

URL: <https://stvp.stanford.edu/clips/startup-opportunities-in-biotechnology>

Richard Scheller, Genentech's Executive Vice President of Research and Early Development, believes it is unlikely, if not impossible, for small companies to push drug products through the final stage of development. However, Scheller also thinks a smart biotechnology startup could do early stage development and then turn to larger firms for product licensing or acquisition. Scheller also discusses the state of research and development at Genentech, in comparison to other firms.



## Transcript

We're very good at R&D at Genentech.. We're very proud of that.. I think that a lot of companies have lost their way in terms of their research and development and frankly don't have the quality of scientist that we have.. I guess I can say that if I don't mention any particular company.. So they have to look outside for their molecules.. Now, if you're going to start a biotech company, you can get some scientist together.. You can do some experiment.. You can maybe raise enough money to get a molecule into the clinic.. But remember as you start doing the later stage experiments, these experiments cost hundreds and millions of dollars and it's unlikely that any small company.... I would say it's not unlikely, it is impossible nowadays that any small biotech company would be able to raise enough money to do its own large Phase III clinical trials..

So the companies have to partner with larger pharmaceutical companies which have the resources to do that.. So, while we have 1,300 scientist at Genentech-that doesn't include the clinical groups and so on-however many scientists we have, we will always be a small part of the overall life science industry.. And I have a business development group that reports to me, just 25 people.. Many have PhDs and MBA; some have MDs, PhDs and MBAs.. I'm under educated compared to some of these people.. And they have the world divided up into territories and we're constantly looking to in-license innovation that comes from outside of Genentech.. So we're very, very conscious that we don't have all the good ideas.. We don't invent all the good things.. Hopefully, we're somewhat less dependent on it than some of the other pharmaceutical companies who's R&D may not be quite as good, where they, as you said, almost solely depend now on in-licensing.. Some of the companies have so much money and are getting so desperate because of the drugs coming off of patents..

When a drug comes off of a patent and becomes generic, if it's a simple chemical, not a protein antibody, the generic companies move in and basically, the innovator price falls by usually about ten-fold in six months.. And there's huge, huge patent expiries coming in the industry.. So people are quite desperate right now.. So I would say a lot, but they made a ton of money off of these molecules over the last decade.. So now going to the small company and say, "Look, we don't to license it.. How much do you want? We'll buy you." And, yeah, that can be a very lucrative model for a start-up biotech, if you can bring a molecule into the clinic and interest a large pharmaceutical company in the molecule and start with, let say, \$20 or \$50 million of capital and sell the company five or seven years later for half a billion dollars.. So that's not bad..