Dr. Cicerone, I am deeply grateful to you and the Academy for this high honor, perhaps the highest of my long life.

I want, especially, to congratulate the scientists recognize here this afternoon.

I’m proud and humbled to be on the same stage being recognized with you.

I am, of course, not a scientist, but a science advocate.

I have been fascinated my entire life with science and attained some understanding of it at MIT before deciding I would follow in my father’s footsteps as an attorney.

Now I know what you’re probably thinking.

But, no, I had a good year at MIT and the entire year transferred to Northwestern University from which I graduated three years later with a pre-law major.

I was motivated to save NIH, as the new chairman of the appropriations subcommittee from extraordinary cuts in the 1995 House budget and later to double funding for NIH from $13.5B to $27B.

I was fortunate through several serendipitous occurrences in my political career to be in the right place, at the right time, and under the right circumstances to make these things happen.

What motivated me?

My father was afflicted with polio as a child, walked his entire life with a brace on his leg.

When the Salk vaccine was discovered in 1952, when I was 17, the enormous potential for improved human health through medical research was brought home to me in a very personal way.

I have said for years now that America’s economic destiny has to be science, innovation, technology, and research.
They drive our economy, provide good jobs at good salaries, and raise our people’s standard of living.

To ensure this future, a strong commitment to STEM education is necessary.

But much more is needed and the only ones able to make that happen are you, the leaders of American science.

This is what I want to talk with you about this afternoon.

Inspiration is also needed, not only to bring young people to careers in science, but to give the American people an appreciation for science and support for making federal funding for basic research a very high national priority.

Beginning during and shortly after World War II until 2001, science occupied an envied position in our nation’s priorities and received strong and sustained federal funding.

With little interruption until 9-11 and the unnecessary wars and unwise tax cuts that followed, scientific research has had tireless advocates, Congressional champions, and more or less priority in our list of federal investments important to our future.

But that has become, over the last decade, an artifact of the past, with a group of anti-government legislators and an American electorate largely ignorant of science, and, in some cases, hostile to it.

A Member of Congress said not long ago that “evolution, embryology, and the Big Bang theory are “lies straight from the pit of Hell” meant to convince people they do not need a savior.”

That Congressman is a medical doctor, serves on the House Science Committee and is now running for the U.S. Senate.

In 1945 Vannevar Bush in “The Endless Frontier” urged that our country keep social and political interference out of curiosity-driven science.

He said that freedom of inquiry must be preserved under any plan for Government support of science.

I can’t speak for the physical sciences, but in our subcommittee for all the years up through the time that I chaired it, it was an article of faith that political judgment should never be allowed to be substituted for scientific judgment.
But in about 2004, after I had retired from Congress, amendments began being offered on the House floor to prevent funding for medical research on subjects Members didn’t think appropriate.

One such amendment was aimed at research on human sex and was supported by nearly half the Members of the House, being defeated by a vote of just 211-212.

In addition, in this Congress and the previous one, one of our political parties has done everything possible to prevent funding for health services research, the kind that would tell us what works in healthcare and what doesn’t.

Those of you who are NSF funded know that the social sciences are also under attack.

Another place where science is under attack is in the federal budget and appropriations process, as you well know.

Now, I believe very strongly that reducing our federal deficits and debt is very necessary to our economic stability and strength.

But the real money needed to control our long term deficit can be found in entitlement reform and tax reform.

Yet the Congress and the Administration do not have the courage to address them.

Instead, through the Budget Control Act and sequestration, deficit reduction today is aimed only at the places where national priorities should be the greatest----science, education, infrastructure, national defense---and where investments must be made if we are to preserve American leadership and our economic future.

All of these:

- anti-science sentiments among the people and some of our elected officials
- attempts to substitute political judgment for scientific
- deficit reduction approached by cutting science and other places where we must invest to secure our future

all are serious challenges that must not be allowed to stand.
C.P. Snow, in his famous lecture, in 1959, said that there is a gulf of mutual incomprehension and a mutual lack of sympathy and appreciation between literary intellectuals and natural scientists.

That has widely been interpreted to be a gulf of mutual incomprehension between scientists and the lay public.

But apparently these recent attacks have not moved the science community to take action.

In effect, the leaders of science give the impression that the public is not important to the future of science, at least, not important enough to commit much, if any, of scientists’ time and energy to defend it.

Yes, science groups are concerned with these attacks and editorialize among themselves and their members, but little has been said directly to the American public.

And, I saw no instance where the entire science community joined together to denounce them.

Furthermore, during the years after Snow’s 1959 warning, there has been little outreach to the American people so that they come to understand the importance of science and its tremendous contributions to our well-being.

At most research institutions in this country, there seems to be no reward for public engagement and in many of them, a clear penalty for doing so.

For example, there has been little outreach by individual scientists to our beleaguered public schools, where there are many science teachers with little or no science background---little outreach to talk with impressionable young people and inspire them to careers in science.

There have been very few scientists serving in public office to explain science to fellow elected officials who need to have some understanding.

With the retirement of physicist Rush Holt of New Jersey, exactly two Members of the House will remain with any real science background.

That’s out of 435 Members or less than one-half of one percent.

Even a scientist running for public office without any real chance to win would still provide a platform to discuss science with the electorate.
To my knowledge, few scientists engage in political campaigns---no volunteering to form a science advisory committee for a candidate, and few scientists raising any questions or making any statements, in the course of candidate debates.

Few scientists offer to speak to the service clubs in their communities about science or about their own research.

This would give lay people understanding and inspiration, when scientific opportunities have never been greater and the public needs to have some insight about the progress being made.

I could go on and one, but you should know that in survey after survey by Research! America few people can name even one living scientist or one institution where research takes place even in communities where it does.

Yes, that says a great deal about the people of this country, but it says even more about scientists and their lack of engagement with the public.

Does all this really matter to the future of science?

Does it matter if the American people have an appreciation for and understand the importance of science to our future?

Abraham Lincoln signed the charter to establish the National Academy in 1863.

Lincoln, not only understood the importance of science to our country, he understood the importance of mobilizing public opinion to what gets accomplished in government.

He spoke of the subject many times, but most directly, perhaps, in the first Lincoln-Douglas debate where he said: “With public sentiment, nothing can fail. Without it, nothing can succeed.”

I realize and apologize for coming here to be honored and taking this as an opportunity to say things that, perhaps, you don't want to hear.

But I think you need to hear them.
The bottom line is that science in government today is under siege.

It is a time when science needs defenders.

In Research!America’s surveys, scientists are consistently the most respected people in the nation.
Aren’t scientists themselves the logical defenders, and will others defend science if you yourselves are unwilling to do so?

We will launch a national campaign working with the NAS leadership and others willing to defend and spread the good word about science, together with media, to bring home to the country the vital role of science and technology to our future.

We will do so if you and America’s estimated 350,000 scientists will take off your lab coats, roll up your sleeves and engage your friends, neighbors, and the people of your communities and states to preserve America as the world’s leader in science, technology, innovation, and research.

This must be our country’s destiny. We must make it a reality.

May I express my deepest gratitude on your allowing me to join the elite company of past Public Welfare Medal recipients and the illustrious scientists we honor here today.

Thanks for listening to me.