

David Kabakoff

Interview conducted by

Mark Jones, PhD

In 1997

SAN DIEGO TECHNOLOGY ARCHIVE



David Kabakoff



Dr. David S. Kabakoff, Ph.D., serves as an Executive Partner at Sofinnova Ventures, Inc. Dr. Kabakoff joined Sofinnova Ventures, Inc., in 2007 and is a part of life science team. He has 30 years of experience leading technology and product development programs in the pharmaceutical, biopharmaceutical, and drug delivery fields. He serves as the President and Chief Executive Officer at Strategy Advisors, which Dr. Kabakoff established in 2001 to provide business and strategic advisory services to life sciences companies. Prior to Salmedix acquisition by Cephalon, Inc. in June 2005, he co-founded Salmedix Inc. in 2001 and served as its Chairman and Chief Executive Officer since February 2001 and its President since September 2003. Dr. Kabakoff served as the Chief Executive Officer, President, and Chairman of Spiros Development Corporation II Inc. since its formation in 1997. He served as the Chief Executive Officer and President at Spiros Development Corporation from 1996 to 1997. He served as an Executive Vice President at Dura Pharmaceuticals Inc. from 1996 to June 1998 and served as the President at Dura Technologies since 1998. From 1989 to 1996, he was employed at Corvas International Inc. and served in a number of capacities during that time period, including Chief Executive Officer, President, Chief Operating Officer, and Chairman. From 1983 to 1989, Dr. Kabakoff was employed at Hybritech and served as a Senior Vice President of Research and Development-Diagnostics. He has accumulated broad experience in building, leading, and financing life science companies. Dr. Kabakoff has been the Chairman of Trius Therapeutics since February 2007. He serves as Chairman of Amplimmune, Inc. and Cebix Incorporated. He has been the Chairman of Rx3 Pharmaceuticals, Inc. since February 2007. He has been a Director of Spiros Development Corporation II Inc. since its formation in 1997. He has been a Director of Intermune Inc. since December 01, 2005. He has been a Director of Trius Therapeutics since March 2006. He has been a Director of Avalon Pharmaceuticals, Inc. since October 11, 2006 and Rx3 Pharmaceuticals, Inc. since September 2006. He serves as a Director of Allylix, Inc. Dr. Kabakoff also serves as a Board Observer of Intellikine, Histogenics, and

Anza Therapeutics. He served as a Director of Dura Pharmaceuticals from May 1996 to May 1999. He served as a Director of Salmedix Inc. Dr. Kabakoff received a Ph.D. in Chemistry from Yale University and a B.A in Chemistry from Case Western Reserve University.

Source: Bloomberg Businessweek

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INTERVIEWEE: David Kabakoff

INTERVIEWER: Mark Jones, PhD

INTERVIEW: Part 1 of 2

DATE: May 14, 1997

LOCATION: San Diego, California

1 **JONES:** Well, let me ask you about the early stages of your career. I know you got a
2 PhD at Yale in organic chemistry. What was your BA in?

3 **KABAKOFF:** Chemistry, at Case Western Reserve University.

4 **JONES:** So you had an interest in science very early on. As you were going through
5 this, getting your PhD, did you have in mind an academic career?

6 **KABAKOFF:** You know, it's actually an interesting question. At least in the early '70s,
7 late '60s, early 70s, when you went to a place like Yale in chemistry, that's what most
8 folks were tracked to, although some might have been tracked to the mainline
9 chemical industry, and when I finished at Yale, I did do some postdoctoral research,
10 including here at San Diego.

11 **JONES:** At the university?

12 **KABAKOFF:** UC-San Diego, in the department of chemistry, and it was at that point,
13 that I started looking for a job -- number one; number two, and I did look at some
14 academic positions which were in rather short supply in those days, but there were a
15 couple of faculty with whom I was associated, who had rather extensive contacts with
16 industry.

17 **JONES:** And who were these?

18 **KABAKOFF:** Well, one is still active in the chemistry department, Professor Murray
19 Goodman, and one was a former Professor, now deceased, Nathan Kaplan, who was
20 in the biochemistry division of chemistry, and he was, I always tell people that he was
21 born ten years too early, because he would have been, he was a real entrepreneur, he
22 was involved in a lot of the early biochemistry supply companies and diagnostic
23 companies, and you know, if he had been born ten years later, he probably would
24 have been a first-rate biotechnology entrepreneur. But it was when I was here at San
25 Diego that I did become exposed some to the industrial side of things, and some
26 opportunities opened up, and you know, I kind of never looked back.

27 **JONES:** And what opportunities were these?

28 **KABAKOFF:** Well, in particular, I went into the medical diagnostics industry in
29 Orange County. I worked for a division of Baxter. At that time, Baxter-Travenol had a
30 company called Hyland Laboratories in Orange County, and the way that position
31 arose was two-fold. One was, a guy that I knew at UCSD had a friend up there, and
32 Nathan Kaplan, who was one of my mentors, had a consulting relationship with
33 Baxter-Travenol, and you know, a couple of connections sort of opened the door, and
34 I went in, you know, and got an initial position in the industry.

35 **JONES:** Was Ted Greene there at the time?

36 **KABAKOFF:** Ted was there at the time, in fact, Ted was involved in the recruiting
37 process, and Tom Adams is another character, Tom was involved in the early phases
38 of Hybritech, and so I actually reported in to a department managed by Tom Adams,
39 the chemistry research department up there. But, I've said this to people on a number
40 of occasions, but if I'd gone up there and just talked to the scientific people and the
41 personnel folks, I wasn't totally sold on Hyland as a place to go to work, and the guy
42 who really sold me on it was Ted Greene. So, I went to work there, and got to know
43 Ted and Tom, and you know, that ended up, some years later, bringing me back to
44 San Diego.

45 **JONES:** What did they say that really sold you on going to Hyland?

46 **KABAKOFF:** Well, you know, it's interesting. Ted, I don't remember all the details
47 now, but Ted was the guy who sort of put the scientific challenge in some commercial
48 potential, and really explained why it was a valued corporation. But perhaps more
49 than anything specific, it was just kind of the sort of excitement and energy, and

50 dynamic personality -- you know, you're sitting with a guy and he gets you excited.
51 He's a good motivator. Actually, it's interesting that we're having this conversation
52 now. Last night, I was at a dinner hosted by a venture group, Domain Associates, and
53 at one table was myself, Tom Sparks, who was the outside general counsel for
54 Hybritech, Ted Greene, Linda Hale, David Hale's wife, David Hale, Kim Blickenstaff,
55 who's at Biosite Diagnostics, and then Cam Garner, and his wife, and Jim Newman,
56 who's our CFO, and never had anything to do with Hybritech, but everybody else at
57 the table.

58 **JONES:** A reunion

59 **KABAKOFF:** Yeah. We had just a lovely evening. It was up at the Ritz Carlton in
60 Laguna. Anyway, so, that's how I first encountered Ted Greene and Tom Adams.

61 **JONES:** And what, precisely, did you do at Hyland?

62 **KABAKOFF:** OK, I joined Hyland in the chemistry research group, and I was a
63 research scientist, involved in laboratory work at the time, trying to develop new
64 diagnostic methods, laboratory systems that would be used for diagnostics, and that
65 was, I don't know, I guess like '75, '76, something like that, that time frame -- '74? In
66 the twenty years ago time frame.

67 **JONES:** Right, and were you there up until the time, you know, the story is Ted
68 Greene read about monoclonal antibodies in Nature?

69 **KABAKOFF:** No, I had actually left there before he did, and before Tom. But then
70 Tom went off to another company in the East, Technicon, and I went to work for a
71 division of Syntex, up in Palo Alto. I certainly was aware of Ted's activities, and he
72 was actually, prior to getting involved with Hybritech, almost got involved with
73 another company that was trying to start up in Orange County around monoclonal
74 antibody technology, I don't know if you've, have you talked to Ted already?

75 **JONES:** I haven't talked to Ted, yet.

