

# Frederick Muto

*Interview conducted by*

*Helen Weiss, Historian*

*October 3, 2016*

SAN DIEGO TECHNOLOGY ARCHIVE



## Frederick Muto



Frederick T. Muto is a founding partner of the firm's San Diego office, which opened in 1992. He has been with firm since 1980. The firm's San Diego office was recently named the #1 firm in San Diego as ranked by area corporate board members, according to Corporate Board Member magazine.

Mr. Muto specializes in corporate and securities law with an emphasis on representing emerging and public technology and growth companies, as well as venture capital investors and investment banking firms. He has represented companies and investment banks in well over 200 public offerings. Fred has managed a broad range of major business transactions, including private placements and public offerings, mergers, acquisitions and spin-offs and joint ventures and other strategic collaborations. He has been counsel to companies ranging from start-ups to companies with billions of dollars in annual revenues in the biotechnology, communications, consumer, hardware, healthcare, internet, medical device, retail, semiconductor and telecommunications industries.

Mr. Muto has received numerous accolades and recognition for his leadership. For 2010, he was named Corporate Lawyer of the Year in San Diego by Best Lawyers. In 2007, he was listed by Lawdragon as one of 500 dealmakers in America. He was also named to the 2007-2016 Southern California Super Lawyers list in the categories of The Top 50 Lawyers in Securities & Corporate Finance. He has also been selected as one of the "Transcript Top Ten" attorneys in San Diego and was named one of "San Diego's Top 120 Influentials" by the San Diego Daily Transcript. Fred has also been recognized as a leading lawyer in the Chambers USA: America's Leading Lawyers for Business in the category of corporate/M&A and capital markets for a number of years. He has been consistently recognized as one of the Best Lawyers in America. He was named by Nature magazine as one of 25 individuals - and one of two attorneys-instrumental to the success of San Diego as a high technology and biotechnology hub.

Mr. Muto attended Harvard Law School and the University of California, Berkeley School of Law (Boalt Hall), where he received a JD in 1979 and was a member of the

California Law Review from 1977 to 1979. He was a New York State Regents Scholarship recipient and was awarded a BA in political science from the State University of New York, Buffalo in 1975, where he was a member of Phi Beta Kappa.

Source: [cooley.com](http://cooley.com)



*THE SAN DIEGO TECHNOLOGY ARCHIVE*

**INTERVIEWEE:** Frederick Muto

**INTERVIEWER:** Helen Weiss, Historian

**DATE:** October 3, 2016

**LOCATION:** San Diego, CA

1 **WEISS:** I am Helen Weiss for the San Diego Technology Archive, housed at the  
2 Special Collections at the UC San Diego Geisel Library. I'm interviewing Mr. Fred  
3 Muto on October 3, 2016 at the offices of Cooley, LLP in La Jolla, California. Mr.  
4 Muto is a founding partner of the firm's San Diego office. He's received many  
5 accolades and awards during his more than [37] years of service. He currently  
6 specializes in corporate and securities law for emerging and public technology and  
7 growth companies as well as venture capital investors and investment banking firms.  
8 Thank you, Mr. Muto, for taking the time for this interview. We'll start with your  
9 background education, then we'll explore your extensive expertise with companies  
10 here in San Diego in biotechnology, communications, consumer, hardware,  
11 healthcare, Internet, medical devices, retail, semi-conductor and  
12 telecommunications industries.

13 **MUTO:** Thank you.

14 **WEISS:** Thank you. So with such a broad background and expertise, tell us a  
15 little bit. Where did you grow up and what were your childhood interests and  
16 hobbies?

17 **MUTO:** I grew up in Niagara Falls, New York. I was a very typical young boy. I  
18 was interested in sports of all sorts, particularly baseball. I played a lot of baseball. I  
19 went to my undergrad at the University of Buffalo, SUNY Buffalo, and then to law  
20 school at Berkeley. Coming out to visit Berkeley led to 40 years out here on the West  
21 Coast now.

22 **WEISS:** So when you were at SUNY Buffalo, you were graduating in 1975, Phi  
23 Beta Kapa with a BA in political science. Did the draft for the Vietnam War impact  
24 you at all upon graduation? You were in that little window at the end of the war.

25 **MUTO:** It was at the end of the window and I did get a draft number. I was very  
26 fortunate and had one – I can't even remember – it was in the 300s. So that meant I  
27 knew I was not being drafted.

28 **WEISS:** When did you decide that you wanted to go to law school?

29 **MUTO:** I decided in my senior year of undergrad. I thought I wanted to go to law  
30 school, so I applied. I put a deposit down at the University of Michigan Law School  
31 and then decided I wasn't ready to make that commitment. So with a good friend, I  
32 put a backpack on and went to Europe for [three] months and travelled. That's  
33 notable in my life because on a summer night in St. Mark's Square in Venice that  
34 friend met his wife of 40 years, Mindy [Nierenberg] – also a very good friend of mine.

35 **WEISS:** So then you chose Berkeley. How did you get to UC Berkeley?

36 **MUTO:** Well in my year of travels – and again, I was born in western New York,  
37 which has very challenging weather. In my year of travel after getting back from  
38 Europe, I spent a little bit of time on the East Coast but then came out West to visit a  
39 few friends who had gone to school in Silicon Valley, and it was the drought years. I  
40 was here for two weeks and every day I woke up and it was sunny and 80. I decided  
41 at the end of that period that I would put in an application at Berkeley. I think I  
42 submitted it on the last day that I was eligible. Put another deposit down at the  
43 University of Michigan but hoped to get admitted to both. I was fortunate to be  
44 admitted and made the commitment to come.

45 **WEISS:** At that time, you were at Berkeley and are you pursuing some kind of  
46 career path in working with technology, or what type of law were you interested in  
47 throughout your law school?

48 **MUTO:** I don't think I went to law school for the best of reasons. I couldn't find a  
49 better path in my life, so I went to law school. I was a good but kind of indifferent  
50 student. Like a lot of second-year law students, I interviewed in major law firms in  
51 different cities. I decided it would be fun to work in New York City for the summer,  
52 so I went there with my then girlfriend and now wife of 37 years.

