

1 Royston 10/31/97

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6 ...to have an approved product finally, after all these years. So, it took from 1986, it took  
7 eleven years, from the idea, from the founding, the idea was before that, to have a final  
8 product. Even though I told all of the venture capitalists that it would take only four or  
9 five years.

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13 Q: Eleven years is not a long time.

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18 Right. Actually, the product that's going to be marketed was only developed over the  
19 past five or six years, because they shifted gears. So, actually what I had suggested for  
20 the founding of IDEC actually did not materialize. It came from within the company.

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24 Q: But it was still a monoclonal product.

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29 Right, it was a monoclonal product. The idea was to have a monoclonal product for  
30 treating lymphoma, cancer of the lymph system, and that's what they have. It will be the  
31 first revolutionary new product for the treatment of lymphoma. So, IDEC in 1997, when  
32 we expect they will actually get an approval this year, I suppose it's going to have to be in  
33 the next two months then, final approval, just pending manufacturing and labeling issues.  
34 That product, think about it, 1997, nineteen years after the founding of Hybritech, 1978,  
35 when I said to Brook Byers, 'You know, I think we can use monoclonal antibodies to treat  
36 cancer,' and it's with IDEC, the second company that that has now come to fruition, but  
37 it took nineteen years for the first monoclonal antibody to be approved by the FDA to  
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Q: Well, it's a complex problem, a very difficult thing.

But it happened, so that dream became a reality, will become a reality.

Q: What were you doing in the late '80s? You were still at the university.

Yeah, and then I was going through a lot of soul searching, and a lot of politics, as there were a lot of changes going on in the university. John Mendelsohn, the director, left to go to Sloan-Kettering, and I was getting, you know, doing more stuff, and I was on more committees, and we were trying to deal with issues like building, unifying the UCSD Cancer Center in La Jolla, and all of this activity got me very frustrated when I saw how slow things were moving along, and then how plans that we'd be working on for over a year had gotten derailed and cancelled, and I got fed up. And then 1990, I saw the opportunity when some friends of mine met, I mean you could feel the frustration, I mean my friends knew I was getting frustrated and sort of unhappy with the bureaucracy and how things were developing at UCSD. They said, 'You know, maybe we should try to start a new cancer center.' Because they felt that there was no really good cancer center in San Diego, and that UCSD wasn't going to provide it, and I was more inclined to consider that, and that led to the birth of this center. And in 1990, I made the decision to do it. And I transferred my grants from UCSD to here. So, in December of 1990, we started this Cancer Center. Now at the same time in 1990, I was just starting to do, also dabble in more venture capital activities.

Q: Now there were some other people leaving UCSD at the time, right?

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81 Ray Taetle (sp?) left before me. And afterwards more people left after I left. After I left,  
82 then subsequently, Robert Parker left, and Mark Green left. Mark Green was the guy  
83 who became the Cancer Center director after John Mendelsohn left, and a whole bunch of  
84 people left.

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88 Q: Had you started working with gene therapies before coming here?  
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93 No, only after coming here.  
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98 Q: So, your research at the Cancer Center there was still...  
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103 Yeah, it was still monoclonal antibody-based research, applications of monoclonal  
104 antibodies to cancer. I brought that here, that's right.

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108 Q: At the time, an important issue was the NIH designation of the cancer center, a  
109 regional cancer center?

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113 You mean here?  
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116 Q: In San Diego.  
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121 UCSD got, while I was there, received the designation of an NCI, designated clinical  
122 cancer center. That happened while I was there in the mid-80s, or early 80s.

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126 Q: There is a competition for this?  
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131 It's a competitive thing, yeah, and now I want to do something similar here, but, yeah,

132 they've had that for quite a while.

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136 Q: Who were the friends you mentioned who sort of planted this idea?

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141 My friend was Tom Shifton, the chairman of our board here. I met him when I first

142 arrived at UCSD in 1977, because he was just finishing his fellowship. He was a

143 postdoctoral fellow in oncology. So, I just started on the faculty, and he was a

144 postdoctoral fellow just a year junior, even though he was probably about my age, or

145 maybe a few years younger. So, after he finished there, he went abroad for a year, he

146 worked for a year, he came back here and went into private practice. And he got also

147 thinking, started thinking about the cancer center issues, and just thought that UCSD was

148 not providing the kind of leadership in cancer research and cancer care that he expected

149 from a city like San Diego. And he thought that there were other alternatives. And then

150 Alan Goodman was the other person. So, Tom called me, and said to me one day, 'Look,

151 I know you're interested, you're not happy with the university, and you're thinking

152 about...' Oh yeah, I remember, I must have told him that I had presented a proposal to the

153 chancellor to build a new biotechnology research institute. That's interesting, we can

154 come back to that. Because that fits into the Hybritech and IDEC thing. I thought that,

155 yeah, I'll come back to that. I forgot about it myself. I just reminded myself.