76 **KABAKOFF:** Well, then he was looking for money for that other company, and I
77 guess Brook Byers and the guys hooked up, and although he's often listed as a
78 founder of Hybritech, and to some extent he was, the real founders were Howard
79 Birndorf and Ivor Royston, with the funding from Kleiner-Perkins, and so shortly
80 after Ted got started with Hybritech, anytime I would see him anywhere in the

81 industry, or anywhere, he would say, 'Gee, you should come down and work for us.
82 You know, this is going to be fantastic.' And I will say, I worked for this division of
83 Syntex for a little more than six, six and a half years, it was a fantastic experience, and
84 it really gave me a lot of exposure to mainline commercial product development,
85 whereas at Hyland Laboratories, I was doing more research, applied research, but at
86 Syntex, I really got involved in mainline product development. We developed about
87 twenty-five FDA cleared products in the space of six years, which had a major, major
88 revenue impact. It was a terrific experience. During that time, I had stayed in contact
89 with Ted, periodically. I saw him at meetings, and Tom Adams. A couple of times,
90 they were tugging at me, and I remember, and I've repeated a number of times to
91 folks, I distinctly remember some discussions with Ted that you'd probably be
92 interested in. I joined Hybritech in the beginning of 1983, February '83, and
93 somewhere in there, it was either '79 or '80, and one of these days I'll probably pin it
94 down, but I distinctly remember a trade association meeting in New Orleans, where
95 Ted and Gary David, who was clearly one of the key guys early on, he was the first
96 scientist that Howard and Ivor hired. He's still here in town, and he'd be well worth
97 talking to, by the way. He is, I think, if he hasn't already, he's probably ready to put
98 another company on the map, is what I'm hearing through the grapevine. I had
99 dinner with Ted and Gary David, you know, just a friendly sort of dinner down in
100 New Orleans in the French Quarter down there, and you know, this was one of the
101 trade groups, American Association of Clinical Chemistry, and Ted was in his usual
102 sell mode, and you know, the topic was why I should come and work for Hybritech,
103 and why this company was going to be successful, but it wasn't only that, it was the
104 vision that I distinctly remember, and this goes back, again, '79 or '80, Ted was
105 saying, you know, 'You really ought to think about what the impact of all this new
106 technology is,' and you know, the kind of people involved with Hybritech, you know,
107 Kleiner-Perkins, Tom Perkins, Chairman of the Board of Genentech, Tandem
108 Computers, and he said, 'I predict,' honest to God, he said that, 'What you're going to
109 see in this industry is just like we've seen in the semiconductor business.' In investor
110 presentations, early on in the Hybritech days, at investor conferences, Ted used to
111 use the analogy, the monoclonal antibody was to the polyclonal antibody like the
112 semiconductor chip was to the transistor, or something like that. He used to use
113 these analogies, and one time he would show the valuation of Apple Computer
114 compared to IBM, and Hybritech compared to Abbott Laboratories, and stuff like
115 this. And he basically was saying that Hybritechs and Genentechs of the world were
116 going to evolve to be like the Fairchild Semiconductors and the Intels of the world,

117 and that this was going to spawn a whole industry. You know, in some people's eyes,
118 this is bullshit, it's easy for me to sit here and say this today, OK, but his guy's a
119 visionary, I mean he was saying this in 1980, and people thought he was nuts. And the
120 fact is that those companies, you know, Hybritech and Genentech, and many others,
121 have, with the financial backing of people like Kleiner-Perkins, the same groups that
122 backed the semiconductor companies, and a lot of other ones, and it's all really
123 happened. You know, he was, it was sort of right on the money. Unbelievable.

124 **JONES:** And you were at Syva, this was a big operation?

125 **KABAKOFF:** Actually when I joined it, when I joined Syva, I think they had done, oh,
126 a few million dollars in sales, and when I left, sales were running at about \$150 million
127 annual rate, and that's in six years. So the sales kind of went two, eight, fifteen, thirty-
128 something, sixty- something, you know, ninety something, a hundred and twenty-
129 something, I mean, it was one of the unbelievable situations. When I left the
130 company was quite sizable, and had six or seven hundred people.

131 **JONES:** And what was your title?

132 **KABAKOFF:** When I left, I was director of product development.

133 **JONES:** So, what did it take to get you to go from this, you had a big part in growing
134 this division, what did it take to get you to Hybritech, this little start-up?

135 **KABAKOFF:** You know, as it turns out, I was one of the first senior management in
136 what became kind of the second wave. Maybe David Hale was the first of those. I
137 came second, and Cam Garner came shortly after I did. I mean, it basically, to go back
138 a little bit, I certainly had been very intrigued by the technology, and you know, I
139 respected the people, and I knew that. I was kind of comfortable in the Bay Area, and
140 my wife was a native of the Bay Area and had never lived anyplace else, and when we
141 started talking to Hybritech seriously, about a year before I actually moved, we had
142 bought a home, and you know, this was like, 'Hey, why make the move?' When I
143 ultimately did make the move, it was when we had our first child, like a week after I
144 accepted the job at Hybritech. My wife was about ready to divorce me. Here, all she
145 wanted to think about in life was, you know, having a healthy baby, and establishing
146 a home, and all this, and here we are, we're going to uproot, but it's turned out to be
147 pretty spectacular. You know, Hybritech had evolved to the stage where the
148 technology had emerged from research to development, and what I was really

149 immersed in, and what I enjoyed doing, and what I've accomplished, has really been
150 in the world of product development. You won't find my name on any patents. I've
151 never been particularly the inventive type, but somehow I've been able, I think, to
152 kind of take stuff that people have invented, and listened to the commercial people,
153 and the clinical people, and you know, really live in the middle, and turn things into
154 commercial products. And, in the early stage of Hybritech, maybe it was just a little
155 too theoretical and research-y. At some point around this time, it became clear that
156 there were some major product development challenges, and they were in a position
157 to recruit somebody to really lead that up, number one. Number two, to be honest, at
158 the time, the concept of entrepreneurial risk was really still pretty foreign to me, and
159 many other people. You know, at that time there were very few companies. I mean,
160 Genentech was probably the only one, and Cetus. And actually, when I started
161 thinking about leaving Syntex, you know, as I got to a certain position of visibility in
162 the industry, and the phone started to ring, one of the companies that was
163 aggressively recruiting was Cetus, but for a lot of reasons, I ended up not being
164 interested in that. But the science had progressed to a certain point. Now, on this
165 entrepreneurial risk, I think like, in November, just before the February when I
166 joined, Hybritech had raised another chunk of equity capital, and it seemed like the
167 company had gotten to a stage where the financial risk, the risk of the enterprise,
168 wasn't what it would have been a year or two earlier, and I mean, literally, we're
169 starting a family, and it was not a time when I would have said, 'Hey, whatever,'
170 whereas when I left Hybritech, I went into a real early stage start-up, and I was
171 willing then to take on a lot more personal risk. So, there was a combination of the
172 technology maturing to the point where I thought I could really bring my skills to
173 bear, there was a little less financial, entrepreneurial risk, there was the chance for
174 some significantly increased responsibility, the opportunity to work with people I
175 knew and respected, and you know, it all added up. The financial incentives also, that
176 they were in a position to offer at that time, because this was prior to the change in
177 some tax provisions, you know, companies could offer substantial financial incentives
178 to new employees, even after they were already public. That dynamic is a little
179 different these days. It's not to say that they don't exist, but they were just able to put
180 together a very attractive sort of package, and it made sense. There was some risk
181 involved, but it was, you know....

182 **JONES:** A number of people have told me, when they were recruited to Hybritech,
183 that Brook Byers, they would talk to Brook Byers, and he would tell them, you know,

184 'Why don't you come and try it, and if it doesn't work out, we've got lots of
185 companies, we'll put you somewhere else.' Did you have any discussions like that?

186 **KABAKOFF:** I didn't have with Brook, as it turns out, but there was, besides Ted and
187 Tom, well actually I'll make a comment that you may find interesting. Ted and Tom,
188 when I came in, I reported to Tom, but it became shortly after, that I was recruited to
189 be his replacement, at least for the diagnostics business. So, they took kind of the lead
190 in the recruiting, Tom and Ted, and you know, I knew those guys for a long time, but
191 I also knew that they lived, at least a fair amount of time, with their heads in the
192 clouds, and one of the other things that convinced me to come to Hybritech, was
193 when I sat down and I met David Hale, because, all of a sudden, I saw that there was
194 a very solid, sort of commercially oriented guy at the level of the operation, and that
195 was actually part of the process that got me interested. Rather than Brook, though,
196 they utilized, or asked, one of the other board members, Dave Anderson, from Sutter
197 Hill, to help in my situation, and he and I, his office was in Palo Alto, just down the
198 street from Syntex, and it just turned out to be a little more convenient, and timely,
199 let's say, than for them to get Brook involved. Brook was very, very involved in the
200 real early days, and at this stage of the company, he was on the board, he was active,
201 but he wasn't as involved. But Dave Anderson, who was a principal of Sutter Hill
202 Ventures, was in the loop. We met a number of times and at a particular point in
203 time, when I was still debating, he and I chatted, and I think he did a very good job of
204 listening to some things I said, and you know, not long after, Ted got back to me, and
205 all the issues were kind of resolved. But certainly, this issue of getting into the
206 network was a part of the pitch, from him, too.

207 **JONES:** What kind of time frame was this? The recruiting period?