53 We had an interesting summer. She loved her summer clerkship. I thought mine was  
54 boring. I was working on bond offerings and very, very large transactions. I came  
55 back with a little bit of a crisis in confidence of whether I was on the right path.  
56 Learned about Cooley, my firm of 37 years now and its early work with the Silicon  
57 Valley start-ups. [I think the firm had just over] 40 lawyers. I think I was the 44th  
58 lawyer when I joined.

59 I learned about the practice of working with start-ups and trying to help them grow  
60 through stages, as well as with companies working on cures to cancer and  
61 predecessors of the smart phone. I thought that would be a lot of fun; interviewed at  
62 Cooley and I fell in love with it. Then my now wife and I decided to get married and  
63 after taking the job at Cooley in 1979, I deferred for a year to follow my wife. She had  
64 a federal clerkship here in San Diego. I wanted very much to be at Cooley and to do  
65 the kind of work Cooley was doing but the marriage was the most important thing to  
66 us.

67 So I went back to the managing partner at Cooley, and told him I couldn't come. [My  
68 wife and I] didn't want to have a long distance relationship. He expertly asked me if I  
69 would come the following year. I committed to do that. Came down here and taught  
70 legal writing at USD's [law school]. And, of course, I fell in love with San Diego.

71 About a year later, we marched back up to Silicon Valley, mostly because I couldn't  
72 find anything like what I was going to be doing at Cooley in San Diego at the time  
73 and because I didn't feel like I could back away after [Cooley was] so gracious the  
74 first time. We went back up and I spent the next 10 or 12 years keeping my eyes on  
75 San Diego's [business community] and hoping that there would be a path back. It's  
76 where my wife grew up and it's a pretty special place to live.

77 **WEISS:** What was the landscape in terms of technology in Silicon Valley and  
78 what was going on here in San Diego?

79 **MUTO:** It was very different. There was really very little momentum in the early  
80 1980s in San Diego. There was no North County – it was a very different place. There  
81 was not the same professional infrastructure [as in the Bay Area]. We ultimately  
82 opened the office in March of 1992, ten years later. We were the first law firm to  
83 [place our office] in North County.

84 If you just fast forward to today, most of the major corporate law firms have their  
85 offices either here in the UTC area or in the High Bluff area. There was very modest  
86 activity in the early 1980s. There were a couple of grandfather companies that people  
87 talk about all the time. Hybritech was sold to Lily and spawned a lot of companies.  
88 Linkabit was founded by the same group that very successfully founded Qualcomm.  
89 But back then, there was a relatively small number of companies.

90 There really was not much of a life sciences community anywhere. It was such a  
91 nascent industry. But I followed it closely. We came down to San Diego often.  
92 Around the mid-1980s I think you started to see some more technology and life  
93 sciences companies being started, usually getting funded from Bay Area venture  
94 capitalists. There was not much of a native venture community here and it was still a  
95 relatively slow pace compared to what was going on in the Valley.

96 When you look at the technology companies [from that period] – Cisco, Intel,  
97 Oracle, and many others – San Diego had one of those and that's Qualcomm. But  
98 momentum picked up. In the late 1980s we started being retained [to represent life  
99 sciences companies] because we were spending time down here, getting to know  
100 people in the community. One of the original ones – an original San Diego IPO – was  
101 a company called Gensia and we represented the underwriters in that transaction  
102 with the company.

103 Then as I recall when Qualcomm decided to do its IPO, they checked with Gensia,  
104 who recommended us. That was, again, in the late 1980s, early 1990s. There were a  
105 number of companies that got formed or raised a lot of capital at that time. Then  
106 Ionis – it used to be named Isis – was formed in 1989 and went public in 1991. And  
107 there was Amylin, which went public in 1991 as well. Qualcomm went public in 1991.  
108 There was just a steady stream of companies after that and it kept building till today.  
109 It was very vibrant.

110 So I kept watching that from a distance and in the late 1980s I started lobbying our  
111 firm's management to look at opening an office here. I was a young partner and I  
112 think the firm mainly humored me for a while but we finally made a pretty  
113 compelling case and we started building those relationships. Being selected for the  
114 Qualcomm IPO was pretty pivotal in getting the firm to back us. So we came down  
115 with two partners, myself and one other partner, and five associates and today all

116 but one of them are still here practicing. I think the real ascent of the technology life  
117 sciences communities happened in the early 1990s.

118 There have been some challenges – ups and downs along the way. The tech crash in  
119 2000 greatly affected the technology company environment, but the life sciences  
120 [community was greatly affected] as well. Whenever there is uncertainty and risk  
121 people stop making investments, stop doing things, stop buying companies. More  
122 recently, the financial collapse in 2007, 2008 [was extremely challenging]. Same  
123 effect. Even today, with near negative interest rates and an election, there's a caution  
124 that hasn't been around for a number of years now.

125 **WEISS:** Is that paralleled in Silicon Valley throughout the ups and downs the  
126 same way?

127 **MUTO:** It is, I would say with one different thing going on in the Valley right  
128 now. There has been such an extraordinary amount of capital put into private  
129 companies, companies not yet public or that have only recently gone public.  
130 Facebook, Twitter, Uber. There's just a whole lot of companies in the Bay Area that  
131 are called unicorns that have a billion-dollar market cap as a private company. If you  
132 scroll back five years ago, there might be a handful of unicorns in the world. But the  
133 Bay Area had over 100 unicorns at last count.

134 Now some of them are now raising capital at lesser valuations or at least there's  
135 some talk about that. So certainly, back to your question, I think in that segment of  
136 the economy, those first tier Internet enabled/consumer facing businesses, there's  
137 just a layer that just doesn't seem to be very affected by this at all. And I do worry for  
138 all of us. Facebook is maybe 12 years old and has, I think, the highest market cap or  
139 the second highest market cap in the world. Google and probably Uber are other  
140 great examples.

141 People talk about, "Is it a bubble or not?" Well I don't know but we've never had a  
142 hundred or two hundred companies with billion-dollar market caps before. I think  
143 it's a time when I feel cautious and I think other people in the field whose job it is to  
144 place money are getting more cautious.

