AAMC President's Address 2017
"Truth, Science, and the American Dream"

Darrell G. Kirch, MD, AAMC president and CEO, delivered the following address at Learn Serve Lead 2017, the association's 128th annual meeting in Boston, Mass., on Nov. 5, 2017.

Thank you, Dr. Wilson, for that kind introduction. And my thanks to Dr. Rappley for her compelling call to focus on the essentials in our mission and our obligation to ensure access to learning, science, and care for all, not just the privileged. In America, everyone should have equal opportunity to achieve their dreams. Most of all, my thanks to each of you for joining us here in Boston for this year's Learn Serve Lead.

It seems to me that, the more challenges our nation faces, the more we feel a need to come together as a community at this meeting. This year, one issue in particular has been weighing heavily on my mind. That issue is the threat to truth. The kind of threat that comes from opinion masquerading as fact, especially on the web and in social media. The threat of confusing "fake news" with real news. The threat that exists when bias and fear distract and distort a debate. For us, this threat to truth represents a fundamental challenge to science—the science we depend on to reveal truth in medicine. Our patients depend on that.

Each time I visit one of our member institutions, I witness the power of science in action. A few months ago, I spent a day at the Joslin Diabetes Center here in Boston. Diabetes is a disease that likely has been with us throughout human history. And for most of history, the disease meant an early death. But a century ago, medicine found the scientific basis for the disease, leading to the discovery of therapeutic insulin in the early 1920s. Dr. Elliott Joslin, a Boston physician with a deep ethical commitment to patients with diabetes, was a pioneer in the use of insulin and in care models that finally allowed patients to manage their diabetes effectively. He also was a pioneer of interprofessional team-based care. During my visit I learned that, as survival rates for diabetes improved, the center established the Joslin Medalist Program to recognize those rare patients who successfully managed diabetes for 25 years—something that once seemed impossible. Then, as science progressed, the Joslin Medalist Program expanded, giving 50-year medals and 75-year medals. In 2013, Joslin recognized the first 80-year Medalist—Mr. Spencer Wallace, a man first diagnosed when he was eight years old. I was struck by the medals as a wonderful way to celebrate the courage and victories of our patients. In just a few decades, the truth revealed by science enabled people with diabetes to live their own personal lifelong dreams.

Hearing about the Joslin Medalists reminded me of my own patients from early in my career. Some of you may know that when I finished my residency in psychiatry, I entered a fellowship at the National Institute of Mental Health (NIMH) in a laboratory devoted to studying schizophrenia. Historically, the diagnosis of schizophrenia was every bit as devastating as juvenile-onset diabetes, but with a different course. Typically, the symptoms of schizophrenia appear in late adolescence or early adult life. Rather than an early death, most patients live a normal lifespan in number of years, but that life was far from normal. However, schizophrenia all too often robbed those patients of their grasp of reality. It burdened them with painful delusions and disturbing hallucinations. It even disrupted their ability for organized thought and speech.

I vividly remember the patients and their families who volunteered for our studies. One patient, in particular, still stands out for me. He was about my age at the time. At one point, he looked at me and said, “You know, I was once you.” My first thought was that this was one of the delusional ideas he experienced. But when I asked him to explain, he had a rare moment of clear thought. With deep sadness and total clarity, he told me he had gone to Harvard filled with hopes and dreams, just like he imagined I had. But he never finished college, because his dreams were shattered by the onset of his schizophrenia. My patients and their families knew they might never directly benefit from our research. But, like us, they believed that someday research could finally reveal the truth behind the mysterious, devastating illness that had taken such a toll on them.

Their hope in research was well placed. Think of all those centuries during which people who suffered from schizophrenia were thought to be possessed by demons. With no scientific understanding, people with the illness were not cared for. They were shunned. They were mocked. They were shackled. They had no hope.

Then, in the early 1800s Philippe Pinel in France pioneered “moral treatment,” a more humane approach to care for psychiatric patients. In the United States, Dorothea Dix led the battle to create safe asylums. Together with more ethical treatment, science advanced. By the late 1800s, European psychiatrists like Kraeplin and Alzheimer were focusing on schizophrenia as a brain disease. In the early 1950s, researchers studying anesthetic agents serendipitously discovered that chlorpromazine calmed and cleared the thoughts of some psychotic patients and eliminated their delusions. This discovery opened the door to the advances in psychopharmacology of the last six decades. Today, slowly but surely, the brain regions and neurotransmitter systems involved in schizophrenia are being clarified, complex genetic and environmental factors in the illness are being studied, and more targeted psychopharmacologic agents are being developed. Schizophrenia, a disease that like diabetes was once considered hopeless, now is a treatable illness for many patients.

But building scientific evidence is not enough. We need to match our science with an ethical commitment to ensure that all patients benefit from that research. Sadly, the treatment of patients with schizophrenia shows what the failure by society to fulfill that ethical commitment looks like. The dramatic discovery of drugs in the 1950s and 1960s allowed many patients who had spent much of their adult lives in psychiatric hospitals to be discharged. But these patients still required care. Unfortunately, the “deinstitutionalization” of these patients coincided with repeated funding cuts to services for the mentally ill, and a growing shortage of mental health providers left many patients without any treatment or support for reintegration into society. Discrimination against the mentally ill in housing and employment exacerbated their challenges and, today, many Americans with serious mental illness are chronically homeless. Recent estimates indicate that 20% of the homeless suffer from severe mental illness, including high rates of schizophrenia.[1] Too often, these untreated patients end up in a revolving door between prison and the street, with no treatment to stop the cycle. When we fail to translate our science—

when society reacts with neglect, or with bias and fear—we lose the power of science to help our patients.

