# William Respess

Interview conducted by Matthew Shindell, Historian August 14, 2008

## San Diego Technology Archive





### William Respess



Dr. William Larry Respess, Ph.D., J.D., Esq. has been a Senior Vice President, General Counsel and Secretary of Nanogen Inc. since April 2004. Dr. Respess served as Senior Vice President and General Counsel of Graviton Incorporated from 2000 to 2002. From 1988 to 2000, Dr. Respess served as Senior Vice President and General Counsel of Ligand Pharmaceuticals Incorporated. He also held the positions of Vice President and General Counsel of Gen-Probe Incorporated from 1986 to 1988 and Vice President and General Counsel of Hybritech Incorporated and Partner at Lyon & Lyon LLP, a leading intellectual property law firm from 1983 to 1986. Dr. Respess joined Nanogen in April 2004 and has more than three decades of biotechnology experience in intellectual property, licensing and general corporate law. He served as Vice President and General Counsel of Applied Molecular Evolution, Inc. from July 2002 to 2004. He served as Law Clerk and Technical Advisor to the Honorable J. Lindsay Almond, Jr. on the United States Court of Customs and Patent Appeals. Dr. Respess serves as Director of Nautilus Biotech. He has been Director of Applied Molecular Evolution, Inc. since September 2002. He serves as a member of the American Intellectual Property Law Association and has been a frequent Lecturer on intellectual property and licensing law. He studied PhD in Organic Chemistry from Massachusetts Institute of Technology and a BS degree in Chemistry from Virginia Military Institute. Dr. Respess studied JD from George Washington University.

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#### THE SAN DIEGO TECHNOLOGY ARCHIVE

**INTERVIEWEE:** William Respess

INTERVIEWER: Matthew Shindell, Historian

DATE: August 14, 2008

LOCATION: San Diego, California

- SHINDELL: The date is August 14, 2008. This is an interview with Larry Respess,
- done by Matthew Shindell. Mr. Respess, if you could tell us please, how did you
- 3 become involved in San Diego biotech?
- 4 **RESPESS:** Well, just for the record my first name is really William. I go by "Larry,"
- but, so most people refer to me that way. But, if we're making an official record, I
- 6 guess it should accurately identify that I'm William Larry Respess. And, you asked me
- 7 how I became involved in biotech?
- 8 **SHINDELL:** Uhm-hmm. Yeah. Going back as far as you like. How did you end up
- 9 here?
- 10 **RESPESS:** Okay. Well, I guess it really started when I was an associate in the law firm
- of Lyon & Lyon in Los Angeles. At that time Lyon & Lyon no longer exists but it
- ultimately became a very large intellectual property law firm. But, when I joined the
- firm in 1974 it was twenty-plus lawyers. A few years after I joined the firm a partner in
- the firm, Thomas D. Kiley, Tom Kiley, asked me to participate with him in
- representing a new company and that company turned out to be Genentech. I don't
- 16 know whether people listening to this, if anyone ever does, will know this, but
- Genentech is generally considered to be the first biotechnology company, and by all
- metrics one of the most successful. And, they were embarking on the, attempting to
- develop products using what, at that time, was a nascent technology, molecular
- 20 biology, to make proteins by instructing bacteria how to make the proteins. And, the
- 21 first meeting I had with Tom and these two, and this company, there were two people
- 22 there, Bob Swanson, who was the president of the company and I think chairman of
- 23 the Board, or at least was certainly on the Board, and well, it's not coming to me

- 24 right now, but it'll probably come to me later a scientist from the City of Hope who
- worked with Genentech. His name was Art Riggs I think. And, well as they say with,
- 26 I'll say with respect to Genentech, the rest is history. They are a hugely successful
- biotechnology, biopharmaceutical company. But, Tom Kiley and I began to work on
- 28 their first patent applications for the first expression of a human protein, a functional
- 29 protein, in a bacterium. It was a very small protein, but it was considered a very
- important advance at that particular time. What does that got to do, all this have to
- do with Hybritech. Well ultimately Tom was induced to leave Genentech, I mean
- leave Lyon & Lyon and become the general counsel of Genentech, and he had just
- picked up, shortly before that, I'll call it a "new client" called Hybritech. And,
- Hybritech, I think most people consider it to be the first biotechnology company in
- San Diego. And, he introduced me to Howard Birndorf and Ted Greene, and I
- undertook to represent Hybritech in its early, early days. Ultimately, like Tom I was,
- like Tom was persuaded to join Genentech, I ultimately agreed to leave private
- practice and become the vice president and general counsel of Hybritech, and that's
- 39 how I got into biotech.
- 40 **SHINDELL:** So, you left L.A. at that point and came to San Diego?
- SHINDELL: Yeah. That was in 1983, late '83, late 1983 I came down here and started
- 42 with Hybritech.
- 43 **SHINDELL:** And, you had had some experience with Genentech then with drawing
- 44 up their patent applications and so maybe knew a little bit more than, than others in
- 45 this country about biotech and its potentials back in the '70s. So, I wonder, how did
- you see biotech at that point? What did it seem to you? What was the promise of
- 47 biotech?
- 48 **RESPESS:** Well, I think obviously I recall a conversation I had with Brook Byers,
- 49 who may be on your list of interviewees. Brook was a partner at Kleiner Perkins
- Caufield & Byers and they were an early investor in Hybritech. And, he and I had a
- discussion that I remember very well, in which he pointed out to me a number of
- 52 things. One is, that as a lawyer in private practice can only work twenty-four hours a
- day and that would cap my earnings at whatever my income could be and, but if you,
- if you participated in a, in a bio, in a company like a biotechnology company that you
- obviously had an opportunity to be remunerated on the basis of the performance of
- the stock. But it wasn't, the conversation wasn't as crass as I may have made it sound,