145 **WEISS:** One company in the whole arena or a couple you didn't mention here  
146 were ViaSat. What was ViaSat doing during this time?

147 **MUTO:** I'm not sure I can get the ViaSat timeline completely right, but it's a  
148 long-standing tech company, very stable. I think they have recently hit a couple of  
149 interesting developments in their business but I think they worked for a long time  
150 on a base of government business that they did. They were not as flashy as some  
151 companies but they built the company steadily and kind of were always there over  
152 time. But I have never actually done any work with the company so I'm not very  
153 familiar with it.

154 **WEISS:** What about SAIC which had an unusual model for a long time as an  
155 employee-owned company early on, compared to what was going on in San Diego as  
156 I understand it?

157 **MUTO:** It was a very interesting company. The founder of it who has recently  
158 passed away was a real evangelist for employee ownership and made a very unique  
159 company. He ultimately had a commercial and a government contracting side.  
160 When his successor came aboard the company was split into two companies. But it  
161 is an example of what was going on – San Diego was really an aerospace, defense,  
162 and government-contracting business.

163 You mentioned ViaSat and SAIC. But there were a number of others along the way.  
164 Titan. We actually represented Titan I think on probably 12 or 13 acquisition  
165 transactions over the years. So those companies, they sort of exist a little outside of –  
166 there isn't a lot of venture capital that goes into government contract companies but  
167 it produced a lot of talent. I think a lot of that talent is what ultimately led to people  
168 forming companies here.

169 One interesting thing that happened in the early years, in the mid-1980s to 1990s  
170 particularly on the tech side is, you would have a company start here in San Diego,  
171 raise some venture capital, have a founder, a technical founder, and a chief scientific  
172 officer who served as CEO. But then when it turned commercial you bring in an  
173 executive with commercial experience. Very often, probably four or five times I can  
174 think of in a year span, when that commercial CEO came aboard, he would  
175 immediately want to move the company to the Bay Area partly for talent and partly  
176 because usually it's a 40 to 50-year-old CEO who knows that he's going to do this for  
177 3 or 4 or 5 years and then he's going to have to find another opportunity. That was  
178 clearly the case and easy to do in the Bay Area.

179 Here, this was like a foreign land I think to some of those tech entrepreneurs. It was  
180 really hard to keep companies in San Diego. I think that's reversed itself both on the  
181 tech side and especially on the life sciences side. There's so much going on here. We  
182 see so many new companies moving here from other parts of the world because  
183 they've got great access to resources and ways to develop companies. Muragi just  
184 came from another part of the world. We've had companies move here from the  
185 Midwest, from Toronto. So that doesn't happen anymore. I think San Diego's got the  
186 kind of momentum necessary for long term success, clearly on the life sciences but I  
187 think on the tech side, too.

188 **WEISS:** What role does UC San Diego and the other universities in the area play  
189 in terms of getting start up grants or having scientists and engineers come into the  
190 companies here?

191 **MUTO:** A big role. When we were looking and trying to make the case to open  
192 an office here, we looked at some of the parallels to Silicon Valley. The Silicon Valley  
193 had major research institutes like Stanford and UC Berkeley. You had this history of  
194 successful companies in each industry, granddaddy companies. When we came to  
195 look at San Diego there was UCSD for biology, chemistry, and also engineering  
196 talent. There was Scripps and the Salk Institute, both of which were very  
197 entrepreneurial and had lots of entrepreneurial scientists, probably more so than  
198 UCSD.

199 These were highly trained people and people with big government grants. Salk at the  
200 time for example, I think is still the case, all of those scientists had government  
201 grants that fund their labs. There's a lot of technology developed in these labs. Karl  
202 Hostetler at UCSD formed multiple companies including Triangle Therapeutics  
203 which became part of Gilead, and one of the most successful companies in the  
204 industry. Ron Evans and Rusty Gage at the Salk Institute have each started [multiple]  
205 companies. So I think the institutes contribute founding scientists. They frequently  
206 have a license to the early-stage technology that launches the company.

207 UCSD in particular is a – I don't even know how many engineering grads they have  
208 each year but it's a phenomenal number. Companies like Qualcomm have hired  
209 many of them over the years, but now with the merging of the digital and healthcare  
210 world a lot of the healthcare start-ups that are doing genomics based business  
211 models need software engineers and they're really relying on that talent. A company

212 like Illumina, which is a very successful company here in San Diego, hires a lot of  
213 engineers.

214 **WEISS:** So you think that now it's easier to keep the talent here in San Diego  
215 than it had been previously because there was always the big move to the Bay Area  
216 to Silicon Valley?

217 **MUTO:** Yes, it is definitely easier. In some ways there's a competitiveness in  
218 trying to build these infrastructures out but I hear increasingly that the San Diego  
219 city officials are starting to trumpet that San Diego has some real advantages now  
220 that it has gotten a critical mass in these industries, because as expensive as we think  
221 it is to live here, it is impossible in the Bay Area which has become much more like  
222 New York City. It's just a challenging place to live. The other thing, in San Diego,  
223 there is still a kind of a basic loyalty people have to their employers. In the Valley, for  
224 better or worse, people with job opportunities for talented engineers are all over the  
225 place. It's a lot easier to jump ship and a lot of harder to build a stable place of  
226 employment. I think things have really turned in San Diego's favor.

227 **WEISS:** Your company, or the people you work with here and some partnerships,  
228 now have offices all over the U.S. in some of the tech hubs and also overseas. Could  
229 you just tell me a little bit about that?

230 **MUTO:** Yes. We started – San Diego was our first – well actually Palo Alto was  
231 our first branch office when I started. The year I started we dispatched three lawyers  
232 to Palo Alto. That office today probably has [300] lawyers and has grown with the  
233 Silicon Valley; [300], maybe more, all focused on serving the emerging technology  
234 and life sciences base in one way or another. We set out to be the preeminent law  
235 firm in the world representing [technology and life sciences] companies and we grew  
236 with our clients. We built [expertise and capabilities, such as] intellectual property,  
237 to serve them [at the highest levels. We focused on building a national footprint by  
238 opening offices in cities which had meaningful technology or life sciences  
239 commitment].

