Q: OK, David Hale’s first day at Gensia?

So, Harry and Paul had been hawking Gensia around San Diego for, I don’t know, for a year or so, and they got Hale interested, and the timing was right because he sold Hybritech. And so, they had an office, I think it was on Flintkote Street, up here, where Paul Laikind used to come and sit. So, David had been to see him a couple of times, and the day that he started, they moved, and so David was really diving around Sorrento Valley looking for Gensia, ‘Where’s this company I just signed up with?’

Q: Well, let me ask you about your early career. You have undergraduate and graduate degrees from Glasgow in biochemistry?

Right.

Q: Why did you decide to go into biochemistry?

Biochemistry? Well, I did a PhD because I couldn’t think of anything else to do, and I got interested in biochemistry, I was undergraduate in biology, basically, and so, what fit my interests best at the time was biochemistry. Since that was really the major biological science to which I was exposed as an undergraduate.

Q: And then, when you did your graduate work, did you have in mind a typical academic career path at that point?
Well, no. Actually, you know, I decided to see the world as a post-doc, not quite that
consciously, but I certainly wanted to leave Glasgow. I’d lived there all my life, and
although it’s not as unusual as it is in the United States for people in Glasgow to stay and
do their undergraduate and graduate degrees in one place, I’d had enough of the place.
Although, actually, I love it now. I’ve been away long enough. So, I was looking for
somewhere to go, and I actually looked for post-docs, and the two places I almost ended
up, one was Berkeley, with a guy named, you can tell this is the place I didn’t go, what
was the guy’s name? Wong, Paul Wong? I’ve forgotten his name. Anyway, he’s still
around. The other place was the Weizmann Institute in Israel, and the Weizmann
Institute had the money, so I went there, which was a great experience, actually. Very
interesting. And then, after two years there, I had to find another job, so I still wanted to
come to the States and see what it was like, and I got a job as a post-doc with Charlie
Thomas at Harvard Medical School. I got there about 1975, and it was kind of like
getting a PhD all over again because molecular biology, the current era of molecular
biology was just starting, restriction enzymes had just been found, cloning was just
happening, so I learned, basically, how to be a molecular biologist there, and when
Charlie moved from Harvard Medical School to Scripps Clinic, he got invited to Scripps
clinic to start, as he said, a cellular biology department. So, people said, ‘Do you mean
cell biology?’ And he’d say, ‘No, cellular is an adjective.’ Anyway, Charlie tried to
attract a number of people like Zuma Tonagawa and Dick Flavelle. Tonoagowa has a
Nobel Prize now, and he didn’t he get quite the top level of people that he wanted, so after
about a year or two he had a big fight with, who was the guy who was head of Scripps
Clinic before Lerner? Anyway, he left and found, I left Charlie before then, to go to work
for Ted Friedmann at UCSD in 1980, but Charlie left, and this is kind of interesting, to
start a research institute called Helicon, and also Syntro, which is a barely extant biotech
here in San Diego now, and so, and Charlie is kind of an abrasive personality in a lot of
ways, and after about a year or so, the staff rebelled and told the Director of Syntro, that
they were all leaving, or Charlie had to, so they gave Charlie Helicon, which still exists
down in PB. It’s kind of a low class incubator for biotech companies, and actually
DepoTech started there, I think, yeah.

Q: People who were there started Depotech?

The people at Depotech used Charlie’s Helicon Institute, which is three nissan huts, down
in PB, which also has an interesting history, which I’ll tell you, since we’re doing history.
If you drive down 5, there’s a whole set of nissan huts, on a thing called Sante Fe Drive.
I guess they’re on the left side of the freeway going South, and Santa Fe Drive actually
starts on one side of 5, and runs underneath it. And some of those are now, I don’t know
what the original purpose was, but some of those are antique stories and things like that.
But at least three of those were built by this guy named Grant Bartlett, who was the,
probably, first guy to figure out that if you had an NIH grant, you could start your own
institute. So probably in the late fifties, let’s see, is that right? Yeah, the fifties, he
started his own institute there, and managed to buy the three nissan huts with his NIH
grant, and like twenty-three years later, he finally didn’t get his grant renewed, but by that
time, he’d bought the land. I don’t think you can do that with an NIH grant anymore, but
he rented them out. That’s how he made a living, he kept one for himself, and rented the
others out. So he rented one out to Charlie, so that was where Depotech started.
Anyway, sorry, so I went to Ted Friedmann’s lab, I took my molecular biology tools
there from Charlie’s lab, and they didn’t really have any. His was a polynoma and
virology lab at the time, and you know, Ted had always been interested in gene therapy,
and next door was Jay Seegmiller, and that’s where Harry Gruber and Paul had met,
actually I didn’t know them, although I was there before them. And I cloned a human
HPRT gene there, and that corresponded to genetic disease, and so that kind of fit together, and we started trying to do gene therapy.

