Dr. Ianchulev

Dr. Chang speaks with Dr. Ianchulev about the hearing

Dr. Chang: Tell us about the congressional hearing and who was invited to testify.

Dr. Ianchulev: In Washington, as elsewhere in this country, there is increasing concern and attention paid to the global leadership position of the U.S., particularly with respect to science, technology, and innovation. This comes on the heels of a recent report by the World Economic Forum, which ranked the U.S. number six in terms of innovation and number 40 for health and primary education. So it is not surprising that Congress is paying attention to and trying to understand the innovation debate that has heated up recently. On July 20, 2011, the Energy and Commerce Committee (which ultimately oversees the FDA) held a hearing on the impact of FDA regulation on innovation, patients, and jobs. Congress wanted to hear a multi-faceted view on the topic and invited expert witnesses for the seven-person panel. It was a very impactful group representing different stakeholders in the process of innovation and patient care. The group included Dr. Robert Fischell, a distinguished physicist and one of the great medical innovators credited for the development of milestone technologies such as the implantable cardiac defibrillator, the insulin pump, and numerous coronary stents; Dr. Curfman, executive director of the NEJM; Michael Mandel, chief economic strategist for the Progressive Policy Institute; as well as several patient advocates. As a clinician, innovator, and developer of medical therapies, my role as an expert on the panel was to inform Congress about the symptomatic state of the regulatory process in the U.S., and the impact on small and large companies as well as on clinicians and patients with respect to choice and access to (or lack thereof) different treatment options and technologies.

Dr. Chang: What was the experience of testifying like?

Dr. Ianchulev: From the side, a congressional hearing feels like what we see on C-SPAN. But that is pretty much where it ends. C-SPAN provides as much insight into the congressional process as first year residents get when they observe a cataract case for the first time. First and foremost, it requires a lot of preparation. You cannot afford to testify to Congress as an expert panelist without verifying all the facts, understanding your role, and knowing your limitations. For me the challenge was to distill the key messages and focus the debate on specific examples and "symptoms." As a physician, I had to tell the clinical and academic story of the impact I see on patient care and resident education; as an innovator who works with companies to develop the next medical therapy (from Lucentis to refractive cataract devices and minimally invasive glaucoma microstents), I had to share the dilemmas we face today in getting technology to patients quickly and efficiently. Finally, as a venture partner who participates in the funding and investment process of new start-ups, I had to discuss some of the recent challenges in raising capital to fund the development of new drugs and devices. Given the allotted time, it is important to get the key points across fast. The hearing also impressed me with the high level of

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The FDA is the gateway for new therapies. As a vigilant gatekeeper, the regulatory process has to ensure that new treatments are safe and effective. But it has to be a facilitator for the development of new therapies. The process of medical innovation is complex, but in my experience there are examples of best practices right in the halls of the FDA. As a drug developer who leads the clinical research and development of one of the most successful approved biologic therapies for eye disease (Lucentis for macular degeneration), I have the added comparative experience with the CEDR, whose input and oversight were critical in the execution of this highly complex, rigorous therapeutic program and resulted in the commercialization of a groundbreaking therapeutic which now helps hundreds of thousands of patients who would otherwise go blind from macular degeneration. This program was not only successful but exemplary in many ways of how the regulatory process should work and was referenced by the FDA reviewers in a published guidance to industry for best-in-class drug development.

The key learning from this experience were clear, explicit guidance to companies and investigators, consistency, and transparency of feedback in the review process and a new level of in-house expertise from the FDA reviewers.

My experience with the development of new technologies is that the pathway to innovation is challenging and it is necessary to take calculated risks in a thoughtful and deliberate way in order to protect patients. We need safe and effective treatments for our patients, and it is critical that we have the best-in-class regulatory process to do justice to the high level of passion, talent, and resources this country invests in the innovation process to help patients. **EW**

A case of unbalanced incentives and no chance for appeal

by R. Doyle Stulting, M.D., Ph.D.

Dr. Ianchulev's testimony is accurate and eloquent. The requirements for approval of drugs and devices in this country have become so burdensome that sponsors do not seek approval unless the technology is already proven and projected to be sufficiently profitable to cover the high cost of regulatory efforts. Our patients more frequently must travel overseas for treatment that has been proven safe and effective by scientifically valid clinical data published in the peer-reviewed literature. Why does this situation exist, and what can be done to reverse this trend?

Having been involved with the regulatory process as a consultant for both the FDA and product sponsors over the past 23 years, I see well-intentioned, dedicated FDA reviewers who are highly motivated to avoid approval of products with even the most remote chance of undetected adverse reactions. As a result, they micro-manage clinical protocols, demanding clinical data that might have little or no bearing on the safety of innovative products—with no regard for the cost of those demands. They actually pride themselves on their lack of concern for cost, delay in approval, or the financial survival of the companies they regulate.

Sponsors of devices and drugs have no advocates in the FDA—no one who recognizes the detrimental effect on U.S. citizens caused by the lack of access to new technologies. The press in this country is quick to report complications of an approved device or drug, but they don't publish stories about the lack of access to treatments and how it harms our citizens. There is no avenue for appeal that does not require an inordinate amount of time and money—or make sponsors fear retribution from the reviewers with whom they must work in the future.

When additional funding is provided to the FDA, through the federal budget or user fees, it is typically used to hire more reviewers, statisticians, and regulatory personnel, supplying additional manpower to create even more burdensome requirements for approval. Why not use these funds to add sponsor advocates to the FDA, empowered to question unnecessary protocol demands by primary reviewers and respond to sponsor complaints?