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159 So, he said, 'I know you've been thinking about alternatives to what you're doing at

160 UCSD. I'd like you to meet somebody, a doctor here in San Diego who's just lost his son

161 to leukemia,' and was not happy that San Diego did not provide the kind of services that

162 he wanted, because he had to take his son either to Seattle or Stanford. So, we ultimately

163 had this fateful, pivotal lunch at Busalacchi's [Buslacchi's Ristorante; traditional Sicilian  
164 cuisine; 3683 Fifth Ave.] which, where we together talked about cancer centers, and each  
165 for their own reasons saying, you know, 'We need more than what we have.' For totally  
166 different reasons, Tom Shipton, Alan Goodman, and myself, but we all came to the same  
167 conclusion.

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171 Q: What was Tom Shipton's reason?

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176 He just felt that the UCSD Cancer Center wasn't really serving the clinical needs of the  
177 community, that it was not clinically oriented, but more basic research oriented, which is  
178 probably true, and I was more interested in a more entrepreneurial environment, and one  
179 in which there was less bureaucracy and able to move more quickly on things. And so,  
180 Alan Goodman said, 'Look, I have this big office building across from Sharp Hospital,'  
181 he was a thoracic surgeon at Sharp, and Tom Shipton was now practicing also across from  
182 Sharp. But Al Goodman said, 'Look, I own all of these office buildings, and you know,  
183 they're for sale, and as soon as I get the money, I'm going to give you guys a lot of  
184 money.' He's never done that, but that pledge, plus the fact that we all signed a credit  
185 line, and plus the fact that I was able to get Chris McKellar, the real estate developer here  
186 to build some labs in this building that we could lease back without putting any cash  
187 down, all those things came together, and so we started this cancer center. So we  
188 essentially started this cancer center, this is interesting because this is much harder than  
189 the for-profits, where you can bring in investors and tell them, 'Look, you might make a  
190 lot of money.' Here, no one's making any money. And this is much harder. But  
191 basically, we started this cancer center within about, I can show you the original space, in  
192 this corner of the building -- there was another tenant in here -- with no money, no cash,  
193 we had a credit line that we all signed on personally, a pledge from Dr. Goodman that

194 when his buildings would be sold, he'd put this thing in. You probably remember that we  
195 went into a real estate depression here, so those building never sold. I transferred my  
196 grants from UCSD and brought some people over here, and that's how we started. And  
197 today, 1997, six years later, it will be seven years in December, yeah, that's amazing,  
198 seven years later, you know, we have about 100 employees, about 20 principal  
199 investigators, and we occupy most of this building. And that, in retrospect, is a pretty  
200 remarkable achievement, too, in a time when we were actually in a depression in San  
201 Diego. And that was much harder than any for-profit.

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205 Q: But you've been successful in raising money.

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208 Well, Mr Kimmel's gift was very important. He made a naming gift that really helped us  
209 out a lot. We named the Cancer Center after him. Mr. Kimmel is the chairman of  
210 Judson-York Clothing, founder and chief executive of Judson-York, a very, very  
211 successful clothing company which makes clothing for women, primarily, and you know,  
212 I was introduced to him, and he was willing to get involved, and made the gift. He's on  
213 the Forbes 400 and he's got, his net worth has increased substantially, his company's very  
214 successful, it's worth maybe a billion dollars right now.

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218 Q: How did you meet him?

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223 Through a mutual friend. Somebody came to visit us, who's daughter was dying of  
224 cancer, and he was very impressed with what we were trying to do, and then his daughter  
225 eventually died. There was nothing we could do to help, but we developed a relationship  
226 and he called me one day and he said, 'Look, I want you to meet an old friend of mine.'  
227 That was Mr. Kimmel. That's how it happened. It's amazing, isn't it? You never know

228 what's going to turn up. So, Mr. Kimmel had never been to San Diego. He's been here  
229 two times now. The Busalacchi, to commemorate that dinner in which the idea of  
230 developing this cancer center emerged, we had our first major fund-raising gala event last  
231 summer, and for that event Busalacchi donated all of his time and underwrote the entire  
232 dinner. And I have pictures back here to commemorate that dinner, in the hallway, of the  
233 gala, and Busalacchi underwrote that in commemoration, so it was very nice. So, that  
234 was, you know, I was still trying to build the cancer center, and I've got a parking lot  
235 here, the grass is all gone now, but we've got options on the land around here, and what's  
236 confronting me now is the development of this little park as a little mini-campus for  
237 ourselves. Johnson & Johnson is going to build their basic science research center next to  
238 us. Just to get back, though, before I left, while I was getting frustrated, I was looking for  
239 something, something new, I was getting pretty antsy with the leadership at the university  
240 and the Cancer Center and the bureaucracy, and I just wanted to do something on my  
241 own, and I knew the chancellor quite well, and I said, 'You know, I like being affiliated  
242 with the university, but I'd like to start my own biotechnology research center or  
243 something like that.' Something like what Gallo has done subsequently now in  
244 Baltimore, and if the university would throw in the land, we could build it on the  
245 university, I 'd met some real estate developers that were interested in getting involved,  
246 and I put a whole bunch of proposals to show the university, but it just didn't go  
247 anywhere.

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251 Q: And what kind of work did you envision would take place there?