And the initials attempts, we were using calcium phosphate transfection, and that wasn’t working very well, and I went to a conference in 1982, called ‘Tumor Viruses and Differentiation,’ that’s a keystone conference, which is one of these ski conferences. Everyone goes for a week to a ski resort and you supposedly do the academic stuff in the mornings and the evenings, and you go skiing in the afternoon. And it’s actually very good, because you can track down someone and jump on the same ski lift with them. They can’t get away from you. Anyway, at this meeting, this guy named Richard Mulligan, who’s now professor at Harvard, Mass General, yeah, found the retroviral vectors, so I went back to see Ted and I said, ‘Oh, retroviral vectors are the way to go,’ and we’d already started collaborating with Inder Vermer, at Salk Institute, because I though I was never going to clone an HPRT gene to do something, some stuff with retroviral vector bits and pieces, so we started trying to make retroviral vectors with Inder, and Inder was just getting out of the stage where he actually worked the lab, and he was putting together bits and pieces in the lab, and giving them to me, and they turned out to be more or less junk, because he didn’t quite know how to do things right. And so then he a post-doc called Dusty Miller coming, who’s now up at Fred Hutchinson in Seattle, and he’s now a big wheel in gene therapy, so Dusty got to make the vectors and put the HPRT gene in, so that started the retroviral vectors. Once we had them kind of up and running, Harry was always interested in gene transfer, and he had started growing human marrow cultures, in Jay Seegmiller’s lab, so we collaborated on a paper that we published in Science, in 1985, about putting genes into whole mouse cells. So, that bit is the connection where Viagene met Gensia. Because, at the same time, Harry felt that he had a couple of purine compounds that looked kind of interesting.
Q: They called it Retrogenes in the beginning? Were you aware of it when they started it?

Yeah, what happened was, I stayed at Ted’s lab for actually just about six years, a long time. So the postdoc there, was one of those glorified postdocs, what do they call them? Assistant research biochemist, or assistant research scientist, something like that, where you can get your own grants, but you are behoven to someone for space. And I was finally realizing that this was not the right career path, well, that it wasn’t, you know, that I couldn’t be there, so I actually got a job in France with a guy named Etienne Emile Gaulieu. I worked for, so I actually became a French conseiller, because he got me jobs. And he’s famous for two things, well he’s famous for other things, he’s a steroid biochemist, but he’s most famous for two things, one is he’s actually closely associated with RU-486, and in fact, there is some edition of the New York Times Sunday Magazine with his full page picture, Mr. RU-486. And the other thing that’s he’s famous for is being Sophia Loren’s boyfriend, so guess which one he’s most famous for, right?

Q: And he was at INSERM?

Has he just retired? Yeah, he was at INSERM in a place called Clairnan D’estet [?], which is just south of Paris, about a hundred yards south of Paris. He had a, I forget exactly how I met him, but he used to come to the Salk all the time, because Roget Guillemin was in the basement, and he’s the guy who eventually moved to the Whittier[?] Institute. He’s a Nobel Prize winner in peptide hormones. So, I met him and we kind of hit it off, and so he said, ‘Well, you can come,’ this is one the patron types deal, ‘You can come, I’ll get you a job. You do whatever you want, but I just want
someone around who knows how to do molecular biology.’ So, I said, ‘OK.’ I also  
wanted to go back to Europe and see what it was like, so, but before I left, I’ll always  
remember, Harry came up to me, I was going to leave, I’d taken the job, I’d said, ‘OK,  
fine, I’ll do it.’ And that was about July, I think, and I was going to leave about the end  
of September, and Harry came up to me in July, and said, ‘You know, I think I’ve found  
a way to do research without writing grants.’ So, I said, ‘Oh.’ He said, ‘Yeah, I talked to  
this guy and he said we should form a company, and you know, I have some stuff, but  
also this gene therapy is kind of interesting. Why don’t we form a gene therapy  
company?’ I said, ‘You know, that sounds like a really interesting idea, and I’d be very  
interested in doing that, but I just took a job in Paris.’ And he said, ‘Oh.’ So, we talked  
about it a little bit, and I said, ‘Well, you know, I’m going to go to Paris because it looks  
like an opportunity, How about, we should keep in touch?’ Actually, what that meant  
was Paul and Harry got to do the legwork, and I got to be in Paris. And so they started  
Gensia with the Viagene technology, with the Retrogenes technology in there, in ‘86.  
And I came back several times, and eventually, they wanted me to come back and run the  
research for Viagene, for Retrogenes, that was spun out. And actually I hesitated for a  
couple of months. In fact, I turned them down at first, and then I called them back and  
said, ‘No, no.’  