240 We built out the West Coast with Colorado and Seattle. When we first went to the  
241 East Coast we went to Northern Virginia to open an office in the Mid-Atlantic area,  
242 because a lot of government funded technology companies had been formed there.  
243 Then from there we built offices in Washington, D.C. and New York City, [which we  
244 followed with offices in Los Angeles].

245 Then we extended our reach overseas by opening an office in Shanghai just because  
246 of the incredible level of activity and formation of companies [which very quickly  
247 became substantial companies] with very large market caps to start. More recently  
248 London to service the companies, particularly U.S. companies that do business  
249 throughout Europe—tech companies. So we have [approximately 1,000] lawyers in  
250 the firm and really the entire firm is built around representing that client base.

251 **WEISS:** So back to the university relationship. And the subject of patents: how is  
252 the whole patent field started and possibly changed? We've heard from some of the  
253 smaller entrepreneurs that the patents become more difficult. How broad is the  
254 intellectual property field now?

255 **MUTO:** I'll try and speak to that but I'm not a patent lawyer. What I know is  
256 limited. But substantively, there's definitely been a series of decisions, a Supreme  
257 Court decision, and a new procedure at the patent office that have the effect of  
258 making it harder to get certain kinds of patents. Historically, if you look at the  
259 companies that started the Valley, the Intels and chip companies like Qualcomm  
260 built very much on an intellectual property model. Qualcomm is a tremendous  
261 success making chips that are sold, that are part of every iPhone or at least  
262 Qualcomm technology is in every one and their business model is built on licensing  
263 intellectual property.

264 Today, it's not that companies like Facebook, [Google or Twitter] don't have patents,  
265 but the development of patents isn't quite as central to the mission of the company.  
266 Sure, everybody wants intellectual property if they can get it, but it used to be that if  
267 an entrepreneur came in and had no intellectual property at all that we'd tell them,  
268 "Geez, it's going to be very hard to get funding without some barrier to others  
269 entering the space."

270 If you go back to when I started, there were very few IP lawyers in large law firms. I  
271 think we probably didn't have a single one. Today, out of our [1,000] lawyers there  
272 are probably a couple hundred that do either IP litigation or IP commercial  
273 transactions and licensing or IP patent prosecution. It has been the significant  
274 growth area in the legal profession for the last 20 or 30 years. I just think it's at a  
275 point now where there are a lot of abuses that develop patent trolls that bought  
276 patents and asserted them against larger companies with the intent of just extracting  
277 a payment.

278 I think the pendulum's going to swing a little bit. But when I look at it, one of my  
279 sons is a privacy lawyer and I think he's in a field which is this generation's IP  
280 opportunity. I think it's just become so important to so many companies and  
281 consumers and all of us who use online resources [and there will be more and more  
282 attention to efforts to regulate]. IP's not going away. It's just not quite as embedded  
283 in every business opportunity.

284 **WEISS:** How does that relate when you have offices – well you say London now  
285 more recently and China. Where does that fit into that scope of getting investors and  
286 maintaining the whole intellectual property field?

287 **MUTO:** Well it has huge challenges for the companies. This is – Qualcomm has  
288 had very public and – I'll speak to only public matters – but a very public challenge  
289 with the Chinese government, where the Chinese government alleged a bunch of  
290 things including that Qualcomm used its patent monopoly in a way that was not  
291 consistent with Chinese laws and pushed back very hard in ways that Qualcomm  
292 had to then grapple with. I think on a country-by-country basis, it can be very  
293 challenging. China is probably the most challenging because it's a huge market for  
294 every tech company and has a huge population base.

295 I think the European Union is a much more developed economy. There are all sorts  
296 of reasons why those countries will respect intellectual property. But again, if you  
297 look at Google, it's an example of a big tech company running into challenges with  
298 the E.U. on taxes, with how they've done their tax planning, with the anti-trust  
299 concerns that [European regulators] have, and with privacy concerns. There are huge  
300 markets that no global tech company can ignore but they have to have country by  
301 country lobbyists and a [legal] counsel to get the best results.

302 **WEISS:** How about Korea?

303 **MUTO:** I don't think South Korea's like a European Union country, but more in  
304 that model of collaboration with the West and with the U.S.

305 **WEISS:** Do you seek to get investors to come to some of the newer start-ups here  
306 in San Diego that may be overseas investors that would come in because they see  
307 San Diego as this evolving bio-tech hub?

308 **MUTO:** Yes. There have been a number of sovereign wealth types of funds from  
309 China, [Russia and other countries] that have come and put in significant amounts  
310 of money. I have – we have a company that's on file [with the SEC] right now – I  
311 can't name it because it's confidential – but it's on file to do an IPO and in the  
312 middle of that IPO, they have gotten what I – it's a two-stage investment but it's  
313 going to be about \$50 to \$60 million invested in the company which is still a pretty  
314 decent IPO if it were the IPO. This is just a round of capital to give them the ability  
315 to persevere whether they get that IPO done or not. There's a fair amount of activity.  
316 Lots of Chinese investors and some Russian sovereign funds have invested in a  
317 number of life sciences early stage companies.

318 **WEISS:** Have any of the professors or some of the scientists from Salk ever come  
319 through the UCSD CONNECT or with something that was run in the early days out  
320 of the university? Do you have any people that kind of evolve into that way or do you  
321 not in a way have any involvement with that?

322 **MUTO:** No, I think – CONNECT is a terrific organization. One of the things that  
323 San Diego has that everybody who does what I do or anything like that in the space  
324 is, it's got a collaborative mentoring focus to the extent we raised the tide in the  
325 community and all boats rise with it. CONNECT has been a big part of that. A  
326 variety of different programs have been.

327 As a younger partner when I came down here, I spent a lot of time on some of  
328 [CONNECT's] programs. They had a springboard program for years that worked  
329 with early stage companies. They're people that do a lot of work and could help  
330 them with their business plan and their presentation and their focus and mentor  
331 them toward a better result when they go out to the capital markets.