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256 At that time, the vision wasn't that it would be cancer research, because we already had a  
257 cancer center. But it would be basic, I'm not sure thinking back then, exactly, both basic

258 and translational research, I mean it would be a focus on cancer, it would have been  
259 affiliated with the Cancer Center, sort of, that's how I envisioned it, but it's been so long,  
260 I haven't thought about it, it probably wasn't, I haven't even thought of it until just now.  
261 Anyway, the point I was trying to make was that I was going through this active thought  
262 process at the time, trying to come up with something new that I might want to, that I'd  
263 be more in control of, and then when these guys came along and said, 'Why don't we just  
264 do a new cancer center,' and you know, UCSD is not really doing the job, and it meant,  
265 well, competing with UCSD, and leaving UCSD, I just eventually decided to do that.

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269 Q: And would you say that not getting anywhere with biotechnology research institute  
270 over there contributed?

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274 Sure, because if something had happened, I might have been willing to follow it along.  
275 Maybe it was good that it didn't happen. Well, I was aware that there are independent  
276 institutes that are affiliated with the university, that can build on the university. There's a  
277 Mexican, Latin, Institute of the Americas, something like that, that is independent, so I  
278 knew that those things were possible. I saw the possibility of building up some kind of  
279 new structure that could be maybe its own organized research unit, like a Scripps  
280 Oceanographic Institute, or a new center of some kind. I was frustrated, just being, just  
281 with the whole process, being sort of under the thumb of the Dean, and whatever their  
282 issues were. It's a great place if you just want to have your own lab and do your own  
283 research, but if you want to create something, it's not really very good. So, it's much  
284 better here, where, you know, I can be involved in creating, you know, a new center. So I  
285 like the start-up process. I have to admit, doing the administration is not what I really  
286 enjoy, running this thing, although, I mean, as we grow, there are so many more  
287 administrative issues. And I don't have a chief operating officer, which I'm trying to



288 recruit for, so I'm doing everything, and I'm not doing it well. I don't like the day-to-day  
289 administration.

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292 Q: Where are you recruiting?

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297 We have a headhunter, a search firm, and we're recruiting nationally. And we do have a  
298 lot of resumes.

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302 Q: An industry person?

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307 No, the ideal person is someone who comes out of a non-profit research environment that  
308 has good financial skills and interpersonal skills. You know, someone would could really  
309 watch the money and be both a chief operating officer and chief financial officer.

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313 Q: So, that would free you up to do....?

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318 Yeah, I'm trying to work on a major grant now, and I think it's started, and that's why  
319 Bonnie left a message, can you meet, because after this meeting, I have to be in the Bay  
320 Area next week, I think, after next week, I'm not going to have any more meetings with  
321 anybody. I need to lock myself up here, and I've got a major grant that I need to write,  
322 that I have to work on myself. So, that's what I'm going to work on.

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326 Q: The other things since IDEC. I was on the board of IDEC for a number of years. I did  
327 go off the board in the '90s sometime, early '90s, right after their IPO, I think it was '91.

328 Maybe I stayed on the board until '92 or '93. But I eventually went off the board. But

329 the other thing that is interesting is that I started to, while I was at the university, I should

330 say, you know, I had done Hybritech, and then IDEC, and then IDEC was getting more  
331 well-known, and what happens's over the years, it's been, let's take 1988, '89, we're  
332 talking ten years after Hybritech, right? Hybritech's already acquired by Eli Lilly, and  
333 what happens is, it's much more acceptable now, and more the norm, for university  
334 professors now to be involved with their companies. I said this once before, if you're not  
335 involved with a company, oftentimes you often wonder, well, that guy's really not that  
336 good, because most people are involved with companies, one way or another, as a  
337 consultant or as a founder, whatever. So, what happened was, I started getting calls, from  
338 all kinds of scientists all over this town, 'Can you help me? I think I have an idea for a  
339 company, what should I do?' I would get all of these calls, so I used to refer them to, I  
340 used to say, 'You know, you have to call a venture capitalist, you know, you can call these  
341 guys in San Francisco or wherever.' And then people started saying, you know, 'Where  
342 should I invest my money?' And then it dawned on me, you know, I like business, I've  
343 always had an interest in business. It wasn't my primary occupation, or my primary  
344 interest, but I always liked business. I enjoyed being around business people when I was  
345 involved with Hybritech and IDEC. I enjoyed a different way of thinking about  
346 problems. The fact that my primary interest here was the rapid translation of laboratory  
347 findings into clinical applications, that sort of went along with the commercialization of  
348 products. I decided, well, and I had some money from Hybritech. I had some money that  
349 I'd like to invest, so I said, 'Well, I'll put a little fund together, a little venture capital  
350 fund,' and I invested in it and put in half the money, and then all of a sudden I had friends  
351 and family and all kinds of interest when they heard what I was doing, and they said,  
352 'Well, we want to invest, too.'

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Q: A lot of people trusted your judgment.

