Committee on Energy and Commerce

Opening Statement as Prepared for Delivery
of
Subcommittee on Health Chairwoman Anna G. Eshoo

Hearing on "The Future of Biomedicine: Translating Biomedical Research into Personalized Health Care"

December 8, 2021

We're here today to hear from our country's leading researchers about where biomedical innovation is headed and what we can do to accelerate innovation to improve the health and lives of every American. This is one of the most important topics we could be discussing at our Subcommittee.

This year marks 20 years since the initial results of the Human Genome Project were first published. The outcomes of the project provided a glimpse into DNA's potential for advancing research and launched a new era of biomedicine where genetic discoveries paved the way for new treatment options and improved human health.

The Human Genome Project was and remains the world's largest collaborative biological project. Ambitious for its time, the project sequenced the three billion pairs of DNA letters of the human genome in just over 10 years with $2.7 billion in funding. This success is due to the multidisciplinary research efforts of 20 international institutions, the coordination of high-performance computing centers, and the successful management by the NIH and the Department of Energy.

Incredible advances in the field of genomics and the creation of state-of-the-art technologies now allow us to understand human biology much better than ever before.

A human genome can now be sequenced in a matter of days for less than $1,000 on a single "deep-sequencing" machine. Genetic testing can now be done at home to find increased risk for certain health problems. And CRISPR gene editing can uniquely modify genetic code, offering hope for the time for treating rare genetic disorders in clever ways.

It is through ground-breaking scientific breakthroughs like these that the U.S. continues to be on the cutting edge of discovery. Fundamental discoveries in basic research continue to help scientists identify genetic variants that increase the risk of diseases like cancer and diabetes. And novel discoveries in translational research will pave the way toward innovative treatments.

As we meet today, Americans still face the highest disease burden and the highest rate of avoidable deaths when compared to similarly large and wealthy countries. Traditional medicine's approach of treating the "average" patient with a "one size fits all approach" does not appropriately serve our country's diverse patient population.

We need to capitalize on the new tools and technologies that are being created to treat each patient as what they are – a unique individual.

I'm looking forward to hearing from today's witnesses about where they see the biomedical sciences heading and what Congress should be investing in to accelerate innovation for the betterment of the American people in the third decade of the 21st Century.