332 CONNECT has a variety of programs and we've done joint programs with them.  
333 Usually CONNECT and Cooley would be getting the same type of people sending out  
334 the message that they need help. They might get some of it from CONNECT, they  
335 might get some of it from lawyers here, and sometimes we do it collaboratively.  
336 CONNECT is broadly focused at industries – no particular industry – other groups  
337 like EvoNexus, for example, is much more technology focused. Then there's Biocom  
338 and local chapters of a national organization, which offers strong support for life  
339 sciences entrepreneurs.

340 **WEISS:** How does that concept with EvoNexus, which has these accelerators and  
341 incubators, how do you think that works for San Diego in terms of this collaborative  
342 work and getting people to work together as opposed to maybe the Silicon Valley or  
343 other places where you now have offices?

344 **MUTO:** I think it's an advantage, very much an advantage. People just extend  
345 themselves and, to some extent, those that might not be so inclined to be that way  
346 probably get influenced to change a bit here.

347 **WEISS:** Nature Magazine named you as one of two attorneys that were  
348 instrumental to the success of San Diego as a high technology and biotechnology  
349 hub. How would you describe your role in terms of this whole mentoring or why  
350 you, among the hundreds of attorneys in the field here?

351 **MUTO:** I think in fairness, that article should have named Cooley, not me  
352 personally. I think Cooley [had a lot of foresight] in coming down here when we did.  
353 In retrospect, you look and you see the Scripps Institute and the Burnham and the  
354 Salk and UCSD and these granddaddy companies and all these life science  
355 companies that did IPOs – it looks all clear. But there was a lot of risk in coming  
356 down. I remember my first few trips in coming down here. Sam Zell, the famous real  
357 estate investor who many thought was a bottom-feeder, bought the Wells Fargo  
358 tower. We started our office [in the building – there was one other tenant in it. It  
359 was a ghost town.]

360 So it was really actually a tough time for the Southern California economy. The  
361 financial Savings and Loan scandal wasn't that far behind and the defense industry  
362 had contracted. So we came down and helped build the infrastructure. We were one  
363 law firm. Now there are 20 national law firms with offices around here. But when we  
364 came and we were in that building we were the only law firm in North County San  
365 Diego.

366 We worked hard to help organizations like CONNECT and EvoNexus and its  
367 predecessors. We don't raise money for companies, but we help them, introduce  
368 them to sources of capital, help them get their technology out of the labs and into  
369 companies. I think we did a lot of that. I think frankly from the law firm perspective  
370 we spearheaded that because we were down here, the first ones, and we have  
371 approximately 110 lawyers down here now. But that's not individual accomplishment.  
372 That's really the entire firm.

373 **WEISS:** Who were key entrepreneurs that you would identify as leaders today in  
374 San Diego's tech and biotech?

375 **MUTO:** I made a few notes.

376 **WEISS:** Oh great.

377 **MUTO:** At the top of any list you have to include Irwin Jacobs, both for all that  
378 he's accomplished in his career and his continuing contributions. I think he's chair  
379 of the Salk, and has been an investor in different start-ups. I think Dan Bradbury,  
380 who was the CEO at Amylin and is now investing in and sitting on boards of  
381 companies, is a phenomenal entrepreneur and has had great success. Stan Crooke,  
382 the CEO of Ionis, which has got a tremendous clinical pipeline unlike any other life  
383 sciences company in the country. It has recently been approved to treat spinal  
384 muscular atrophy. Stan built the anti-sense platform that [produced the drug and  
385 showed extraordinary perseverance in building Ionis].

386 I think Drew Senyei, who was one of the original life sciences venture investors in  
387 San Diego. He's now doing individual investing but he's started a lot of different  
388 companies. Magda Marquet and her husband, François Ferré. They're great. Tina  
389 Nova, just started another new company called Molecular Stethoscope. She built a  
390 company from scratch that was sold to Novartis for \$500 million and probably  
391 created 600 or 700 jobs here in San Diego.

392 Ivor Royston who was one of a number that were scientists or executives at  
393 Hybritech which was the granddaddy for a lot of life science companies. It was sold  
394 very successfully to Lilly. It developed the prostate screening technology that's been  
395 used to test for prostate cancer for many, many years. Then probably another one I  
396 think I'd add is Karin Eastham. She's just a very prominent woman entrepreneur  
397 [and Board member] in town and has a number of successful companies. She was on  
398 the Amylin board, the Illumina board, and several others. A very talented person and  
399 a personal friend. Actually I think all of these people are personal friends. So I should  
400 be honest about that.

401 Then another one would be Harry Gruber. Harry has built two successful life science  
402 companies. He's got another one right now, Tocagen, that developing a drug to treat  
403 brain cancer. In the middle of all that, he also built an internet company that was  
404 sold for a few billion dollars as well. So a unique entrepreneur and he crossed over.

405 I think actually we'll see more of that: healthcare entrepreneurs and VCs going into  
406 the digital health community. Digital health great potential. One prominent local  
407 leader in digital health is Eric Topol – who was at the Cleveland Clinic for many,  
408 many years – and is a world-famous cardiologist. He started at the Scripps  
409 Translational Medicine, which is all about digital health.

410 **WEISS:** Where does Craig Venter fit into this whole scheme?

411 **MUTO:** You know, he's a larger than life figure. I've never met Craig. He deserves  
412 to be on the list. He's got lots of different things going on, vaccine companies and  
413 human longevity. So he belongs on the list.

414 **WEISS:** Over the years, you've worked with different kinds of business  
415 transactions, private placements, public offerings, mergers, acquisitions, spin-offs  
416 and other strategic collaborations. Can you tell me how these different types of  
417 business models have helped San Diego companies evolve now to becoming the hub  
418 that they are?

419 **MUTO:** I can try in a few instances. If you look at a company like Ionis, which  
420 Stan Crooke founded and leads. He has led Ionis through virtually every one of those  
421 types of transactions. They've been around [nearly 30] years and raised several  
422 billion in capital. One of the things that we did a lot of over the years, and we have a  
423 group that does this, is partnership arrangements with major pharmaceutical  
424 companies. We've worked on some of the most interesting and pioneering  
425 agreements.