208 **KABAKOFF:** Casually, Ted and I almost joked about this for years, not to make you
209 think that this was anything unusual, I think his operating posture in those days was,
210 you know, to the extent that there was anybody he knew in the industry that was
211 talented, he was out, you know, any time he talked to anybody, he was in the sell and
212 recruit mode. OK, so, it's not that I was so special necessarily, but about a year before
213 I actually moved, I had run into Tom Adams, and he had really posed a, 'Hey, why
214 don't you come down and work with us?' And we chatted a little bit, and I said, 'Well,
215 you know, tell me what would the job be?' He said, 'Well, we'd kind of take some of
216 the....' It was a little sort of vague, and it was well, we've got some new things, we're
217 going to expand, we'll give you some new responsibilities, so I think, whereas...And

218 again that was the stage where I'd just gotten married, and we were going to have a
219 kid, whereas a year later, or really, not quite a year later, nine months later, it was
220 specific chapter and verse, you know, 'Here's the job, here's what we want you to do,
221 here's the resources we have, here's where we want to go, here's what we want to
222 accomplish, ' you know, they could actually put down...I asked Tom to put down on a
223 piece of paper, you know, what would be the three or five, whatever, I asked,
224 priorities that you want me to accomplish in the first year. It really became much
225 more concrete, and that phase of the discussion was really just a couple of months. In
226 fact, the reason it went fast is that Tom got a call from somebody else looking to
227 recruit for another position on a reference check, and I think he said, you know, 'I
228 don't want this guy to go do this other job,' because I had worked for Tom, and when
229 I left, he said, well, 'Hopefully, we can work together again,' so it actually happened
230 pretty fast.

231 **JONES:** And when you finally decided to go, then by the time you arrived, Tom
232 Adams was making plans to go and start Gen-Probe?

233 **KABAKOFF:** Well, as it turns out in retrospect, he was already, but I didn't know it,
234 OK? That only became revealed a little bit later, but yeah. So we worked together for
235 five or six months, I think.

236 **JONES:** And the priorities that you discussed, what exactly were those?

237 **KABAKOFF:** I don't remember specifically. I know some of them were related to a
238 major push for us, and something I'm personally very proud of, and that was getting
239 the company into the cancer diagnostics business, which required a whole new level
240 of regulatory activity, and probably the single thing that, if you can look back and, I
241 can look back and point to something that has had an enormous impact on many,
242 many people is the introduction of the PSA test. When I joined the company, the lab
243 work had just kind of gotten started, product development work, I think they had an
244 antibody that came from the original academic research that they had ended up
245 throwing in the can, the product development work was really just getting started,
246 and I shepherded that all the way through its FDA clearance, and you know, that's a
247 product that has impacted the lives of millions and millions of people, and you know,
248 every time I read an article about PSA, you know, you kind of come back and say,
249 'Gee, I had a role in shepherding that through the FDA and the whole strategy,' so
250 PSA, the whole cancer diagnostic strategy was a major initiative. We had a major

251 effort in an automated reagent system that they were contemplating trying to make a
252 deal with a company and put something together, and that was one of the clear
253 objectives. I think there was the first cardiovascular diagnostic test, which we did get
254 accomplished that first year. Those were some of the key things that were predicted
255 in advance. Now, it turns out that, besides PSA, the most dramatic thing that was
256 accomplished in sort of that first eighteen, twenty-four months, was the ICON
257 technology, which, you know, I helped to manage and oversee that effort. I had
258 nothing to do with scientific invention, but I had a little to do with some of the
259 product concepts and all that, but Gunars Valkirs was the scientist in the lab that
260 actually did the first experiments and really shepherded that along.

261 **JONES:** He was a physicist. What was he doing at Hybritech?

262 **KABAKOFF:** Well, first of all, one of the days you'll probably try to meet Tom
263 Adams. Tom Adams gathered a pretty eclectic group of people with all kinds of
264 different talents, and fundamentally, his belief, and if you see how he's hired people
265 in other companies and things, his fundamental belief is that, if you find and hire
266 smart people, they're going to do good things for you, and at a particular stage in
267 time, it became clear that understanding some of the analytical methods we were
268 developing, these so-called solid phase immunoassays, understanding it at the
269 molecular level, the physical forces that were involved in how antibody interacted
270 with the solid supports, and understanding how to effect the rate of these reactions,
271 that some fundamental physical, biophysical studies and characterizations of
272 mechanistic insight would be helpful, and I think his degree might be in physics, but
273 his lab work was in biophysics, and the concept was to use some of the biophysical
274 insights and techniques and apply them to these methods. And that's exactly what
275 the guy did.

276 **JONES:** But inventing the ICON thing was basically an accident?

277 **KABAKOFF:** I don't think that it's fair to say that it was an accident....

278 **JONES:** Well, that he was even paying attention to that...

279 **KABAKOFF:** Oh, no, no. No, he was assigned to develop new ways of conducting
280 immunochemical in simple format. That was his assignment. And he chose to do
281 some things with membranes as opposed to other solid supports that the company
282 was using at the time. So this was not an accident by any characterization. You know,

283 he was in a group whose charter was to develop some new ways of doing
284 immunoassays.

285 **JONES:** I see. You mentioned the regulatory situation. At this time, this is new for the
286 FDA, did things get worked out on the fly, so to speak, in terms of dealing with FDA?

287 **KABAKOFF:** Well, the way FDA regulated cancer diagnostic testing was established
288 at the time and several other companies, Abbott and Roche had gotten some
289 approvals of some colon cancer tests. So, the regulatory framework was there. It was
290 new to Hybritech. Hybritech had never done it before as a company, and there were
291 very few individuals within the company who had been through it. We used some
292 regulatory consultants and we asked a lot of questions, we read up, and we talked to
293 the FDA. We learned a lot, and we kind of developed our path. The whole prostate
294 cancer area was new. As I said, we kind of shepherded it through. If I think back, the
295 procedures that we used, and the data that we generated, allowed us to get approval
296 to sell the product. The standards then, continued to evolve, and you know, if you
297 rolled the clock forward five years or ten years, there's no way the product would
298 have ever been approved with the work and the approach that we had done, at that
299 time. It was sufficient at the time. You know, there was a big premium associated
300 with speed for us, and we were, I might say, kind of lucky, in fact, that the clinical
301 data were as compelling as they were, and we had strong support in the medical
302 community, and the FDA cut us some slack on how we did some of our clinical
303 studies. If they hadn't, it would have taken another year and cost a few more million
304 dollars, or so.

305 **JONES:** When you arrived was the organization of research and development at
306 Hybritech, was it a lot different than at Syntex? Some people have told me, for
307 instance, that Ted Greene and David Hale had a lot of trouble saying no to the R&D
308 people who were spinning off new ideas all the time?

309 **KABAKOFF:** In the diagnostics R&D group, things were pretty disciplined. I don't
310 know, maybe I brought in a little more discipline to that. In the cell biology area,
311 which I also managed, there was a lot more exploratory activity and a lot less
312 scrutiny, and Gary David's unit, which was more exploratory still, I mean there was
313 all kinds of stuff going on over there.

314 **JONES:** But you were in full product development mode?

315 **KABAKOFF:** Yeah, I would say that over eighty percent of our resources, probably
316 even ninety percent of our resources, were product development. Well, the cell
317 biology group was probably not that high. But it was very heavily focused on product
318 development, you know, a list of projects that were pretty well endorsed from a
319 business point of view. You know, there were commercial objectives associated with
320 them. It became more disciplined over time. And certainly David had a role in that.

321 **JONES:** What was it like going to work every day? You were working hard,
322 presumably, was it a change from Syntex?

323 **KABAKOFF:** Well, the change for me was not so much in the pace or the intensity,
324 because that was there. It was a little different nature of activities, a lot more external
325 activities....

326 **JONES:** What exactly do you mean by external?

327 **KABAKOFF:** Well, starting to get involved with, at Syntex, I was in a product
328 development role, and there was a clinical group, and a separate regulatory group,
329 and a separate medical group, and at Hybritech, I had the responsibility for that full
330 scope, so there was a range of outside activities that I got involved in. Also, I got
331 involved in broader decision making in the company as an officer of a public
332 company, a member of the management group, and we then got involved, over time,
333 with the financial community, analysts and bankers, and got heavily involved in
334 corporate partner discussions, whereas Syntex, all of the activities were internally
335 funded, or self-funded, largely self-funded. We did have some cooperation with
336 companies, but really at Hybritech, that was much more of a theme, an activity. So,
337 the mix of activities changed, but there were a lot of similarities. It was not, you
338 know, a huge leap, to move from one organization to the other, because Syva had
339 been very rapidly growing, and you know, I had a range of activities. It was just a
340 change in the mix.

341 **JONES:** Did you know about the Lilly sale before it happened?

342 **KABAKOFF:** Yeah. I was not involved in the very earliest discussions. Well, we had
343 had some pretty extensive discussions with Lilly about major corporate
344 collaborations, which I was involved in. I can say honestly, when the discussion
345 shifted from, you know, corporate collaboration to potential full sale, I wasn't
346 involved in the earliest stages of those discussions, which was Ted Greene and some

347 board members, and then eventually Tim Wollaeger. And actually the, Hale got
348 pulled in. But Dennis Carlo and I were sort of carved out, with Larry Respass, who's a
349 lawyer, carved out from the rest of the management team in some respects because
350 we were very heavily involved in extensive meetings for months on technology and
351 technical due diligence. So, there was a period, my guess is it could have been as
352 much as ninety days, maybe it was a little shorter, but certainly two to three months,
353 where I was running around doing some things and meeting Lilly people in Chicago
354 and various meetings in Michigan, and I can't even remember now, but there was a
355 period of time when Dennis and I were sort of on the inside circle, because we were
356 needed to help do the selling, and we were under rather strict orders not to be talking
357 to people, and it actually became a little uncomfortable towards the end, when smart
358 people knew that something was going on, but....