This is not just an issue in mental illness. Bias and fear affect patients with so many serious diseases, from HIV and AIDS to lung cancer. Bias and fear are the enemies of the truth revealed by science. And worse, they make it difficult, if not impossible, for patients to achieve their dreams. We know bias leads to significant disparities in care for minority populations. Research shows that physicians' conscious and unconscious biases affect how they treat patients of different races. For example, physicians undertreat black patients for their pain while over treating white patients for their pain. For minority patients, these biases result in worse health outcomes.[2] The message is clear. We need to match our growing base of scientific evidence with an equally compelling ethical commitment to apply that evidence fairly and equally to all our patients. More than ever, we need to resist and fight back. Medicine is finally working through our long history of overt and unconscious discrimination. Now, more than ever, we need to combine our science with an ethical obligation to fight back against bias and fear.

I am concerned that today we face a growing threat to science, to truth, and to our ethics. In 2016, the *Oxford English Dictionary* selected "post-truth" as its word of the year, defining the term as "relating to or denoting circumstances in which objective facts are less influential in shaping public opinion than appeals to emotion and personal belief." Do you find that concept as chilling as I do? When we fail to embrace the truth of science and we let bias influence patient care, we contribute to an environment in which important decisions are based on emotion and personal belief, rather than on evidence and facts. When this becomes widespread in our culture, across our media landscape, and in our policy discussions, our patients suffer.

In the name of those hopeful patients and their families who so courageously participate in our research studies, I refuse to live in a post-truth world. I believe in truth. I believe science reveals the truth in medicine. I believe our ethical foundation gives us the compass to apply that truth wisely for the good of our patients.

We must not allow emotion and bias to supersede science. We have seen the damage that a post-truth attitude causes. The Centers for Disease Control and Prevention (CDC) has been barred from researching the public health effects of firearms since 1996. The anti-vaccine movement has been putting lives at risk since 1998, when our community let down its guard and allowed junk science to pass through our peer-review system and be published in a highly respected journal. And more recently, this year's divisive showdown over the Affordable Care Act was based more on the emotion-laden, partisan politics of "repeal and replace" than on evidence about ways to improve the health of the American people.

To see our national conversation descend to a place where facts are in question and "fake news" creates a fog concerns me for another reason. For us as individuals and for our nation, our American dream—and the dreams of countries around the globe—were realized through science and innovation. Science has propelled us to incredible achievements—from walking on the moon to being on the cusp of eliminating polio from the planet. We will always have political differences in our nation. But America's finest moments have been driven not by politics, but by relying on science to reveal the truth.

Our scientific understanding of disease desperately needs to push forward. Which is why we should all be concerned when we see proposals to cut investment in scientific and medical research. And why it is so important that we consistently push Congress to block those cuts and build our investment.

But it's not all about Congress or politics or the media. Within medicine, we need to be constantly vigilant to balance our science and ethics. Sometimes we will struggle. Consider the current opioid epidemic ravaging so much of America, including here in Massachusetts. As a profession, we need to admit that, despite good intentions, we contributed to this problem. But now, we are responding—guided by our commitment to "do no harm." In that spirit, the leadership of the four medical schools in this state jointly developed targeted educational initiatives to help improve everything from prescribing habits to addiction treatment models to overdose responses. With every epidemic—whether the pathogenic agent has been HIV or Ebola or opioids—an abiding commitment to evidence and ethics has been our best defense.

For the AAMC, this critical balance of evidence and ethics guides each policy position we take. We have supported and continue to support:

- Expanding access to health insurance, because the evidence shows improved access leads to better health status and longer life. Having insurance saves lives;

- Improving access to health care for everyone, regardless of their background, beliefs, race, sexual orientation, gender identity, or geography;

- Preserving a clear immigration pathway for learners, physicians, and researchers from around the world, because the evidence shows that they are vital contributors to our innovation and our national health security; and

- Continuing the Deferred Action for Childhood Arrivals (DACA) program, because the evidence shows that a diverse health care workforce, including these "Dreamers," can improve America's health care and help narrow health disparities.

For every policy position we take, it is the evidence and ethical principles that are our guide.

The challenge to truth has been building for some time. It transcends political party affiliation and our current political leadership. But it is an issue that undermines what we as a community believe and the role we in academic medicine can and should play in society.

I see clear and encouraging signs that collectively we are reasserting the authority of science in our national debates. Last April, more than one million people in 600 cities around the world marched for science. In September, hundreds of you walked the halls of the Capitol in Washington as part of the "Rally for Medical Research Hill Day" to support NIH funding. And 60,000 of our students and residents have spoken out on key health care policy issues through our AAMC Action grassroots network. It is that kind of passionate defense of science and evidence that will carry the day. Whatever your role in academic medicine, please take a stand for science and truth wherever you encounter misinformation and misunderstanding.

Think how far we have come in medicine. Think of how much farther we can go. Someday soon, someone with diabetes could receive their 100-year Joslin Medal. Someday soon, schizophrenia might not only be treatable, it might be preventable. It all depends on how relentless we are in our commitment to science and truth.

The late Senator Daniel Patrick Moynihan once said, "Everyone is entitled to his own opinion, but not his own facts." We need to rise above that and occupy the high ground of evidence and ethics. That is when truth prevails. And that is how each of us—and each of our patients—can realize our dreams.

1. U.S. Department of Housing and Urban Development. HUD 2016 continuum of care homeless assistance programs homeless populations and subpopulations. https://www.hudexchange.info/resource/reportmanagement/published/CoC_PopSub_NatlTerrDC_2016.pdf. Published March 15, 2017.

2. van Ryn M, et al. Physicians' perceptions of patients and behavioral characteristics and race disparities in treatment recommendations for men with coronary artery disease. *Am J Public Health*. 2006;96(2):351.