Transcript of Dr. Chris Apfel of SageMedic Corp.

Hall T. Martin: [00:00:00] Well, hello, this is Hall Martin with Investor Connect. Today I'm here with Dr. Chris Affel, founder, c e o, and chairman of the Board at Sage Medic Corporation. Sage Medic is a cancer diagnostic company that brings precision medicine to the next level by overcoming the limitations of genomic testing. Dr.

Affel, thank you for joining us today.

Dr. Chris: It's my pleasure to be here and my honor. [00:00:20] Great. And so where are you calling from today?

Um, from Palo Alto, California with this wonderful sunshine. Great. We'll start off with your background.

Hall T. Martin: What did you do before Sage Medic Corporation?

Dr. Chris: Well, actually I, and at that time I was actually in academia.

I was actually at U C S F, university of California, San Francisco. That was basically [00:00:40] the place I was recruited to when a large paper of came out in the New England Journal of Medicine on a 5,000 patient study that we published. And, um, I preferred that over. I would like to say over Har the offer I had at Harvard and at uh, Stanford, um, because I felt that the University of California is, [00:01:00] A university for public good.

Um, and um, over time I've learned that um, any university and academic center and medical center is run like any other for-profit company. And, um, at the end of the day, if you really want to do something impor important and impactful, academia may not be the right place. And um, [00:01:20] when my father was diagnosed with lung cancer, what I actually realized is even today, uh, the cancer treatment is hit or miss.

So I actually got my Wharton M b a, and, um, became in a way a hardcore capitalist. I actually do believe that if you actually have money and you want to do something good, you want to invest it in a startup company that can change the [00:01:40] world, that can make a difference to patients. And, um, rather

than donate it, um, to a, a good course where the reach may be limited and it may not be sustainable.

Hall T. Martin: Well, great. So you're an expert at, uh, investing in life science startups. We have many investors that are [00:02:00] taking on that challenge today, and they're, they're looking for some points on how do you invest in a life science deal. And I think you brought up the point already about, you know, what do you look for in a life science deal and what motivates you to invest in it.

But can you tell us more about that?

Dr. Chris: Sure. And, and there are different motivation and we are all different. For me, uh, [00:02:20] with a medical background, um, MD PhD, who also has been, um, basically an anesthesiologist, intensivist who has seen many patients. To me, it's really important to make an impact on patients.

But there are, and there are different ways to make an impact. And if you are thinking about early stage investing in lifestyle companies, there could be [00:02:40] different motivations. There is, you could think about financial diversification because investment in early state car startup companies can have a significant R o i a nice return on investment.

So that's one part. But it could also be that you say, I want actually to put my money where the mouth is and really make something meaningful. My [00:03:00] life on this planet is limited, and I want to be involved in something that's exciting, something that can really solve an important problem.

Hall T. Martin: Well, great. Well, and many angel groups, the investors often look to one or two people who they consider as experts in there.

What's the, uh, challenge or benefit of having experts in the space with you at this point?

Dr. Chris: [00:03:20] Well, it's, it's really important. And, um, as, uh, the Chair of Life Sciences at the Kaatsu Forum, many people actually also look up to me and ask me what I think about a deal. And, um, I do actually think that there is, and it has been shown by the World Bank Report, that if you are an expert in the [00:03:40] field, your chance to pick a winner is much higher, is twice as high, roughly.

Um, so if you have experts in the group, Always consult them. at, uh, the corrective forum. We also talk about the swarm intelligence. That's what Randy Williams likes to emphasize. but I also would like to warn that there is the opposite effect, which is called the group. Think that [00:04:00] a group gravitates towards a certain, opinion and, uh, that because people would like basically also to be appreciated and accepted by the group that people basically reaffirm what perhaps a group leader says or what other people have just said before.

Um, so the key is really the [00:04:20] swarm intelligence comes in then if you are able to have independent thoughts about it. And, um, I'll give you a good example. I've actually looked into, A company, uh, called Tear Firm Innovations. Actually, they were dealing with dry eye disease, which is a really big, problem for especially the elderly.