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363 Yeah, but it wasn't a big fund, I mean, the whole thing turned out to be about one and a  
364 half million dollars. So, I started, and sure enough, I got a call from a university  
365 professor in 1990. Ted Friedmann, who made the first call? Ted Friedmann, Rusty  
366 Gage? They called me and said, 'We want to start a company.' So, I go over and look at  
367 them, and they tell me that they want to develop a cure for Parkinson's Disease using  
368 gene therapy. That's when I first got introduced, first started really thinking about gene  
369 therapy, 1990. God, I think It's been around forever, it's not even a decade yet. And I got  
370 real interested in their idea, and all of a sudden, I realized there were cancer applications.  
371 So, I threw that in. I said, 'Look, we shouldn't do just Parkinson's Disease, Alzheimer's,  
372 whatever, CNS disease, let's throw in cancer, make it a little broader, same technology,  
373 same core technology.' And they liked that idea, and I started working on it. And that's  
374 where I met my partner, now, just to let you know, I'm now a general partner in a venture  
375 fund called Forward Ventures, but I met , what happened is, one of the guys who had  
376 called me, he or the other person had called Ventana, another venture capital firm in San  
377 Diego, and this young guy, not young, but I mean junior guy, Stan Fleming, shows up one  
378 day to meet me when I'm there.

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Q: He was with Ventana?

385 Yeah, he was an associate of Ventana. Stan Fleming shows up because they got a call to  
386 learn more about their technology, then he finds out that I'm interested and all of a  
387 sudden, he gets interested in it. But to make a long story short, and because I'm not a  
388 professional venture capitalist, this was just like a hobby for me, I was just sort of  
389 dabbling, but with other people's money, half of it was my money, I said, 'You know, I'd  
390 really like to get involved, I'd really like to put some money in this, like \$250,000, so  
391 Stan Fleming says, 'Look, why don't we just do this together,' or I may have said that,

392 you know, 'Why don't we do this together, why don't we each put in \$250,000, we'll  
393 seed this thing.' And that's what happened. So we seeded it, met with these guys in the  
394 evenings, worked on business plans. I was still at the university. That means it was  
395 before December of 1990. It was sort of '89-'90. So, maybe I'm a little off on the years,  
396 because I know that I was there, I know that I started that process before I came here. So,  
397 all these things are going on simultaneously, getting a little venture capital activity.  
398 Maybe I was sort of searching for something new to do, trying different things. So, I'd  
399 meet with these guys in the evening, I was on the boards, we put this thing together, and  
400 over time, you know, we were writing the business plan, recruited one of my associates  
401 Bob Sobol who works here. He's downstairs, actually, if you wanted to interview him.  
402 Bob Sobol was a founder of IDEC. I can't do everything, so I usually try to recruit in  
403 people that can help out in one way or another. I said, 'Bob, do you want to get involved  
404 with this?' And when he saw the cancer piece that we came up with, Bob got real excited  
405 about it, got involved in that, in really putting that together, and really writing the  
406 business plan. And so what happened was, that thing took off, and we got Kleiner-  
407 Perkins to invest, and then, eventually, it was actually acquired, within a year, by  
408 Somatix.

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414 Q: So, this is Genesys, right?

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419 That was Genesys Therapeutics. That's the name of the company Genesys Therapeutics.  
420 So here, my first investment as a venture capitalist, and as sort of a quasi-co-founder,  
421 because we came up with the cancer applications, so this turned out, the total investment  
422 probably with Kleiner-Perkins was, like, a couple, a few million dollars altogether, it was  
423 acquired within a year by Somatix for a stock value of \$30 million. It's gone down, it's  
424 lost a lot of money since then.

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Q: So this investment actually preceded Forward Ventures?

433 That was Forward Ventures. That was the beginning of Forward Ventures, with me. Now,  
434 after we did all that, Stan Fleming realized he didn't have any future at Ventana, they  
435 were a schlocky operation. So -- don't quote me -- I'm off the record on that. That can't  
436 go into print. So, Stan and I, we worked well together on this, he's an MBA guy, you  
437 know, he's not a scientist. And I knew that my passion was what I'm doing here, the  
438 research. This was just a side thing for me. And I knew that I couldn't do more Genesys  
439 Therapeutics, things like that, without, in a systematic way, without having a partner, an  
440 MBA. And he said, 'Why don't we do this together, professionally.' 'I'll help put this  
441 thing together,' Stan said, 'as a professional venture capital firm.' He'll essentially run it,  
442 as the managing partner, so to speak, 'we'll be partners, and we'll raise money.' I said,  
443 'that's sounds like a good idea,' and I enjoyed working with him, I mean, we're very  
444 different personalities, very, very different. He's compulsive about things, he loves to  
445 document everything and write detailed letters and notes to the file, and everything with  
446 me is verbal. With him, it's all done, and he's very compulsive about everything being in  
447 writing, very responsive in terms of communicating with other people, and investor  
448 relations, as it subsequently turned out to be, but he didn't have, I don't think, the intuition  
449 or the scientific background that I had. So, anyway, we complemented each other. We  
450 weren't two Harvard MBAs, like Ted Greene and Tim Wollaeger, who tried it and clashed  
451 all the time. We had complementary skills and we didn't clash. We had totally different  
452 ... So I said, 'OK, that's sounds like a great idea.' I had worked with him on Genesys  
453 Therapeutics, and I enjoyed the interaction and everything worked out fine, and so I said,  
454 'OK, let's do that.' So, without any salary, Stan quit Ventana. He quit Ventana and spent  
455 all of his time trying to put a fund together with me and raise money for Forward  
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459 Ventures, II -- which it turned out to be. But what I did in recognizing that this might  
460 turn into a more professional fund, I started making investments to invest that one and a  
461 half million dollars more rapidly in things that were already up and running, because I  
462 had so many other people coming to me all the time, PRIZM and IXSYS, and people  
463 saying, "OK, how would like to invest in this?" So, I started looking at things in a more  
464 passive way, and making investments so that I could then focus my energy more on what  
465 I would say is Forward II. And that's what happened. Stan put together documents and  
466 proposals, the kinds of stuff that could be used to raise money from other investors, and  
467 together we raised about twelve and a half million dollars from various investors  
468 institutional investors like AT&T pension plan, American Cyanamid, and a couple of  
469 venture capital firms, Sequoia Capital and Asset Management.