359 **JONES:** And what was your reaction when you learned that this was going to
360 happen?

361 **KABAKOFF:** Well, you know, my initial reaction was that, you know, it was really
362 some disappointment that we couldn't continue to build an independent company.
363 There are those that say, well, 'Gee, people should have been real excited because you
364 guys made all this money,' and certainly, it's a matter of public record that people had
365 various shareholdings. The fact of the matter is that the nature of the shares and
366 stuff, and subordinated stock that people held in those days, which, by tax laws, now
367 companies don't do, you know, that stuff was all very close to converting anyway,
368 whether we'd been bought out or not, and I certainly never kind of sat there and said,
369 'Well, gee, now I've made all this money.' It would have happened anyway. So, the
370 financial piece of it, we had enough confidence that the business was going to grow
371 and develop, that the financial rewards were anticipated. So, some folks said, 'Gee,
372 this is great, now everybody's liquid,' I mean that really ended up, in the scheme of
373 things, not being particularly swaying too many of us. The initial sense was, 'Gee, it
374 would be nice to keep running our own thing.' And then I had some discussions with
375 board members about that, and there was a lot of controversy at the board. It was not
376 a unanimous view that the company should be sold. There was one very large
377 shareholder though, who wanted to liquidate their position, and that was a very
378 catalytic event. Eventually, we all convinced ourselves, I shouldn't say all, but some or
379 many of us convinced ourselves, that this was going to be the answer to how the
380 company would get the resources that it needed to continue to develop and flourish,
381 and that Lilly was going to treat us well. So, you went from some initial

382 disappointment and skepticism to, 'Hey this is terrific.' Of course, I took my
383 responsibility of selling my own organization on this very seriously, and we did a hell
384 of a good job of creating enormous excitement. I don't think the Lilly management
385 ever really gave us credit for how good a job we did of convincing Hybritech
386 employees, and by then, it was a thousand or so people, that this was the greatest
387 thing since sliced bread, OK? And I did that at the time with some real sincere views
388 based on commitments that I thought would be able to be made, many of which
389 really sort of evaporated for many complex reasons, but, you know, I guess at one
390 point, it sort of left in me a desire to go back to that kind of environment, which I
391 ultimately ended up doing, and others as well.

392 **JONES:** A lot of people have told me, well, everybody has their own perspective on
393 what was going on at Hybritech. Some have said there was this great sense of
394 teamwork, coordination between all the teams; others have said, 'Well, it worked
395 great, and the reason it worked great was because everybody was very headstrong and
396 independent, and doing their own thing.' What was your sense?

397 **KABAKOFF:** I think the answer is, it was a mixture of both. I think that, and this may
398 lead into, you know, if you go to how did things evolve and what impact did Lilly
399 have, it certainly impacted this. I think that there was a very clear sense among the
400 senior group about what building value for the company was all about, and you
401 know, achieving goals in order to build a step at a time, and you know, there was a
402 spectrum of strategies that were being pursued. I think there was a unanimous
403 commitment to doing the things that were agreed to achieve publicly articulated
404 goals, board sort of strategies and you know, delivering something to the
405 shareholders. And it was very visible. On a quarterly basis, on an annual basis, you
406 could really address that, and certainly a company like Dura is focused in that way.
407 Below that level, below the top level, you know, there was a lot of scrambling, and
408 there was certainly, in different programs, different levels of cooperation and
409 initiative. I think it was a mix. I think you do need strong functional heads, program
410 heads, to drive things ahead, and we sure had plenty of those. We also had a lot of
411 cooperation at different levels to resolve issues and problems. And some of it, unless
412 you were involved in it, you didn't know it was going on. You know, one part of the
413 company would be off doing one thing, and another doing another. And part of it
414 was, there was this therapeutics business and the diagnostics business.

415 **JONES:** Very separate?

416 **KABAKOFF:** Yeah, so probably somewhere in between is the reality. **JONES:** So, after
417 the Lilly sale, you stayed on until 1989? Three years.

418 **JONES:** So how did it change after Lilly came in?

419 **KABAKOFF:** Quite a few things changed. First of all, just the folks sitting around the
420 table in the board room started changing. You'd look around, and people that you
421 knew didn't have a clue about the diagnostics business were now my colleagues
422 helping to make decisions. Also, you know, we sort evolved into two classes of
423 management, those who were on the Lilly compensation track, and those who were
424 on the Hybritech track, although not that I could complain. They were very fair to me
425 and I had an employment agreement that was attractive. I chose to stay and honor it,
426 although I would have had the hardest time probably of anybody not competing --
427 going out and doing something that wasn't competitive. The key things that changed
428 beside the people, one is just the whole way the business was measured, and how
429 success was defined. Rightly or wrongly, we had set as a strategy, endorsed by the
430 board, that are principal goal was to introduce new products rapidly and build our
431 market share in the immunodiagnostic business, and that once we built to a certain
432 critical mass in share that the profitability of the business would come, and would
433 become a focus. Literally in the space of six, nine, maybe twelve months, well, from
434 almost day one in terms of articulation and communication, but in a very short
435 period of time, Lilly attempted, or edicted, really, that the way the business would be
436 measured, the success of the business was going to be measured by becoming
437 profitable. So, the emphasis shifted from expansion of the organization and rapid
438 introduction of new products, with the attendant problems that that would bring, to
439 the profitability of the business, not that that was a bad thing, but my own experience
440 is it takes longer than Lilly allowed, or was willing to try to allow, to convert the mind
441 set and values and measurement tools for an organization. You just can't do that
442 overnight. The people were accustomed to making decisions based on what can we
443 do to get this product to market sooner. By definition, it meant that you didn't spend
444 the months of process development to see if you produce it at a lower cost, because
445 getting to market sooner was the priority. Now, all of a sudden you start changing
446 some very fundamental ways that an organization works, product improvement,
447 maintenance, cost reduction, all those things started becoming much more
448 important than new product introduction. You know, from the time I left -- what you
449 ought to do is, and I don't say this to take the credit for it individually, but I was one
450 of the last of the original senior group to leave. What you ought to do is try to trace

451 back from the time that some of us left, how long was it until Hybritech introduced
452 any new products. And I think you'll find there was a four to five year gap, I mean
453 honest to God, a four to five year gap. In that industry, it absolutely killed them.
454 Absolutely killed them.

455 **JONES:** When this changed occurred, were there projects that you had to abandon
456 because of this change in orientation?

457 **KABAKOFF:** Yeah, I mean ultimately, and some of the abandoned projects occurred
458 before I left, and some after, and really the future of the company was sold off. It was
459 just terrible. The whole automated immunoassay business went down the drain, and
460 I've often thought that I did our company a disservice by not fighting a lot harder
461 with Lilly management to justify that program. In fact, at one time before I left, six
462 months before I left, this one program was in danger of being cut, I told Don Grimm
463 that I would give up all my other responsibilities, just give me all the resources
464 needed on an interdepartmental basis, give me a little business unit, we'll make, I
465 would spend full time to make that project successful, and there was no way they
466 were going to do that because that sort of violated, you just couldn't give one
467 individual or one group that much control over a piece of the business and their own
468 destiny, I mean that was like, against the culture. There was no way you do that. And
469 ultimately, I guess what really frustrated me was that many authorities and decision
470 opportunities that I had as a matter of course, just sort of routine business, all of a
471 sudden were subject to, not only local management, but Indianapolis management.
472 You know, I just said, 'Hey, this is crazy.' All the fun kind of went out of it. So, you go
473 off and do something else.

474 **JONES:** Was it maybe a gradual process over these three years of you realizing that,
475 'I'd really rather be back in sort of an entrepreneurial kind of situation?

476 **KABAKOFF:** Yeah, I guess I realized it fairly early. I never really thought that I would
477 be a career Lilly person, certainly I might have had some opportunities to go to
478 Indianapolis, but just never would have considered that in any way seriously. Maybe
479 I'm a little funny but, when I signed a three-year employment agreement, I did view it
480 as a commitment to work for Lilly, others said, 'Hey, if I choose to leave, so long as I
481 honor my non- compete,' people did...