Q: Did you perceive a risk? This was a lifetime position, right?  

Yeah, that’s right. There was that. Basically, that was part of it, I was in a life, I mean  
living in Paris is a lot of fun, but scientifically, I was kind of, I’m not sure I was really  
getting anywhere. And also, you know, I was really interested in gene therapy, and I  
really wanted to make it work, and when I sat down and thought about it, the only place  
that you could do that was a biotech company. You just couldn’t get the resources in
academics. And I now know that large pharmaceutical companies never really set aside
enough money to do anything like a biotech company does. I didn’t know, of course, all
of the things I know now, but I kind of had that understanding, and also, basically, I said,
‘If you don’t do this, you’re going to kick yourself for the rest of your life.’ So, we
negotiated some more and I came. So, yeah, I resigned from my job for life, yeah.

Q: When you did come back, they hadn’t spun off Viagene yet, it was still part of
Gensia?

No, it had been separated. I guess it was incorporated in February of ‘87, and there
actually was a place to sit within Gensia. I guess the first employees, I forget the middle
part, I know Brad was number one, Brad Gordon was number one.

Q: In management, of Viagene?

Yeah. Then there was a scientist and two technicians, one of whom is still here, actually.
And a secretary, that’s right. So I was employee number five. And there was nothing
really, I mean, it was an empty space. So my job was to hire a bunch of people to start
the company, essentially.

Q: And how did you go about doing that, who did you recruit?

Well, I did it basically by networking. I was in science so, I got two guys from Inder’s
lab, Inder Verma’s lab. One was a guy named Dan St. Louis, who lasted about, probably
had too explosive a personality, let’s put it that way, to work in a company, and the other
guy was Jack Barber, who actually stayed here for quite a while, and now he’s, I forget
what his title is, but he’s part of Immusol, which is Flossie’s company. So I hired
basically four scientists in the first year, year and half, who led bits of Viagene for the
first three or four years at least. So, Dan left, so there was Jack, I hired Steve Chang,
who’s also still here, who was actually a competitor of mine for cloning HPRTG and
making retroviral vectors, so I knew him that way.

Q: Where was he doing that?

He did that in Houston, with Tom Caskey [Sp?], who’s now head of research at Merck.
Steve had left Caskey and went to the NIH, but he wanted to come back to the West
Coast, his wife was from the West Coast, although he’s from New York. And he went to
school in Irvine. And then John Warner, actually, Harry basically found John, who was
our immunologist, and who’s now VP of gene therapy at Inex, which is in Vancouver,
it’s a gene therapy company in Vancouver, just like this one. And then, I’m rambling on
here. Chuck Prussak, who’s still in town, but who runs the, I hired Chuck to try and start
the product development piece of retroviral vectors, which he did, actually, a very good
job of. Basically, the things he put together in a refined, approved manner, is what we
still use. So, he went, he got pissed off because when the next generation of management
came in, he didn’t see eye to eye with Kerry Coles, who was the VP of product
development and manufacturing. He went and got a job with the vector production lab
over at UCSD. Have you talked to him?

Q: No, I haven’t.

And then, let’s see, there was one more. Chuck, Jack, I said John, and Steve, so for the
first four years, basically, four or five years, they kind of ran the research group, the four
of them heading their separate groups.
Q: Do you recall, was it difficult to convince them to come into this little start-up?

It’s so funny, you know, people were so naive, including myself. I mean, basically, they were all postdocs. They weren’t looking for a job for life, they were looking for something interesting and exciting to do, that looked like it might be fun. And, I basically convinced them that that was the case. Actually, gene therapy is still a way to sell, even quality control, in gene therapy can be portrayed as exciting. Because it’s new, if you want to think about it, you can, there are issues to be solved, and that may be true for everything, but it’s easy to persuade people that it’s true for gene therapy. So, actually, it wasn’t tough to recruit talented people, I mean, first of all, San Diego has a lot of people here, so the only person that I recruited from outside the area was Steve Chang, and I knew him directly, of that first wave of scientists. And then, we just, I mean, it wasn’t, it was hard work, but it wasn’t difficult to find extremely talented people. And I didn’t have a grand scheme. I knew I didn’t want to hire people who were all the same, which has always remained a theme here, which is you hire people for the job, you also hire them for, because they know the stuff, and I think that’s worked out well, so I guess we hired about thirty people in the first year, and got up and running.