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473 Q: Did you have any problem doing that? You're a physician-researcher....

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478 Well, we tried to present that as a big plus. This was unique, you know, I was at  
479 Hybritech and IDEC.

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485 Q: So you already had a lot of name recognition from those things?

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490 Right. And now Genesys Therapeutics that we'd put together, so we had a track record.

491 So, we raised that and we invested that. That was raised in 1992, 1993 time-frame, and it  
492 was all invested by now, 1996. And now Forward Ventures has raised a third fund,  
493 Forward Ventures III, and now has a third partner, Jeff Sollender, and just closed on a  
494 forty-two million dollar fund. So, that's going, too. On the one hand, the third partner  
495 makes it a little bit easier for me, on the other hand, there is, you know, like, I have a  
496 meeting that I go to there every Monday morning, and then periodic meetings. My role is

497 really more one of scientific evaluation. So, I get a lot of that, and now that Forward  
498 Ventures is known, and Forward Ventures has been successful, and Forward Ventures II  
499 had a very good success, a very good return, rate of return, Forward I, the hobby fund as I  
500 call it, didn't do all that well compared to other venture capital firms. I mean it was not a  
501 stellar success from a financial point of view.

502 Q: Even with Genesys?

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507 Well, if you had sold it right away, but over time it went down. I mean, it has, in venture  
508 capital jargon, Forward Ventures I probably had, since its beginning in 1990 or 1989 until  
509 now, you would equate it with a twenty percent annual rate of return. Which is good, it's  
510 better than conventional, something conventional, except that, you know, over that time  
511 period, that's pretty good, but Forward Ventures II, in the time frame between 1993 and  
512 1996, I believe was the time frame, had a much better track record of having between  
513 sixty and seventy percent rate of return because there was one company that was started  
514 that was extremely successful. It might even have been more successful than Hybritech  
515 was, and that was Triangle Pharmaceuticals, in Triangle Park, North Carolina. That was  
516 incubated in our offices, and one of the founders was a UCSD professor, Karl Hostetler,  
517 who also was a co-founder of Vical.

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521 Q: Dennis Carson and Doug Richman were also involved?

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526 Yes. And it's a company that's involved with anti-virals and HIV. I was instrumental in  
527 bringing on the CEO of Triangle who, which was the main reason why it's so successful  
528 because the CEO of Triangle Pharmaceuticals was formerly the head of worldwide  
529 research for Burroughs-Wellcome, and was somebody that I had worked with between  
530 1972 and 1975 when I was at the NIH. I had read in the paper, when I knew that we,

531 Forward Ventures was working on an anti-viral company with Karl Hostetler's  
532 technology, and Dennis Carson's.

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535 Q: It was called Procal at that point?

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540 That's right. Boy, how'd you get all of this information?

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545 Q: I talked to those guys. I haven't talked to Hostetler.

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550 I'll come back to Hostetler. We're working on that, and then I read in the newspaper that

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552 Burroughs-Wellcome was going to be acquired by Glaxo, and I knew that Dave Barry

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554 was the head of research for Burroughs-Wellcome, so I remember, I was in the room with

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556 Forward Ventures, and I said, 'Look, what's going to make this company go is we've got

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558 to get a good CEO. Why don't I call, I said, 'I've got the Wall Street Journal, it says here

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560 that Burroughs-Wellcome has just been bought by Glaxo. Maybe these guys don't want

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562 to go to Glaxo. Why don't we, let me call Dave Barry, and see what's going on, because

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564 he'd be an ideal candidate.' I hadn't seen him in twenty years. So, I called him and I did

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566 get through to him, and he thought it was a great idea. I said, 'Are you going to Glaxo?'