- because in the course of that Brook, who had, who's a venture capitalist, and Kleiner 57 Perkins is a venture capital firm, and again probably the premier venture capital firm 58 in the United States, commented to me that he took particular satisfaction in 59 investing in companies like Genentech - they were an investor in Genentech - and 60 Hybritech because he got particular satisfaction out of the benefits that a successful 61 investment could have for humanity. The, there are things that biotech could do, or 62 had the promise of being able to do, that simply could not be done any other way and 63 the ultimate beneficiary, he thought, and I think I agreed with him, but then I 64 certainly agreed with him at the time, was that biotechnology could provide 65 incredibly important therapeutic and diagnostic products for the benefit of all 66 persons. And I think the promise of biotechnology has, I think biotechnology has, 67 generally speaking, delivered on its promises. In those particular days, I think it was 68 perceived that a major, the major area would probably be recombinant technology 69 like Genentech was practicing. Monoclonal antibodies, which was Hybritech's thing, 70 was not as far along, so to speak, but had enormous potential also. And, I think both 71 of those technologies have more than paid back the early investors, rewarded the 72 confidence of the early investors. Ultimately they sort of came together, antibody, 73 monoclonal antibodies began to be made by recombinant techniques. But, so these 74 two disparate technologies ultimately met each other somewhere and they both have 75 made great contributions for – well, one of the leading cancer products in the United 76 States is Rituxan, that was developed here locally in San Diego and it's a monoclonal 77 antibody, and I believe it's made by recombinant techniques. So. Anyway. So, I was, I 78 was persuaded that there would be considerable personal opportunity for me if I was 79 willing to consider leaving private practice and run the risk in a small biotechnology 80 company and that I would get – if it was successful I'd get enormous personal 81 satisfaction out of being a part of that success, and those have all been, have all come 82 true. I feel personally rewarded in both how I've done financially and how I've been 83 able to be involved in a, the birth of an industry, both originally starting at 84 Genentech, well starting at Lyon & Lyon and working with Genentech, and then with 85 Hybritech, and then subsequently after Hybritech a number of other biotechnology 86 companies in San Diego. 87
- SHINDELL: And, when you worked at Lyon & Lyon and you drew up Genentech's patent applications, was that your first experience with patent law, or had you studied patent law extensively prior to that?
  - **RESPESS:** Well, I had been a patent lawyer for a number of years.



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- 92 **SHINDELL:** Oh, okay.
- 93 **RESPESS:** And my, my career in patent law, if you will, started when I started, when I
- entered law school. I had been a, I was in the U.S. Air Force in the '60s and in the,
- 95 while I was in the Air Force I'd formed the idea that I would like to be an attorney,
- and I was, at that time I was assigned to the United States Air Force Materials
- Laboratory at Wright-Patterson Air Force Base, and I was a doctor of chemistry. But, I
- became interested in potentially doing, having a law career. And . . .
- 99 **SHINDELL:** Where did you get your chemistry degree?
- 100 **RESPESS:** At MIT.
- 101 **SHINDELL:** Oh, okay.
- 102 **RESPESS:** So, to make a long story short, I, in those days there were, in Washington
- D.C., many corporations had training programs for budding patent attorneys which
- allowed you to work in the daytime and go to a, one of the D.C. law schools at night,
- Georgetown, George Washington, American University, and Catholic University all
- had night law programs in those days, and I selected George Washington University
- and went to law school at night, and worked in the daytime for Phillips Petroleum
- 108 Company. And so, before I finished law school I was, I became a registered patent
- agent. You're not allowed to call, refer to yourself as a patent attorney as long, until
- you have a law degree but there is an examination you can pass and practice before
- the Patent Office as if you were an attorney without being an attorney, and I
- qualified. There's nothing unique about that. Many other people have done the same
- thing. And so, after I, and so I worked in Phillips' Patent Group in Washington D.C.
- and I actually began preparing and prosecuting, the term we use is "prosecute" patent
- applications before the Patent Office, and do sundry other things that are related to
- that. Then after I graduated from law school I became a clerk and technical advisor to
- a judge, Judge Lindsay Almond on the United States Court of Customs and Patent
- Appeals. That court no longer exists. It was merged into another, it merged with
- another specialized federal court to form the United States Court of Appeals for the
- Federal Circuit, which has jurisdiction over patent matters. So, for two years I, I
- assisted in, in drafting opinions for judges on a patent court, which is a very
- concentrated, if you will, graduate school in patent law because every month there
- would be, I think, in those days twenty-five appeals heard and each chambers would
- get five and over the course of two years, if you multiply twenty-four times five you



- assisted in the drafting of at least 120 opinions on a variety of matters, not all of which
- were patents. Some were trademarks, and some related to customs matters. But, that
- was the sort of jurisdiction that it had in those days. And then after I finished law
- school, I...
- 129 **SHINDELL:** What year was that?
- 130 **RESPESS:** I mean after, I'm sorry, I finished law school in 1972 and after I finished
- clerking in 1974 I became an associate at Lyon & Lyon in Los Angeles and moved to
- California. And then I was there until 1983 and I was a partner in 1980, but I resigned
- from the firm and joined Hybritech, as we've already discussed, in 1983.
- SHINDELL: That must have been a big decision to leave a partnership, or a position
- as a partner in a law firm? How did your colleagues think of that?
- 136 **RESPESS:** Well, it was a, it was a difficult decision. I certainly enjoyed what I was
- doing and I was happy at the firm. I wasn't truly a groundbreaker. I already
- mentioned Tom Kiley, who was about three years ahead of me in the partner, in
- becoming a partner at Lyon & Lyon, two or three years ahead of me in any event, and
- 140 Tom had already left to go to Genentech and Genentech had gone public, and a very
- successful public offering, and one of the first of the biotech companies, as I recall, to
- go public, become a public, public, having stock publicly traded. And, I think, the
- 143 firm, the firm as far as I was concerned, they seemed to regret my leaving but I think
- there was a recognition that, particularly as a result of the relationship we had with
- Genentech, that is one way that a firm grows is, and which is, was certainly true in
- those days of the major law firms, because patent law was a, was considered a
- boutique practice back in those days. Most big law firms didn't have patent, didn't
- have patent departments. If your alumni, so to speak, went into a corporate setting
- then often the parent law firm, if you will, benefited from the business that would
- come their way. And I mean, again, I don't want to make this sound crass. They don't,
- in those days, particularly, law firms didn't groom lawyers to put them out and
- proselytize for, for business, but that would be a natural result that if, so if,
- particularly if you leave in good stead I would assume. So, I considered it to be a bold
- move personally, because I gave up the sinecure, if you will, of a, in those days, a
- major patent law firm for a risky business. But, it was something I was interested in
- doing for reasons independently of the success and pleasure of private practice. I



