



Stanford eCorner

Gaps of Opportunity in Technology

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Where should entrepreneurs in the field of medical technology be casting their nets? Thomas Prescott, the CEO of Align Technology with years of experience in med-tech operations, points toward cardiac health, cancer, pulmonary disease, and type-2 diabetes as lucrative problems for med-tech to solve. Prescott also discusses opportunities in informatics, genetic profiling, and the convergence between medical device engineering and medical professionals.



Transcript

The question was, we're playing in dentistry right now, in orthodontics, what do I think is going to be really prominent. There are some obvious technology gaps. The traditional way medical devices have come about is a clinician that's really smart saying there has got to be a better way to this. This is an unmet patient need. People are dying or they certainly aren't getting well or you have chronic diseases that just linger. And you have engineers that are thinking of the same thing. And they get together and figure out a way. So, there is going to be convergence in the next 5, 10, 15 years. I believe today's medical device technology with an original clinical focus, patient problem, unmet need. And my hope is that just as convergences happen in some other areas of the technology world, multiple technologies getting together and shifting the curve, I think there is a great opportunity in medical devices.

Sitting here today, the obvious places where innovation is rewarded are for the big disease states, interventional cardiology, and there is a whole class of problems from atrial fibrillation to still sudden cardiac death and things like that. There are huge problems with what's called COPD, chronic obstructive pulmonary disease, which is just a terrible way to waste away, emphysema and all that. Sixty percent of the population is going to wind up with type 2 diabetes. So, what I'd say, there are enormous problems and enormous opportunities. But my hope is that traditional strength of medical devices will continue and we will bring a whole new way to get them to be more cost effective and bill approved that the system can afford that intervention because it will eliminate the need for a long-term chronic disease state. I would say go figure out what the most expensive problems are. Diabetes is clearly going to be one of them. Heart failure is going to be one of them. Sudden cardiac death and certainly cancers of all types have been around. We're still not smart enough about how to apply even the best in class drugs today.

And I think there are a handful of really amazing companies in this valley working on very targeted therapeutics. Why should one class of the best class of treatments for breast cancer only work on 20% of the women? And they endure all the side effects and yet they don't really work. And six months later you've got bigger problems. We should know what will work, what therapeutic regimen will work on individual patients. It's actually a hard time but I'm very optimistic about the long term if we don't kill the golden goose.