482 **KABAKOFF:** The last year at Hybritech wasn't a lot of fun. I had complaints, and
483 voiced them about how I was treated in terms of my ability to do my job, and my

484 ability to influence or impact, you know, to give you a situation, a classic example,
485 was the CFO of Hybritech, Tim Wollaeger, left early on. He was replaced by a guy
486 from Lilly, and among many of the Lilly folks, this one guy actually integrated
487 probably the best into the management team, and really worked very hard at it. A
488 terrific guy, he really worked very hard at understanding our issues. And just about
489 the time was getting comfortable and working with us and becoming effective, you
490 know, he was relocated to some other place, and the next thing I knew, a new CFO
491 was identified. I remember a discussion, both with my boss, and one of the HR guys,
492 “Gee, you know, we had a guy, David Duncan, who was controller of this company,
493 and the guy’s probably ready, he should have gotten that job, or at least be
494 considered.’ OK? Here I am, I’m a senior vice-president of this company, and I have
495 nothing to say? There’s no process, no discussion whereby we talk about filling a key
496 job like, you know, VP of finance of this company? And the answer from some career
497 HR guy was, ‘At Lilly, you’ll be consulted when you’ve earned the right to be
498 consulted.’ And I just said, you know, “That’s an insult, sir. I mean, this is ridiculous.
499 I’m an executive of this company. I’ve been running this company for a long time. I’ve
500 earned that right, OK? Don’t talk to me like that.’ I mean, it was just insulting. It was
501 demeaning. And you know, it was countless things like that. I said, ‘Fine, you guys,
502 you know, good luck to you.’

503 **JONES:** What kind of things did you start thinking about then? You have decided
504 that when this contract was up, you would go?

505 **KABAKOFF:** Well, certainly at that point I focused on entrepreneurial situations. I
506 actually thought about getting involved with a venture capital group and some start-
507 ups. I talked to Ted about maybe trying to do some stuff, and Domain Ventures,
508 people like that, and I had an opportunity that came up at Corvas, which was around
509 the corner. Literally, and, an early stage, the company was already in existence, it
510 wasn’t a raw start-up. It was a nice opportunity, actually, to, again, take certain skills
511 that I had developed, and I thought I had, and get involved with some exciting
512 technology and people, and try to use those skills in a little different environment,
513 but on a base that I felt was a solid base. I mean, I didn’t go off to do something really
514 screwy, or crazy, although some people might have thought it was.

515 **JONES:** But it was very small at the time, right?

516 **KABAKOFF:** Yeah, about fifteen people.

INTERVIEWEE: David Kabakoff
INTERVIEWER: Mark Jones, PhD
INTERVIEW: Part 2 of 2
DATE: July 29, 1997
LOCATION: San Diego, California

517 **JONES:** You mentioned that prior to the Lilly sale, one of the principal shareholders
518 at Hybritech wanted to liquidate their position, and that that was a catalyst for the
519 sale. Was that the Hillman Company?

520 **KABAKOFF:** Yeah. I mean, that was one of the catalysts. I think, you know, maybe,
521 not the only thing going on. You know, clearly, there was a time when nobody could
522 imagine that you ever would have been able to raise as much capital for young
523 companies in biotech as has been subsequently proven. I think from the board point
524 of view, there was the question of how do you really get the resources to build a
525 business, and you know, maybe a Lilly, or a similar company, so, that's right.

526 **JONES:** Then after Lilly took over, you said that there was a shift of emphasis away
527 from product development and innovation into process refinement, and that one of
528 the things that sort of got left behind was work on automated assays, and by that did
529 you mean stuff that would be supported by instrumentation? Did you think that that
530 was a big strategic mistake not to develop instruments?

531 **KABAKOFF:** Well, yeah, I think it was a major challenge for the company to do it
532 successfully, but strategically, it proved to be a chink in the armor, because that
533 contributed to some of the business being threatened over some years going
534 forward.

535 **JONES:** With Abbott, mainly?

536 **KABAKOFF:** Right.

537 **JONES:** And then when you did start thinking about other things, you mentioned
538 that you started talking to venture capitalists about maybe getting involved in that.
539 Did you talk to Dick Schneider, was he one of the people?

540 **KABAKOFF:** Oh yeah, Dick Schneider is a very, very good friend of mine, and he
541 used to be, actually, a boss of mine for many years.

542 **JONES:** Did he hire you at Syva?

543 **KABAKOFF:** Right.

544 **JONES:** Was he at Domain at the time?

545 **KABAKOFF:** No, he was actually still with an earlier firm at that time, when I was
546 still at Hybritech, with 3i Ventures.

547 **JONES:** But you considered getting into venture capital?

548 **KABAKOFF:** No, not so much venture capital in a full-time way, but I did spend
549 some time thinking about working with a VC group to look at a number of start-ups
550 and help in the creation of one or more start-ups, with the goal that at some point, I
551 would be interested in getting involved in one of them on a full-time basis. So, we
552 talked about stuff like that. Geez, that's a long time ago.

553 **JONES:** Well, you settled on Corvas. What were the circumstances surrounding
554 that?

555 **KABAKOFF:** Well, Corvas was, and I think continues to be, a very interesting
556 company. I had been contacted by some of the founders, the company was local,
557 literally a right around the corner type of thing, Scripps founders, and the original
558 contact or referral came through somebody I knew in the financial community. And
559 I was intrigued by a number of aspects of the technology and business opportunities.
560 The company early on had a dual platform interest in diagnostic product
561 development and commercialization, as well as longer term therapeutics. The
562 technology in the area of cardiovascular medicine was one that I was interested in, I
563 was comfortable with, I had a sense that there was commercial potential. So there
564 was some, you know, commercial attractiveness, there was the business strategy, and
565 you know, I'd spent the majority of my activities in the diagnostics business, so to
566 move into a straight therapeutics sort of a company, a biopharmaceutical discovery
567 and development, you know, was a bit afield, and it was an interesting mix of
568 ingredients and exciting potential, excellent science, good people, and it was a
569 challenge that really appealed to me at the time. Certainly, the opportunities for a
570 guy who, I mean, my background, really, up until that time, had been technical

571 management, and you know, it's not always, or maybe it's rare, to say that somebody
572 with a pure technical, although I had had some, a reasonable amount of business
573 exposure, but you know, with that sort of background, has an opportunity to go in
574 and run a company. So, there was that opportunity, good science, good business
575 potential, it was a nice opportunity that came around. Certainly, I was not, at that
576 time, motivated to leave the area. You know, I was going to try to focus here, and it
577 just had a lot of very attractive aspects to it.

578 **JONES:** Was the initial strategy something like Hybritech's? To use the diagnostics
579 to generate revenues?

580 **KABAKOFF:** Yeah, although I think there was more of a realization that one could
581 not fully fund out of the proceeds of one to the other, and really pretty early on, we
582 came to that same conclusion at Corvas, and for all practical purposes, closed off our
583 diagnostic activities, except for one program, which was commercialized through a
584 corporate partner and generated a modest revenue stream, and I guess continues to
585 generate a very modest revenue stream for the company.

586 **JONES:** When you joined, there were fifteen employees. Not a lot there, right?

587 **KABAKOFF:** Yeah, it wasn't a raw start-up, but pretty early stage, right.

588 **JONES:** You were impressed with the technology and the people, and what they
589 were doing there. They were synthesizing small molecules. Would you describe it as
590 what they call rational drug design?

591 **KABAKOFF:** Well, yeah. Probably a more accurate designation is structure-based
592 drug design. Different people use these terminologies differently, but you know, the
593 concept was to leverage knowledge about the mechanism of coagulation, blood-
594 clotting, thrombosis, into rational strategies for intervention, improve the design of
595 the actual methodology, intended to be structure-based drug design. I will tell you,
596 when I started, of the fifteen people, maybe ten or twelve were in the labs, and only
597 two or three of them were working on drug discovery, and the rest of them, seven,
598 eight, ten, whatever it was, were working on diagnostic projects. So, we really started
599 up that program literally from scratch. And what was attractive to me was not so
600 much the technology capability that was there, but the goals, the objectives that
601 were set, and you know, the basic science that was underlying it, the rationale
602 behind the strategy, and you know, the opportunity to do one of the things that I

603 had done a lot of, and continue to do, which is to build good, strong teams of folks
604 to get the job done. That's something that I like doing. It's been a lot of fun.

605 **JONES:** How did you go about doing that? Where did you find people?

606 **KABAKOFF:** Well, initially, you know, we worked pretty hard at pulling a couple of
607 key people out of major pharmaceutical company drug discovery programs. We got a
608 director of research out of DuPont-Merck, and we got a head of biological research
609 out of Merck, actually MRI, Merck Research Institute. You know, those were a
610 couple of very key hires, and then that really helped substantially in being able, then,
611 to start attracting other scientists, and we hired mainly scientists from other
612 companies, but not that many from the area. There was a period early on when there
613 just weren't that many folks available here, and very company was sort of in a hiring
614 mode. We hired, you know, young folks, recent graduates, we hired folks from
615 Scripps and UCSD, whatever, but most of the senior scientists, PhD, you know,
616 scientific staff, came from other major companies over time, and some from
617 universities.

618 **JONES:** The initial people that you hired, did you know these people previously?

619 **KABAKOFF:** Actually, no, I had not, but through good networking and recruiters
620 and stuff, we found people who had excellent reputations in their fields, and...

621 **JONES:** Was it difficult to get people from, say, Merck to come?

622 **KABAKOFF:** It was quite a challenge, and the first couple of key hires that we had to
623 make took longer than we thought, and were quite challenging. They took a lot of
624 effort and commitment and salesmanship, and, you know, when you don't have a
625 critical mass, it's hard. You have to really work at selling people and attracting them.
626 And then it got easier and easier. It's still a lot of effort to find good people, but....