- considered it a challenge, a different kind of challenge that I was interested in undertaking.
- SHINDELL: Okay. Can I just backtrack a little bit and ask you about your experiences
- prior to Lyon & Lyons? When you were at, well doing your clerkship or even prior to
- that, first practicing patent law did you find that your chemistry background was
- helpful in that? Did you use it much or is it more of a technical process regarding the
- law rather than the actual chemistry?
- 164 **RESPESS:** I think many people gravitate, if they become a patent lawyer first of all
- to become a registered patent agent you have to have a technical background. The
- Patent Office requires that. And, in the days when I started as a patent lawyer, before
- the birth of biotech as we know it today, there were three art areas, generally
- speaking, broadly speaking there were three art areas. One was what we call
- "mechanical," and that's engines, and turbines, and things like that. And then, there
- was what we call the "electrical arts" and that included, as technology moved on, the
- computers had begun. You're such a young guy, you probably don't remember there
- was a time when there wasn't a computer on every desk and computers took up
- whole rooms, and so forth. But so the, when the computer revolution
- began the people in the electrical arts naturally, I think, became those, the people to
- whom persons looked for representation in the computer arts, which was a subpart
- of, in those days, the electrical arts. Well, in the chemical arts I was, by training in
- chemistry at MIT in what I'll call classical small-molecule chemis, the kind you study
- in sophomore chemistry at UCSD probably. Then I went to the Air Force Materials
- Laboratory which was focused on materials for aircraft and for other military
- applications and these tended to be, other than small molecules, polymers. You
- 181 know, think like what carpet's made out of and one thing or another. So, I had a
- background in classical chemistry and also to a certain extent some exposure to
- specialized field of high molecular-weight compounds, if you will, polymers and so
- forth. And so, and one other, one other aside is that within the chemical arts, just like
- computers fell within the electrical arts, pharmaceuticals tended to fall in the
- chemical arts. So, people who had chemical backgrounds gravitated to the, well, if
- their firm had clients or they secured clients they represented people in the
- pharmaceutical business. Now frankly, on the West Coast, in those days, there was
- not a significant presence of pharmaceutical companies, but I personally represented
- companies that were involved in making polymeric materials. Raychem Corporation
- in the San Francisco Bay Area was a very successful company in specialized polymers.



- And, I also, Tom Kiley and I, with another, with another more senior partner at Lyon 192 & Lyon, Jim Garriack, represented a company in the diagnostic business, and so I had 193 194 a little bit of antibody, immunology background that I acquired from that. Well, at any rate, you asked me the question, and I rambled a bit about, "Did it make much 195 difference what my, what my background in chemistry to my practice?" I think that a 196 lot of young patent attorneys would like nothing better than to do patent work in the 197 area for which they were particularly trained, and they're, I, it was fairly unusual 198 when I started to have a doctor's degree in chemistry, let's say, but it's much more 199 common now for patent attorneys to have advanced degrees. And, but the fact of the 200 matter is that I think in order to be successful you have to go beyond your narrow 201 technical specialization and but most of the really good patent attorneys are able, 202 with the help of their clients, to gain the grasp of the technology sufficiently that they 203 can do a good, a good job. I personally believe that, in the patent area, a client is 204 better served by a very good lawyer who can adapt to, to the technology of the, of the 205 client, as opposed to a poor lawyer who is highly skilled technically but doesn't have a 206 broader sense of how to integrate the knowledge of the technology into the business 207 environment. I won't name any entity but I once looked on behalf of a company at 208 some technology that they were interested, it was interested in licensing and the 209 patent application that was up for license was going east when the technology was 210 going west, and we had to intercede and change the focus of the patent prosecution 211 so that it fit the business model as opposed to some esoteric area of probably extreme 212 interest to the researcher who had come up with it, but it didn't have, the way it was 213 214 going would not have had any business application. So, in any event, it is, I think, very important that the lawyer function as a lawyer as opposed to a, a legally-trained 215 scientist. Okay? 216
- SHINDELL: Let me ask you about what you described just now as sort of adapting to, to the client's sort of technology or science. How did you adapt to biotech and also how did patenting in general sort of adapt to biotech as that explosion began?

  Because, it wasn't necessarily an easy fit once it really started exploding right?
- RESPESS: That's a very good question because the U.S. Patent Office, for reasons that amaze me, puzzle me, has often resisted examining new area, new areas of technology. They've become very rigid in their outlook on new technologies. Probably the and, so they're very comfortable examining patent applications in areas that have been around a long time, and today they're fairly comfortable examining biotechnology applications because now they, biotechnology's been around a fairly



long time. But, back in the days when the computer revolution was beginning, the 2.2.7 Patent Office resisted granting patents in the area of computer technology. And, they 228 229 threw up things like, "Well, computers basically do the same thing that a brain does and you can't, you can't patent the mental process. If it can be patented, if it can be 230 carried out by a human brain you can't get a patent on it." That's, they would create 231 those sorts of blocks. And, I remember at a, in a seminar course in, in law school we 232 had a guest come in from the Patent Office and he complained about the burden on 233 234 the Patent Office of having to examine these really thick computer patent applications that, you know, are three inches high when they're, when they're filed, as 235 opposed to an eighth of an inch electrical application. And, it was putting a big 236 burden on the Patent Office and they didn't like it and they were thinking about 237 using a part of the patent statute that hadn't been used for a hundred years, and that 238 is the requirement that if the Patent Office wants to that they can make you bring in 239 a model of your invention. "So, we're going to, we're going to make all these 240 computer people bring in a model of their invention." Well, if you've, there's a 241 museum, there's a museum in Washington D.C. and you can go look at patent 242 models. They're beautiful things. And the days, and you know, you can look at the, 243 244 probably. I'm not, I'm making this up to a certain extent, [Laugh] you might look at the, at the, at a model of the reaper or the model of an early steam engine, and those 245 sorts of things. But the Patent Office has moved on beyond that. But, the Patent 246 Office, you know, took a sort of what I would call a Luddite view of new technology. 247 It didn't want, it didn't want to change. Well, a similar thing happened when 248 biotechnology began to break out because there was no, there were not people there 249 who, who knew biotechnology and you had to take the people from the chemical arts 250 and specifically, more specifically those from the pharmaceutical arts and adapt them 251 to biotechnology. Well the, that's, that's learning and most people don't want to 252 learn. That's unfair. A lot of people don't want to learn. Institutions don't want to 253 change. And, they tried to fit biotechnology into the old paradigm and it wasn't 254 working, and so you began to get rejections. "Well, this is not patentable subject 255 matter because you're patenting living things," and one thing or another. Well, over 256 time the federal court, I, the CCPA that I referred to and its successor court, the 257 Federal Circuit, they adopted a broader attitude, fortunately. I think it was in a case, 258 259 in Re Chakrabarty, or another case of that era, the Court said something to the effect, "Anything under the sun that man can make is potentially patentable." And, they 260 forced the Patent Office, in effect, to grant patents where they had been resistant. 261 Now, of course, the Patent Office has, by virtue of necessity, it began to, obviously, 262



