DEPARTMENT OF HEALTH AND HUMAN SERVICES

NATIONAL INSTITUTES OF HEALTH

Continuing America's Leadership: The Future of Medical Innovation for Patients

Witness before the

Senate Health, Education, Labor, and Pensions Committee

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National Institutes of Health

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Good morning, Chairman Alexander, Ranking Member Murray, and distinguished Members of the Committee. I am Christopher P. Austin, M.D., and I am the Director of the National Center for Advancing Translational Sciences (NCATS), one of the Institutes and Centers of the National Institutes of Health (NIH).

It is an honor to appear before you today, alongside my NIH colleague Dr.

all stages of the spectrum, NCATS develops new approaches, demonstrates their usefulness, and disseminates the findings. Patient involvement is a critical feature of all stages in translation.

INNOVATION IN METHODS AND TOOLS

The translational science approach generates new technologies and data that overcome common roadblocks to translational success, thus making the process more efficient and effective for all. One technological innovation is a bioengineered system that represents human organs, more commonly known as a tissue chip. Through the NCATS Tissue Chip for Drug Screening program, a collaborative effort with the Defense Advanced Research Projects Agency and FDA, researchers are creating human tissue chips that consist of miniature 3D models of living organs and tissues on transparent microchips. The chips contain living cells and are designed to replicate the complex biological functions of specific human organs. The tissue chips

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across a wide range of human diseases and conditions. NCATS looks forward to building on its recent successes to bring more treatments to more patients more quickly.

This concludes my testimony, Mr. Chairman. I look forward to your questions.