627 **JONES:** At this time, there were a number of people from Hybritech who are now
628 CEOs, I mean, there's Ted Greene, David Hale, Cam Garner, Dennis Carlo, Tom
629 Adams, Ron Taylor, I mean, actually it's pretty extraordinary...

630 **KABAKOFF:** Yeah, yeah. Karen Klause. I mean, pretty much every one of us who
631 was in a senior position is running a number another company, or has run, or is in
632 another senior position. That's right, it's pretty extraordinary.

633 **JONES:** When you were thinking about doing this, or once you got started doing it,
634 did you talk to these people, you know, get on the phone and say, 'I've got this
635 situation, what do you think?'

636 **KABAKOFF:** Well, I talked with a number of my colleagues, both before and during,
637 and after. You know, some knew something about this situation and others didn't,
638 but I had some good general comments. I actually remember, you know, it's
639 interesting, I probably talked as much about this as anybody to Cam, who at that
640 time, you know, was my friend and colleague, he's now my boss, you know, down
641 the hall here, but yeah, I talked to Hale, I talked to Ted. I think I talked to Ted about
642 whether there were any opportunities in some of the things that they were doing
643 from a Biovest perspective. I don't remember exactly, but there was a lot of active
644 discussion. Probably as much after I put my toe in the water, you know, after I
645 jumped in, to get some perspective from some of these folks about what to do, what
646 not to do, especially on the fundraising side. That's where I was able to pick people's
647 brains and get a lot of valuable input.

648 **JONES:** At the time you joined Corvas, what kind of financing was in place?

649 **KABAKOFF:** The company had raised a first venture round of around three million
650 dollars, maybe three plus, three plus something, I don't remember. That was another
651 aspect of the situation that was attractive. It wasn't, you know, a real seed or raw
652 start-up, there was something to be done immediately. Often, in these start-ups
653 there's a gestation period, it can be longer or shorter, you know, sometimes a team
654 gets together and they know exactly what it is they want to do, they get started, they
655 hit the ground running, and you know, raise a big chunk of money out of the chute.
656 Other times, you know, there's a protracted search for money, or a little seed money,
657 half a million dollars. In fact, Corvas had gotten, I think it was a \$250,000 sort of
658 bridge loan from H&Q Life Science Ventures, and the concept was get started, and
659 we'll work on the business plan, and raise some money, and that was then converted
660 to equity in the first venture round. So, they were past that, and it was an attractive
661 time for me to join because I could then concentrate on, you know, what do you do
662 with this, although I will say, within probably a month of starting, we began to work
663 on raising the next round of financing, and within four or six months, actually quite
664 quickly, we were successful in raising another six and half million dollars or
665 something so that we had some real resources to work with.

666 **JONES:** How much of your time in the CEO role do you spend planning the
667 financing?

668 **KABAKOFF:** Well, in the first year, I probably spent about half my time on that, and
669 then the other half of the time was really recruiting and building the organization,
670 and then the balance shifted a little bit to some corporate partnering activities, but
671 then it shifted back to financing, public offering, and I would say, on the balance, in
672 an early stage company, the CEO is going to spend half their time on that aspect.

673 **JONES:** Is there a big difference between selling the company to investors than
674 selling the technology to a corporate partner? I mean, are you doing basically the
675 same thing?

676 **KABAKOFF:** You know, there are different kinds of partnerships. Some are product
677 oriented and some are technology platform. The sell is certainly different, though,
678 because the time horizon of investors is different. Corporate investors don't expect
679 to get the immediate sort of returns. You do have to sell the strategy and sell your
680 technology concepts in some similar ways, but the corporate sells, if you will, are
681 much more program and project specific, and you're most often talking about very
682 specific product development plans and resource requirements, whereas the sale of
683 securities to investors is a bit more general. But even there, you need to articulate
684 what your milestones are going to be, which often include corporate partnerships, by
685 the way, and you need to convince people that you're going to execute, that you're
686 going to be able to get there.

687 **JONES:** Did you enjoy doing this kind of work once you got into it?

688 **KABAKOFF:** Oh, you know, it was a very stimulating program and environment, but
689 probably beating the bushes trying to raise dollars and get corporate partners
690 committed was not as enjoyable as actually executing some of this activity. But, you
691 know, it was important to learn, and you know, I find meeting people in new
692 environments and different places, always I've found that very stimulating. You
693 know, you can learn a lot from that experience. I found that personally stressful
694 often, you know, when the future of the enterprise in on your shoulders. I, certainly,
695 and think most CEOs, take their commitments very seriously. You know, you've got
696 employees that you're responsible for, and you've got investors that count on you,
697 and you've got to deliver the goods. And there are times when, you know, the only
698 thing you have is the sheer conviction that you can do it, because the facts are

699 against you. You just have to keep pushing. It's exciting to go through the various
700 phases, but not without a lot of stressors, if you will, and it's a balance. On the
701 balance, it's a very enjoyable, very rewarding sort of experience, but you'd rather
702 spend less of your time, certainly I'd have rather spent less of my time struggling to
703 get the resources needed to do the job, and more creative time on executing the
704 strategy.

705 **JONES:** Can you remember any particular episodes in the history of Corvas where
706 things were a little touchy?

707 **KABAKOFF:** Well, sure. We had a number of critical junctures, in retrospect. In
708 fact, one is when we took on a very ambitious program to expand the technology
709 base and establish an operation in Europe, which, if I fast forward some years later,
710 we ended up closing because although we were during some very high quality
711 science, we came into a cycle where just couldn't finance and afford to keep that
712 going. And we had another situation which actually was catalytic, at the end of the
713 day, in a positive way, but before the company, before we went public, which was in
714 early '92, as we were beginning to explore and discuss actively with bankers, we had
715 an offer to buy the company, and we had a lot of discussions with our board, and a
716 decision was made to try to execute that transaction. So, I spent literally every
717 waking hour for two solid months working and traveling as necessary and working
718 on a plan whereby Corvas was going to be acquired and become an operating
719 division of another company, and we took this down to the level of all the contracts,
720 operating details, employment agreements for the key employees, and effectively to
721 press release, to draft press releases, and the senior management of the other
722 company got cold feet like thirty-six hours or forty-eight hours before we were going
723 to finish this off. And in retrospect, I can understand why. It was an ambitious
724 undertaking for them. What it did, though, it really got us, it got our house in order,
725 and all the due diligence that the bankers were going to end up doing in the course
726 of a public offering preparation had already been done. We had everything all up
727 and rolling, and here was somebody in the business and financial community who
728 put a stake in the ground and said, 'Hey, you've got something of value here.' And
729 when the thing cratered, fortunately, it really solidified a sense within our board that
730 there was some clear value and direction to proceed, and with the support of some
731 folks on our board and contacts they had in the financial community, and actually
732 the senior executives of the company that almost bought us, they actually helped
733 open some doors and get us organized, and we were able to execute a very successful

734 public offering. That was then what turned out in the short-term to be a very
735 disappointing process because of the enormous energy that went into it. Probably, if
736 I think through it, that, and the period time when we took the company public, were
737 the most intense periods I could ever remember, where you were working against
738 deadlines that just weren't going to move and so, a lot of disappointment, but really,
739 within about two or three days, we shifted gears and that was a very exhilarating
740 period when we were able to get that all done.

741 **JONES:** Who was the buyer?

742 **KABAKOFF:** It's actually never been publicly disclosed, but if you dig into the
743 history of Corvas, there was one fairly substantial shareholder, so one might make
744 some guesses.

745 **JONES:** So this is Centocor?

746 **KABAKOFF:** Yeah, and as it turns out, they then suffered some reversals, and in
747 retrospect, it could have been disastrous if the company had been acquired.

748 **JONES:** This really then accelerated the IPO?

749 **KABAKOFF:** Yeah, it did accelerate it, because if you had asked us, up to that point,
750 we probably would have said that our time frame was, we weren't really ready at that
751 point. And hindsight says that the company probably should have been a bit further
752 along, but you know, you don't look back. The market was there, the opportunity
753 was there, and you know, we took it. It was a challenge. You know, life as a public
754 company all of a sudden opens up everything that you're doing, and it's not as easy
755 to maneuver and adjust your strategies and time frames and programs in the public
756 purview, when people are expecting, you know, the results are delivered on time
757 frames that are much longer than patience.

758 **JONES:** So, the process of going public is pretty intense for a CEO? Oh yeah, for the
759 whole senior management group, absolutely.

760 **JONES:** What kind of stuff is going on at that point?