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568 He said, 'Hell no, I'm not going to Glaxo. I tried to buy Burroughs-Wellcome. I'm

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570 really pissed off.' And so I said, 'Would you mind considering, I'm involved with a

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572 venture capital firm, Dave, and could stop by San Diego? We've got this little start-up

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574 out here. Maybe you'd like to be the CEO of this company here.' And his answer was,

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576 'Well, I've got to go to London,' and he's in Triangle Park -- 'but I think I can stop by

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578 San Diego on the way to London.' So he did. I met him at the airport, showed the thing,

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580 and he got real interested. A few weeks later he said, I'll do it. Not only did he say 'I'll

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582 do it,' he said wanted to invest his own money. Very rarely do you find that situation. So

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569 Triangle became very succesful because that's the key thing. If you can get the right  
570 technology with the right managment, that's what makes a company successful. It's the  
571 people, it's not the technology. Everybody says this. It's probably true. I see it over and  
572 over again. If I had a choice between technology and management, I'd rather invest in  
573 the people because people find technology. The people that know how to make things  
574 happen. As was the case with Triangle. So, Triangle was very successful. It grew very  
575 quickly, very rapidly, went public quickly, and I think it may have gone public more  
576 quickly than Hybritech, and achieved a greater, well, I don't know what the overall return  
577 on the company has been.

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581 Q: But it also didn't start from scratch, I mean, it had drug candidates, right?

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586 Yeah, that's right. Karl Hostetler is interesting, to get back to him, because, you know,  
587 he's been, whereas I may have been involved early on in this thing, I certainly don't  
588 consider myself the most successful beneficiary. What I'm trying to say is, I don't think I  
589 made more money than anybody else. I think other people have done better financially  
590 than myself. For example, Howard is an example of that, or Karl Hostetler, because he  
591 was a founder of Vical and now Triangle, Triangle's been very successful, so I find it  
592 amusing that Karl Hostetler is on sabbatical this year, and he's at the UCLA film school,  
593 learning to be a producer. He's in Los Angeles. I think he comes down here one day a  
594 week, but he has an apartment in Los Angeles now, and he's studying how to make films.

595 Q: Well, you had a production company. Did you do that just for fun?

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600 But I didn't go to school. It was called Pacific West Entertainment Group, and it was,  
601 that was just a fun thing for me to be involved with, and I was not that actively involved.  
602 I was sort of passively involved. I had a close friend who was very interested in the

603 entertainment business, and Dennis Carlo got interested in it, so the three of us hooked up,  
604 and we decided to throw in some money, and we lost a ton of money in that. What  
605 happened is, my friend Neal, who put this all together, Neal Schulman, was the one who  
606 wrote Doc Hollywood, and he was successful with that project, but Doc Hollywood was  
607 not part of our group. It was an independent thing, not part of Pacific West Entertainment  
608 Group. But Pacific West Entertainment Group, we took a credit line out, we all signed on  
609 it with the First National Bank here, and we hired, we opened an office in Los Angeles,  
610 we hired a woman that Neal referred to us from Atlanta who used to be the head of video  
611 for Turner Broadcasting, and she flew out here to run our office. This was in the late  
612 '80s.  
613 And we made some money on our first project. We had the rights to the Mel Fisher story,  
614 called Dreams of Gold, and that was made as a TV movie, and Pacific West  
615 Entertainment Group got a credit and got some money out of that, and we reinvested all  
616 that money, and we thought that instead of going into making motion pictures for the  
617 theatre, we'd take the easy way out. We'd make a motion picture, but it would be a B-  
618 movie designed to be primarily released through video. Because of the overseas market,  
619 we were convinced that we could get all of our money back just in overseas sales, and  
620 then there would be a lot of profit in a year. So, Connie, who ran our office, got involved  
621 with putting the deal together to make this movie called Soultaker, which we produced  
622 and paid for. It cost about \$300,000 to make it. Again, I was not actively involved. I  
623 was quite passive here, because we had a full-time person working for us. We had a  
624 distribution deal with this company, where they would keep 20% and they would return  
625 80% to us, because we paid for the movie, and we got this new director out of the UCLA  
626 film school, who really liked the project, to do it very cheap. Everything was done very  
627 cheap. And I have to admit that after it was made, only \$300,000, there were some  
628 overruns, maybe \$400,000, I tell you, it looked like a million dollar movie. It was  
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630 actually quite good for that money. It was a thriller. It was a science fiction thriller  
631 called Soul Taker. It's about this guy who crashes his car and his soul leaves his body  
632 before, you know, the soul is running away. It was actually not too bad. It starred Emilio  
633 Estevez' brother, Charlie Sheen's brother. It was actually quite good, because not only  
634 did it do well and sold overseas quite well, it actually went to theatres here, on a couple of  
635 screens, and it got reasonable reviews, and I have seen it at Blockbuster. It actually sold  
636 quite well, but we lost all of our money because what we didn't realize is that most  
637 people in Hollywood are dishonest. And what happened is that distribution company that  
638 we made a deal with stole our money. They sold the tapes, the videotapes, but they never  
639 gave us any money, they kept it. And they knew we were down here, and they knew they  
640 could just rip us off. They were really quite dishonest. So, we had to file a lawsuit  
641 against them, and that used up all our capital reserves, and one of our partners went  
642 bankrupt, because he's in the real estate business, and it was a big, big mess, and we just  
643 lost a ton of money. I lost a lot of money, even though we could have made money  
644 because it was a successful movie. I'm still dealing with that right now, because we  
645 reached a settlement with them out of court, we wouldn't go to trial, ...?... and they  
646 agreed to pay us back, \$400,000 over some period of time, and then they stopped paying  
647 us, and we have to go back and do something again. It's still going on, we had a court  
648 judgment against them. So, we got out of that business. You cannot do this passively,  
649 you cannot do it from San Diego. You have to be in the business, making movies, or not.  
650 You don't dabble. So, we learned that lesson the hard way, but you know, we're naive,  
651 we think that people are honest like ourselves, and there are a lot of crooks out there.  
652 Only five percent of the movie business is honest, so you have to know which five  
653 percent they are. So, we've been all around the block. So, it's interesting that Karl now  
654 is going to make movies. The first thing I did was introduce Karl to my friend Neal, who  
655 did Doc Hollywood, so they met each other. Karl just now brought Forward Ventures

