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# Remarks by Acting FDA Commissioner Stephen M. Ostroff, MD

FDLI ANNUAL CONFERENCE  
MAY 4, 2017  
WASHINGTON, DC

## FDA: LOOKING BACK, LOOKING FORWARD

### *Introduction*

Good morning. Thank you Amy [Comstock Rick], and Dave [Ceryak], for that kind introduction and for inviting me to be with you this year.

FDLI is such an important partner for FDA, not only during this meeting, but throughout the year. As you know well, the legal and policy issues associated with the products that FDA regulates are seemingly endless and occur almost daily. Sometimes more than once a day, in my experience. So there's a lot of work to do together.

Many of you have attended this meeting before. So you may recall I gave the Commissioner's remarks here two years ago. Well, as my philosophic zeitgeist Yogi Berra said: *It's déjà vu all over again.*

Lo and behold, here I am again. I suspect that few, if any of you, in the room would have predicted that in May 2017 I'd be serving as Acting FDA Commissioner. Although there were some folks who speculated I'd remain in that role for the rest of the previous administration because of how challenging it would be to nominate someone so late in the second term.

But Yogi also said: *Prediction is always difficult, especially about the future.*

And boy was he right. We had the nomination and confirmation of Rob Califf, who served for 11 months as commissioner until the inauguration this January. Rob had a grand vision for medical products, which he discussed last year with you. And by any yardstick he accomplished a lot over a short time period.

Now we await the confirmation vote for Scott Gottlieb, who, as you all know, was voted out of the HELP committee just last week. When will that vote occur? If he was still alive, you could probably ask Yogi Berra.

So without question, this is a period of substantial change. A change in administration—and a change in agency leadership.

I've now been at FDA for less than four years. And this is my fifth position at the agency. You can do the math. So can I. That's less than nine months per position. And it appears the current one will be well below that average.

So I'm used to change. And I'm comfortable with change. Change isn't a bad thing. It's something to embrace. Change keeps an agency like FDA fresh, and it allows us to consider new, better, and more effective ways to get things done.

As Winston Churchill (who was no Yogi Berra), said: *To improve is to change; to be perfect is to change often.* None of us are perfect, but we do seem to be changing often.

When Albert Einstein was asked by one of his students whether the questions on the final exam they were taking were the same as last year's, he replied: *Yes, but this year the answers are different.*

So, yes, there have been a lot of changes since last year's FDLI meeting. But there has also been a tremendous amount of progress across the agency.

In fact, if there's one unifying theme to my presentation, it's the interplay of change and progress. Progress is what Ralph Waldo Emerson referred to as "*the never ending task of self-improvement.*"

Against this backdrop, let me summarize some of the extraordinary work, and changes, that FDA's teams of scientists, regulators, and lawyers have been up to this past year. This talk presents their work, not mine. This talk is about them, some of whom are in the audience, not about me.

And then we'll talk a bit about where we're going. For Yogi also said: *If you don't know where you're going, you might wind up someplace else.*

And sticking to the theme of change, I thought I'd start with a radical one.

Here it is: Unlike most years, I'm going to begin by discussing FDA's work on the food side instead of the more traditional medical products side.

It is, after all, the *Food* and Drug Administration. Not the Drug and Food Administration. And, my usual role is Deputy Commissioner for Foods and Veterinary Medicine, so it seems only appropriate.

### *Food Safety*

Probably the most significant thing that happened since the last FDLI meeting is the finalization of all seven of the foundational rules under the Food Safety Modernization Act (FSMA). As you know, FSMA was signed into law in early 2011, and it took more than five long hard years to put the rules into place. And that happened only after extensive stakeholder engagement, tens of thousands of comments, and re-proposal of four of the rules.

The last rule to be finalized was the intentional adulteration rule on May 28. Which is exact date that Mike Taylor, our previous Deputy Commissioner (who by the way is a lawyer), left FDA. Coincidence? I don't think so. Mike helped shape FSMA and guided the rulemaking more than anybody else, so it was fitting he leave on such an up note.

We're currently in the midst of a stream of FSMA compliance dates. The first was for preventive controls for human foods and modernized GMPs last September, along with the first ever GMPs for animal foods.

The first compliance date under the Produce Safety Rule, itself a landmark component of FSMA, occurred in January, but just for sprouts. For all other regulated products under the Produce Rule, compliance begins eight months from now. The Sanitary Transport rule compliance date was exactly a month ago. And in late May, the compliance date for the Foreign Supplier Verification Rule and the supply chain provisions of Preventive Controls will begin, an important part of FSMA to assure the safety of imported food.