hire people who had biotechnology backgrounds and they are getting very 263 sophisticated, more sophisticated examination, and we've gotten past their reluctance 264 265 to grant patents in this area. But, for a long time, for a period of time at any rate in the early days of biotechnology they, the Patent Office did not want to be burdened. 266 It wanted to keep on doing what it had been doing for the last, since the birth of the 267 republic. [Laughter] And having been forced to examine computers but it, the Patent 268 Office, wasn't happy about examining biotechnology patents either. I mentioned that 269 you can't patent life. You can't patent products of nature, and so forth and so on. 270 And, some very innovative things were done by people to, including my colleague 271 Tom Kiley, that I referred to, in order to present the Patent Office with applications 272 for inventions that got around these sort of arcane objections that the Patent Office 273 raised in those days. For, for, I'll give you an example, which I'm sure will mystify 274 people who look at this [Laugh] if they ever listen to this ten years down the road. 275 Take, take an early recombinant molecule like human growth hormone, which before 276 biotechnology was being extracted from cadavers, and very small quantities were 277 available. And, they were, it was used, as I understand, as I recall, to treat a condition 278 called hypopituitary dwarfism where children don't gain their natural, what they 279 might be otherwise programmed to in terms of their stature because they don't 280 produce enough growth, growth hormone. So, they would get injections of growth 281 hormone from, from, derived from cadavers. Well, unfortunately, those products 282 were sometimes contaminated with viruses, or, and children became infected from 283 what they were being treated with. So, if you make it, if you could make this material 284 in a, in a bacterial cell, let's say, it would still be growth hormone and it would have 285 the same chemical structure as growth hormone. So, if you tried to patent growth 286 hormone you would get a rejection from the Patent, "Oh, that's just a product of 287 nature. You can't patent that. It's already known." But yet, it has, its economic 288 potential was zero back in the days when you're trying to persuade people to let their 289 loved ones be sacrificed for the production of, of – I'm not – they weren't "sacrificed," 290 but after they died their body be ravaged to get growth hormone. So attorneys began 291 to do some innovative things. You would, they would claim these products of nature 292 as, let's say, "human growth hormone free of protein, other proteins of human origin, 293 or mammalian origin." And, of course the Patent Office had to be persuaded this was, 294 295 this is – because you, if you purify growth hormone you always leave behind a little bit of other things. So by, by doing this you achieve what is essential in patents, what 296 we call bare – you achieve novelty, and once you achieve novelty you're a long ways 297 along the way to getting your invention patented. So, the point of the story is that in 298



order to get patents in this area you had to be, you had to be a good lawyer. It goes 299 back to my earlier point, that a good lawyer is, being a good lawyer is perhaps more 300 important than being the greatest technician in the world in this area. If someone 301 hadn't, if people hadn't come up with these claiming paradigms we would still be 302 battling with the Patent Office that we're trying to patent natural products, which 303 you're not, technically you're not allowed to do. It has to be in some form other than 304 it's found in nature or otherwise has been available to the public. So anyway, there 305 was a, I think, a very important period, there was a period in the – there was, 306 fortunately, in the early days of biotech there were lawyers around like Tom Kiley, 307 who were able to create a scheme, in the nice sense of the word, a scheme under 308 which the products of biotechnology could be patented and get around some of the 309 objections, some of which but not all of which were unfounded by the Patent Office 310 in terms of "How is this technology going to be protected?" Because without patent 311 protection the industry, I think, would have foundered. I'll allude to Brook Byers, 312 another conversation with Brook, or not just a conversation. I'm heard him say this in 313 other, to people other than just me that the investment, the venture capital 314 community looked for three things in, in a startup company. They looked for 315 316 technology that had significant economic promise. They looked at the strength of the management team. And, they looked at whether or not there was intellectual 317 property to protect this little company from competition, sufficient for it to, you 318 know, achieve the level of success that would pay back their investors. Because, the 319 thing that I think has made the biotechnology industry is a little bit like the story we 320 hear about how mammals eventually survived in the era of the dinosaur, they were 321 nimble and quick and were able to get around and avoid these lumbering beasts. 322 [Laugh] Well, the small biotechnology companies were, are, and Howard Birndorf -323 you've had, I know you had a conversation with Howard – Howard is the perfect 324 example of the entrepreneur who has a nose for technology that has promise, seizes 325 the opportunity, works out an arrangement with the institution from where that 326 technology is coming, and maybe the person who developed that technology there, 327 and form the nucleus of a company where the big pharmaceutical companies are, you 328 know, they're still lumbering along. And I, this may sound unfair to pharmaceutical 329 companies and I'm sure that there are, and there are other reasons why the biotech 330 331 companies have had more success in licensing technology than they had in getting some of these new technologies off the ground. But one is that they simply were, they 332 moved so slowly that these opportunities come and go before they really get a chance 333 to play in the game. And so, anyway, intellectual property is one of the important, I 334



- think the, as the, did I mention the three, the three-legged Brook, I think, used the 335 metaphor of a three-legged stool. The three-legged stool that you need for a 336 successful company, is promising technology having commercial applicability, a good 337 management team, and then intellectual property that, that protects, protects it so 338 the company can, can grow without having to compete with other people. Because, 339 once they wake up to the idea and see the promise and without intellectual property 340 protection then, of course, they can, they can take it and run with it, and you don't 341 have, you don't, it won't be your technology to exploit very long. 342
- **SHINDELL:** Uhm-hmm. That three-legged stool seems to involve sort of three 343 different professions coming together as well, though. Maybe scientists along with 344 business men or venture capitalists, and finally, well I guess the venture capitalists 345 are looking for the stool, so they're not yet involved, but then the legal community as 346 well. When you first came to Hybritech, or even earlier than that when you were 347 working with Genentech, did you find there to be maybe sort of three different 348 communities working together, or maybe in tension with each other, that being sort 349 of the university scientist, the entrepreneur, and the legal community? I mean, did 350 this seem like a novel combination or was this just sort of business as usual as you'd 351 experienced it with other patenting experiences? 352
- **RESPESS:** I was a, I wasn't a highly I'd been practicing about three or four years, I 353 354 think, when I met the Genentech people. Art Riggs is the other person that I'm, said I would, it would come to me eventually. The other person that came with Bob 355 Swanson was Art Riggs, a very well-known molecular biologist who was, at that time, 356 and I assume still is, at the City of Hope. I hope he's still around. Certainly venture 357 capital had been around for a long time. Silicon Valley, where the venture capital 358 firms, in those days, tended to be centered had been around for a while and Kleiner 359 Perkins, as I recall, had been an early investor in Hewlett Packard, for example. 360 Anyway, so I'm, I'm pretty sure that, if anyone had asked me what, in those days, 361 what, what's it, what do you need to be a successful biotechnology company I, I don't 362 know what I would have said. I don't think I would have been or could have been very 363 profound because if I'd have been a true visionary I would have been doing it anyway, 364 and I wasn't. It sort of fell in, fell in my lap. There is an interesting story about how 365 Genentech came to Lyon & Lyon. I won't mention, again, some names, but there was 366 a firm on the East Coast, a well-known patent law firm in those days that had 367 basically been offered the opportunity to represent Genentech and turned it down, 368 and they said, "Well, you know, you, you guys are from California you really should 369