656 now another idea that he wants to form a new company, a third company, so my partner  
657 Stan Fleming is working on it

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661 Q: Were you involved in bringing Hixson from Amgen?

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666 Well, we were involved in getting Hixson into Genesys Therapeutics. Hixson left Amgen  
667 when he was not elected to be the CEO. He was the president of Amgen, reporting to  
668 George Rathman, who was the CEO. When George Rathman left to start, I think it was  
669 called ICOS? -- whatever -- they had to decide on a new CEO at Amgen, and it was  
670 between Gordon Binder, the CFO, or Harry Hixson, the president, and he grew up  
671 through manufacturing, and, well, science, too, he's a scientist. And they chose the other  
672 guy, they chose Gordon Binder to be CEO of Amgen, and so Hixson left. He made a ton  
673 of money with his stock options, at least \$50 million, I'm sure, and he decided to move to  
674 La Jolla, so when we heard that, we went right after him to see if he wanted to be the  
675 president of Genesys Therapeutics, and he said yes, but then he did a switch on us,  
676 because as soon as we started working with him and agreed to be the president, he told us  
677 that he was not going to continue as the president, that it would not fit in with his new life  
678 style, and therefore, I think he may have worked against us, because he was the one that  
679 really pushed for the idea of merging this company with Somatix, because by doing that  
680 he was going then to become Chairman of the Board, a paid chairman of the board of  
681 Somatix, and would not have to work as hard. Anyway, that's the way we went. I don't  
682 know what would have happened. So, we were involved in recruiting Hixson to Genesys  
683 Therapeutics once we heard that he was moving to La Jolla.

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687 Q: Was Inder Verma also involved in Genesys?

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692 What we did when the first two founders came to see us, that's Ted Friedmann and Rusty  
693 Gage, and were putting programs together, adding the cancer piece, we came up with the  
694 idea, I'm not sure exactly how we came up with it, we came up with the idea that we  
695 should get Inder Verma involved with the company, and I talked Inder Verma into joining  
696 the company. He was a consultant to Viagene, was not happy as a consultant to Viagene.  
697 Viagene is the company that ultimately got bought by Chiron, and so he agreed to  
698 become sort of a founder. I mean, he wasn't really a founder, he was a second generation  
699 founder, and also so we could go into cancer. You know, Inder's lab was very involved  
700 with that, with this area of research. So, we worked with him, and also we wanted to  
701 license his patents. That's what happened. We recognized as we were doing our due  
702 diligence on Genesys, we realized that there were some patents that the Salk had that  
703 would be very beneficial to us, and one thing led to another, and we realized that it would  
704 be very beneficial if we could get Inder Verma and the Salk patents to be licensed to  
705 Genesys Therapeutics. That's what happened, and we made Inder Verma essentially a  
706 co-founder, months later. And then that group, a very stellar group, and of course that  
707 was very appealing to Somatix and the founder of Somatix was Mulligan, who's a good  
708 friend of Inder Verma's. They knew each other quite well.

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712 Q: So, that was a key part...

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717 Yeah, that was also a key part to getting together. Maybe the core part.

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722 Q: Was the first company that Ted Friedmann had been a founder of?

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727 I think so, yes.

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Q: Has he done stuff since?

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I don't think so. He may be a consultant to some things, but I don't think he's been a founder. Inder Verma's been a founder of Signal, so was Rust Gage, with Harry Hixson. Harry Hixson got along well with those guys. I was not happy with the way Somatix went. I don't want to go into it really here, but I wasn't happy. After the merger was completed, I went on the board of Somatix myself, it was Harry and myself, and their guys, and I was not pleased with the way things developed. I resigned after a while.

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Q: What about the other Forward Venture companies here in San Diego. There have been a number of them, right? MitoKor?

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The one's in San Diego from Forward II are Mitokor, First Dental Health. Some of them moved out of San Diego. They started in San Diego and moved away.

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Q: Is Dynavax III?

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Dynavax is III, a small piece.

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Q: Combichem?

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Yes, Combichem. That's a big one in Forward II. Yeah, that was with Scripps Research Institute. They're going to go public soon, hopefully. Combichem and MitoKor are the major holdings, in addition to Triangle, that is. Triangle, by the way, we tried to start to

774 here, and Dave Barry was willing to move here, but as soon as it was learned that Dave  
775 Barry was going to become CEO of this company, all of the other guys at Burroughs-  
776 Wellcome wanted to leave and join the company. Well, all of a sudden, you had...side  
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778 Combichem and Mitokor were major company opportunities.