Q: And how did you organize research? You know, these are people coming out of academic settings, but this is commercial, not a big pharmaceutical company, but...

Actually, you know, that was one of things I really spent a lot of time thinking about. It’s one of the things I really thought about before I came to Viagene, Retrogenes. So, what’s going to be different, and why is that good or bad, that kind of stuff. And you know, I came to the conclusion that a number of, or most biotech companies, I think, are out to wring money for research out of some heaven known as venture capitalists, and we’ll
have a good time. I mean, I know some companies that were done that way. And I
thought, ‘Well, it doesn’t make any sense to me because that doesn’t seem like a self-
sustaining proposition.’ And, you know, if you’re going to get a company, we should
want to make products, because that’s what companies do. And so, I was very clear
about that, and I think that’s a theme for Viagene, and I don’t claim to be the only person
that caused that to happen, but I think that’s the mindset we had, and I think that’s the
mindset we conveyed to people who came here, so everyone’s always, no one ever took a
job here thinking, ‘I’m just going to putter around doing research.’ The idea was always,
“We’re doing this because we want to make gene therapy products.’ I mean with
different, there’s a large band of belief there, but I mean, for example, I remember hiring
Steve Chang, and Steve said, he just took the job because he wanted to come out to the
West Coast. He was interested in gene therapy, but he also said, “This stuff’s never
going to work,’ so, I mean, Steve says lots of things, but that was one of the things he
said. I don’t know how much each of the individuals in their hearts believed that it was
going to work. I don’t think people thought that far ahead. They wanted to, they were
interested in gene therapy, they were bright and wanted to do something exciting, and we
gave them the orientation that, you know, we’re not putting around doing interesting
experiments, we’re going to try to make some gene therapy products, whatever that takes.
And that’s actually, because of that way of thinking, I mean, I think that’s how we were
able to recruit Steve Mento, because he wouldn’t have come to a research boutique. So
it’s sort of built on itself, and that’s why we have, I think, the product development
capability and the manufacturing capability that we have, which most biotech companies
don’t have, and most gene therapy companies don’t think to have, which has, I think,
well, we’ll see. I like to think it’s turned out to be the right way to do it. We’ll see.
Q: Well, in the beginning you started off with a million dollars, right, something like
that? Gensia had fifteen, sixteen, I don’t know, and Viagene got about one million. Did
that seem like a lot of money?

No. It seemed like not a lot, but I sort of had the Gensia example in front of me, which
said, You can just go and get some more money if you need to, so I just believed that you
could get some more money, which we did with some hiccoughs.

Q: Yeah, was it tough doing that, going through successive rounds? What was it like
presenting the science and the technology to these people?

It was like hell on earth in the end, because I did so much of it, because once, there was
one series we had, which was called Series D, which just wouldn’t close. It went on and
on and on, and the VCs got warrants because they coughed up some money to keep the
company going.

Q: Is this one that Harry put some money in?

Yeah, Harry put some money in in the beginning. He might have put some in on Series
D, could be.

Q: Was this the one right before the IPO?

No, well, there were two kind of things that went on forever in Viagene’s history. One
was the IPO registration, for fifteen months. The Series D was kind of a replay of that,
and that was in 1991? Let’s see, when did Greg Phelps get fired? Because we had a
CEO called Greg Phelps from October of 1988 until June of ‘90, I guess. Basically, he
was the fall guy because Series D wouldn’t close, and it still didn’t close when he left, and it must have closed later that year, in 1990, but that thing dragged on for, I don’t know, for about a year, and you know, we were in, we could make the next payroll, and the one after that, that kind of situation. And actually, just got, well, first of all, most of the people were younger than they are now, of course, but they had fewer financial worries in the sense that, you know, that before building families and having children, hadn’t thought about worrying about this kind of stuff. So, it kind of sorted out the men from the boys in a sense, and some people left, but most people just went, ‘Oh well, if we run out of money, we’re out of money, we’ll go get another job.’

Q: When the money’s running out, the atmosphere is not that intense, maybe? Is everybody sort of cognizant?

Oh, yeah. Everybody knows. We got excited about it at first, but Series D went on for so long, then we just went, ‘I don’t even want to hear about it. We’ll just keeping working and doing the best we can until we’ve got no money, and then we’ll stop. We’ll do something else.’

Q: What were the problems with Series D? Kleiner Perkins is involved in this?

Kleiner Perkins never invested in Viagene.

Q: Oh, Domain?

Domain, and BIL, because they had brought BIL with them, and Fairfield and Axcell was already in there. I have to go to my meeting.