426 In the first partnering arrangements that were made, you get a molecule, you'd  
427 licensed it out, and you would get a royalty on it. But we helped several clients  
428 develop a model which said if they can raise the capital and opt in investing, they  
429 could get a share of profits. We did a lot of arrangements like that. Those freed up a  
430 lot of life sciences companies to try and last longer, to not be sold at the earliest  
431 stages and raise more capital.

432 So otherwise, that long list of transactions all in one way or another relate to  
433 leveraging your technology or your products to get the capital to build stockholder  
434 value or raising it in some form in the capital markets whether it's a pipes  
435 transaction, a public offering, or a rights offering. There are smart people out there  
436 thinking of new ways to do this. For me, personally at this point, I spend most of my

437 time counseling CEOs and the boards that I either counsel to or sit on and try to use  
438 my years of experience to help them choose the right paths to maximize their value.

439 **WEISS:** So among some of the companies you've mentioned, were these all start-  
440 ups that you consider evolved into success stories or...

441 **MUTO:** They all range from complete start-ups. Gilead is one of the most  
442 successful life sciences companies; its drug cures hepatitis C. I remember the start-  
443 up of Gilead in some early meetings with the founders.

444 I can remember the formation of Amgen in our conference room in San Francisco in  
445 the weeks and months after I first joined the firm. In a little conference room with  
446 six or seven people in it signing documents that led to this company that's probably  
447 the largest market cap biotech company. So plenty of stories like that and I'm still  
448 working with – I don't think you mind me mentioning Rusty Gage on his fourth  
449 start-up and that's great. But we also got brought in at Qualcomm to do the IPO.

450 They had been around a while and have done a lot of different things. There were  
451 still lots of growth and opportunities to help that company. So it can be almost at  
452 any stage. We recently started doing work for – I probably shouldn't mention the  
453 name of the company, but a very high-profile Bay Area company that's already raised  
454 several billion dollars and they just saw us in some transaction and thought we  
455 would add more value. So we've gotten retained to do that.

456 **WEISS:** These are San Diego focused companies even if they've branched out,  
457 that you've mentioned. Ionis has stayed here in San Diego. They haven't moved?

458 **MUTO:** Stayed here. No. Up in Carlsbad, one of the first. The community started  
459 out and life sciences in particular have started out on the Mesa and over time it's  
460 built into the surrounding valley and up to Carlsbad and even up to Poway. But I  
461 would say in life sciences, there is a real concentration now up in Carlsbad.

462 The technology companies I think have been more – some of them have their  
463 building signs up here in the Torrey Pines Mesa but they are less of a presence here  
464 and much more of a presence down in Sorrento Valley. That's a little more tech  
465 oriented. But again, it's spilled out in both directions. There are tech companies up  
466 in Carlsbad.

467 **WEISS:** Speaking of geographical spread, do you now consider there's like a tech  
468 corridor where as far north as Irvine could be considered a tech corridor or is that  
469 really the Orange County considers Irvine its own with the Irvine company and all  
470 the evolution of Irvine from a small city to now a premier city?

471 **MUTO:** More the latter. I think there's more of a set of connections to West L.A.  
472 and to Internet enabled business there or new business model companies. We  
473 recently represented the Dollar Shave Club which advertises on TVs and they were  
474 bought in a transaction that was widely reported for a billion dollars. I think the  
475 investors started that company three years before. Orange County has got a very  
476 diverse economy. It's a little bit more med tech, med devices. That hasn't been as hot  
477 an investment area because of the regulatory challenges.

478 Having said that, we have had some really good clients up in Orange County. We  
479 don't have an office there. We do have one in West L.A. One thing with the earlier  
480 stage companies, if you're representing larger companies and driving an hour, it isn't  
481 that hard at all if you're trying to help a start-up along and the CEO just wants to  
482 have a cup of coffee, it's kind of hard to go up to northern Orange County to have a  
483 cup of coffee. It just doesn't have the same level of activity. I mean West L.A. has  
484 really kind of exploded in companies that are raising capital at early stages. Most of  
485 it, again, Internet enabled business plans.

486 **WEISS:** What about the gaming industry?

487 **MUTO:** The entertainment industry for sure, but the gaming industry is so  
488 highly regulated. You mean –

489 **WEISS:** Sorry. I was not thinking of the casinos, sorry. I misspoke. I was thinking  
490 more of the computer – when you talk about Internet enabled computer generated  
491 games that are now Internet enabled...

492 **MUTO:** Absolutely. As I mentioned before, my oldest son is a lawyer. He lives in  
493 Santa Monica and works for a game company that's hugely successful and I think he  
494 told me has 2,000 employees and it's one of the most frequently used multi-player  
495 online games.

496 **WEISS:** Speaking of entertainment. In some of the earlier days in San Diego,  
497 there were some entertainment technology oriented companies, Sony and some

498 others that were in the area here. What's happened with that business and how's  
499 that evolved?

500 **MUTO:** You know, I think those were all content folks. I don't know. They may  
501 still be here but there were a couple I worked with. MP3 which was really a high  
502 flyer. I'd say there's not much going on there today.

503 **WEISS:** What about trans-border with Mexico? Certainly there have been the  
504 mock leader assembly plants but is there any innovation investment that their  
505 companies that are trying to do cross-border here?

506 **MUTO:** I think I've said this a couple times. I've done this for 37 years and  
507 probably 24 of them here in San Diego. I don't think I've ever worked on a cross-  
508 border transaction with Mexican innovators or Mexican capital and San Diego  
509 innovators. I just haven't – I think that's such a different economy. It's maybe 20  
510 miles from here but it's a long ways away.

511 **WEISS:** What about San Diego business development in terms of the support  
512 and economic development and assistance from the City of San Diego, the County of  
513 San Diego or some of the individual cities up and down the coast?

514 **MUTO:** I hear a lot of people in the business community still rail against  
515 California taxes and California water and other regulations. Of all things, I think  
516 there's lots of industry groups collaborating trying to help the State find the right  
517 balance. Still, we've got so many other strengths that allow a lot – when you look at  
518 all the great companies that have transformed life sciences, Amgen and Gilead for  
519 example, those two great companies are here and they're not from Iowa or Idaho or  
520 Nevada with no taxes.

