

Committee on Energy and Commerce
Opening Statement as Prepared for Delivery
Of
Subcommittee on Health Chairwoman Anna G. Eshoo

Hearing on “ARPA-H: The Next Frontier of Biomedical Research”

February 8, 2022

ARPA-H – the Advanced Research Projects Agency for Health – presents a unique opportunity to take a major leap forward in biomedical sciences by funding high-risk, high-reward innovation that will improve the quality of life for all.

Let me start by describing where ARPA-H fits by painting a picture of the current landscape of biomedical innovation, which I think of as a tale of two mountains with a valley in between.

On one end of the landscape, we have a mountain called basic research which is supported by the National Institutes of Health, a research lab that traces its roots to an 1887 lab in the Marine Hospital Service. Basic research is curiosity-driven, motivated by a desire to expand humanity’s knowledge. Discoveries in basic research are the critical building blocks for modern medicine. Everyone on this Subcommittee supports NIH, we’ve worked to strengthen and fund it, and take great pride in it.

On the other end of the biomedical innovation landscape is a mountain called applied research. Companies have a profit motive to commercialize scientific discoveries with market potential. Investors take risks in applied research but only within a narrow band of what’s foreseeable from the industry perspective. The public depends on private investments to bring biomedical discoveries to market.

In between these mountains of basic and applied research is what’s called the valley of death. There are countless ideas that have the potential to be breakthrough cures but the needed investment can’t be raised because the risk is too great for private actors and is outside the realm of basic research. ARPA-H aims to turn this sunken valley into a lofty mountain where breakthrough discoveries can be realized on the deadliest diseases we face.

How will this work in practice? For that answer we turn to DARPA, which is the inspiration for ARPA-H.

In many ways, DARPA mirrors the culture of Silicon Valley, which I’m very proud to represent. In the Valley, every successful entrepreneur stands on the shoulders of failed bets that came before them. Investors take many bets within a given area, and then they quickly double down on what works.

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This similarity in cultures between Silicon Valley and DARPA is not a coincidence...many of DARPA's successes happened in the Valley. ARPANET, the precursor of the modern internet funded by DARPA, had one of its four original network nodes at Stanford Research Institute.

DARPA also funded major developments in semiconductors made of silicon, the namesake of my region. And DARPA is the source of GPS, which has countless academic and commercial linkages to Silicon Valley.

ARPA-H, as proposed in H.R. 5585, the *ARPA-H Act*, would be an independent agency within HHS designed to make high-risk, high-reward investments. I've worked on the legislation for several months after the President convened a small group of bipartisan and bicameral members in the West Wing last March to describe his vision for the agency.

Like DARPA, my legislation proposes ARPA-H to be made up of highly empowered program managers who are not career government employees but are instead experts in their field who dedicate their time to short-term projects for long-term results.

Some of these program managers could be NIH-funded career academic scientists ready to break the mold. Others could be leading computer scientists that build new methods of deploying AI to find discoveries for rare diseases.

I've talked to many members of this Subcommittee personally about my legislation to create ARPA-H. It is my top legislative priority in this Congress, and I welcome your ideas on the topic. So if you haven't expressed them to me yet, please make sure you do so.

Let me thank my colleagues Congresswoman Diana DeGette and Congressman Fred Upton. They've also put a great deal of time and thought into this issue, and I'm pleased with their support of the legislation. Their work on *Cures 1.0* - we hear a continuing refrain about the effectiveness of that legislation that became law - and now their work on *Cures 2.0 Act*, many scientists have told me the two bills are complementary, and I look forward to advancing both.

Finally, this hearing was noticed - as I said at the beginning - as a two-panel hearing. I want to welcome the panelists who changed their schedules to be starting as the brilliant panel that I know you are.