- talk to these guys in California," and they gave them some names at Lyon & Lyon and 370 that's how it came to be. And, I'm sure if, if they have an institutional memory at that 371 372 law firm, I believe it still exists, or at least remnants of it, then they probably rue the day, [Laugh] because Genentech became such an enormous success story. In any 373 event, I don't know when, when, other than hearing someone like Brook tell me, and 374 I don't know when I really appreciated the significance of what he was saying, I don't 375 know when it, if it, it dawned on me that you need, how you had to put together 376 these disparate elements, but I think to drill down a little bit one of the important 377 things is not every scientist is born to be an entrepreneur. And, not every 378 businessman is necessarily capable of, as capable as, for example, Howard Birndorf 379 has been, in locating a technology that has promise and securing an agreement under 380 terms which makes, makes sense to exploit that, that technology. So, you need, in a 381 successful biotechnology company a visionary entrepreneur and you need to access 382 the technology. You're probably going to involve the originator of the technology in 383 some fashion. They rarely give up their academic position to come over and, and 384 come over and work for the company, so to speak. So, you need, ultimately you'll 385 need someone who can translate the technology into something that's commercially 386 387 real and hopefully you've got good legal representation. Not just patent representation but other representation that's necessary to get a, a company off the 388 ground successfully, and put all those together. And over time the paradigm evolved 389 and it became very commonly applied in a very universal, a universal fashion. I, I 390 think not\withstanding the promise of monoclonal antibodies that from the - I 391 became associated with Hybritech in about 1980 while in private practice, but not 392 much was happening there. And then, I think in an inspired choice was made. I don't 393 know who had the inspiration, but . . . can we go off the record for a second here? 394
- 395 **SHINDELL:** Sure. Do you want me to pause it?
- 396 **RESPESS:** Yeah.
- 397 **SHINDELL:** Okay. [Recording paused.] Okay. Oh. There we go.
- RESPESS: Sorry. Sorry for that pause. An inspired choice, I think I was saying an
- inspired choice was made to bring Tom Adams in as head of Research and
- Development. And, Tom, in a very short time, converted, got the company on the
- path to making the first, probably the first really successful biotechnology product in
- the biotechnology industry, and it was an immunodiagnostic that we called the



Tandem Assay, that came to be known as the Tandem Assay. So, you need a, you 403 need that combination of people and not, and I don't think there's, there's the 404 405 renaissance. I've never met the Renaissance man or woman who [Laugh] possessed all of the attributes that would be necessary to start and have a successful company. You 406 need a partnership of people who have the requisite skills, and the interest, and the 407 energy to do these things, and Hybritech and Genentech, and some other companies 408 were fortunate, I think, in the early days, to have been able to put that package 409 together successfully and, and out of that came, you know, successful companies, and 410 successful products, and the - once the biotech revolution occurred, it was, it was 411 clear that, to people, that biotechnology was real and real products could come out of 412 it and real money be made from it. Then everybody wanted to get in on it after that. I 413 mean it was – so, I, I respect many people that I've met over the years in the 414 biotechnology industry but I truly look at my colleagues back in the late '70s, early 415 '80s as being pioneers who, who went there, got there, and showed other people the 416 way, and that, that community is made up of venture capitalists who were willing to 417 put their money in these risky ventures. People who were willing to put prosperous 418 careers maybe, if not on hold to actually leave, you know, positions in which they 419 were very comfortable and take the risk that they would, that they might not be 420 successful. And out of that came the biotechnology industry and fortunately, I feel 421 fortunate that I was able to be part of, part of that at that particular time. It was a very 422 satisfying feeling to look around San Diego and remember the day when there was 423 one biotech company, and today there are a hundred, or hundreds, maybe hundreds 424 425 by now.

SHINDELL: Well maybe now then would be a good time to ask, since you've mentioned, mentioned now this sort of, the successful partnership that has to be formed between these difference disparate groups, and how in the early days these sort of, you know, there were a few lucky combinations here or a few skillful combinations maybe. Is there anything about San Diego and the San Diego environment here that, that made these initial partnerships successful? Like say, people often list the presence of the universities and the research institutions here. And then, I guess, a follow-up question to that would be, you know, as you mentioned those early companies sort of showed the way to the companies that came after to the huge number of biotech companies that are now here, you know, to the point where the sort of biotech family trees that people like to draw from Hybritech have now become completely unmanageable. [Laugh] It seems like maybe the way



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that they led the way or the, what's often mentioned is, by building sort of successful networks that still exist today, you know, through which these new partnerships often still today form. So, I wonder if you can talk a little bit about, you know, first of all, what is it about San Diego that made these partnerships possible, if there is anything unique about San Diego? And then secondly, how did these networks that are attributed to the success of biotech, how did they form? What work was done and what individuals participated in that?

**RESPESS:** Well, that's a very complicated question. I, and I should point out that in 445 my discussion of the growth of biotechnology in the past I focused on those elements 446 that I particularly interacted with and I saw routinely myself. This, I don't think it's by 447 any stretch an accident that biotechnology found fertile ground in San Diego. San 448 Diego was blessed at that time by having UCSD, and Scripps, and Salk, and some 449 other research institutes, smaller ones. I don't mean to slight anyone by not 450 451 mentioning them all. And, I think also by virtue of the fact that Hybritech was successful it catalyzed other peoples' interest in trying to duplicate that success. But, 452 one of the, one of the things, one of the reasons why biotech is obviously, in my 453 opinion, clearly is in, is in San Diego as opposed to other places is because 454 biotechnology in its most primitive state, originally, was heavily dependent upon 455 people with backgrounds in the cutting-edge biological sciences, like molecular 456 biology, and hybridoma technology, and there was a wealth of that in San Diego. So I, 457 I look at San Diego's success a little bit like the, the sandbar metaphor, you know. 458 Once something anchors itself in the stream then it traps, it traps sand, you know, 459 grits and bits of sand until finally you have a, out of the murky depths come a 460 461 sandbar. And, San Diego had the anchor, if you will, of the, of the institutions that I alluded to. It's probably, it is probably an historical accident that Ivor Royston and 462 Howard Birndorf were here and decided to form a company around monoclonal 463 antibody technology, which was a technology which had not really, had some early 464 promise at, but not taken off. I think, hybridoma technology, I think monoclonal 465 antibodies and hybridoma technology sort of had its roots in the UK, but Ivor was 466 interested in looking, as I understand it, looking at that technology for its potential 467 commercial benefit. Ivor didn't want to leave the university and Howard Birndorf was 468 willing to do that, and the historical accident, Ivor's, I don't believe he was married at 469 that time, or his fiancée knew Brook Byers, introduced Ivor to, and Howard, to Brook. 470 471 Brook was interested in making an investment and so I think at that, at that point we have serendipity, an accident, whatever you want to call it, working. But once that 472



