



# President's Office

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## Selected Speeches

### Global Gap Summit 2017

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June 9, 2017  
Georgetown University

First, I must say how incredibly honored I am to be here today, in the company of such dynamic scholars and entrepreneurs—tomorrow's global leaders, tomorrow's innovators, disrupters, and problem-solvers.

Never have I stood in front of a group of people and been SO confident that I will see them again, on the world stage, sharing their revolutionary ideas and transforming how we approach the most pernicious problems before us. I do think the 2017 Gap Summit class photo is a picture that we'd all be wise to keep.

#### **Acknowledgements**

Before I get into the body of my remarks, I'd like to acknowledge a few people here today connected to my university—the University of Maryland, Baltimore.

Dr. Kamalika Saha is the speaker liaison for Gap Summit 2017. She's a postdoctoral fellow in medical communications at MedImmune and a graduate of UMB, where she earned her PhD in biochemistry. Dr. Saha is responsible for my being here today, and I'm deeply grateful—and humbled—that she thought of me.

She's joined on the organizing committee by two more UMB alumni, both from our School of Pharmacy, and both serving fellowships at MedImmune. Andong Nkobena and Deji Abdulafeez are making UMB proud every day. Thank you.

Finally, I'd like to recognize is Ben Portney, a "Leader of Tomorrow" and one of UMB's most prolific disrupters. Ben is a PhD candidate in biochemistry. The University is now helping him launch his early-stage startup, AgamiLife, which he's co-founded with two fellow students. It's the first company to isolate and preserve mesenchymal stem cells obtained during routine tonsillectomies. The cells show great promise for treating a host of untreatable diseases.

Through sheer dint of will, Ben has carved out a rich space at UMB for student entrepreneurs & innovators, and I owe him a debt of gratitude for his leadership.

#### **A Time for Disruption**

I can't begin my remarks today without acknowledging that you've come here at an interesting—and occasionally frightening—time in American history. The direction we're heading as a nation—toward isolationism, toward tribalism—stands as a stark counterpoint to the fundamental philosophy underpinning this summit.

You are here because you believe in the limitless power of collaboration and cooperation.

You believe that there are challenges we confront as a global society that must be solved as a global society. You believe that we will find our answers and our hope not in the walls we erect, but in the bridges we build. You believe not only in global leadership, but global fellowship.

When President Trump pulled the U.S. out of the Paris climate agreement last week, French President Emmanuel Macron had a powerful message for him. Taunting Trump and his slogan—Make America Great Again—Macron said it was time, instead, to Make Our Planet Great Again.

That's why you're here: To bridge the gaps that imperil us all. To be the change we wish to see in the world. To disrupt globally and implement locally.

### **The Global/Local Construct**

I'll admit that America has a rather peculiar definition of "global." We Americans tend to think of global as "over there"—away from us—as though the U.S. isn't really a part of the globe. Well, I've got some news for you: Global is right here, too. Washington, DC, is one—just one—of 4,400 cities on this planet. We *are* global. And there's no going back, despite the noise you hear from about 3 kilometers away.

All of us must figure out how we fit into this world and how the world fits into us. Because surely we are interconnected.

Before I became president of UMB, I was dean of the medical school at the University of Kentucky. Kentucky isn't a wealthy U.S. state; it confronts a number of economic challenges, educational challenges, health challenges. And when I would send medical students around the world to learn with and from their in-country colleagues, to serve in far-flung communities, I would be asked why my students went "looking" for problems when our state had plenty of its own. Why go halfway around the world when you can see profound devastation halfway around your block.

And I'll tell you why: Because "global vs. local" is a false dilemma. It's not an "either-or" proposition. The problems that plague America's under-resourced communities are the same problems plaguing developing nations. The innovations and practices that can help developing nations address urgent problems of health, education, communication, and sustainability can be applied in the U.S. with the same efficacy—but only if we allow it.

For 200 years, America has been in the business of exporting its "great ideas." It's only recently that we've acknowledged that teaching, learning, and sharing have to be bi-directional. And that realization gives us an incredible opportunity: To get information from anywhere in the world and to give information to anyone in the world.