And it's a [00:04:40] huge market. It's a multi-billion dollar market in the drug space. And, um, there was a company that actually was looking at. Warming up, uh, the MYOB glands, so glands that otherwise get obstructed, that creates a tear film. And, uh, that's important for the dry eye disease. And I looked into this, [00:05:00] I spoke with, professors in the field, top-notch, key opinion leaders.

In Germany as well as here in the US and they had clinical data that really looked very good. And so I was about to invest. I brought this to my angel group and then I had one of the members who I really appreciated because he's a senior patent [00:05:20] attorney, has previously been a senior patent attorney and dissuaded me.

Long story short, I then decided not to invest. I wanted to invest in a bigger amount, and they basically had an exit within less than a year. I. And I lost out on a five or eight X multiple within one year. They were acquired by Alcon, this UX [00:05:40] device. And, um, I lost really out. And why did I lose out?

Because I was blindly believing what he said. I actually said, well, shouldn't we then bring this patent issue up to the c e O and discuss it with him? And he said, no, no, I would, I wouldn't. That opens you up for whatever, , perhaps conflicts and [00:06:00] problems. , I would just let it go. And I should not have done it.

So when you have an expert who for whatever reason, doesn't agree on it, try find out why and try to really understand it. So you should form your own opinion and you need to ask the experts, but not take it as a, as a [00:06:20] hard rule.

Hall T. Martin: That's a good point. Well, you can ask any, investor in any sector, what's the most important facet of a investment in a startup.

And the the answer is a team. The team is the most important factor. So let's talk about the team and how do you assess them for a life science investment deal. Uh, industry [00:06:40] experiences seems to be a key one there. What more can we say about that?

Dr. Chris: Yeah, I do think that industry experience is, is a really important part.

Uh, I often call it gray hair. Uh, here in Silicon Valley we always think about if somebody is beyond, uh, 25, it's um, that person may be too old. [00:07:00] That's kind of the mindset. And the mindset is often that, if you think about Google, if you think about Facebook, if you think about Microsoft, if you think about Apple, these are usually people who didn't have previous exits.

They're usually young people and they've been highly successful. But there is here a hindsight bias here. First of all, it's a different [00:07:20] space. It's not life sciences. , and it's it, and it's in a different time and era where there's, there was a real upside and there were many other investments that probably didn't survive.

If you think of Daniel Kaman, uh, with the hindsight bias and he looks at in, in his thinking fast and slow book at, at Biases we have, and we have the [00:07:40] bias that you have the entrepreneur that is the young dynamic guy who actually quits Stanford and therefore is basically, um, designed to be successful in life sciences.

Rather is the opposite. If you have a young person, and I don't want to give you an example that believes to be able to do all the lab [00:08:00] tests with a little drop of blood and doesn't surround herself with real key experts. In the field, that may not work out. So what I usually look for is industry, significant industry experience.

So it's, it's good to have an MD on, on board, somebody who really knows when it comes to healthcare, how would this work into the [00:08:20] clinic, that perspective is. Especially important. And then you need to have a chief scientific officer who really is, should be, have at least a PhD and ideally has, let's say 20 years, 10 to 20 years of industry experience at a sufficient level.

And, and then the other aspect is, um, [00:08:40] also, of course, the network, but the, this, this idea of previous exits, um, that may not be a good predictor. What you really want is, To look at the people, can they really do it? And then it has to do with personality. Are these, are these good people? Do you trust them? Do you think they can actually execute on that?

[00:09:00] That those are also important aspects?

Hall T. Martin: That's great. Well, the next is, you know, what problem do they solve? And that, that certainly applies here in the life science space. But you know, more specifically, what do you look for in the problem that they're solving to see if that's a good fit or a good opportunity to invest in?

Dr. Chris: Yeah, I, I usually look at. [00:09:20] Something meaningful, and that may be my personal bias. There are other areas where you can think of wellness and, and uh, restful sleep. Uh, and the problem there is while the barrier to entry is much smaller, um, it's still a $50 billion market and you have the impression you can make a huge [00:09:40] business.

But if you think about. A restaurant business. It's also whatever, if, if a 300, $400 billion market barbershop is also $50 billion market, you wouldn't necessarily open a barbershop just because it's, it's a huge multi-billion dollar market because you will not be that bounty billion dollar company. And so if the barrier [00:10:00] to entry is low, such as in wellness, It's actually very difficult to get market share and, um, and really penetrates the market and, and you really need to have something, um, that, that can make, make a difference and, and it's usually poorly regulated.