761 **KABAKOFF:** Well, you're simultaneously working through highly specialized nitty-
762 gritty legal/financial sorts of issues, and at the same time, you're operating on a very
763 strategic perspective, you know, preparing and discussing really the selling of the

764 concept and vision and mission of the company, and programs and so it's sort of a
765 mix. In our situation, John Crawford, who was the Chief Financial Officer, one of the
766 founders of Corvas and the Chief Financial Officer, and still is, is an extremely
767 capable and experienced person when it comes to financing and corporate
768 transactions, so he focused perhaps more on the nits and grits there, and I was
769 focused more on the other side. At the end of the day, though, I had the ultimate
770 accountability, and you know, the first time through the process, you're there every
771 step of the way. I just felt that had to be there, that was the right thing to do. So, it's
772 pretty intense because of that.

773 **JONES:** And in terms of a time commitment, this is around the clock, basically?

774 **KABAKOFF:** Well, yeah, it was, again, for a period of probably, see, some folks
775 might have gotten themselves ready over a bit longer period of time, we ended up
776 accelerating the process, so it was sort of October, November, December, January,
777 you know, which was just a blur.

778 **JONES:** Then how did life change afterwards?

779 **KABAKOFF:** Well, you know, we had additional resources and we did expand the
780 organization and again sort of moved back into organizational building and resource
781 building, and at the same time as we were going public, now let me think about this,
782 yeah, we had just begun, and we had just begun a few months before the public
783 offering, the first clinical trial of the first Corvas-discovered drug substance. That
784 was an exciting time. You know the stories and the statistics about how few things
785 actually make it through the pipeline. Beginning human investigation doesn't mean
786 you have a drug, but it is an exciting first step, so we were going through that. We
787 focused a lot of our energy then on fleshing out the product portfolio. After we went
788 public is when we really began, later that year, really began in earnest the process of
789 developing major corporate partnerships, so we kind of started that process in late
790 1992, in earnest, let's say. We formed the Schering- Plough alliance, let me think
791 about this, this is '97, so that was formed in late '93, is that right? No, late '94. It was
792 a longer time than I would have, boy, I'm missing something here. Yeah, late '94. So,
793 we had a couple year period, if you talk to folks, they'll tell you the average corporate
794 partnership discussions take between, well the average is probably around twelve
795 months. It can happen in as short as six, or they may take eighteen months. The
796 actual discussions we had with Schering-Plough were almost exactly a year from the

797 time of the first contact to the time of a signed deal, and in terms of really intense,
798 well not intense, but serious sorts of discussions, you know, it was probably three
799 months until a decision for a deal, and then another six months to actually get it
800 done. So, we had a year that sort of tried your patience, because the company was
801 making progress in the lab, and we were actually making a little bit of progress in the
802 clinic, although small scale and a little slow, but we didn't have a major sort of a
803 milestone with respect to financials. We went into a period in early, let's when was
804 Clinton elected, in '92, so, you know, we then got sucked in with the whole sector
805 into the downdraft of Clinton healthcare reform and major concerns about the
806 industry overall, so '92 and '93 were particularly challenging years, and we started to
807 gather a little bit of momentum, I would say, in the latter part of '93. It kind of felt
808 like we lost of year. There was a lot of work going on, a lot of technical progress, but
809 from the financial community perspective, the company wasn't, it hadn't achieved
810 any dramatic milestones. There were no leaps. And the answer is that there very
811 rarely are, but the nature of our programs, we were very focused on a couple of
812 programs, and we were at a stage where there weren't going to be, where there
813 weren't any huge leaps forward, so it was a frustrating time, if I remember. But at the
814 same time, we put some real groundwork in place, which formed the basis of an
815 excellent corporate alliance with Schering-Plough, and then the next year another
816 agreement that was reached with Pfizer, but being a public company, the investment
817 community's interest in the company is event driven, events meaning product
818 performance, product successes, financial results, which certainly an early stage
819 company isn't judged by, you know, Dura, we're scrutinized every quarter, our
820 financial results, so that's an event, and we do things like product acquisitions and
821 stuff, and those are big events, but in the early stage company, clinical results clearly
822 are events, corporate partnership milestones are events, and discoveries, new
823 research programs can be events, publications, disclosure of scientific data, but we
824 had a period of time where we just didn't have enough events, and people lost
825 interest in some of the things that we were doing, and then you have to work really
826 hard once you get the momentum again, you've got to work really hard to build that
827 back up, even though you know that all along, you're making steady progress.

828 **JONES:** These are two big events, the Schering-Plough and Pfizer agreements, those
829 attracted attention, right? Was it shortly after that, after Pfizer, that you started
830 thinking about doing something else?

831 **KABAKOFF:** Well, actually, no. I had, for myself, developed the sense that I missed
832 a lot of the aspects of the earlier environments that I had been in, which were really
833 product development driven, product development, commercialization driven,
834 where I had really focused on. The Corvas programs and technology capabilities had
835 evolved, and continue to evolve pretty nicely, but the focus of the business and the
836 amount of time and effort needed to be spent, at that point, on continued activities
837 in financing and partnering, it was just clear that it was going to be a long, long
838 term, a lot longer than we had, when we started, we figured that it was, you know,
839 maybe an eight or ten-year plan to the first product, and it became clear, and if you
840 look at some of the companies, you know, the record shows that it's ten, fifteen
841 years. I think IDEC, with approval now, you know, FDA panel recommendation for
842 approval of the first product, I think that's nine years.

843 **JONES:** IDEC was started in '86.

844 **KABAKOFF:** So, OK, eleven years. Ten to twelve years, or twelve to fifteen years.
845 That's right, IDEC. Was that '86?

846 **JONES:** I think fall of '86 is when they actually started it and called it IDEC, yeah.

847 **KABAKOFF:** Let me think about this. Hybritech was sold in March of '86, so yeah,
848 IDEC, it was getting organized at that time, maybe even earlier, there you go. Yeah,
849 so I guess, again, for myself, I felt that it would make sense to look for a somewhat
850 different environment. At the same time, although I might have been thinking about
851 it, I didn't spend really any time at all in a classic sort of, you know, 'OK, I'm going to
852 look for something else,' and to go out and start looking. I spent zero time, and
853 unless the board that would have fired me by now, if Cam Garner and I hadn't had
854 the discussion over what turned out to be a pretty unique opportunity, you know, I'd
855 probably still be running that company. So, I might have thought a little bit about it,
856 and would have been receptive certainly to thinking when a colleague contacted me,
857 I really had no concrete plans or thoughts, you know, I would sort of routinely
858 decline any discussions with headhunters about anything. I was just doing my thing.
859 This was a very unusual situation. Then, after the fact, I can sit here and explain why
860 it suited my interests very well, but it's not like I had a serious sort of contemplation
861 of, you know, OK, now it's time to go do something else.

862 **JONES:** So Cam Garner contacted you?

863 **KABAKOFF:** Well, it turns out, I had been sitting on the board of a company
864 affiliated with Dura for a number of years, the predecessor company to what we call
865 Spiros Development Corporation.

866 **JONES:** What was the name of it?

867 **KABAKOFF:** It was called DDSI, Dura Delivery Systems, Inc. It was a private
868 company that Dura established that was financing the development of what we now
869 call Spiros, the pulmonary drug delivery system. So, you know, I was involved on a
870 periodic basis.

871 **JONES:** How did you get involved with them originally?

872 **KABAKOFF:** Well, Cam and I had worked together, and when he was putting the
873 board together for this company, you know, they needed an outside board, an
874 independent board, and knowing a little bit about my background and the things
875 that they wanted to do, he felt that I could contribute and asked if I could help him
876 out, and it was something that was non-competitive in any way with what we were
877 doing at Corvas, so I said, 'Alright.' It made sense. It started out as, you know, there
878 was a small program here, and it kind of, let's see, the time frame was that Spiros
879 Development Corp. was formed in January of 1996, and it was really after that time
880 that the company had the resources to substantially expand the program, and he
881 kind of said, 'Hey, I need somebody to help me,' and I thought about it, and it made
882 a lot of sense. Meanwhile, at that point, we had achieved a number of milestones.
883 When he had first contacted me, I was in the thick of major financing activity for
884 Corvas, and I said, you know, 'Go away, don't bother me,' and after we were able to
885 get that financing done, I really sat back and thought about, and I said, 'You know,
886 this really does make sense,' so I was able, fortunately with the support of a number
887 of people, you know, to go to the Corvas board and tell them what I was thinking
888 about, and we when we sat down, you asked about my friend, Dick Schneider, you
889 know, Dick Schneider is now with Domain, and Domain were early investors in
890 Dura, Jim Blair of Domain sits on our board, and Domain was one of the key
891 investors in Spiros Development Corp. Alongside of Domain, a group called the
892 Rothschild Fund, International Biotechnology Trust, and what's called BIL,
893 Biotechnology Investment Limited had been investors in Dura, and BIL was an
894 investor also in Spiros, and it turns out in the financing that we did at Corvas in
895 February of 1996, Rothschild was the lead investor, so Dick Schneider was actually

896 very supportive in helping them to get interested over the years, in helping them to
897 get interested in Corvas, in introducing me to those folks and encouraging them to
898 talk to us, and of course, Domain was involved here, so it was a little bit of a
899 challenge for me to make the transition as I did, but you know, in basically just
900 sitting down with people and having forthright discussions, and developing a plan to
901 address Corvas management succession, I think at the end of that day, I characterize
902 it sort of as everybody wins. You know, I had been over there at the helm for seven
903 years, giving, frankly, pretty much the same message, 'evolving,' 'progress,' and the
904 mission of the company had been consistent, but I felt that maybe it would be a
905 good time for somebody else to deliver a somewhat fresh message. Some people can
906 sustain the enthusiasm, you know, I was just finding at that particular time that that
907 would be helpful. In retrospect, it's been very positive for the company, because they
908 have some fresh leadership. You know, I stayed involved with the company for a
909 period of time.

