Today, the U.S. Department of Health and Human Services (HHS) and the American Society of Nephrology (ASN) announced the six winners of the $3 million KidneyX: Redesign Dialysis Phase 2 competition during the virtual KidneyX Summit. Each recipient will receive $500,000, recognizing the transformative work and creativity these innovators have brought to reimagining dialysis care.

Redesign Dialysis Phase 2 sought prototype solutions, or components of solutions, from researchers, innovators, patients, and investors with expertise in nephrology, biotechnology, bioengineering, and medical devices to submit solutions that can replicate normal kidney functions or improve dialysis access. Prototypes addressed at least one of the following areas: blood filtration, electrolyte homeostasis, volume regulation, toxin removal and secretion, filtrate drainage and connectivity, and dialysis access.

Dialysis treatment has changed very little in 50 years. People with kidney failure typically spend hours each week connected to a machine with a 50 percent five-year mortality rate. The treatment is extremely costly, with Medicare alone spending more than $35 billion annually to provide care to people in the United States with kidney failure. HHS and ASN formed the KidneyX Innovation Accelerator (KidneyX) to disrupt the status quo and offer new hope to the 37 million Americans, and 850 million people worldwide, with kidney diseases. Since 2018, KidneyX has awarded prizes totaling more than $4 million and fueled much-needed innovation for the millions of people living with kidney diseases.

With each successful prize competition, KidneyX is building momentum and a community of people dedicated to improving the lives of people with kidney diseases. Three of the prize winners from Redesign Dialysis Phase 1 are today receiving Redesign Dialysis Phase 2 prizes. This is the kind of momentum that heralds a new, exciting era in kidney research and treatment.
Future prize competitions will build on this tremendous foundation, creating new collaborations, funding more innovation, and opening up the path to a 21st century artificial kidney.

“President Trump has laid out an aggressive vision for transforming kidney care in America, which involves new and innovative ways of looking at how we treat kidney disease. KidneyX joins innovators together – patients, clinicians, entrepreneurs – who share that vision for improving the lives of the 850 million people worldwide affected by kidney diseases. Thanks to this, the results we are seeing from the KidneyX Redesign Dialysis challenge have the potential to set us on a trajectory that offers real hope to those who are suffering,” said HHS Deputy Secretary Hargan

Building a community of successful innovators from multiple and diverse disciplines, KidneyX is turning vision into action. This growing community has already dramatically increased the pace of innovation. KidneyX prize winners are not only transforming care delivery but are also saving lives by providing better vascular access, preventing infections, and beginning the development of an artificial kidney.

“The tremendous success of the Redesign Dialysis Phase 1 prize competition set a high bar, but the Redesign Dialysis Phase 2 submissions exceeded all expectations. This affirms the vision of HHS and ASN in launching this public/private partnership. As we look ahead, we are humbled and thrilled to be spearheading such positive change in public health. The Artificial Kidney Prize will launch in 2020, providing another wave of change, as multidisciplinary teams continue to create a new standard of care for people with kidney diseases, who for too long have not benefited from the innovation driving positive changes in other areas of health care,” said John Sedor, MD, FASN, Chair, KidneyX Steering Committee.

All prize recipients are listed below and their bios can be found here.

Timothy Boire, PhD
A Biodegradable Shape Memory Polymer Wrap to Improve Maturation and Patency of Dialysis Access Sites

Sarah Lee, MS
A Novel Device to Prevent Infection Due to Touch Contamination in Peritoneal Dialysis

Buddy D. Ratner, PhD (Phase 1 winner)
A Pro-Regenerative Vascular Access Graft: Surmounting Challenges Inhibiting Progress

Shuvo Roy, PhD (Phase 1 winner)
Intracorporeal Hemodialysis System

Aijun Wang, PhD
Developing self-renewable “living” endothelium vascular grafts for hemodialysis.

Alexander Yevzlin, MD (Phase 1 winner)
Nitric Oxide-Eluting, Disposable Hemodialysis Catheter Cap to Prevent Infection and Thrombosis

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Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation, communicating new knowledge, and advocating for the highest quality care for patients. ASN has more than 21,000 members representing 131 countries. For more information, visit www.asn-online.org.