That's a lot of change in a short period. Taken together, these rules are nothing short of a sea change in the way we assure the safety of our food supply from farm to table.

FSMA is all about preventing problems from occurring rather than responding to them after the fact. The key to success is high rates of compliance. And so far, industry is rising to the challenge.

I hope that continues, and that we see better public health outcomes for American consumers and hopefully less litigation and less business for some in the room.

FDA is not trying to implement FSMA alone. It's a partnership. As one example, this past September we awarded nearly \$22 million in funds to states to help implement the produce safety rule through training and compliance activities.

In the past year we signed two international systems recognition agreements—one with Canada, and just recently with Australia—that recognize that their food safety systems produce similar levels of food safety protection to ours. Work is occurring on more systems recognition agreements. These agreements will allow better risk-based deployment of FDA resources.

As some of you are aware, last year the HHS IG issued an Early Alert suggesting that it takes FDA too long to take actions in highly complicated food investigations and we were not making effective use of the new authorities provided to us in FSMA such as administrative detention, facility registration suspension, and mandatory recall. That was a gut check to us. But it was also an opportunity to change and do better.

We established a new team of senior leaders called SCORE, to assure decisions are made quickly during complex outbreak and recall situations to prevent unnecessary illness. This process has yielded impressive results, ranging from recalls of adulterated flour, listeria in seafood processing plants and in cheese, and salmonella in powdered milk. It also resulted in two suspensions of facility registrations, the most recent at Dixie Dew in Kentucky due to *E. coli* contamination of soy nut butter. For us, the SCORE process is the new normal—and that won't change.

On the science front, we increasingly are relying on whole genome sequencing of foodborne pathogens in partnership with others. Whole genome sequencing is a leap beyond previous subtyping methods in its ability to link specimens and quickly pinpoint outbreaks and potential food sources. This is precision medicine on the food side of FDA. Our catalogue of sequences is growing exponentially. And while there are some growing pains with industry in how this technology is applied and used for regulatory purposes, it also is the 2017 standard and there is no turning back.

On the nutrition side, we've also been busy in the last year. Last May we finalized the first major update for the Nutrition Facts Label in over 20 years. The new label gives consumers better nutrition information based on the latest nutrition science. This includes listing added sugars in the foods we eat and more realistic serving sizes. We believe this will help consumers make informed choices about what, and how much, they eat.

In June we issued a draft guidance that provides practical, short- and long-term voluntary sodium reduction targets for the food industry. Americans consume considerably more sodium than what most experts recommend. That's bad for cardiovascular health.

Most Americans report trying to reduce the amount of salt in their diets. But most of that salt comes from processed and prepared foods, not the salt shaker. The draft targets are intended to help gradually reduce sodium intake which minimally affect consumers' perceptions of flavor and taste. We continue to sift through thousands of comments received related to this draft guidance.

We are mindful of the effect of our proposals on industry. In that vein, on Monday, FDA announced it will extend the compliance date for menu labeling by a year. This regulation requires the disclosure of certain nutritional information for

standard menu items in chain restaurants and similar retail food establishments. The additional time will allow us to consider potential opportunities to reduce the cost and improve the flexibility of these requirements.

One important area that we've made real progress on this since last year's FDLI meeting—and one that intersects both foods and drugs—is antimicrobial resistance.

On the food side, guidance for industry 213 voluntarily removing production (e.g. growth promotion) indications from medically important antibiotics and bringing remaining uses under veterinary oversight took effect on January 3rd. Although voluntary, all 292 drug applications affected by guidance 213 are either aligned with our recommendations or have been voluntarily withdrawn. That is a major achievement.

### *Medical Products*

Let me now switch over to medical products. Without question, the biggest change from last year is the 21<sup>st</sup> Century Cures Act. This is landmark legislation. And like any big change, it took a long time to develop and a lot of hard work by a lot of people inside and outside FDA. And it passed with overwhelming bipartisan support. I know you'll hear lots about Cures throughout this meeting.

Suffice it to say that the Cures Act has many new authorities to help advance medical product development and to bring today's remarkable innovations and advances to patients who need them faster and more efficiently.

We're already hard at work implementing Cures, which includes provisions, such as patient-focused drug development, advancing new drug therapies, modernized trial design and evidence generation, antimicrobial innovation, medical device innovations, and improving FDA's scientific expertise and outreach. To name just a few.

Cures is transformational for FDA and for patients. It recognizes innovation that was already underway at FDA. Congress codified or built on those innovations, from regulation of combination products, to regenerative medicine, to advanced therapies, to combatting antimicrobial resistance.

