



Conversation with Patricia Cooper

Executive Director, California Biotechnology Foundation



“Culturally and by necessity, the medical innovation industry is a patient one. It understands that you must invest heavily in second graders, and high school students, to cultivate future achievers in great jobs. But we as a nation are failing to do that today.”

Patricia Cooper spends her days educating Californians about the impact of the life sciences and biotechnology sector in her state. She believes that medical innovation is addressing the two most pressing needs of our time: the healthcare crisis and the economic crisis. She urges policymakers to choose to cultivate this important sector. And she cautions that if they are not careful, they can inadvertently do harm.

Tell me about biotechnology.

California is the birthplace of biotechnology. For the last 30 years, our state has led the world in transforming DNA into life-saving medicines. Right now, there are easily 800 new treatments in the research and development pipeline in our state. It’s an innovative culture, permeating everything they do from business models to medicine to workforce development.

What about workforce development?

In California, a recent study found that 32% of biotechnology companies have workforce shortages. It’s forcing them to import workers from out of state and out of country – to a state with an approximately 12% unemployment rate.

A huge disparity between worker shortage and unemployment rates?

The worker shortage starts with kids who are not graduating with necessary skills in math and science. Culturally and by necessity, the medical innovation industry is a patient one. It understands that you must invest heavily in

second graders, and high schoolers, to cultivate future achievers in great jobs. But as a nation we're failing to do that today. The result is many job openings that our state's unemployed are unqualified to fill. It's a shame.

Is it safe to assume the industry here is not satisfied looking elsewhere for those skilled workers?

This industry does not want to look elsewhere for workers. It has invested an enormous amount of money in math and science education in our school systems, particularly those in underserved communities. It has sparked many collaborative initiatives among local and state government, academia, and business to creatively fund and support education improvement. This is a real crisis for the industry, so it's focused on doing what it can to improve the systems that prepare young people here at home to form great careers.

What about the capacity of medical innovation to create jobs?

One policymaker I recently spoke to called the life sciences industry "the new Gold Rush." The industry provides approximately 275,000 jobs in California. 85% of those jobs don't require doctorate degrees. They're all over California, and they're diverse and well paying. And it's said that for every job in this industry, many more additional service jobs are created. The economic impact is vast. Amid that, so many great biotech jobs are unfilled. What we need is to educate our children to prepare them to hold these jobs.

When you talk to state and local policy makers, what do you say?

We need government to know that what it does has a direct and often inadvertent effect on the life sciences community. We try to help policy makers understand that their actions on a whole array of issues, such as K-12 education, impact the ability of medical innovation to create great jobs here in California and positively change peoples' lives

Policy makers can inadvertently kill the life sciences industry through poor public policies. Or they can choose to cultivate medical innovation. When they make the right choices, everybody wins – patients, workers, the economy, and government. We've seen it already, and we'll see it again. We exist to help policymakers help our new economy grow and flourish so California benefits, as do patients around the world.

What's an example of a state public policy that cultivates innovation?

The R&D tax credit in California is a great example. It has really helped California life sciences companies stay the innovation course, a very challenging course at times because of the length of time between early research and getting a new product or therapy to market.

Part of our healthcare crisis is the lack of therapies for some of our most devastating and expensive diseases. The life sciences community is working to address those. If they are successful, there's the potential for healthcare costs to be slashed. These tax credits are a worthwhile investment for government.

When industry leaders look to the future, what do they see?

They see things like more revolutionary treatments and vaccines for cancer. They see treatments and cures for Type 1 Diabetes. They see historic advances in personalized medicine – the capacity to give a patient precisely the right therapies from the start. That can save lives and untold amount of dollars, not having to prescribe a treatment for six months, see if it works, then move on to the next approach.

Why is the medical innovation story under-told?

Medical innovation leaders are focused on one thing – the medical breakthrough. They're focused on getting treatment to those who need it. They don't roll out of bed thinking about public policy or public relations. They are focused on innovation.

What is the industry's message to Washington?

First and foremost, do no harm. Get to know the life sciences ecosystem and the places where it can be damaged, and work with the life sciences community to fix our education system so we have a workforce.

What else?

Biotechnology innovation needs to be a national priority. We and all of those we love will benefit from the medical breakthroughs and the economic sustainability.

The Council for American Medical Innovation (CAMI), launched in 2009, has brought together leaders in research, medicine, public health, academia, education, labor, and business, who are working in partnership to encourage public policies that advance medical innovation and the development of lifesaving treatments, enhance job growth, and promote patient access. To learn more, please visit: <http://www.americanmedicalinnovation.org/>