## Statement by Howard Bloch at the FAS Senate meeting on October 15, 2020

## **Missed Opportunities**

So much of what goes into making a university great has to do with meeting and matching the moment.

Science at Yale began with such a recognition. When a meteorite fell on the morning of December 14, 1807 in Weston, CT, an enterprising young Professor of Chemistry, Benjamin Silliman, and a colleague, James Kingsley, who taught Hebrew, Greek, and Latin, set off two days later to bring it back to New Haven. The paper which Silliman presented to the American Philosophical Society in Philadelphia in 1809 engendered a national debate and was probably the first scientific paper in America since those of Benjamin Franklin to attract notice in Europe.

When it came to the natural sciences, Yale was unsurpassed by any American university in the nineteenth century, which began with Silliman and ended with Josiah Willard Gibbs whom Albert Einstein, leaving all relativity aside, pronounced "the greatest mind in American history."

But science lagged at Yale in the twentieth century, in part as a result of missed opportunities.

Yale failed to hire Jewish scientists exiled from Germany and Hungary in the wake of the rise of Nazism in the 1930s and 40s. None of the exiled physicists who played major and supporting roles in the quantum revolution, Jewish or not, ended up in New Haven, but were welcomed at Princeton/IAS, Columbia, Harvard, MIT, Cornell, the University of Chicago, UC-Berkeley, and Caltech. When we missed the revolution in physics in the first half of the century, we were ill-suited to participate in the revolution in genetics in the second half.

This failure stemmed from a reluctance to recognize the importance of the intellectual exodus from Europe that was compounded in the 1950s by Yale's slowness to accept government funds. President Whitney Griswold, suspicious of what government money might mean in terms of a loss of intellectual freedom, remarked that, "We must be sure each time that we can ride the horse and that it bears no trace of Trojan ancestry." It was also fed by an unwillingness to invest in the space needed for science. We apparently lost E. O. Lawrence, a Yale Ph.D. and Assistant Professor, who left for the University of California in 1928 with a salary offer of \$3500 while Yale only countered with \$3000 and could not match Berkeley's space, which is another way of saying we lacked the money to build sufficient laboratories and offices. Lawrence went on to win the Nobel Prize in physics in 1939 and to found the Lawrence-Livermore Laboratory with an annual budget of \$1.1 billion today.

Yale is now in a stellar position to recoup whatever we may have lost over the course of the last century. We have the vision, we have the space, we have the resources, we have aligned our departments, schools, and programs to meet and match the moment.

While our peers "freeze" or "pause," Yale should pounce decisively and immediately, not only in the sciences, but in every field, at every level, and from every part of the world where there is an opportunity to bring to campus faculty whose presence builds an intellectual future without which the financial

future is fruitless. Not to do so actually means falling behind, and catching up, as we know, is a slow, expensive, and tricky business.