We don't need more regulatory personnel in the FDA. We need more reasonable, properly incentivized, scientifically knowledgeable advocates for industry who can shepherd proven innovative technologies that are available to the rest of the world through our regulatory system.

visibility the regulatory process has gained in Washington. I think it is an opportunity for us as clinicians, at this critical time when the Prescription Drug User Fee Act (PDUFA) is heading for re-authorization in 2012, to inform Congress about what we think is in the best interest of patients and the public. We clinicians feel the consequences firsthand. Although the FDA does not regulate the practice of medicine, we cannot feel "immune" to the process of innovation today. By limiting or delaying access to new technologies, physicians are precluded from providing the best care to their patients.

Dr. Chang: Did the Energy and Commerce committee leadership understand the problems that you and the other experts outlined? What was your sense of their reaction and commitment?

Dr. Ianchulev: I think there is intent and willingness to understand where we are heading on a global perspective. Today, there are so many urgent and important issues to tackle, yet Congress prioritized this topic in the heat of the political debate in Washington. In fact, that same day the clock was running out for the debt-ceiling decision. I think we have reached a critical mass where

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Bipartisan legislation introduced in the Senate and House to address the FDA approval process for medical devices

by Nancey McCann ASCRS Director of Government Relations

On October 13, 2011, Senators Amy Klobuchar (D-MN), Richard Burr (R-NC), and Michael Bennet (D-CO) introduced S. 1700, the "Medical Device Regulatory Improvement Act," to reduce the regulatory burdens that unnecessarily delay the approval of new medical devices. The legislation would help streamline the FDA's regulation of medical devices without compromising consumer safety. The legislation would reduce some of the regulatory authority of the FDA's Center for Devices and Radiological Health, ease conflict-of-interest rules, and require agency officials to contract with an outside reviewer to evaluate the work of the Center and its impact on medical device innovation.

Specifically, the legislation would require FDA officials to "use all reasonable mechanisms to lessen review times" for products, and prohibit FDA officials from requesting information "unrelated or irrelevant to a demonstration of reasonable assurance of device safety and effectiveness." It also would encourage FDA officials to consider ways to evaluate the safety and effectiveness of a device "in order to reduce the time, effort, and cost" for the industry. The bill encourages FDA officials to allow less time-consuming and cheaper approaches than randomized clinical trials.

Package of 10 FDA reform bills introduced in the House by bipartisan members of the Energy and Commerce Committee and Congressman Erik Paulsen (R-MN)

On the same day that bipartisan legislation was introduced in the Senate to address the FDA approval process for medical devices, members of the House Energy and Commerce Committee and Congressman Erik Paulsen, vice chair of the Medical Technology Caucus, introduced a comprehensive package of 10 bipartisan reform measures to improve the predictability, consistency, and transparency of the FDA's medical device review and approval process. After hearing from patients, inventors, investors, and employers through various hearings, the Committee members noted that the FDA's unpredictable, inconsistent, and non-transparent handling of the review process has threatened the medical device leadership of the United States and has negatively impacted American jobs, innovation, and patients. Although not a member of the Energy and Commerce Committee, Congressman Paulsen has worked closely with the committee members on this initiative.

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there are enough signs and symptoms in Washington. The question is what is the true problem statement, the root cause, and how do we fix it. I was able to find powerful examples in the ophthalmic field, which has seen landmark innovations such as phaco and IOLs. One can hardly imagine any other technology impacting so many people and so effectively—the IOL is the most implanted device with more than 3 million surgeries. These advancements were mainly the product of a streamlined regulatory process of the 80s and the beginning of the 90s. Where are we today? For Congress, I reviewed all ophthalmic devices approved through the PMA process in the past 5 years—a total of 15 approved innovations. Before approval in the U.S., all 15 had been approved in other countries years before, most in as many as 20-40 countries. In fact, several had more than 50,000 treated patients worldwide, and the FDA label spoke of only 300 or so patients from a clinical study done years later in the U.S. Does this speak of first-in-class innovation? Are our clinicians on the frontline of medical care? Congress is starting to ask the same questions. The FDA is listening as recent initiatives such as the Innovation Pathway seem to imply. But whether these steps are the right medicine at the right time remains to be seen.

Dr. Chang: From your preparatory research, what were your most important suggestions for reform/improvement of the regulatory process?

Dr. Ianchulev: There are many opportunities to be better and smarter. First, we need alignment on "the desired state" and where we strike the balance between innovation and regulation. In my mind, contrary to some of the fear tactics one hears in the press or in Washington, what we want is a more efficient, more streamlined, and more predictable regulatory process. This does not mean lowering our safety bar and letting bad technologies through. It is about focusing on efficiency and operational excellence, something even the government acknowledges is a challenge with high staff turnover and limited resources and expertise. Second, we need to look around and see what practices and strategies have been successful in other countries. Those should be understood and adapted, not rubber-stamped. For example, it is interesting that research shows that while technologies get to patients and clinicians in the E.U. much faster, sometimes by more than half a decade, there is no higher rate of Class I recalls with major safety issues. Third, we need clear guidance from Congress in 2012 with specific legal framework so that terms like "least burdensome approval path" are not ignored or misconstrued. If you can make the right regulatory decision 12 months earlier, the impact is tremendous. It is not only measured in company burn rate and dollars, but in patient suffering, hope, and trust—not to mention the potential loss in jobs, expertise, and talent this country has worked so hard to cultivate. **EW**

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