A Vision for Innovation: Healing, Fueling and Feeding the World

Address by the Honorable James C. Greenwood
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BIO International Convention
San Diego, California
June 19, 2008

Good afternoon. I hope you've all enjoyed the convention.

It takes a year of hard work by a lot of hard-working people to make this convention happen. Let's thank our host committee and my magnificent BIO staff for making BIO 2008 our best international convention ever.

Its been great for us to reunite again here in San Diego. We have come here by many paths, and from many places. We have come from as near as La Jolla and as far as New Delhi. From Boston and Berlin, Shanghai and Chicago, from every corner of the world.

We are scientists. We are doctors. We are Nobel laureates. We are farmers and students.

We are investors and entrepreneurs and policy makers. We are patients and parents too.

But, we gather here because we share a single vision -- a single ennobling purpose.

We believe that biotechnology will transform the world.

We believe we can decipher the language of life and rewrite our destiny.

We can extend the lives of our loved ones, and in fact, of all humanity.

We can improve the quality of our lives and the quality of our global civilization.

Our achievements from the beginning of our industry have been stunning. But our challenges remain immense.

Look at these headlines. When we see these stories, and others like them, documenting disease and hunger and pollution, the challenges can seem insurmountable. It is tempting to lose hope, and we can worry that there is nothing that we can do.

That may be the most depressing phrase in any language: “There's nothing we can do.”

Whether it's a doctor telling parents there is nothing we can do for your child but treat her pain … or a government telling its people, “There's nothing we can do, the hungry season will come every year” … or a generation telling its children that there is nothing we can do to stop global warming.

But, we in this room are perpetual optimists. We refuse to accept that there is nothing we can do. We envision a world free of disease, free of hunger and free of pollution. And so every day the men and women of our companies leave their homes in the morning and go to work to turn that vision into reality believing that there is everything we can do.

The Greek god Janus could see both the future and the past with equal clarity. For we mortals, looking backward in time is far easier than seeing into the future. But let's look back at the past year -- both successes and setbacks -- and then try to look ahead to tomorrow's challenges and opportunities.

2007 was another record year for global investment in biotechnology. Deal-making reached unprecedented levels. Venture financing grew by 37 percent, to more than 7.4 billion dollars invested worldwide. Not only here in the Americas, but in Europe, in Asia, and Australia and Africa, biotech continued to grow and attract investors at an accelerating pace.

On the other hand, in the first two quarters of 2008, credit has grown tighter and markets have become more risk averse in the face of weaker economies. And last year, the number of new drugs and biologics approved by the FDA reached its lowest level in 20 years.

As these trends unfold, we in the U.S. also face an uncertain political future. While it is pretty safe to predict that the Democratic party is likely to increase its majority in the House and in the Senate, the presidential election between senators John McCain and Barack Obama is much too close to call.

Both senators have had some nice things to say about biotech innovation. But both have also taken frequent shots at the drug industry. And as we all know too well, shots fired at big pharma produce collateral damage for even the smallest of biotech companies.

BIO's advocacy team will have our work cut out for us next year. And I want you to know that we are up to the job. The work that you do is too critical to be frustrated by bad public policy.

Lives are literally on the line.

Back in Washington, when we convene all-staff meetings at BIO's office, I like to inspire my team by having them hear from patients whose lives have been saved by biotech products.

People like Lori Lober. She was told that her metastasized breast cancer would kill her within 18 months. Then her doctor enrolled her in a clinical trial for a new product called Herceptin. That was eight years ago and today she is completely cancer free.

Our products cure patients one at a time. But our work affects millions of lives.

In the agricultural sector, genetically engineered crops are improving productivity to feed the hungry worldwide.

Today there are more biotech crops being grown by more farmers in more countries than ever before. And for small farmers in South Africa or India or the Philippines, a harvest of biotech cotton or corn brings more than just food or fiber. It brings them new prosperity and a chance at giving their families better lives.

In the industrial and environmental sector, no issue is generating more controversy right now than biofuels.