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783 Q: How did you make those connections?

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788 Combichem was made with Scripps Research Institute. That was made via, I mentioned  
789 that Sequoia Capital was a limited partner of Forward Ventures, and somebody, it may  
790 have been Richard Lerner, somebody mentioned, was at a meeting and bumped into one  
791 of these Sequoia Capital guys, and mentioned that there was some interesting technology  
792 at the Scripps Research Institutes that might be the basis of a new company, and we got a  
793 call from Sequoia asking us if we could look into it, which we did, and we agreed that it  
794 was. So, that's how that happened, and so it was introduced to us from Sequoia. The  
795 other company, MitoKor, that was presented to us by the group that was raising money.  
796 Initially, we rejected it because we thought it was too speculative. We said we wanted a  
797 little bit more data. I mean, it was a great idea, but, you know, we just weren't  
798 comfortable, the risk tolerance was a little bit, we found it too risky, so we said, 'We'd  
799 like to get more data.' Well, El Dorado ventures, who I'd never heard of before, and who  
800 obviously must be smarter than us, and decided to invest in it, and they were able to get  
801 the data we were asking for, and they came back a second time, and that time we went in,  
802 so it was sort of a second round.

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806 Q: Can you tell me about the research that you've done here at this center, what you

807 started out with and where you've gotten to?

808 Well, we have a lot, we have essentially twenty principal investigators here now, and so  
809 we have a lot of different research programs here. But we decided that gene therapy  
810 would be an initial thrust for the cancer center. I guess this was also the same time I was  
811 working on Genesys Therapeutics, so I was really thinking about it a lot, and it's  
812 applications to cancer. So, we made that a high priority. And we were the first non-profit  
813 group to treat, to do some gene therapy work here clinically. But our goal, our focus is  
814 really on biological approaches to cancer, so in addition to gene therapies, antibody-based  
815 therapies, vaccine therapies, and so forth, but the research program at the institute, I can  
816 give you an annual report. It has a variety of programs including a strong molecular  
817 biology program, gene discovery, we have the gene therapy program, we have a cellular  
818 immunology program, we have a retinoid program, where Magnus Fall is discovering  
819 small molecules, retinoids, that are inhibitory to cancer. We have a guy working on  
820 apoptosis. I mean, there are really, and we have a new clinical program that is designed  
821 with Sharp, jointly, supported by Sharp Health Care, so there's a variety of research going  
822 on here, and I still have a grant with antibody-therapy.

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826 Q: So where did you recruit people?

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831 A lot of the people were recruited in the area, people that I could recruit within San Diego  
832 that weren't going to be too expensive.

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836 Q: UCSD? Scripps? Salk?

837 Yeah, Salk, Burnham Institute, UCSD, there was an old institute called the California  
838 Institute of Biological Research, it was a non-profit affiliate of Stratagene. I recruited a  
839 scientist from there who's very good. Got a guy from Case Western Reserve that we  
840 recruited, and there are some people from out of state, but the main people are people in



841 San Diego, where it's fertile ground.

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845 Q: You've been in cancer research a long time. Where do you see immunologic  
846 approaches to cancer, from the time when you started to what's happening now?

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850 This idea has been going on for so many years, you know, it goes back to the turn of the  
851 century, but if anything, there is just more and more data emerging over the years since  
852 I've been in cancer research to suggest that the body can mount an immune response  
853 against cancer. It just needs a little help. There seems to be, the ability to mount a  
854 response is there because, and it's understood, because cancer is due to a genetic  
855 alteration, and when you have genetic alteration, you have alteration in the proteins,  
856 because that's what genes make are proteins, and if you have altered proteins, they ought  
857 to be recognized as being foreign by the immune system. And it doesn't have to be a  
858 external [?] it could be a protein within the cell that is expressed in a peptide form on top  
859 of the, expressed by what we call the MHC molecule.

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863 The basic premise, without going into any details, if you have an abnormal alteration of  
864 genes, then you should have an alteration of protein, which then should be immunogenic  
865 for the host, and we've been able to show this consistently in animal models, and what  
866 we've shown is that the immune system really needs a little help in recognizing these  
867 subtle differences, and that's why the gene therapy approach of putting genes into cancer  
868 cells that secrete, that cause the secretion of what we call cytokines that stimulate the  
869 immune system become very useful. We also know that these tumor cells also make  
870 suppressive factors that inhibit the immune system, so that by blocking those we can get  
871 an immune responses, and we're trying to translate that into human applications and it's  
872 very difficult because taking patients with far advanced cancer and using these

873 techniques, which are actually quite mild, like vaccination techniques, it's hard to show  
874 any efficacy because the patients are very sick and the tumors are growing and they're so  
875 large. So we do think that the major application of these therapies will be before patients  
876 relapse with tumors, so after the first treatment, after surgery, one could introduce these  
877 therapies and prevent the tumors from coming back. We also have shown that even when  
878 patients don't respond, we can still see evidence that we're getting immune responses to  
879 their tumors.