And so therefore, wellness is an area where I. [00:10:20] Which I don't touch. Yeah. I have not found anything that's, that's worth looking into this because usually there is no science behind it. Um, I'm now talking with a company where there is interesting science. , and they have publications on that.

There are serious signs out of Italy, actually. And, [00:10:40] um, so that's in the nutritional space, but it, that's a real exception. I'm open to that, but it needs to show that it really can make a difference. So I'm more focused on serious diseases, cancer, neurological disease. Think of Alzheimer's, think of depression, think of Parkinson.

That's a huge market. and there are also rare diseases. Think about [00:11:00] pulmonary artery hypertension. So what, most of you probably hear hypertension. Well, isn't there a lot of competition? Well, on pulmonary artery

hypertension, there isn't. It's actually where the vessels in the lungs, actually the musculature is.

Growing and basically [00:11:20] obstructing the blood flow in the lungs so that the heart, the right heart can't really pump it through. And those patients, those are usually affecting women in their forties, in their fifties. And if they don't get a lung transplant, they usually die within two to three to five years.

and those [00:11:40] are not very common diseases. They're very hard to treat if you have something that can double or significantly extend the life life expectancy. that is something I'm very interested in. Something that really can make a difference to patients. that's also the reason why I founded Sage.

I mean, we, the challenge on cancer [00:12:00] is we talk about precision medicine and when you do genomic testing, in the majority of cases there aren't any mutations. So the treatment is a hit or miss. And so we have developed this technology that we can actually take a patient's life biopsy, create hundreds of acute three D micro tumors.

And then test in the lab within one [00:12:20] week, which drug or which therapy combination would work best in an individual patient. So, so that basically works for almost everybody and can make a huge difference in the patient's life expectancy and give guidance to oncologists. What would be the best treatment I.

Hall T. Martin: Great. Well, you know, in the start space they always say you really have to have a game changing technology. A, a [00:12:40] very strong improvement. Nobody's gonna switch from the current products to your product if you're only offering a 10% improvement or the like. Uh, what would you say about that in the life science space?

Dr. Chris: I do think that's really important. if we are talking about life science space, when it comes to healthcare, you really need a significant clinical [00:13:00] improvement. Either that the surgery is much faster, or, um, that you, uh, have a significant better outcomes, in, in that disease, , to really make a difference.

I often say, A 10 x would be nice. Uh, if it's a serious disease, you may actually also get away with [00:13:20] if it's twice as good. Uh, it depends on the serious seriousness of the disease. And one of the interesting things is when you look at the solution, we are often also very much concerned with the competition.

And I feel we are sometimes overly concerned with the competition. And the reason for that is that the biggest competition for [00:13:40] a startup company, company is basically standard of care because inertia, um, that that standard of care have and that physicians have is enormous. If you get, and I take again the, the example of an oncologist you gave to an go to an oncologist with a D, with a lung cancer or with a [00:14:00] ovarian cancer, there is a protocol what will be given.

And if you then say, oh, I have a test that can tell you this, or this would be better, the oncologist may not want to know it because if you come up with a answer that's not consistent within the standard of care. It brings the oncologist [00:14:20] or the physician into a difficult position. Should I go with what the, the patient's tumor is sensitive to?

Or should I treat with what's considered standard of care? So you want to actually find the right path of going beyond standard of care while being within standard of care. So the question then in the solution is, can it be implemented? Um, [00:14:40] can it perhaps even speed up the surgery? So those are things that could, could actually help you.

Hall T. Martin: Well, great. Well, you know, in the life science space, we're always looking for a moat, and life science has this thing called the regulatory f d a approval, and that seems to be a, a tremendous moat. If you can cross that, you're, you're in a very great spot because most, [00:15:00] most of the competition's not gonna make it all the way through.

What would you say about regulatory as far as how do you, how do you view that with a life science deal?

Dr. Chris: Yeah, so this is actually interesting. So if we think about the regulatory space, Um, we can classify it into the, I would like say drug development and into devices and in [00:15:20] drug development. The interesting thing is at an early stage, only 10% of drugs that actually end up getting f d a approved.