One of the major changes is the Oncology Center of Excellence (OCE). It's the first inter-center institute at FDA and is led by Rick Pazdur. OCE was established to enhance coordination and integration of clinical expertise across the medical product centers to aid in the development and evaluation of medical products intended to treat, diagnose and prevent cancer. Cancer therapies are probably the hottest areas of innovation today. That is evident by the fact that about a third of recent drug approvals have been in the oncology space.

Cures also builds on work to incorporate the patient's voice in product evaluation and approval. After all, who has a better viewpoint on what types of end points and risks are important to them. We have strengthened patient engagement through CDER's Patient-Focused Drug Development (PFDD) initiative, part of PDUFA V. Just today, we are holding a public meeting to get patient input regarding therapies for autism. CDRH has similar programs in place and has been a leader in incorporating the voice of the patient.

The Regenerative Medicine Advanced Therapy, or RMAT designation, managed by CBER is another CURES provision that offers a new expedited option for certain eligible biologics. RMAT status can be designated for certain cell therapies, therapeutic tissue engineering products, human cell and tissue products, and certain combination products.

To be designated as RMAT, the product must be intended to treat serious or life-threatening diseases or conditions and there needs to be preliminary clinical evidence that the product has the potential to address an unmet medical need.

CDRH has been pioneering its own expedited review program, the Expedited Access Pathway, which Cures further enhanced with a new Breakthrough Devices program. To get an idea of the potential impact of this provision, just look at last year's approval of an artificial pancreas that continuously monitors glucose levels and automatically meters out the right dose of insulin.

Although the number of new drugs and biologics approved in 2016 was down from 2015, it was still a very successful year for medical products. There were 22 novel drugs and 8 BLAs approved in 2016. 2017 appears to be a bounce back year as we've already come close to that total and the year isn't even half over. The number of device approvals continues to grow. There were 91 in 2016, a 14% increase from 2015 and a 36% increase from 2014.

Last year's drug approvals included some very significant products, such as the first treatment for spinal muscular atrophy, for Duchenne muscular dystrophy, a new drug for Parkinson's disease, another to treat patients with primary biliary cirrhosis, and two new treatments for patients with hepatitis C. Cancer drugs were approved to treat ovarian cancer, bladder cancer, soft tissue sarcoma, and chronic lymphocytic leukemia—as well as two new diagnostic agents for detecting certain forms of cancer.

Eighty-six percent of the novel drug approvals were approved first in the U.S. and we remain faster than other regulators. Equally significant, 73 percent of the novel drugs utilized at least one expedited review pathway, including breakthrough designation.

Regarding generics, 2016 was a banner year. Generic approvals topped the previous high by more than 200, showing that GDUFA I is having its desired impact. This included 73 "First Generic" approvals. And we've made huge progress on the backlog.

Of course, the other major recent activity on the medical product side is the wrap up of negotiations for this year's reauthorization of the four human medical product UFAs. These negotiations were successfully concluded last fall and the commitment letters for each were submitted on time to Congress in January. As you know, the reauthorization bills are under development, so it is not appropriate for me to speak about them in any detail right now.

### *Opioids*

Let me now turn the discussion to opioid misuse and abuse. This is surely one of the greatest public health challenges, and tragedies, of our time. It's a problem that in recent years has mushroomed into a full-blown epidemic.

In 2015, overdose deaths surpassed the astounding 50,000 mark in this country. Almost two thirds were associated with opioids. I suspect this epidemic has touched some in this room personally.

Just recently I spoke at the National Prescription Opioid and Heroin Summit in Atlanta and underscored FDA's ironclad commitment to do what we can to be part of the solution to this crisis and not part of the problem.

Last year, Rob Califf, Janet Woodcock, and I published in the *New England Journal of Medicine* a 10-point strategy to address the opioid epidemic. In the past year, I'm proud to say we've made progress on all ten.



We're working on how best to incorporate the public health consequences of opioid abuse into our review and approval processes. We're routinely seeking input from advisory committees for opioid approvals. And we've strengthened and extended black box warnings to better inform prescribers.

Next week we have a public meeting on how to strengthen our training programs for prescribers and we continue our strong commitment to abuse deterrent formulations of opioids as a harm reduction approach. To date we have approved nine products with abuse deterrent properties. Until just the other week, all were extended release products. But we just approved the first *immediate* release opioid with abuse deterrent features.

We continue to encourage wider availability of naloxone to treat overdoses, including the recently approved inhaled version of the drug. We are also conducting research on naloxone labeling that can potentially lead to over the counter availability of this product.

To aid in recovery, last year we approved a six-month depot preparation of buprenorphine for those who can't reliably take daily medication or are at risk of the drug being stolen, lost or diverted. Interest to the depot form by patients and providers has been overwhelming.