521 If you look at the great Internet companies, Facebook, Google, Twitter, they're all  
522 here. If you look at probably the top hundred innovative companies that have  
523 changed the world like Facebook has already or will change the world, I'm just  
524 guessing but I'm sure you'll probably find 80 of those companies in California. So we  
525 have to find the right mix and balance. I will say I've had friends and clients,  
526 probably four or five leave San Diego in between opportunities [– to locate in a State  
527 with no or lower state taxes].

528 **WEISS:** Okay, so we're talking now about the San Diego environment. Why  
529 California specifically? Why San Diego and the companies that have stayed here  
530 despite taxes and maybe not the best business incentives that may have been  
531 advertised in other states?

532 **MUTO:** I think it's all about talent. Again, I look at San Diego and you look at all  
533 the fundamental advances in molecular biology and genomics, these great research  
534 institutes that are here and you can almost throw a baseball from the Burnham to  
535 the Salk to Scripps to UCSD. I mean they're literally four or five square miles. It's a  
536 tremendous amount of talent and that talent accretes over time. It keeps building on  
537 itself.

538 Is L.A. ever going to not be a capital of entertainment? Probably not. I mean or is the  
539 media world going to ever not have New York be a very big part of it? Probably not. I  
540 think you can ruin a good thing, for sure, and we could do it if we don't figure out  
541 water in California, or if we don't think hard before we put more taxes onto  
542 businesses. Maybe because as I was about to say, I have four or five CEO folks who  
543 have just left. They're 50, 55 and saying, "I don't want to work for another five years  
544 generating return for my stockholders and be taxed at the California rates."

545 But again, with the talent we've got collected here in the Bay Area in these  
546 fundamental industries, that's an incredible asset for any region and anyone that  
547 believes in the new economy – and I do. There's some companies that are way out  
548 ahead of themselves on valuations but companies like Google and Facebook are  
549 making enormous financial returns.

550 **WEISS:** So where do the Navy and the Marines and SPAWAR and some of the  
551 defense industries fit into the picture now because from the '60s on they were some  
552 of the reason for contracting companies like SAIC and even space technology  
553 development. How has that changed and is the Navy still important here in terms of  
554 the technology?

555 **MUTO:** The Navy is very important. I don't think it's on the cutting edge of  
556 technology anymore. I think SAIC's move was a big one. I think I see more of these  
557 couple hundred-million-dollar defense contractors that are really trying to build a  
558 different kind of business. They're not trying to change the world. So I don't see it as  
559 much of the defense touching or leaking into the tech world.

560 **WEISS:** How about in life sciences or biotech? Is there any crossover with that?

561 **MUTO:** Not really. I don't think so. I would say if I had to pick one office, our  
562 Washington, D.C. Northern Virginia office is really vibrant with government  
563 contract businesses. I'm not sure any other market is like that.

564 **WEISS:** What about the role of STEM in schools, fostering interest among a wide  
565 range of students now? I was just at the Makers Fair at Balboa Park and especially in  
566 some of the – various museums but especially the science museum, the Fleet and the  
567 Aerospace. You see a lot of young or creative people that have worked in different  
568 industries that are trying to do start-ups and even doing some of the crowd sourcing.  
569 Where does that fit in? I mean you're at the totally other end of the spectrum with  
570 most of your clients but there are some people.

571 I mean there was a Chinese-born inventor of a 3D modeling printer that would be  
572 inexpensive. They have representation there. Then they have a lot of robotics  
573 competitions for kids and the solar and the drones now. How do you see getting a  
574 younger generation of kids excited about staying here, moving into technology and  
575 the future?

576 **MUTO:** My firm is sort of the opposite end of West Germany or East Germany  
577 from the crowd funding sources. I don't know where that all is headed. I don't think  
578 it could ever be a replacement. Maybe it'll be for the sorts of entrepreneurs we work  
579 with but it could be in addition to them, to allow some ideas to get funded at earlier  
580 stages. I think if I were to look at the young people today and look at [Downtown]  
581 San Francisco, it's just a remarkable place.

582 When I left it in 1992 everything was about Palo Alto and the Silicon Valley. But if  
583 you look at the big, successful companies, Uber, Twitter, they're right there and  
584 Zynga, the game company, they're right there. If you walk around the streets of San  
585 Francisco you might think the average age of the population is 25. There's a lot of  
586 excitement and lots of entrepreneurs and people that are engaged in business but in  
587 a different way. I think San Diego's trying hard.

588 A lot of people in a small way. I try to do it, try and promote the sort of pure  
589 technology side of it. Those companies are a lot easier to start, most of them, than a  
590 big concept biotech company. They take less capital. I think there are some – I try  
591 and track all the articles but there's some activity downtown I think that makes

592 downtown a place for young people to want to be because they get jobs there and  
593 because it's a city center. It's way behind San Francisco.

594 **WEISS:** Through the end of this decade, what do you see for San Diego now?

595 **MUTO:** Scroll back to ten years ago. There have been very few biotech drugs  
596 approved in the San Diego community, a relatively small number of successful drugs  
597 that have \$100 million a year in revenue or more. The big success was Biogen Idec's  
598 lymphoma drug. Fast forward to today, a lot more have been approved or are on the  
599 verge of being approved that are fundamental, and especially if you go to the Bay  
600 Area.

601 Gilead is my example because it's solving a major medical problem permanently. It's  
602 getting killed for what it's charging to do that. This is the \$80,000, three-month  
603 treatment. But what the world is not understanding is that all the people that were  
604 otherwise going to need liver transplants aren't going to need them anymore  
605 because they won't have hepatitis C chronically. I see the prospects for a couple  
606 Gileads here in San Diego and below that, a number of other companies that have  
607 gotten enough progress that they can sell their company for \$300 or \$400 million  
608 dollars and there's a lot more of those. That will bring more capital back in. It will  
609 keep the virtuous cycle.

610 I think I see, but maybe it's because I want to see, more momentum on the tech side.  
611 We just had an event in our office. We brought in some seed investors, some  
612 individuals who may have had some success and want to put small amounts of  
613 capital in. There were maybe 25 or 30 of them and it was good to see that number of  
614 people in a room, people interested in coming to a networking meeting to hear  
615 about interesting new things.