Let me tell you a little bit about Baltimore, the city where I live, where my university resides. It's close to here—just 65 kilometers north. Baltimore has about 620,000 residents—which puts it among the 30 largest U.S. cities. Baltimore's population is nearly two-thirds African American, and the city is one of the nation's most highly segregated. Nearly one-quarter of its residents live in poverty.

In Baltimore's wealthiest northern neighborhoods, where the median household income exceeds \$100,000 a year, life expectancy reaches to 87 years old. And in the city's poorest neighborhoods—where annual incomes are as low as \$17,000—life expectancy drops some 20 years. There is an inextricable link in our country between health and wealth. In the world's richest nation—with everyday access to breakthrough technologies—we know without a doubt that race, class, and address still dictate how long one lives.

And so I think it's a particular brand of arrogance to believe that we can't learn anything from other nations. I think it's a deficit of imagination to believe we can't adopt effective global strategies around health, poverty, education, and justice. I think that if we send our students abroad to impoverished areas and then don't send them into every disinvested, every neglected neighborhood in Baltimore—to apply those lessons learned—then we're failing our students and our neighbors alike.

At UMB, we've treated about 1 million patients with HIV in six African and two Caribbean nations, as well as thousands of patients back home in Baltimore, a city, incidentally, with America's 10th highest prevalence of new HIV infections. One of the doctors who leads our HIV effort, Dr. Redfield, found that, in Africa, the people

who had already been treated for HIV were incredibly good at helping clinicians connect with the people who needed treatment. These patients educated others about the disease, they persuaded them to accept care, and they helped them access that care. Dr. Redfield has since applied this peer-to-peer model in our home state of Maryland, and it works just as well.

This approach—brought from Africa—yields earlier treatment, which not only relieves patients of their suffering, but also reduces the significant economic burden that communities bear when the treatment of disease is delayed.

This is a rather new frontier for academia—systematically linking global learning to local practice, and vice versa. And I'm proud that UMB is taking a facilitator role in knitting together communities that can learn from one another and share with one another.

It's vitally important. We can't possibly experience every country and every culture worldwide. We can't possibly know every endemic disease and every systemic social problem.

So we must teach our best and our brightest—the trailblazers like you—how to learn, how to learn about environments, about cultures, about people who don't look or think or act anything like themselves.

This is what global experience does. It destabilizes us—in a good way. It teaches us how to risk what we think—and what we think we understand. It teaches us to relinquish control, to rely on a community for the many answers we don't know. It teaches us to confidently approach the unknown, and to get comfortable being uncomfortable. Global experience teaches us humility—a trait that America might consider trying on. It teaches us to reject the parochialism that delimits our ideas and inhibits our creativity.

And I submit that this global mindset will be critically important when you're back in your home countries as well. I know it is in America, where the unknown and the uncomfortable are as often in our own backyard as they are in a village thousands of miles away.

It can seem easier, certainly, to effect change overseas, especially when our optimism is grounded in ignorance—ignorance of culture and customs and history and ideology and geopolitics. At home, perhaps, we know too much. At home, we understand the intractability of persistent problems. At home, we judge more harshly those who are poor and in poor health. At home, we know we can't apply a Band-Aid. We have to debride the wound.

So I've left myself a horrible metaphor here, but all of the gaps you've come to examine—in innovation and sustainability and technology and education—these are the wounds for your debriding.

And since I'm certainly the least equipped person in this room to tell you exactly what to do from here, I'll suggest instead how you might do it.

### **Interprofessionalism**

I promise you that you'll start the biotech revolution sooner if you undertake it with people who know nothing about biotechnology. If there's one disruptive thing I've learned over a 45-year medical career it's that education and practice have to become more interprofessional.

In medicine, we know that patients with chronic disease—with heart disease, hypertension, asthma, diabetes—they need team-based care. They need a holistic approach to their health and well-being, where every provider on the team understands the patient's problems and the coordinated plan to remedy them.

