



## Stanford eCorner

### Starting a Biotech Company

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Video URL: <http://ecorner.stanford.edu/videos/1697/Starting-a-Biotech-Company>

Burrill talks about how starting a biotech company is different from starting any other company in the world. In other companies, it is the customer who decides whether you will succeed, Burrill says. For a biotech company, the customer is 10 to 15 years away. There is a huge importance of regulators standing between you and the customer. Additionally, in the healthcare world, most of the products in the market increase the cost of the system. Finally, a biotech company is global from the day it has started.



#### Transcript

Now, I'm going to digress for a minute and talk about the life sciences business. I'm going to tell you a little bit more about my career in a minute, but if you and I go out today to start a biotech company, and we're starting lots of them here in the Bay Area, there are some things that you've got to understand that are different in starting a biotech company than any other company in the world. So if you start a semi-conductor company or you start a software company or you start somebody to compete with Starbucks, whatever that is, the customer will decide whether you succeed. Because if you make one, you get it to a customer, he likes it, somebody else will buy one, you begin to build a revenue base, you begin to build some market share, you can ultimately build profitability. In my business, in the biotech business, we may not see that customer for a decade, maybe 15 years, that customer being a patient. And so how are you going to get there? So you and I want to start a company today but our customer is 15 years from now or 10 years from now. So the fact is that you're going to live off of a capital base that you and I are going to have to develop by selling the hopes and dreams and passion we have about what we're going to do, because the customer may not be there for 10 or 15 years, which means profitability may not be there. So we're facing an industry that has to raise capital for maybe a decade. Now, interestingly--I'll show you in a minute--in our world of life sciences, on average it costs you a billion dollars to get a product to market. It doesn't mean every product costs a billion dollars.

But you come and knock on my door today and say, "Steve, I want \$5 or \$10 or \$15 or \$20 million to start my company," I'll be glad to give you \$5 or \$10 or \$20 million to start your company. The question I'm asking isn't, "Do you get my 5 or 10?" The question is, "Where does the next billion come from?" And so one lesson to be learned in the life sciences is to understand the capital markets and to understand that the source of capital has an agenda. And it's all very different. The second thing I think you have to recognize about our world is that no product in our world will ever see that customer until the regulator says yes. And so you've got to get through that regulatory gate to get to the marketplace. FDA, USDA, EPA, you name it. Some regulatory agency some place in the world will be between you and the customer. You have to understand that regulatory barrier. Third thing I think you need to understand about the health care products world that we're in is that most of the products that we're going to bring--if not 100% of the products, we're going to bring you tenth of the market--increase the cost of the system. We choose to say we're finding a way to treat something today that historically hasn't been treated, and therefore the system is going to have a net cost increase, not a net cost decrease.

And so you'd love to come into markets where the cost and benefit of your product is all in the same direction. We're actually going to increase the cost of health care by what we're doing. Now hopefully over time we can bring the cost of health

care down. But if they use a simple story and take AIDS, for example. Twenty-five years ago, if I had AIDS in San Francisco I was dead in two or three years. Today, we have nucleoside analogues, we have protease inhibitors, we have lots of things, we can titrate viral load and we can manage AIDS so that other things would kill you before your AIDS kills you. Now that's great if you and I have AIDS. But it's expensive for the system. And so we've discovered great cures for diseases today, and the dead patient is a cheap patient. Ugly as it sounds, we're in a business where we're increasing the cost to health care.

And part of my life, I am the leading lobbyist in the country for getting the NIH their budget. So the NIH certainly has a \$30-billion budget. I'm the guy that goes to Washington and gets him his \$30 billion. So when I argue with Congress, they say, "Steve, we're spending \$30 billion on medical research and you're increasing the cost of the health care system." Why do I want to do that? Tough issues. So be aware that in the life sciences world, our products, while we're claiming that they have enormous kind of patient benefit, may in fact increase the cost of the system. And then finally I would tell you two other things. One is, in my business, there's a de-linking between the patient who benefits from the drugs, the doctor who by and large prescribes the drugs, and the payor, that is to say, who pays for it, so your government, if you're Medicare or Medicaid, the insurance company, or your employers by and large paying for your health care. You may have a little co-pay, but by and large somebody else is paying for your health care. So when my company sell the product, be aware that they've got to get the patient to want to use it, they've got to get the doctor around to prescribe it, and they've got to get a payor to want to pay for it. And those are three different universes.

So I can't think of another business in the world where you have de-linked the elements of your sale. Critically important to understand in our business. And finally, I think it's important to understand that if you start a biotech or biomedical or life sciences company today, wherever you are, you're a global company from the day you get started. That is to say, you and I right now in this class start a company, and we're going to compete with big and small companies all over the world, we can go anyplace in the world to access science. So we can get it from here at Stanford, we can get it at UCSF where I teach, you can get it from Tokyo, you can get it in Bangalore or Bangladesh. So you can get science anywhere in the world. The IP issues, Intellectual Property issues protecting that science are global issues. Capital like mine is ubiquitous. I will invest in companies anyplace in the world where I think I can get the best return. So most of our Bay Area venture capitalists are fairly parochial.

They want to do deals here. I happen to do deals all over the world. So in the 65 companies we own, seven of them are in Europe. We're doing lots of work in Malaysia, China and India today, but we'll invest all over the world. So capital, if you will, is global. Diseases know no borders. So if you're curing cancer or if you're curing AIDS, those aren't defined by borders. People like me are mobile. We're all over the world all the time. And communication is instantaneous on our Blackberries or on our phones.

So you and I can start a little company today here in Menlo Park, here at Stanford, and the minute we start that company, we're competing all over the world for all of the assets that we need to do that. And so globality in my industry doesn't happen because you made some and you did it in this area and then you did it in the state and then you did it in the U.S. and then you began to think about international operations. Our job is that we're global from Day 1. So I think, as I go on here, it's helpful to remember a few basic attributes of the life sciences that differentiate us from all of the other technology that you may see here in the Silicon Valley.