

URL: <https://ecorner.stanford.edu/clips/a-built-to-last-biotech-mindset/>

Ursheet Parikh, partner at Mayfield and investor in Mammoth Biosciences, traces the evolution of life sciences tech companies that led to the trend of startups focused on creating assets for large pharmaceutical companies to buy. He describes how Mammoth, in contrast, built a platform-based company from the start, guided by their mission to impact and save as many lives as possible.



Transcript

- If you kind of look at the arc of the innovation ecosystem 00:00:06,120 in the seventies and eighties, right? Uh, investment in tech and life sciences was very similar.. Um, you know, investing meant in tech often meant doing hardware, software, a lot of engineering that kind of then had to be brought into products that came to market and you scale up revenues and then you, you know, went public or took exits, um, and, and that often took seven, 10 years.. And that was also the case with what was happening in life sciences.. Then in the late eighties, early nineties with the advent of the internet, uh, it became pretty easy to write software, uh, you know, move electrons on the pc, move electrons across the internet and, and it started transforming returns for sort of venture capital firms on the tech, uh, side of the house.. And so a lot of life science investing ended up becoming a very specialist thing where firms then focused on sort of creating assets for other large pharma companies to buy.. Um, and, and a lot of biotech investing often works like that.. So there's a lot of firms, uh, in life sciences investing that will basically be a portfolio of 20 or 30 kind of individual sort of treatment investments.. And, and the goal in those is less to build a standalone company and more to focus on creating enough data to make it credible such that a large company was in acquire that.. Now CRISPR, as it happened in 2012, the first few companies that started out with CRISPR, uh, sort of did take a mainframe approach to innovating with CRISPR.. Their view was, so CRISPR at the core is a fundamental bioengineering technology..

We look at parameters like the Intel or Microsoft or bioengineering.. And so in the classic tech parlance, when you have a platform technology, you have to build some applications to show the power of the platform.. But then you have to get an e-recruit, an ecosystem that can build all the applications to kind of truly realize the value of the platform.. And so the first few companies that started out in 2012 took the first crisp of protein and, uh, instead basically, you know, kept on fighting among each other on who owned it, but focused on doing everything on their own.. Kind of like, almost like the way in the mainframe.. Like people built their hardware, you know, their chips, their operating systems before they build the application.. Uh, with Mammoth, the view was that we had the core engine that was finding CRISPR systems and the odds that, you know, the first was the best and the only one was pretty low.. So the fact that this approach could then, you know, powered with high throughput screening AI and a lot of biology could find new CRISPR systems for different applications, um, was something that became core to the company.. And then it was sort of used to bring new applications like diagnostics, which nobody had done before in addition to therapeutics and bio manufacturing.. And, and so the core then as a company is

your culture is very different..

You do have a mission to market.. So the core mission at Mammoth that aligned everyone was we wanna impact and save as many lives as quickly as possible, which meant that even though diagnostics doesn't look very profitable, uh, from a return on investment perspective, we were not gonna go do it.. We were gonna go ahead and do that and we were gonna go ahead and do things, but we were also gonna go ahead and partner along on that journey.. And, and, and in that sense then it meant that you had to sort of think about, you know, not, you know, a true build to last mindset.. You had to think about what is the business model product.. Often in biotech companies, you know, scientists will think about revenue as bad.. Here it was the other way around, right? Which is, if we had to be in business to build up the company, we had to sort of go ahead and start thinking about revenue early on.. And Mammoth is one of those companies which actually has done really well with revenue and it's earlier, earlier.. So, this starts giving you a flavor of sort of how you know, this is designed from the ground up.. You also wanna have aligned stakeholders, right? Because you don't want an investors looking for a three to five year exit when you try and build a 10 year company..

So there's a range of things like that that go into it.. Uh, and, and if we don't get the foundation right, it's impossible to retrofit it..