At UMB, we have schools of medicine, nursing, pharmacy, dentistry, social work, and law. And students in all of these schools are expected to function in health care teams—whether they're working at home or abroad.

Let me give you an example why: I've seen many young patients with lead poisoning. In Baltimore, lead poisoning is tragically epidemic. But we know how to get the lead out of a child's blood. We can bind the lead with an intravenously administered chelating agent and eliminate it through the urine. It's not a complicated process. So you treat the child, and he gets better, and then where do you send him? You send him straight back into the home that made him sick in the first place—the home with toxic levels of lead in it.

That child no longer needs a doctor. He needs a lawyer—and he needs one now—a lawyer who will make the landlord comply with the lead-paint laws on the books.

I had a patient—an 8-year-old girl—who kept going into diabetic ketoacidosis—a serious condition—and was repeatedly admitted to the ICU. The doctors couldn't figure out what the problem was, so they asked me to send a nurse to the child's home. And that's when we found out that there was no electricity in the house. The utility had shut off the family's service. When the mother was measuring insulin doses in the kitchen, she couldn't see how much she was drawing into the syringe and injecting into her child.

What we needed to do wasn't medical at all. We needed to get the lights turned back on. And we needed a social worker who knows how to do that. Once the electricity was restored, the child's diabetes came back under control, and there were no more ICU admissions.

This is the benefit of engaging across disciplines, seeing problems from an entirely different perspective, seeing solutions that might never have come without an out-of-discipline colleague smacking us up against our metaphorical heads.

I find that interprofessional teams are problem-focused, not solution-focused. They start with the problem—in its most basic incarnation—and then work backward to solutions ... along multiple tracks. They don't get as waylaid, as mired, as paralyzed as homogeneous teams looking for the *one and only* answer.

### **Diversity**

As you set out to find these solutions, I hope that in addition to professional diversity, you'll seek out teams rich in gender diversity, racial and ethnic diversity, diversity of background and perspective and experience.

There are plenty of studies proving that diverse teams perform better than alike teams .And it seems it's not only because people with different backgrounds bring new information with them. It's also that simply interacting with people who are different from us forces us to prepare better, to focus on facts and to process them more carefully, to anticipate opposing viewpoints, and to expect that reaching agreement will be difficult.

And that difficulty is key: The *Harvard Business Review* says that diverse teams feel less comfortable—and that's exactly why they're successful. Diversity can cause friction, which feels counterproductive ... when, in fact, it's quick consensus and easy answers that do the most harm. Overall, outcomes are better when the work to achieve them is harder.

This is the destabilizing factor I mentioned earlier. Disruption isn't easy. It's not going to come without pushback, without dissent, without crises of confidence. But that's when you'll know you're doing something right.

### **Genius Implementers**

I have a colleague who says that the key to being a successful disrupter is to be a genius implementer. Genius implementers are flexible, patient, and open. They're good listeners; they deal well with ambiguity. They're trusting and trustworthy. Genius implementers don't let the perfect become the enemy of the good.

My colleague writes of a simple technology for babies who have trouble breastfeeding because of a cleft palate or cleft lip. It's a "sippy cup"—I imagine most of you have used one; maybe you have a child using one now. But this sippy cup has a special design of its spout to help feed breastmilk to these babies who can't easily receive it because of congenital abnormalities. The cup is undergoing validation studies and should be brought to market in the next few years for use in low-resource settings.

But some wonder whether it will ever be adopted in the U.S. at all, where the current standard of care for feeding children with cleft palate is too often a far more aggressive approach to get the infant sufficiently nourished prior to surgery.

Our rigidity often serves as a formidable disincentive to innovation. Our legal and regulatory barriers often inhibit the spread of good ideas. Our biases and beliefs often undermine best practices.

More than 40 years ago, we knew that oral rehydration therapy—a simple, self-administered solution of water, glucose, and sodium—is the best way to prevent dehydration from diarrhea. The therapy, pioneered in India, saves 3 to 4 million lives each year, most of them young children. And yet oral rehydration therapy is underused in America. Meanwhile, expensive IV therapy—requiring medical intervention or hospitalization—is overused.