The stone age didn't end because we ran out of stones, but because we found smarter ways to make tools. And the oil age won't end because we run out of oil, but because we must find smarter ways to produce energy. And that is exactly what we're doing.

There are now more than 30 next-generation commercial biorefineries online or under construction worldwide producing renewable fuels and other bio-products that will transform the global environment and the global economy.

On the health side: yes, there were fewer FDA approvals last year, but those approvals included some pretty innovative new products. Like new therapeutics for HIV and Crohn's disease, and new diagnostics for detecting early-stage lung cancer and the spread of breast cancer.

The past year has also brought some historic research advances.

Scientists derived stem cells from skin cells, opening a whole new path for replacing damaged tissue and organs, and demonstrated a stem cell therapy that may lead to a cure -- not a treatment, but a cure -- for sickle cell anemia.

And most astounding to me were the results of two clinical trials conducted in London at Moorfields Eye Hospital and in my home state of Pennsylvania, at the Philadelphia Children's Hospital, where several young patients with a rare form of congenital blindness received an experimental gene therapy.

Within two weeks after beginning the treatment, patients reported improved vision. They went from being barely able to detect a moving hand to being able to read an eye chart, and to walk through a complicated maze. Think about that.

The treatment is not a cure, but these results bring hope--and sight--where before there was only darkness.

Amazing…truly amazing.

This is what we do. This is the vision of biotechnology. These are the results that we work to achieve every day: beating cancer, erasing disease from our genes, helping the paralyzed to walk and the blind to see.

Investors and the financial markets see and are impressed by these results too. And that is why they continue to place their confidence in biotech innovation. It is progress like this that has led our industry to a position of unprecedented strength. Biotech has become an 84 billion dollar global enterprise.

But we can't afford to take our scientific and financial progress for granted. We know how to innovate. We know how to succeed. We also know that biotech innovation has always been a high-risk enterprise and always will be.

But, we can improve the odds. Even with the best scientists practicing the most cutting-edge science, in the best run businesses, it is more important than ever for us to make sure that policy makers around the world make policy that values and incentivizes innovation.

As the champion of the biotech industry, we at BIO have assembled a world-class advocacy team -- an organization as smart and creative as the companies we are privileged to represent.

Since we last met in Boston, BIO has achieved some major policy wins.

A top priority of the past year was ensuring the reauthorization of PDUFA.

It was a long, tough fight. Many of my former colleagues in Congress wanted to use the FDA bill as a vehicle for some not so well thought out agendas.

But our lobbying team respectfully urged Congress to keep its eye on the ball, and made sure that the President signed a bill that strengthens the FDA and modernizes our drug safety system.

We also won a major boost for the advanced biofuels sector by including a renewable fuel standard in the energy bill.

And we finally pushed across the finish line the FDA risk assessment on the safety of foods from cloned animals - which, the FDA concluded, and as may seem obvious, are just as safe, because they are just the same, as food from non-cloned animals.

We were also proud to launch our new "Excellence Through Stewardship" initiative, providing a strong quality management program for the full life cycle of biotech plants -- because the more we police ourselves the less government bureaucrats will need to do it for us.

But we still have some real tough policy fights ahead of us:

On patent reform we have gone toe to toe with the information technology industry and made it clear that we will support reforms that improve the patent system, but we will not accept changes that weaken intellectual property rights and that threaten the ability of our companies to innovate.

We're working on a sound regulatory pathway for follow-on biologics. The pundits and the media assumed BIO would oppose such legislation. But to the contrary, it was we who took the lead on the legislation, and we will make sure that Congress gets it right.

We succeeded in passing a bill in the House to restore SBIR grants for our venture-backed companies and we continue that fight in the Senate, and our work to gain increased funding for the NIH and for the FDA continues.

But beyond these specific legislative skirmishes, there is a larger challenge for all of us. Our science can only take us to a future that the public is truly ready to embrace. If the average American doesn't even know what biotechnology is, our elected representatives won't make it a priority.