happened and Hybritech got off the ground and began to be known, being seen as a 473 successful enterprise, I think other people wanted to duplicate that success, and then 474 475 it, I think if Hybritech had been launched in Kansas City, all right, I don't think Kansas City would be, today, what San Diego is, because it just didn't have the 476 infrastructure. But once people saw the success of Hybritech then there was a wealth 477 of scientific talent in San Diego. I don't, I don't know where all the postdocs and PhD 478 candidates went before biotech came along in San Diego. They were trained here and 479 they probably went off and taught at the University of Kansas, and the University of 480 Texas, and Penn State, and places like that. But now, there was another outlet for 481 these programs and the climate, I'm sure, had something to do with it. This life, the 482 California lifestyle, people like living here. And then, then I think the, there came to 483 be, which I think is truly unique about San Diego, a spirit of cooperation among 484 entrepreneurs and the academic institutions, the nonprofits. I, I'm not going to say 485 this in order to patronize UCSD, but the CONNECT Program that, you know, tries to 486 put, and other programs that try to put together science, and Biocom down here, 487 business people and investment. People who want to start businesses, people who 488 want to invest in businesses, and people who have - the technology, they can be 489 contributing to business. Where, where that spirit exists, then it's easier to get these 490 things off the ground and get them going, because there's an enormous amount of 491 inertia that has to be overcome in order to bring these things about. And San Diego 492 has established a climate and I think one of the, one of the things that I, that I think 493 has, you talk about the, mentioned the family tree, of biotech in San Diego is that the 494 people who were successful at Hybritech and other early companies they didn't go 495 someplace else. They stayed here and pursued their dreams in San Diego, and the 496 result, I think, is clearly, you could say at this point, "the rest is history." Too many 497 examples for me to run down. But, I mentioned many of them and I wouldn't think of 498 all of them anyway, but they, San Diego, it may have started here by accident but all 499 the right pieces were in the right place at the right time, and that's why San Diego's 500 one of the, I think one of the leading centers. I've, I know that there are other areas in 501 the Boston area and I've had interactions there and the Bay area, and I know that 502 people are trying to duplicate it in other parts, in other places in the United States, 503 like in, like I think in Austin, Texas and there are little islands here and there. Seattle 504 505 had some early success in biotech. But, one of the things that I, I think, and here I may sound like a, like a home-towner, I think there's a cooperative spirit in San Diego 506 that's not present everywhere else and that has been one of the reasons why San 507 Diego is successful in biotech. 508



- 509 **SHINDELL:** Where does that come from, that cooperative spirit?
- RESPESS: I really don't know. I don't know how to explain it.
- 511 **SHINDELL:** Does it come from a few key individuals or just sort of the way the
- business is done here, or what sets that?
- RESPESS: I'm sure it's, it's living in Southern California, [Laughter] the warm
- sunshine or something, no rain, and you can get out and bump into people at the
- beach. I really don't know the answer to that. It just seems to me the environment
- here is, is more cooperative. I don't, I don't think there's another industry, or
- regional/industrial organization in biotech as vigorous as the one here in San Diego,
- for, and I don't know which is the chicken or the egg here but, because it, there is a
- synergy in San Diego that I don't think is present in many other, in any other place.
- Now, there, there's a lot of, there's certainly been a lot of successful companies in
- other areas and probably in terms of investment in dollars San Diego is not number
- one, and maybe the reasons those areas are successful, I think, are probably different,
- for different reasons than San Diego's success. They have their own synergy or their
- own combination of factors which made those areas successful. If you look around
- 525 the D.C. area then you have the National Institutes of Health, sort of a natural
- magnet for the you know, because you really need, I think you need that scientific
- talent and it's, I think the reason that Boston, San Diego, the D.C. area, and San
- Francisco have been successful is you have, in the Bay Area, a pool of scientific talent,
- like at UCSF, and Berkeley, and Stanford. In the D.C. area you have some university
- talent, but you have the NIH, the National Institutes of Health and all those institutes
- within it, the Boston area has Harvard, and MIT, and all those sort of things. So I, it
- seems to me at one factor common in all, all of these, is you have a wealth of
- scientific talent in areas of the biological sciences. That's where it happens, this is
- where it's happening is in those places. And so, it's no accident. You, you can't, you
- can't create that environment overnight anyplace else and so the, it's one of those
- situations where the rich get richer, so to speak. [Laugh] Success breeds success, and
- so to the best I can, I don't know that I'm very insightful about it, but I think that's
- the common denominator, that venture capital, it, money can move around but
- people are less fungible than money and you need people business people will
- move. Ted Greene, I believe, was maybe, may have been, I can't remember, may have
- been living in the Bay Area, or someplace. He certainly wasn't, I don't think he was
- living in San Diego when he came down to be CEO of Hybritech. I don't know where



- Bob Swanson at Genentech came from. I think Bob was a venture capitalist up in the 543 Bay Area and met Boyer of Cohen-Boyer fame and they had this, maybe at a cocktail 544 545 party. Who knows? These things they happen in mysterious ways. But, once, again once the example was set then it was easy for other people to see the, to see the way 546 to go and, and you know, why not, why not leave your company and stay in the house 547 you're living in and start a company over here if you have a dream. And so, San Diego 548 has, has sort of, like cell division, mitosis, or whatever it is, [Laugh] you know, it 549 subdivides itself into other companies and then they ultimately, people get whatever 550 satisfaction they're going to get out of that company and if they have the dream then 551 they'll look for an opportunity of their own and that'll, and I think that's the, why 552 there is a family tree in San Diego, is that people have had the opportunity and the 553 energy to pursue opportunities here and San Diego and they didn't see any reason to 554 go anywhere else. 555
- 556 **SHINDELL:** Now, let me ask you sort of a patenting question based on your experiences here. From, from when you came here until the present, have you 557 witnessed the biological talent that exists here maybe becoming more savvy about 558 559 patenting or the prospect of patenting? Because, it seems like there wasn't really a tradition of patenting and biology before biotech came around whereas there was 560 sort of in physics and chemistry already existing sort of pathways for that. Were 561 biologists sort of maybe skeptical in the beginning about patenting their discoveries 562 and did they become more eager once they saw sort of Hybritech's success or the 563 success of other biotech companies? 564