That's, not a high success rate. The question is why, and there is a very interesting book called Rigor Mortis that actually, shed some light into this, [00:15:40] why so many drugs fail in the clinic and in clinical development. And one of the reasons is actually, um, and you probably are surprised to hear that, is that very often drugs.

Or pathways that have been published in top-notch journals from top-notch universities are often not [00:16:00] reproducible. Um, a analysis that was published in, um, nature communication showed that, for. One company, they were only able to reproduce seven outta 53 drugs, um, that have been published to be effective.

They've actually contacted, the authors have tried to [00:16:20] reproduce it. So the challenge is that the quality control on academic publication isn't there in the, in the same way how it is in drug development. And so when a drug comes out of academia is unlicensed, then very often one actually would want to reproduce those basic science findings.

[00:16:40] Before that, you shouldn't actually go to drug development and to put it into the patients, you'll really want to know that's going to work. , so that's drug development and you have this, this long pathway. , now if you have an effective drug, That's already in phase one. It looks good, toxicology looks good.[00:17:00]

You may not need to wait for six to eight years to get through the f d a approval because the, the company may actually be sold in phase two or before when it starts phase three because if the results in phase two are looking really, really promising, um, that's actually when big pharma would [00:17:20] like to step in.

And so that could then be a really nice. High exit multiple, but it's high risk, high reward. And um, if you want to play it safely, you, you may be a little bit more conservative and not go into this. So that's the drug development pathway. There is, of course, when you're [00:17:40] looking about repurposing drugs, then you have a lower risk in terms of toxicology.

That's, that's another. Pathway, the five, uh, 5 0 2 B three pathway. So those are easier pathways. But in general, I would be more careful about drug development In devices, you have these three risk classes, [00:18:00] right? So you have. Class one, which is a low risk, like a tongue depressor. You have class two that, um, is often, um, uh, requires a, um, de novo pathway where you don't have a predicate.

Um, and class three. Which is often called a P m A, uh, pre-market approval [00:18:20] that often requires significant clinical trials and investments, very similar to drug development. And it's actually quite interesting. Um, the most investors are very concerned about, um, Approval risk, the regulatory risk. And, and yes, there is a regulatory risk, but it's also a [00:18:40] barrier of entry for others.

And, uh, the, the beauty is if you actually take that regulatory hurdle, very likely. Um, you actually have a significant benefit, a risk reward benefit, so that actually the marketing is less of an issue. So in contrast to other [00:19:00] investments and life science investment, non-life science investments, you don't have this regulatory risk.

But then once you actually have the product, you really don't know whether it's going to take off if you have f d a approval. For a cancer drug or a cancer diagnostic or for an Alzheimer drug, , you bet this will be a multi-billion dollar [00:19:20] exit. Um, so on the one hand side, yes, you have the regulatory hurdle, but you also you have, you are much closer to the revenue and much closer to the exit.

and perhaps devices is a nice example. Um, I've invested in a life science company called Radiant Oximetry and, [00:19:40] um, by Neil Ray and, um, they have developed a non-invasive method, how they can measure fetal distress during delivery of a baby. And, um, that's fetal distress is a real problem. Normally you have a heart rate monitor and the heart rate monitor, the fetal heart rate monitor, uh, [00:20:00] is, is actually as good as flipping a coin.

And so we have in the United States, quite a number of C-sections. We have, I think over 30% of C-sections, uh, especially on Fridays, right? Um, and the challenge is, And that's often not known to the public that c-sections are not as safe as you might think. It's a significant risk for the mother. Besides that [00:20:20] it's a significant cost, um, for the society.

So with that technology and uh, fortunately we are, um, actually well in our way, um, the. The company decided to go for A P M A and there was big discussion. You could do a five 10 K, you can go at Denovo with a P M [00:20:40] A, you have to show, you have to do some trials and yes, but the negotiation with the F D A actually turned out that they would be comfortable with having some sheep studies where we actually were able to show.

Um, in sheep, um, where, how you can, that we can measure [00:21:00] the oxygen concentration of the unborn baby through the sheep's belly basically. And so the F D A apparently is comfortable with that. There is some other clinical trial that is just looking at acidity and so that's a big barrier to entry for anybody else [00:21:20] who actually then wants to come and.