616 So I'm optimistic, very optimistic on the life sciences, optimistic on the tech side. But  
617 I do think global events can just shut the engine off at any time. I've certainly been  
618 worried about that at different junctures here. We think it's all about numbers and  
619 metrics but it's not. It's all about emotions and psychology.

620 In 2008 there was a slide deck put together by one of the most recognizable venture  
621 capital firms in the country and we were all talking about how the bubble's burst,  
622 where are we headed. The deck has a big RIP tombstone on the front slide. The VC  
623 firm went through and it said to each of their CEOs of their portfolio companies and

624 basically said, "The world as you knew it just ended." I got that emailed to me  
625 probably [30] separate times. It went viral.

626 You could just see it sort of put a push into the psychology that was already  
627 developing, which was that you're never going to raise money, that this was the  
628 worst of times, it's a nuclear winter. It was pretty bad for a few years, but we got  
629 beyond that. We have an economy. We did some extraordinary things to keep it.

630 I won't try and [predict the future], but I think there are single events that could ruin  
631 the momentum behind the entire tech economy. It's all based on optimism about  
632 the future, optimism about putting your money to work. When people lose that  
633 optimism, entrepreneurs don't jump ship and start new companies, venture  
634 capitalists don't put money into companies and bigger companies stop buying  
635 companies. That's all an emotional thing. I think there's some pretty scary terrain to  
636 cover.

637 **WEISS:** I appreciate this expertise, your optimism for moving ahead. One area  
638 we didn't touch on at all was the space industry and excitement about space. Do you  
639 see that any of the companies you've worked with before are now interested in space  
640 technology and where it's going?

641 **MUTO:** A few we've done work for SpaceX and Tesla. I think there's a unique  
642 entrepreneur there with a remarkable vision for a lot of different things. There's a  
643 level of interest in it but I think the risk on space exploration is so great. I saw that  
644 recently with the failed launch – and the capital is so great that it's going to be a  
645 finite number of people that can march into that space. It's just too much capital,  
646 too much risk.

647 It's going to take someone like a Musk to really pull people into that. He's having a  
648 hard time now trying to put the two companies – I saw that Tesla just reported great  
649 results. So maybe he'll get his deal done. So not so much from the kind of capital  
650 that I see.

651 **WEISS:** Any other thoughts on where we are now, where you'd like to go? We  
652 just went through the end of this decade. What if you want to envision 50 years out?  
653 Do you – you're such an optimist. It's great through the ups and downs.

654 **MUTO:** I hope there's another fundamental shift that – like the discovery of  
655 DNA and modern molecular biology or the microprocessor or the Internet - that  
656 produces enormous opportunities. One of the highlights of my career occurred on  
657 successive nights many years ago. The first night I went to a board dinner and  
658 seated on one side of me was one of the three guys that developed the backbone at  
659 DARPA that became the Internet. I don't know if it's still there but in the Boston  
660 Museum of Science, there was a little thing about these three guys at DARPA and  
661 how they've never really been recognized. Al Gore became the father of the Internet,  
662 not these guys.

663 Then the next night I went to another board meeting for a company. This one's long  
664 gone so I can mention it. SIBIA [Salk Institute Biotechnology Industrial Associates  
665 Inc.] which came out of the Salk Institute. Two guys on their board, Francis Crick  
666 and James Watson, wanted to talk about the IPO process that SIBIA was going  
667 through. I'm just sitting there thinking, "Wow. One of the guys that developed the  
668 Internet and the two guys who discovered DNA in two nights."

669 Out of those two things, unbelievable opportunities have come. I think the  
670 microprocessor's another one. If you look at the world in the last – well as long as we  
671 have a record of it – it's one of –things that just changed, made fundamental, great,  
672 new opportunities available, like electric power for example. I think there will be  
673 something else.

674 Another good example is the steam engine. There are just these fundamental  
675 advances. Driverless cars, maybe it's driverless cars. There's not a lot of attention  
676 going into space launches but enormous amount from entrepreneurial companies  
677 and investors into driverless cars. I don't know if that's quite the same kind of  
678 innovation but, anyway.

679 **WEISS:** Do you have any other comments? This has been great.

680 **MUTO:** No.

681 **WEISS:** This is wonderful. I really appreciate your time, expertise and vision for  
682 where we could be going and perspectives on where we've been. So thank you very  
683 much.

684 **MUTO:** Well you're a very gentle interviewer. I appreciate that.

685 I was just trying to think about moments that were really special to me and  
686 participating in the kinds of things that we got to participate in here in San Diego.  
687 One of my first life sciences companies – really I just met the CEO at a CONNECT  
688 forum when I came down and I ended up representing them for three years. It was  
689 two chemists. They had started a services business. It wasn't a cure cancer company  
690 but a services business at developing libraries for large pharmaceutical companies.  
691 They raised some capital from a relative. They didn't get any traditional venture  
692 capital.

693 They each maintained about 20 percent of the equity ownership. One of the two  
694 guys was a Russian who had come here, immigrated to the US about three years  
695 before that. So he had been in the country less than six years. When he came, he  
696 came with his wife who was a linguist who I think is teaching on the Harvard faculty  
697 now, a son, one suitcase, and \$20. We sold the company, very successful, to Agouron  
698 which then was sold to Pfizer.

699 This Russian physician stuck with it the whole way. The closing of the sale to the  
700 first company where he got his 20 percent of the sale price said, "I should try to get  
701 the Union Tribune or some of the local papers to tell your story, Alex. I mean it's an  
702 incredible story. It's remarkable. It's hard for me to believe." He looked at me and he  
703 said, "If it's hard for you to believe, how do you think it feels to me," because he  
704 came from a Russian economy, central planning. To me it's the promise of all these  
705 new businesses and – by the way, that chemistry capability is part of Pfizer and  
706 helping them develop the drugs that they bring to market. Anyway...

707 **WEISS:** Well thank you. That's great to have concrete examples and a success  
708 story that you could be involved in like that and that people had that experience. I  
709 appreciate that. Thank you very much.

710 **MUTO:** Well thank you.

END INTERVIEW

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**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.