As a study commissioned by the Bipartisan Policy Center acknowledged some years ago, affordability in American health care has never been a requirement—nor, it seems, even a virtue. Put simply, we don't typically ask what the cheaper intervention is. And I can't imagine that shocks you. U.S. health care spending far eclipses any other nation's—with little benefit to show for it.

So all of this is up to *you* to deconstruct and dismantle. This is what disruption is: refusing to believe that the status quo is sacrosanct, that the way we've "always done it" is the way we should be doing it.

### **The Disruption Pipeline**

And I have one more suggestion for toppling this status quo. And that's to invite in to your community of disrupters the young people who seldom get the chance to disrupt anything at all—the young people left out of this global bio-economy that you've come together to build.

I know that you—our Leaders of Tomorrow—come from vastly different countries, with vastly different resources. I know your own personal backgrounds are terrifically unique. But we must admit that the world's most promising scholars, innovators, and entrepreneurs—this small and special community to which you belong—typically have the support and connections and resources that make disruption possible.

So let's enlarge this special community. Let's open it up. Let's tell the young people who've been sidelined too long that they'll not only benefit from our progress in research, technology, education, precision medicine, sustainability, and science policy, but that they'll be shoulder-to-shoulder with us as we define what that progress looks like. They'll partner with us as we set that progress in motion.

This is the generation that you will cultivate, with your time, attention, coaching, and mentorship. And I guarantee that you'll be astonished by your protégés—by their capacity and resilience, by their talent and enthusiasm.

I can guarantee it, because I've been astonished myself. A couple of years ago, we launched the UMB CURE Scholars Program. It's an intensive, long-term mentoring program that begins in middle school, and it draws from some of the poorest, most challenged schools in Baltimore. Several days a week and over the summer, students are given science instruction and enrichment, and exposed to careers in research and health care.

We induct maybe 25 scholars each year—and they stick to the program, they *leave* to it—despite circumstances at home and in their neighborhoods that I can scarcely comprehend.

When one of our 6th graders began the program in 2015, her standardized math scores weren't even at a 3rd-grade level. Today, she's nearly finished 7th grade, and her math scores lag only one year behind. In the two years she's been in the program, she's seen her brother die, she's witnessed a shooting, her family has had to move a couple of times. But she's remained at her school, because she wanted to remain in the CURE program.

Last fall, a scholar was inducted into the program on a Saturday afternoon. Her father brought her to the ceremony. On Monday morning, he was murdered. Since then, her family has been evicted and has faced obstacles that would cripple the strongest among us. But she's never missed an after-school session. She's never missed a Saturday on our campus. Science is her escape and her comfort and her relief.

In April, the scholars came here to Washington, DC, and they presented posters at the annual conference of the American Association for Cancer Research. They presented on different types of cancer and on the yawning health disparities that tend to make them and their families and their neighbors so much sicker than virtually anyone else in America. They were stars at that conference. And surely everyone there would consider them "Leaders of Tomorrow."

But that's going to happen only if we can figure out how to sustain and replicate and scale these pipeline programs. It'll happen only if we can disrupt and dismantle the myriad systems that put these children at such a grave disadvantage in the first place.

### **Yours Is the Leadership We Need**

I fear I've burdened you with some enormous responsibilities. But who better? Who better to take up this mantle of leadership, to build an economy that works for everyone, to harness discovery that recasts what we know, reframes what we expect, and revolutionizes what we believe is possible?

Yours is the leadership we need right now. We need your talent and your influence. We need your insistence that we must—and can—do better. Because isn't that the fundamental premise—and promise—of science? That we might pursue truth and prioritize compassion? That we can improve the lives of others and the world in which we live? That we can expand the boundaries of human understanding and contribute doggedly to a body of knowledge that will help perfect us as a people?

So no pressure, but we'll be watching. And we can't wait to see what you'll do. I'll keep your class photo just in case.

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