Copy that. Apart from that, that they have fantastic IP protection. So the regulatory hurdle goes both ways. Um, and it is also a, um, something that then would significantly increase the exit value. [00:21:40]

Hall T. Martin: Well, the next key factor that comes up is how do you make money with these deals in the life science space?

What do you look for to determine that?

Dr. Chris: Yes. And the how do we make money is really important and, and often there is actually the question is, um, um, who is your customer? And, and, and that's actually. A [00:22:00] tricky question because if you buy a pizza, if you buy a cellphone, if you buy a car or a house, right, um, usually you decide you benefit from it, you pay for it.

So in a way, the decision maker then a beneficiary and the payer, uh, you normally is the same In life sciences, that's not the case. In life sciences, you have [00:22:20] often the physician who needs to make a decision and needs to prescribe it. You should be the beneficiary. Um, but you also have the insurance companies that may not want to pay for it, even if the solution is better.

Um, and um, I recently, was talking to a colleague, , with uh, cardiac insufficiency and I said, well, why don't you get. [00:22:40] Cardiac, m r i and he says, well, I'm, I'm, I'm with Kaiser and I'm scheduled for a, um, a te, a transesophageal echo. And I know, and we know that an echo is not as sensitive, it's not as accurate.

It's user dependent with a. Um, cardiac, m r i, you have [00:23:00] exactly an understanding of what the injection fraction is. You know what, what the reflux is. You know how the valves are working and you basically need to push for it. But in general, health insurance companies may want to push back on it. And so very often whether you can can get reimbursed.

It's really, really important, but it's not always the case. So I give you [00:23:20] one example with Cadence Pharmaceuticals, where I was. Um, the, uh, director for, um, the medical affairs department, and we had a non-opiate analgesic for perioperative care. And unfortunately, it's bundled into the price. The cost for perioperative care is bundled into a lump [00:23:40] sum.

And so for this drug, There is no reimbursement code that we could get. And so the question is how do you sell a drug without a reimbursement code? And interestingly, uh, we were already on the market and we were able to get, uh, do some, uh, data analysis on. a premier [00:24:00] hospital network data set that have over 500 hospitals in the US and I was able to show that per patient a hospital could save $500 per patient who is undergoing a hip or knee replacement surgery.

That's a big deal. Within six months we were acquired for 1.3 billion. So, [00:24:20] and it shows in this case that somebody needs to financially benefit from it. And, it can also mean that somebody who is a decision maker can actually saves a lot of money, and C p T code is one way of, having reimbursements.

But the other part is also if you have, have a way that's faster, [00:24:40] cheaper, better.

Hall T. Martin: Well, how do you look at the financial statements and try to figure out if this is a good deal or not? Are there any red flags that jump out when you look at the financials of a life science company? I.

Dr. Chris: Yeah, so the financials are important, especially,, so one is kind of balance sheet and, the, the revenues.

Um, but that's [00:25:00] only true for once a company has revenue, which often in life sciences is not the case. What you want to see is that the people are. Are using the money wisely. How much do the c e o pay themselves? is the money used wisely? Uh, that's one important part is all the paperwork in order.

That's one part. But then it comes [00:25:20] also down to the valuations. Is the deal term reasonable? And, um, we also had some conversations about. our, um, valuations, um, presentation that, um, I'll be giving in the future on, , using our smart cap table. So the challenge often is you have a pre-money valuation and, um, you may have [00:25:40] subsequent the company may need.

Two or three subsequent funding rounds that have some dilution that may have certain value increases, certain amounts that have to be raised, and then you have a certain exit value. And how do you know what your exit multiple could be? And if at the Correcta forum with, uh, three other members I have, we have developed [00:26:00] a so-called smart cap table where you can basically plug in the numbers and really understand, what's your r o i?

What's the return on investment? When you invest in this round and what does the company get, uh, what do the founders get, and what do the other stakeholders get at different exit points? [00:26:20] And when you run those numbers, I. And talk with the, uh, with management, with the team, you also get a very good sense of, can you find a common ground because in the last, I would like to say 10 years, um, premo valuations have basically skyrocketed.

