

**Remarks - Joe Feczko**  
**STS Forum: Science Technology Society**  
**Session F1: Collaboration among Universities/Research Institutes/Industries**  
**Kyoto, Japan**  
**Sunday, October 5, 2008 4:30-6:30pm**

**1.317 words: Approx. 8 minutes**

NOTE: Joe will be the first of the six panelists to speak, after opening remarks from session chair Deborah Wince-Smith, the President of the US Council on Competitiveness.

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Thank you, Deborah.

When I was invited to join this panel of speakers to talk about collaboration, I started to think about the role partnering with academia and research institutes plays in my daily role at Pfizer. And it occurred to me that rarely a day passes that I, or a member of my team, is not working with a university or medical research center to further a project.

These partnerships go far beyond photo-ops and press releases—they have become an absolutely essential part of commercializing biomedical innovation.

As Winston Churchill so grandly stated, “If we are together nothing is impossible. If we are divided all will fail.”

While perhaps not as epic as Churchill’s notion, it’s undeniable that a major factor influencing a company’s ability to turn today’s innovation into tomorrow’s life-saving medicine is establishing and maintaining strong and diverse partnerships in both the public and private sectors.

With so many challenges faced in successfully bringing a medicine to market, we need all the members of what I call the biomedical ecosystem to collaborate...This ecosystem includes academia, public research institutions, government agencies, industry and non-governmental organizations.

The business model for pharmaceutical R&D is evolving. In the past, my company relied mostly on internal efforts—our own scientists in our own labs—but we have moved towards establishing greater and greater numbers of partnerships that span the entire spectrum of our activities.

Given the complexities and the expense of R&D, we can accomplish much more, in a shorter time, with less cost and duplication of effort, when each of our organizations brings their special strengths to bear.

There are plenty of immediate opportunities for partnering to meet challenges:

- In translating basic science into validated drug targets
- In updating pre-clinical development methods and establishing biomarkers for drug development
- In advancing clinical trial design and execution
- And in addressing IP concerns and sharing pre-competitive knowledge

Of course, we need all the help we can get as we wrestle with the growth of chronic and complex diseases like cancer, diabetes, depression, AIDS, cardiovascular disease...and the list goes on and on...

I believe Japan is a model of successful partnerships—with government, academia and industry working together very effectively.

And while it can be a somewhat controversial issue for some policy-makers and scientists, the world needs even closer cooperation between industry and academia.

One study, by professors at the Massachusetts Institute of Technology and Boston University, looked at the 21 most “important” drugs introduced in the U.S. between 1965 and 1992 and assigned credit for who discovered the drugs and who made the “key enabling discovery” that led to the drug’s discovery.

Not surprisingly, their study demonstrated that publicly-funded research—occurring at universities and the National Institutes of Health—produced the key enabling discoveries underlying nearly 80% of the important drugs. But private industry actually turned these enabling discoveries into viable medicines, with industry inventing more than 90% of the drugs themselves.

The average lag time between the ‘key enabling discovery’ and the introduction of a drug is 24 years, which reflects the significant work required to turn the discovery into a medically-useful, market-oriented product. So, the enabling discoveries, while incredibly valuable, are not enough.

Collaboration with industry is the key to actually developing cures. The research done by these two sectors is highly complementary in the U.S., and in the words of a National Institutes of Health report, it “has created the scientific capital of knowledge that fuels medical and biotechnology development.”

Pfizer has built robust partnerships around the world, with a wide-ranging array of institutions. I would like to briefly highlight a few of them.

The Genetic Association Information Network—known as GAIN—is a public-private partnership involving the Foundation for the National Institutes of Health and the private sector, with Pfizer as a major funder and scientific adviser.

The network's goal is to help find genetic causes for common diseases, including Attention Deficit Hyperactivity Disorder, diabetic nephropathy in type I diabetes, major depression, psoriasis, and bipolar disorder.

The information derived from GAIN is publicly available to researchers worldwide. By comparing the genetic makeup of healthy people with that of people suffering from disease, scientists should be better able to target diagnosis, treatment and prevention strategies.

GAIN scientists have genotyped more than 18,000 samples in six major common diseases in the past 18 months.

Another important collaboration is taking place with our Center of Research Excellence site project, or CORE. The aim of the CORE project is to improve the speed of clinical study recruitment, while also improving the quality and cost effectiveness of trial execution. This is being done by establishing relationships with multi-therapeutic research institutes worldwide—each dedicated to Phase II studies.

We launched the program earlier this year by partnering with Mexico's National Institute of Medical Sciences and Nutrition and Argentina's Instituto Medico Especializado. Additional sites are being identified in South Korea, France, Poland, Canada and the U.S.

And in July of this year, Pfizer and the University of Pennsylvania entered into a three-year strategic alliance to work together in areas such as basic and translational research, clinical development, and clinical care and policy projects.

Clearly, when defining the parameters of these partnerships, we must avoid conflicts of interest. But we can strengthen these natural links—and we must.

This includes fueling innovation by providing needed resources to academia and research institutions. Commerce is not a bad thing across the system; it enables science to flourish.

More scientists are also beginning to understand that to fuel innovation further, they must reach beyond the immediate community, and engage across the ecosystem. Such collaboration enables cross fertilization of ideas across institutional boundaries, facilitating each party's ability to “do good science.”

One reason why external sourcing is so important to us is the key challenge of ever-increasing R&D costs, caused by high failure rates that lead to attrition in R&D for new medicines.

The discovery and development of new medicines is a complex, risky and very expensive process—a long, exhaustive journey through research, discovery of potential medicines, pre-clinical development tests, expensive clinical trials and regulatory approval.

Almost one billion dollars later, if all goes well, a new compound may end up helping a patient. Even when we succeed, we still rarely make money on a given medicine—barely one in three return their investment to the company.

That's why governments play an important role in the biomedical ecosystem—they have an intrinsic role in sustaining a successful healthcare system.

That is, a healthcare system with efficient delivery and distribution of services and efficient pricing and reimbursement for services that stimulate investment, resulting in further innovation and enabling patients to realize the fruits of innovation.

And this system must be supported by an effective use of intellectual property—including enforcement of IP rights so that investments in the discovery and development of new therapies will continue.

Public health can be advanced by placing some pre-competitive ideas and resources in the public domain, but without the proper rewards, companies will be dissuaded from pursuing the time-consuming, risky and expensive work required to develop useful medicines. Thus, it is not always in the patients' best interest for IP to be open to all. Rather, it is imperative to have strong intellectual property protections that encourage innovation.

IP provides predictability and serves as the glue that holds partnerships together.

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With all of these challenges come opportunities, and I am convinced that advances in biomedical research—across therapeutic areas—will yield effective treatments that will improve medical outcomes and create efficiencies in healthcare.

The biomedical ecosystem—from academic centers, national laboratories and the biomedical industry to regulatory agencies and nongovernmental organizations—must be maintained and strengthened—and we must work collaboratively in the pursuit of scientific and biomedical innovation.

Let's work together more deliberately and creatively to advance science and improve health around the world.

Thank you.