

URL: <https://stvp.stanford.edu/clips/pharmaceutical-market-realities>

Genentech Executive Vice President Richard Scheller describes the hard financial realities of producing cutting-edge drugs for the developed world. Scheller states that it takes 15 years, on average, for a drug product to move from concept to sale. This fact, along with the company's large-scale financial investments, places tremendous pricing pressure on the finished product.



## Transcript

From the concept of "maybe this molecule would work in this disease" to actually marketing the drug, well, it depends.. If it went incredibly fast it could be ten years.. It's more like 15 years and the average cost is about \$1.5 billion to get it to the market.. Now the \$1.5 billion includes the failures.. So that's taken into account.. So how many make it? That varies from company to company.. I would say probably on the average 10 percent make it.. For us, it's probably more like 25 percent.. But I think the industry is going to do much, much better in the next decade.. And the reason is that there's been an explosion in knowledge about biology..

What I think was happening in the industry in the '80s and the '90s, there were a bunch of successes.. Drug companies- Merck, Pfizer, Roche-they were making tons of money.. And then, they're saying "But we've got to stay a growth company.. We need to grow." So they gave a lot of money to the heads of R&D.. But frankly, they weren't very good targets.. But what is the head of R&D supposed to do? Say, "I don't know what to do.. They aren't very good target.. Here, take the money back"? No, of course not.. They spent the money on lousy targets.. But, during that time, there was a tremendous revolution in the understanding of biology that was taking place which, as I said, is partially why I moved to industry..

And I think that now there are incredible targets that we work on.. Think about cancer.. We take the cancer, we take the tumor, we sequence the DNA of the tumor.. When we sequence the DNA of the normal tissue, we find out what genes are mutated, what genes are actually causing the cell to be a cancer cell.. And then, it target those.. Is that going to work? Yes, it's going to work.. But they are working.. You know they work.. But that is just terrific sort of pre-clinical validation.. Those are the kinds of things that you want to work on versus not knowing what to work on..

So, it's an expensive and difficult process.. Also, the industry is facing a lot of head wins from various countries including our country, on being willing to pay for prescription drugs.. Some of our drugs are extremely expensive.. If we make a drug for a certain cancer on their 10,000 patients per year, it's not unusual to charge around \$50,000, \$60,000 a year for the drug, which we have to in order to basically re-coop the investment.. But, look, if you're going to live longer we think it's delivering value..