I do actually think that [00:26:40] like, like in the two thousands, um, dot com bubble. We are almost in a similar bubble, have been in a similar bubble with, the angel investments that has now been normalized due to this economic challenge. So now are probably opportunities where you can find deals that, where the evaluation.

Is much more reasonable. [00:27:00] And doing, doing these exercise and running those numbers gives you a good sense of who you are talking with. Are you really talking with somebody who wants. A win-win situation for everybody? Or are they people who just want to get, squeeze out as much money as they can for giving away as little equity as [00:27:20] possible?

So, so I also want to get the, the sense we are in the same boat. This is for the long run. And so looking at those financials and doing the mathematics and doing the math is important. And for that, I would recommend. Do this as a group, select one of the group leaders, make clear that he is entitled, [00:27:40] authorized to, to discuss this and, and for the group and, um, so that you get a deal that is reasonable.

Yeah. Sometimes

Hall T. Martin: in the valuation's too high, you know, investors use liquidation preferences. Do you find that very common in the life science space? Is that a good idea or [00:28:00] not a good idea?

Dr. Chris: Oh, it's, it's very, very common. Um, in principle, my, my, like I, my take on this is in principle, if you don't have liquidation preferences and you don't run into the issue of misalignment at different exit points, but the reality is,[00:28:20] that's what the standard is.

And so, um, you then have the situation when. Because of the liquidation preference, you can actually get into a situation where, when management gets stuck, that they rather keep going and burning money rather than distributing the capital, and rather than returning 80 [00:28:40] cents on the dollar, they run it until there is only 5 cents on the dollar.

And that's not, not good. And that's a, it's a result of liquidation preferences. And, and the other form that is also unhealthy and even more unhealthy is participating preferred, which is effectively a double dipping, right? Because, um, the investor gets [00:29:00] his investment back first in full, and then the remaining capital will be distributed according to the.

Ownership. and that crams down basically the, the company, and it's a, it's an attempt to hold against the artificially high valuation. So [00:29:20] instead of an artificially high valuation, having. going without the liquidation preference, but then have a reasonable valuation that doubles or triples your upside, that is, has more alignment, but it's a question of agreement and people need to run the numbers.

And in general, I think the, what is [00:29:40] industry standard is actually what wins. It doesn't, it's not always what makes more sense. It's actually also what people are used to. So liquidation preferences is something we have to live with.

Hall T. Martin: Mm, very good. One of the last minutes that we have here, what else should we cover that we haven't?

Dr. Chris: Oh, I, I think we covered a ton. Um, we are already over [00:30:00] half an hour into our conversation, and I think perhaps the take home message here is, when you do your life science investments, first of all, the risk is not higher than in other investments. Um, if you have, let's say the regulatory risk, yes, that's there, that isn't in other areas.

But then you, you don't, you have a lower risk on marketing and sales. [00:30:20] and, uh, so there are pros and cons, and the question is that you need to get. Into your mind is why do you do this? Is it that you want to do something that's meaningful? You already, you, you can't take the money into your grave. Uh, if you invest in real estate only, uh, you have a low r o i, , And so you might want [00:30:40] to pick a company like Sage that has a potential to help millions of cancer patients.

Or you may actually say, okay, I want a great risk reward maximization, so I want to avoid early stage drug development and I want to go for a device that has already market traction. But then you actually need to do really the math, um, because then very often the [00:31:00] valuations are already too high. Well,

Hall T. Martin: great.

So how best for listeners to get back in touch with you?

Dr. Chris: Um, the best way is through email. Um, you have, uh, I do think on my website. Is, uh, or on LinkedIn, you can also reach out to me on LinkedIn. , and the correct forum does also have my, of North, the [00:31:20] Northern California, but also the other regions do also have my contact details.

So email is the best and, uh, and if I usually respond quite quickly, uh, if I don't, uh, for example, if I get a Monday morning email. That's bad because I get hundreds of emails on Monday mornings. The best way to to contact me is over the weekend, email me over the weekend, then [00:31:40] the email will be seen.

Hall T. Martin: Great. Well great. Well, we'll put your contact details in the show notes. I wanna thank you for joining us today and hope you have me back for our follow up

Dr. Chris: soon. Thank you so much. It's been my honor