

## US immigration order strikes against biotech

To the Editor:

We the undersigned, founders and leaders of biotech companies, write to express our deep concern and opposition to the executive order signed by President Donald Trump on January 27, 2017, barring the entry of citizens from seven countries into the United States.<sup>1 2</sup>

The United States is the world's greatest developer of medicines and new inventions to ameliorate and cure intractable diseases, a status achieved through massive investment in private and public companies, academia and R&D. Most importantly, our success has been founded on the creativity and dedication of our most precious resource—our people.

Our people include researchers, clinicians, entrepreneurs and business executives from all over the world. They are colleagues in our laboratories, management teams and boardrooms. They discover and develop therapies that drive US biomedical innovation and deliver new medicines to patients, not only in America, but also across the globe. And they start companies that drive the economic growth and employment provided by biotech. Many of our colleagues from abroad ultimately become Americans, all to the great benefit of the United States. Indeed, a study found that in 2014, 52% of the 69,000 biomedical researchers in the United States were foreign-born.<sup>3</sup>

The biopharma industry originated in America and is dominated by American companies. US companies employ tenfold more people than European companies. Over the past decade, a total of \$98.4 billion was invested in US emerging therapeutic companies through venture capital, follow-on public offerings and initial public offerings. US companies spent over \$138 billion on upfront payments for in-licensing assets or acquiring global R&D-stage emerging

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<sup>1</sup> The White House. Executive Order: Protecting the Nation from Foreign Terrorist Entry into the United States, Jan. 27, 2017.

<sup>2</sup> On February 2, 2017 the United States District Court Western District of Washington at Seattle issued a temporary restraining order against the Executive Order that suspends its enforcement nationwide. The President has stated he will seek to overturn the ruling, but the restraining order remains in force while under appeal to the U.S. Court of Appeals for the 9th Circuit by the Department of Justice. As of XXpm on February 6, the federal appeals court has not yet ruled. [17-35105](https://www.ca9.uscourts.gov/content/view.php?pk_id=0000000860) State of Washington & State of Minnesota v. Trump. WD Wash. 2:17-cv-141, Judge Robart. [https://www.ca9.uscourts.gov/content/view.php?pk\\_id=0000000860](https://www.ca9.uscourts.gov/content/view.php?pk_id=0000000860)

<sup>3</sup> The New Face of US Science, *Nature* **541**, 21-23 (2017)

companies. Larger US biopharma companies spent \$161.7 billion over the past ten years on market-stage acquisitions.

The United States has led the world in medicine production for decades, not only because of its ability to finance drug discovery, but also because, more than any other country, the United States represents opportunity regardless of borders, gender, race, sexual orientation or political cast. This has enabled our industry to attract the best talent, wherever it is found. This aspect of our industry is a core reason the United States has built its unique strength in biopharmaceuticals.

At a stroke, the new administration has compromised years of investment in this national treasure. Our colleagues who are here on visas or are in global outposts are now fearful and uncertain of their status. Scientists based in other countries and employed by our companies are afraid to come to the United States or are canceling trips. The parents and families of immigrants who live and work in the United States are reluctant to attempt to travel to and from the US.

Though the ban from the Trump administration is aimed at seven countries, our global employees interpret the underlying message as, “America is no longer welcoming of any immigrants, whatsoever.” They fear similar orders could be issued for other countries at a moment’s notice. They fear being stigmatized and discriminated against, simply because of their religion, irrespective of the nation they come from. Several among us have heard from employees about their deportation fears, how they do not feel comfortable leaving the country on business or how they now feel cut off from their family abroad.

Every nation has the right to determine who comes across its borders. Every nation needs to be vigilant in defending itself against and hunting down terrorists. The actions taken by the Trump administration, however, were poorly conceived and implemented; they have raised deep fears and concerns across the biotech industry, in which diversity and the free flow of ideas and people have created an American powerhouse of medicine.

If this misguided policy is not reversed, America is at risk of losing its leadership position in one of its most important sectors, one that will shape the world in the twenty-first century. Indeed, it will harm an industry dominated by smaller companies and startups, the very kind of industry the administration has said it wants to support. It will slow the fight against the many diseases that afflict us, as well as carry negative economic consequences for the United States.

America must remain the world’s greatest engine of innovation, as well as the beacon of liberty it has been for more than 200 years. The two are inextricably intertwined.

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