But we have to do more. And we will. In one example, we're working with NIH on a public-private partnership to develop non-addictive pain medications. We will keep working on this problem until the crisis has subsided. That's our pledge.

Opioids are not the only epidemic we've dealt with in the last year.

There's also Zika. FDA mobilized more than 400 staff members to respond—including deployments to Zika-affected areas such as Puerto Rico. We've worked to protect the nation's blood and tissue supply, facilitated the development of diagnostics (15 are currently authorized for emergency use), supported development of vaccines and therapies, and reviewed proposals for innovative products to suppress mosquito populations.

All with no additional resources. Crises seem to be the new normal, something I don't see changing.

### *Tobacco*

Last, but certainly not least, our Center for Tobacco Products had an extremely busy year.

Exactly one year ago, FDA announced the final deeming rule extending our authority to all tobacco products, including e-cigarettes, cigars, hookah tobacco, and pipe tobacco.

This was a major development and one of the only priorities handed over to me by Peggy Hamburg that didn't cross the finish line before I turned over the reins to Rob Califf. It didn't happen because it was a long and tough road. So many issues to address, so many comments to work through. But it has now been completed, much to the credit of Mitch Zeller and the crew at CTP.

Some of the deeming provisions are already in effect, such as the prohibitions on sales to minors, free samples, and vending machine sales.

But most provisions are yet to come. You may also be aware that on Monday FDA announced a three-month extension for all future compliance dates under the deeming rule. This extension does not impact the provisions already in effect

CTP took other actions in the last year. These include issuing 17 new or revised guidances, four final rules and one proposed rule, conducting nearly 140,000 retailer

inspections, and issuing more than 11,000 warning letters, more than 3,900 civil money penalty actions, and a second No-Tobacco-Sale-Order (NTSO) for violations of certain restrictions, including sales to minors.

We also issued the first-ever marketing decision for a Modified Risk Tobacco Product (MRTP) application. That's quite an output for FDA's youngest center.

### *Program Alignment*

I would be remiss if I did not mention one other major accomplishment at FDA. And that is program alignment—an effort spearheaded by our Office of Regulatory Affairs and led by Mel Plaisier who, with her staff, did yeoman's work.

It affects all parts of FDA. And it benefits all of our regulated industries and public health.

Program alignment allows for better vertical integration within our field offices and labs by commodity category, such as food and feed, drugs, and devices. And it provides better horizontal integration between those in the field and headquarters programs.

This is a change that will significantly improve agency efficiency, streamline our operations, and allow better cost accounting and personnel management. It's the right thing to do and I'm very excited that it's finally happening after years of planning. And it's happening soon, on May 15 to be exact.

### *Looking Forward*

I could have covered other areas. But time (and most likely Amy Comstock Rick) prevents me from doing so. There's genetic engineering and GMO. Cosmetics. Compounding. Our international activities.

But I would like to end by touching upon the future. After all, we are an organization that leans forward, not back.

We have roadmaps to help provide us with direction—on the medical products side we have implementation of the 21<sup>st</sup> Century Cures Act and other efforts to modernize product review. We have the upcoming UFA reauthorizations and next year will see reauthorization of animal drug user fees.

On the food side in 2016, the Office of Foods and Veterinary Medicine issued their 10-year strategic plan setting the path for food safety, nutrition, animal health, and organizational excellence.

We have plans for tobacco. And we have program alignment.

But let's be clear. There are many uncertainties going forward, and there are many challenges. There will almost certainly be speed bumps along the way. There's a changed regulatory environment, there's the budget, the hiring freeze, and unknown challenges yet to come.

We've been through such challenges before, and we've come out of them even stronger. Sometimes challenges represent opportunities. Opportunities to do things better.

After all, this is an era of breathtaking innovation on a scale never seen before. Scientific opportunities throughout our regulated commodities abound. A safer, more nutritious and abundant food supply. Gene editing and gene drives to prevent and treat disease. Harnessing the power of immunotherapy for cancer. Big data that is bigger than ever. Organs on a chip. Regenerative medicine.

All these advances almost make your head spin and can seem overwhelming. But they also give us hope for a healthier future.

And that's what it's all about. At least for me. And I hope for you too.

The comedian George Burns said "*I look to the future because that's where I'm going to be spending the rest of my life.*" It's a quote Yogi Berra would have loved.

And the Reverend Billy Graham said "*I've read the last page of the bible. It's all going to turn out alright.*"

I have no doubt that will be the case; FDA will rise to the challenge. We always have and we will always will.

The country looks to us for safe and effective treatments, a healthy and abundant food supply, and for reducing the harms of tobacco.

We can't, and won't, let them down.

Thank you for your attention.