On Tuesday we heard BIO chairman Joshua Boger describe BIO's bold new public education effort. Through focus groups and telephone polls we have been surveying people across the country. And there's some bad news and some good news about what we've learned so far.

The bad new is that most Americans haven't the foggiest idea what biotechnology is.

The good news is, that when we tell people what we do, they love it!

People want finding cures for disease and finding new energy solutions to be top government priorities. They told us that curing cancer, Alzheimer's and other diseases is personally important to them. They said that producing more food to fight world hunger is not only a moral obligation but should be a national commitment.

We need to do a better job of letting people know that these are exactly the things that we do every single day.

The work we do is complicated. It's not easy to explain. But neither is rocket science. The difference is people know what it looks like when the shuttle blasts off. They have no idea what it looks like when a conjugated radio-labeled monoclonal antibody treats a B-cell non-Hodgkin’s lymphoma.

Most people don't think about innovative new medicines until they or a loved one are inflicted by a dreaded disease. They don't often think about biotech crops or advanced biofuels either. But if we can show them how our technologies can improve agricultural productivity to produce more food for the hungry, slow down global warming, and make filling up the family car more affordable, they will not only think about it, they will get it.

People need to know that the solutions to their biggest problems will be found through biotechnology.

Too often people are told by anti-biotech activists that we are the problem -- not the solution.

We don't make light of legitimate fears and concerns. But we do need to be crystal clear that

we maintain the highest ethical standards in our work, that we respect the language of creation embedded in our genetic code, even as we learn to read it and--as Craig Venter proposes -- as we begin to write it.

The Jerry Rifkins and Michael Crichtons of the world call our work unnatural. But we say that nothing could be more natural than using our human intelligence to understand life itself and to take what we learn from nature's language to reduce human suffering. That is, in fact, the most noble aspect of human nature.

This is the story that we must convey. To tell this story, we will wage a multi-year, multi-million dollar campaign to help people understand what it is that we do.

Confusion breeds fear, but understanding leads to support -- and we must have the world's support if we are to overcome the world's challenges.

We need every one of you to help in this effort, because it is, ultimately, your story and your passion that needs to be expressed. And no one can convey that better than you.

Four years ago when I was considering interviewing for the job of president of BIO, I was told that the board wanted someone with management and communication skills and maybe a political background.

But I was also told that the board members wanted someone who was truly passionate about biotechnology.

I've been passionate about a lot of things in my life, but I wasn't sure that biotechnology had been one of them. So I thought a lot about how to express this passion.

On the morning of my interview, I woke up at 3 a.m. pondering this question.

When I got to the interview, they asked me the questions about my management and political experience. And then Richard Pops, who was the board chairman at the time, turned to me and asked the question, “Jim, how can you convince us that you have a passion for biotechnology?”

I said, I knew you were going to ask me that question and I was up at 3 a.m. thinking about my answer. So if what I’m about to say sounds like what someone would come up with at 3 a.m. you know why.

But this is what I thought. I thought how amazing it is that 4 billion years of evolution transformed single-cell organisms into us -- into human beings with these big brains and these manipulative fingers and these fine senses, who can reach inside our own bodies and take out our DNA and put it on a microscope. And from what we learn, we can prevent a couple from burying their child. Or prevent a man who has been married for sixty years from waking up one morning and turning to his wife and saying “Who are you?”

And that is what we do!

We use the language of life to fix its mistakes. We use the language of life to enable us to live on this planet sustainably.

Decoding the secrets of life scares some people, but it inspires us.

Some people ask how can you play God with the language of life?

We say we're not trying to be God. We are only trying to be fully human.

Though we cannot see all that the future holds, our vision is clear. We can see that the knowledge you have pioneered -- and the passion you put behind it -- will allow us to never again have to speak the words, "There's nothing we can do."

Together we can heal, and fuel and feed this planet we share. And together we will leave a better world for our children.

Thank you.