap. But Jonah killed the nerve cells and found that they wrapped *anyway*. This changed the field of myelin biology dramatically, and subsequently Jonah found that it was only the size of the nerve and the angle of the curvature that determined whether the myelin-producing cell, the oligodendrocyte, would wrap the nerve cell or not. It didn’t matter if the nerve cell was dead, sick or healthy. Well, this changed the world for the development of assays to screen for myelin producing drugs. Jonah went down to Silicon Valley and made tiny chips that had plastic wires the size of nerve cells—I think I have one here—here’s the chip! This was the first chip that he made.

01-01:01:17

And this made it possible to test the effect of drugs on wrapping of plastic wires. You didn’t need living nerve cells, or dead ones, a plastic wire would do quite nicely. Within a year, a safe drug was identified on the second floor of the Sandler Center, and nine months later the drug was first tested in a patient on the first floor of the same building, with FDA approval of course. And the trial was positive – it really worked in real people, not only in mice! – and this has changed the landscape of wiring repair therapies in the neurosciences. This never would have happened had the clinicians and the basic sciences been apart. It certainly wouldn’t have happened on this time frame. So there are several examples of proof of principle that even in those six years of the life of the Sandler Center really have validated the *modus operandi* behind the project. Another principle that the Sandlers said was that they want the building to be too big, larger than we need today—also, not a UCSF habit.

01-01:02:48

Meeker:

[laughing] Right.

01-01:02:51

Hauser:

Herb said that we want you to have extra room for the future, and we were able to build more than was needed. But success breeds success, and within two years the Center resembled the stateroom scene in that old Marx Brothers movie. Everything was over-occupied - we didn’t have a closet to move someone into! And the new building on the quadrangle, the new Weill Institute building, can be

seen in many ways as the second Sandler building, because the principles that were established here in the neurosciences are now extended in the new facility. So I think Herb's vision, his direction, and the creative way that he made this happen at a time when it seemed impossible, has truly enabled us to advance the neurosciences and especially our commitment to improving what is possible for patients with brain diseases that otherwise would never have happened. And I think that the train is just beginning to gain steam, and much, much more will happen in the next five years than happened in the last five.

01-01:04:33

Meeker:

That's a remarkably optimistic view. I've got to say I think this is the fourth UCSF interview I've done for this particular project, and every time I leave here feeling a little bit better about what the future for humanity holds, right? We live in uncertain times, and there's a lot of cause for maybe not feeling so much optimism, but coming here is a place where one finds it.

01-01:05:01

Hauser:

Yes, yes.

01-01:05:05

Meeker:

You know, I think that we've probably run out of time.

01-01:05:07

Hauser:

Good.

01-01:05:08

Meeker:

But I wonder if there's anything else that you'd like to add?

01-01:05:19

Hauser:

I'm sure that others have spoken about this, but dinners at the Sandlers are terrifying, difficult—but phenomenal and memorable events.

01-01:05:43

Meeker:

Tell me a bit more. Why difficult and terrifying—and then why phenomenal? [laughter] I guess that might be part of one and the same, but—

01-01:05:52

Hauser:

I've been at two types of dinners. One is their home dinner, which is a round table with twelve people—not eleven, not thirteen. And the other type are the larger events that they've hosted. The dinners at their home are choreographed like the Bolshoi Ballet. Food discussed in advance, allergies discussed in advance, the other partners at the dinner discussed in advance. Everybody prepared in advance. Suggestions about the topics of conversation, in advance. One needs to be prepared to contribute. Unchatty, and no conversation outside of the host-led conversation is permitted. We can't sit next to our spouse. Everything is well—is perfectly designed, and it is like walking into an old David Susskind set and having a roundtable discussion with everything except the green light telling you that the camera is on you.

- 01-01:07:26
Meeker: [laughing] Are these rules circulated in advance? Do they—?
- 01-01:07:29
Hauser: Yes.
- 01-01:07:29
Meeker: Yeah.
- 01-01:07:32
Hauser: But they're reinforced at dinner.
- 01-01:07:38
Meeker: What kind of topics have been on the agenda?
- 01-01:07:40
Hauser: I think the topics are geared to the individuals around the table and what is in the news, often in areas of policy, civilization, and science.
- 01-01:08:01
Meeker: What have—?
- 01-01:08:01
Hauser: Usually there would be one guest who would not be out of central casting, someone different, and often that person has come from another place, maybe a future president of a country or the person who started this new gadget called wiki. [laughter] And the conversation might then evolve around proper policy between the have- and have-not nations, or privacy, or how to fact-check data. How important is it that published material be validated? Should we be allowed to put out whatever we want on the internet? Or should there be clearinghouses responsible for accuracy? And as you know, an inadequate depth of coverage in areas of policy represents another great passion of Herb's. And frankly, I never understood the importance of what he was building, although he described it to me multiple times, until he actually did it—and ProPublica has been beyond magnificent in its impact.
- 01-01:09:46
Meeker: Do you get the sense that these dinners are an opportunity for Herb to really fine tune his thinking on things that are occupying his mental space?
- 01-01:10:05
Hauser: I think that he's always probing, always thinking, and always evolving. He's a remarkable person.
- 01-01:10:17
Meeker: Did, in these dinners when Marion was still with us, what kind of role did she play?
- 01-01:10:28
Hauser: She would be quieter, in general; quieter than Herb. When I mentioned that the meetings around the neurogenetics center were sometimes frightening, some of it

was that Marion was knitting at the meeting, and one wondered if she interested and paying attention or had tuned us out. Herb would do much of the talking, although during the science sessions Herb would always let the advisors speak. But then, be it at the scientific symposia or at the roundtable dinners, after being silent most of the evening, Marion would suddenly make the most cogent comment, cut right to the center. And I think the brilliance of what she'd bring to those events was part of what made the evenings memorable.

01-01:11:56

Meeker:

Why don't we wrap up? You just mentioned the five years in the future might well be more productive than the previous six. Can you give us a peek into what you're most excited about at this point in time? What you think is maybe most promising?

01-01:12:16

Hauser:

Yeah, I think that in the next five years we have a real chance to develop a useful therapy that changes the course of Alzheimer's and Parkinson's disease. We are going to be able to understand how our nerve cells misfire when we have psychiatric diseases, and we will be able to begin to correct the misfiring. And I think that we will have opportunities to repair and also enhance human brain capabilities. The last is an area that holds great promise for the billion people who suffer from neurologic disabilities, but also create very serious societal questions that must be addressed by an informed public. So I think neuroscience is going to be at the center of medicine and occupy an incredibly important place in society.

01-01:14:01

Meeker:

Are you talking about addiction? Is that one of the things you're referring to?

01-01:14:02

Hauser:

Yes. Yes, I'm talking about addiction, PTSD, depression, and psychosis—schizophrenia. I think that all of those areas will be elucidated in a way that will create new opportunities to really treat these conditions, and hopefully prevent and cure them.

01-01:14:30

Meeker:

Well, that's a hopeful note. Why don't we end there?

01-01:14:34

Hauser:

Great.

01-01:14:34

Meeker:

Thank you very much.

01-01:14:35

Hauser:

Thank you. You're welcome.

[End of Interview]