**RESPESS:** Well, I, that's a very good question and I'm not sure I have the answer, but 565 let me - the more empirical a science is I think the less likely you are to get a lot of 566 impetus from patenting. A lot of – but when, once, once the science is understood 567 and you can draw a line from the science to commerce then there becomes an 568 569 interest in protecting discoveries, and I, I think it's fairly, it's fairly interesting that, I'll call it the birth of biotechnology I think was probably the Cohen-Boyer technology 570 where they demonstrated that you could express a foreign protein. What do they call 571 it? I'll call it "heterologous" - I think that's the term they use -- protein in an organism 572 573 that didn't normally produce that protein. And, you could produce human proteins in bacteria and yeast, for example. And, certainly bacteria and yeast have been used 574 biologically but they were from processes that nature invented, you know. We 575 ferment wine. We, you know we ferment, get out, create alcohol out of corn and 576 barley and things and we make fine whiskey. And people found bacteria that 577



expressed antibiotics. But those are sort of one-off things, you know. It takes, you 578 have to, some guy goes out and he sifts through dirt and you don't, that one product 579 may be successful but you don't, you, it's very difficult to go beyond that product 580 unless you can, unless that product is simple enough that you can synthesize it by 581 chemical, by ordinary chemical means. Once it was, became, once we understood the 582 genetic code, and once we had the ability to sequence genes, and once the Cohen-583 Boyer technology had proven itself then it becomes, you could say, even a blind man 584 can see the opportunities here. And so the, the growth of the technology brings along 585 the interest in obtaining intellectual property on it. I think as long as people didn't 586 have the vision that, in biology, that there was anything significantly, of significant 587 commercial interest then there was no reason to patent. And, there were probably 588 lost opportunities in there because there, I, and I, but I think they would have tended 589 to be one-off opportunities. I remember as a chemistry major one of my professors, I 590 think, synthesized elements of penicillin. But, you know, it was a very tedious, 591 complex process and maybe you can get penicillin out of bacteria easier than the -592 but the chemistry was interesting, and so forth. But, in biology, probably people in 593 biology just weren't thinking that way until the opportunity presented itself that, and 594 Cohen-Boyer, again it may have been serendipitous but here was a breakthrough 595 molecular biology at the University of California, and I don't know who at the 596 University of California, and Stanford, were, was inspired to do this, whether Cohen 597 and Boyer got together or whether someone said to Cohen and Boyer, you know, 598 "Hey, you guys, the university ought to patent this stuff." So that was, that was one, 599 again, serendipitous thing. Somehow those guys decided to do their thing. And then, 600 I think one other thing happened that, the importance of which can't be, in my 601 opinion, overestimated. And that is, that for one reason or another Stanford and the 602 University of California decided to pool their efforts and put the, the exploitation of 603 that technology, as I recall, in the hands of Stanford. It could have gone the other 604 way, but the, I don't think the result would have been necessarily different. And they, 605 they evolved a licensing strategy which probably went against the grain, even in the 606 day, in the early, early day, even in the early days people probably said, "The way to 607 maximize your return from technology, that you're not going to exploit yourself is to 608 license someone, and the biggest return comes from exclusive licensing." Stanford 609 610 and the University of California decided to grant nonexclusive licenses to this technology. I think had they licensed exclusively Merck, and I'm not picking on 611 612 Merck, or Pfizer, or Upjohn, or some other company in those days, I don't know how successful Pfizer or Upjohn would have been. But, there are hundreds of thousands of 613



molecules that can be made by recombinant techniques and no company could, 614 operating exclusively, could have exploited that technology to the full extent. By 615 616 making that technology available to everyone on reasonable terms I think it, it was one of the important factors that would ultimately cause biotechnology to be 617 successful. Hybritech in San Diego, as I said, was monoclonal antibody technology, 618 which in those days didn't benefit from the molecular biology revolution that we 619 were just talking, the recombinant revolution. But interestingly, that technology was 620 not patented by the British inventors of monoclonal antibody technology. The names, 621 they, the names escape me at the moment who they were, but Kohler-Milstein, I 622 believe it was, Kohler and Milstein. Anyway, they didn't patent that technology and 623 so to a certain extent that technology didn't have the same kind of birth that 624 recombinant did. There was no fundamental patents on, on fusing cells to make 625 hybridomas, and so you had to, you had to begin to say, "Well okay, if I can't get the 626 fundamental position I'm going to have to find some application of that technology 627 that can be patented and be the basis of a business, and Hybritech was successful in 628 doing that with Tandem, so-called Tandem Assays and some other innovations. So at 629 any rate, bio, biotechnology has been successful for a number of, of reasons including 630 631 the foresightedness of people in the early days that had, had they done things differently I think the outcome might have been, might have been different, might 632 have been substantially different. Because all the, the early, the early success of 633 biotechnology was because of the biotechnology companies, Genentech, I mentioned 634 growth hormone and their collaboration with Lilly for human insulin, and Amgen 635 with EPO and TPO, whatever the other molecules they came up with, and so forth. I 636 really doubt that the companies like Eli Lilly and others would have pursued this 637 technology as aggressively as the biotechnology companies did, until it, until they 638 saw the bet to be a fairly safe one, and then they wouldn't, they went, they didn't go 639 out and try to do it themselves. They made agreements with the companies that had 640 established positions and that's how biotechnology tends to prosper. It pioneers and 641 then it finds a wealthy partner, hopefully, that, that is willing to take a chance and 642 take it to the next level. Biotechnology is filled with stories like that. San Diego has its 643 fair share. 644

645 **SHINDELL:** Okay. We've now gone about an hour and I, I wanted to let you know where we were. I don't know, how long do we have?