910 **JONES:** Are you still on the Board?

911 **KABAKOFF:** Not at this point. I resigned. It was at the beginning of the second
912 quarter, whenever, I forget. But I stayed on for a year kind of to ensure a nice
913 transition. I still am a consultant to the company. I spend a little bit of time with
914 them. Two weeks ago, I spent a half-day over there for a consultant's meeting and a
915 strategy review, and stuff like that. I try to help, you know, just to be a resource, to
916 be available for the CEO and folks, as a resource when questions come up, when I'm
917 out and around, sort of scouting out opportunities for them, that kind of thing.

918 **JONES:** And what was it about this opportunity that appealed to you?

919 **KABAKOFF:** Well, I think that there are two issues. One is that we have an existing
920 business that is growing, that has real world operational issues that everyday I'm
921 involved in, and I can contribute to, and that are challenging. And then the Spiros
922 technology is an opportunity to build a second arm of the Dura strategy. A very, very
923 capable technical and operational team was here in place. This company needed
924 somebody to provide some overall leadership, which provided me with an
925 opportunity to do exactly what I thought I would be able to do, which is to maintain,
926 to get back into the mainstream of commercial operating enterprise, that's number
927 one, and number two, to be involved with some very exciting new technology, but
928 three, to maintain certain aspects of what I was doing as CEO of an independent

929 public company, instead of now being a CEO, I'm a member of the senior
930 management team, I sit on the board of the company, and you know, our goal,
931 rather than the Corvas goal, might be to say how do you build your company
932 product portfolio and value and capability so that your market cap moves from right
933 around a hundred million to hundred million, let's say, as a goal, to when I joined
934 Dura, our market cap was plus or minus a billion dollars and it's now around two
935 billion, so that was a challenge. It might still be, because that value can oscillate of
936 course, but you know, our goal now is how do you build from two billion to four
937 billions or something thereabouts. It's just a different sort of a challenge. It's an
938 opportunity to play a key role with a team of people, a very, very capable group, very
939 talented, just to use my skills with a company at a different stage. We have both
940 start-up activities and full-scale commercial activities in the same company.

941 **JONES:** So, that was important, the best of both worlds?

942 **KABAKOFF:** Yeah, for me to go from being the CEO of Corvas to being the CEO of
943 another sort of early-stage start-up didn't make, you know, why would I do that? I
944 mean, I might have done it if I had to, but I didn't have to. It was kind of a battle to
945 get, in a sense, at least at that point in time, and you know, some of our investor and
946 board certainly weren't too happy with the concept, but you know, with the
947 appropriate actions and a lot of careful effort and planning, and kind of trying to do
948 two jobs for a few months to make sure there were no loose ends, I was actually able
949 to, the transition went much better than I would ever have imagined.

950 **JONES:** Well, do have any anecdotes from the beginning, or form over the years,
951 from Hybritech, from Corvas, or anywhere else?

952 **KABAKOFF:** I'm trying to remember whether I told you a Ted Greene story that I
953 tell. It's not so much funny or comedy, but it really shows the role of leadership in
954 these companies. And the story that I tell is that, see I had worked with Ted many
955 years ago at Hyland Laboratories, at Baxter, and I went to work at Syntex and we
956 stayed in contact, and at one of the trade shows where we happened to me, and you
957 have to understand, if you've met Ted, he's basically in a selling or recruiting mode,
958 you know, all the time, so whatever the current mission or program or project or
959 concept, whatever, that's just the way he is. So, I don't think this was necessarily
960 unique, but you know, I think at one point in time, he probably tried to encourage
961 anybody who he knew in the industry who he thought had any ounce of talent to

962 come and join Hybritech, because that's just the way he was. So, this time I was the
963 lucky prospect, whatever, but he and Gary David and I had a dinner together that I
964 remember and tell people about in New Orleans during an AACC [American
965 Association of Clinical Chemistry] meeting, and it must have been somewhere in the
966 '79, '80 time frame, it's a little fuzzy. Probably, for the history books, somebody
967 ought to go back and call up the AACC and say, you know, what year was the
968 meeting in New Orleans, was it '81? I'm trying to think, I got married in '80. I don't
969 know, I had discussions over a number of years with Hybritech, but the relevant
970 thing here is that Ted was telling me about what they were trying to do at Hybritech,
971 and I distinctly remember some aspects of this, and he was telling me about some of
972 the investors, and the one obviously most prominent was Kleiner Perkins and Tom
973 Perkins was Chairman of the Board at Genentech and Hybritech and Genentech
974 were sort of sister or cousin companies, whatever, and you can make the judgment
975 about which company did better, I think the shareholders of both did pretty well.
976 Obviously, Genentech has had a lot more staying power, but you know, he was
977 basically describing how he saw the Hybritechs and the Genentechs, etc. of the
978 world were going to be like the Intels and Fairchild Semiconductors and Xeroxs of
979 the high-tech industry, and how one was going to see, as these companies were
980 successful and capital started to flow, you were going to see a proliferation of
981 companies. He said, 'You know, as a young scientific manager in this arena, you
982 really ought to get involved in this sort of business, you need to get to know these
983 sorts of people, and San Diego is going to be a hotbed of this activity, and you're
984 going to see just like what's going in the Silicon Valley.' Now, you can say I'm making
985 this story up, it's just a bunch of bullshit. NO, it's not a bunch of bullshit, I mean,
986 that's exactly what this guy was saying back in, you know, I joined Hybritech in the
987 beginning of '83, so the serious recruiting discussions were in the late half of '82, I
988 think maybe even in '8, we had had some discussions, but they didn't really have sort
989 of the right opportunity at the time. You know, there is an example of the sort of
990 vision that, you know, people thought that he was crazy, but, you know what? Just
991 look around, OK, I mean, it's unbelievable.

992 **JONES:** Did you believe him at the time?

993 **KABAKOFF:** I certainly recognized, I didn't believe it. Let me just be honest, I didn't
994 believe it enough to jump immediately at that point in time. I had a terrific and
995 opportunity and job position in a company and it made sense for me to keep my
996 focus on development, whatever. But I certainly believed later on in the potential of

997 Hybritech and the technology and the commercial opportunities, because obviously
998 I did make that move, and, you know, I certainly felt that there was going to be some
999 merit in it. As with anything, I knew Ted well enough to know that he was probably
1000 pushing the envelope, so...

1001 **JONES:** All of the people at Hybritech are still here, in senior management of all
1002 these companies. Do you still bump into them?

1003 **KABAKOFF:** From time to time. It varies. I see folks like David Hale pretty regularly,
1004 and of course, Cam all the time, and Ron Taylor rarely.

1005 **JONES:** More before?

1006 **KABAKOFF:** More before. Now I don't see him as much. Cole Owen, Ted I see quite
1007 frequently, Howard Birndorf occasionally, Dennis Carlo occasionally. Tom Adams I
1008 see reasonably often.

1009 **JONES:** What kind of functions do you see them at?

1010 **KABAKOFF:** Well, whether it's community business activities, sometimes stuff
1011 associated with the university. The Hale's, for example, we socialize periodically, the
1012 Garners, people like Dennis and Tim Wollaeger and those folks, you know, I see at
1013 community business type things more, but I socialize with some of the group with
1014 some frequency, people like Karen Klause, and the Hales, the Dameckis, you know
1015 Chet Damecki was actually our VP of Operations, and he works for me now. I see
1016 him all the time. Julia Brown, who wasn't one of the original Hybritech people, but
1017 joined after from Lilly is, you know, just around the corner. I was just talking to her,
1018 you know, we worked together before, and now every day we see each other. It's
1019 pretty amazing.

END INTERVIEW

Recommended Citation:

Kabakoff, David. Interview conducted by Mark Jones, 1997.
The San Diego Technology Archive (SDTA), UC San Diego Library, La Jolla, CA.



The San Diego Technology Archive (SDTA), an initiative of the UC San Diego Library, documents the history, formation, and evolution of the companies that formed the San Diego region's high-tech cluster, beginning in 1965. The SDTA captures the vision, strategic thinking, and recollections of key technology and business founders, entrepreneurs, academics, venture capitalists, early employees, and service providers, many of whom figured prominently in the development of San Diego's dynamic technology cluster. As these individuals articulate and comment on their contributions, innovations, and entrepreneurial trajectories, a rich living history emerges about the extraordinarily synergistic academic and commercial collaborations that distinguish the San Diego technology community.