- RESPESS: Well, we can longer. I don't know what, I don't know what your goal is. So,
- I can spend some more time, but if you've, if you've gotten from me what you think
- you want to get then [Laugh] we can, we can call it quits.
- 650 **SHINDELL:** Well, we've been through most of the major categories, I think, and so,
- so if you want I can just ask you the, the sort of concluding questions?
- 652 **RESPESS:** Sure. Go ahead.
- 653 **SHINDELL:** Okay. Well, this is sort of a catch-all question. Is there anything that I
- should have asked you [Laugh] that I didn't, and, or is there anything that you just
- would like to, to say?
- RESPESS: No. I'm not interested in making a speech about it. [Laugh] I've probably
- made long speeches throughout this presentation and you've caused me to think
- about things I really don't think about as much as maybe I should. I think your
- project is a commendable one. I'm not sure that, how much interest people will have
- in, down the road, in how San Diego came to be. I have a feeling that we will be
- eventually taken for granted, if not already, as being one of the assets of San Diego. I
- would, I would think, I would say that the promise of biotechnology is phenomenal,
- but the opportunity to achieve that success is becoming increasingly difficult. There
- are, the amount of money it takes to be successful in this business is such that I think
- the original paradigm has become nearly unworkable. There was a time when
- biotechnology, you, you put in some seed money, you achieved a certain amount of
- success, you hopefully were able to enter into a collaboration with an established
- company and that gave people a, the fact that you had that relationship gave people
- some greater assurance that you were going to be successful. The company could go
- public and raise large amounts of money and, and unfortunately the cost of taking
- products from the laboratory to the market has become enormously greater than it
- was twenty years ago.
- 673 **SHINDELL:** What has attributed to that?
- RESPESS: Well, there's a lot of things. One, we're now, the low-hanging fruit has
- been picked. Okay? That's one. I think, two, the regulatory environment in which we
- work has become extremely difficult and the FDA is, and I, I'm prepared to be quoted
- on this I suppose because no one really cares what I think, [Laugh] is I think an
- organization that is simply not up to the job in terms of processing applic[cations] –



- it's risk averse, and the FDA only, never gets praised for what it achieves. It only gets 679 criticized for what mistakes it makes, and so it, it makes it very difficult. You have to 680 be - they're so risk averse that the cost of bringing a product to market is so 681 phenomenally, it's so phenomenally expensive that early investors are no longer able 682 to see the promise of, of making money on their investment because success is 683 postponed so far down the road. And so I think, I think, I personally believe that the 684 golden age of biotechnology is probably behind us and now we're, we're becoming a 685 mature industry and people are going to have to invent new ways of incentivizing – 686 there are plenty of people with ideas who want the, want to exploit those ideas but 687 finding the resources to exploit them, I think, is becoming increasingly difficult. And 688 now the, and now the model is, "Let's, let's," and I've talked to people about this 689 recently, the model is, "We're not, we're not going to build this company and, to 690 become another Hybritech and another Genentech. We're going to build this 691 company and before ever going to private, going public we're going to sell it. We're 692 going to find somebody to buy that and then we, and maybe, and maybe we'll do 693 another one, and another one, and another one." And so, there's not, there's never 694 been, there's not, I don't think, I don't think it's likely there will be other Genentechs, 695 Hybritechs in my lifetime. So, with that, I'm glad I had a chance to be part of it when 696 it was like it was twenty years ago, and twenty, going on – no, actually longer than 697 that I guess - twenty-eight years ago, and I'm glad I had that opportunity but I think I 698 won't see it again in my lifetime, that same sort of energy, and enthusiasm, and 699 explosion of creativity. It was truly, it was truly remarkable to be a part of that. 700
- SHINDELL: Okay. Then, if you don't have anything else to add or . . .
- RESPESS: No. You've got to be specific. I don't, I can, I can, [Laugh] I can fill the air with sentences but I can't, I don't, I'm not thinking about anything that I think that you would really be that interested [Laugh] in, specifically.
- SHINDELL: Well, you never know what people will be interested in. But, I think we have quite a bit of, of material now. So.
- RESPESS: Okay. Well, good luck on your, in your quest for getting all the [Laugh] people that you want to talk to.
- SHINDELL: Well, on that note, actually, is there anyone that you would recommend we talk to?



- RESPESS: There, there are some people I think are interesting, you should be
- interested in. I don't know if his name has come up, but Tom Sparks? Is that a name?
- Tom Sparks is a partner in Pillsbury, Winthrop. I don't know the name of the firm.
- Tom was outside counsel to Hybritech, and I, general counsel. His firm may have
- been involved with Genentech. I'm not sure. But, they were, at that, at that time, you
- know, putting, putting these, putting these corporations into existence and, and
- marrying the interest of the investor and the entrepreneur, and so forth, fell to a very
- small number of law firms. I think Tom Sparks is one of the pioneer corporate
- lawyers in this area. And his area code, 415-482-1191, I think. I can't remember his
- number. Thomas Sparks is, I think, one of the heroes of early biotechnology. And, I
- would, I would certainly talk to someone, if you want a, the corporate, the corporate
- lawyer view, they were certainly an essential part of, part of this. They're the ones
- who took the companies public in the early days. And, you'd probably want to talk to
- some of the venture capitalists if you haven't already, like Brook Byers would be one,
- would be, I would think, very high on your list if you haven't talked to Brook and get
- his perspective. Here in town, I, I'm sure you've, Tom Adams' name has come up. Uh,
- 127 Ivor. Well, again, going, if we're looking back to the, for the roots of biotechnology in
- San Diego I would certainly talk to Brook, and I would talk to Tom Sparks, and you've
- talked to the, you probably have the list of the Hybritech people you want to, you
- want to talk to. Is there anybody? Who's, who's on your short list? Maybe that'll,
- maybe the omission of someone will trigger my thinking.
- 732 **SHINDELL:** Oh, let's see. Well, who we've interviewed so far, Bill Rastetter,
- 733 **RESPESS:** Sure.
- 734 **SHINDELL:** who else? Why am I blanking? [Laugh]
- 735 **RESPESS:** Let's see.
- 736 **SHINDELL:** We did Karen Klaus.
- 737 **RESPESS:** Karen.
- 738 **SHINDELL:** We're doing Ivor. We're maybe doing Fred Gage. Bill Comer we did.
- 739 **RESPESS:** Oh yeah. Bill. I know Bill.
- 740 **SHINDELL:** Uhm-hmm. Jay Short.



- **RESPESS:** I don't know him.
- **SHINDELL:** Hmm.
- RESPESS: At least I can't think of it. Where would I have met Jay Shorts. Who's he
- 744 with?
- **SHINDELL:** God, I'm blanking on all of this stuff right now.
- **RESPESS:** Cam Garner. You might want to talk to Cam, if you haven't talked to him.
- **SHINDELL:** I think we have, on our list, I think we've been trying to contact him.
- **SHINDELL:** Well, this is a pretty good list, sort of a ...
- **RESPESS:** Yeah.
- **SHINDELL:** ...you know, top five maybe. Okay. Well then, thank you for your
- 751 participation.
- **RESPESS:** My pleasure.
- **SHINDELL:** This was a great interview. I mean, you did a great job. I don't know
- about me, but [Laugh] so, thank you very much.
- **RESPESS:** Yeah. You're welcome.

#### **END INTERVIEW**

#### **Recommended Citation:**

Respess, William. Interview conducted by Matthew Shindell, August 14, 2008. 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.