



## PRESS RELEASE

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### **THE AMERICAN SOCIETY OF NEPHROLOGY AND HHS ANNOUNCE WINNERS OF \$9.2 MILLION ARTIFICIAL KIDNEY PRIZE PHASE 2 AT KIDNEYX SUMMIT**

**Washington, DC (June 12, 2023)** — Today, the Kidney Innovation Accelerator (KidneyX), a public private partnership between the American Society of Nephrology (ASN) and the US Department of Health and Human Services (HHS) announced the eight winners of the Artificial Kidney Prize Phase 2 at the KidneyX Summit in Washington, DC. The competition recognized participants' innovative approaches to developing a bioartificial kidney and was divided into two tracks with two Track 1 participants each receiving \$1,600,000, and six Track 2 participants each receiving \$1,000,000.

"Kidney diseases are common, serious, and deadly. People with kidney diseases have demanded innovative treatment technologies and management strategies to replace dialysis, which has changed slowly and incrementally over 50 years. The nephrology scientific community has responded with a pipeline of discoveries that promise to revolutionize kidney care. The Artificial Kidney Prize Phase 2 winners highlight paradigm-shifting solutions in xenotransplantation and regenerative medicine that are being developed to reduce the burdens of kidney disease," said John R. Sedor, MD, FASN, KidneyX Steering Committee Chair.

Eight hundred and fifty million people worldwide have kidney diseases including 37 million Americans. In the United States alone, treatment costs total more than \$100 billion a year. Each day, 13 people die while waiting for a kidney transplant, while those on dialysis face a 50 percent mortality rate during the first five years of treatment. Black, rural, and socioeconomically disadvantaged Americans are disproportionately affected with increased incidence, fewer organs available for transplant, and poorer outcomes overall.

Development of a fully functional bioartificial kidney has proven difficult in the past because of the overall complexity of the organ, which is made up of a multitude of cell types and performs several important functions.

Innovation is urgently needed. Through this prize competition, KidneyX is seeking to advance a field that has seen little progress in more than 60 years. The best treatment is a kidney transplant, but the supply of organs only addresses a small fraction of the need. Phase 2 of the Artificial Kidney Prize competition invited submissions focused on either

developing prototype bioartificial kidneys or a new tool or component that can help enable the development of bioartificial kidneys. Innovators in the fields of regenerative medicine, cellular engineering, tissue engineering, systems biology, and synthetic biology were encouraged to apply.

“HHS is excited and still remains committed to the partnership and advancing kidney care. With the close of the Artificial Kidney Prize Phase 2, I couldn’t be more thrilled to congratulate the winners of the competition. This prize competition is leading us into the next steps for advancements and solutions in the artificial kidney developments,” said Assistant Secretary for Health Admiral Rachel L. Levine, MD.

All prize recipients are listed below and their bios can be found [here](#).

Anthony Atala, MD, *Track 2*

3D vascularized biomimetic renal construct platform for accelerated vascular integration

William Chang, MD, PhD, *Track 2*

Engineering bioartificial kidneys: Combining kidney organoids and peritoneal dialysis

David K.C. Cooper, MD, PhD, FRCS, *Track 1*

Alemtuzumab induction therapy in monkeys with life-supporting pig kidney transplants

Nils Olof Lindström, PhD, *Track 2*

Draining artificial kidneys by connecting synchronized nephrons to synthetic organizers

Harald C. Ott, MD, *Track 2*

Manufacturing and system dynamics tools enabling autonomous blood purification implants

Shuvo Roy, PhD, *Track 2*

Immunoprotective bioreactor for kidney cell encapsulation

Ben Shepherd, PhD, *Track 2*

Bioengineered therapies for patients with kidney failure

Matt Tector, PhD, *Track 1*

Renal Xenograft Phase 2: Solving the donor kidney shortage

#### **ABOUT U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**

*The U.S. Department of Health and Human Services (HHS) enhances and protects the health and well-being of all Americans. HHS fulfills that mission by providing for effective health and human services and fostering advances in medicine, public health, and social services. For more information visit [HHS.gov](https://www.hhs.gov).*

#### **ABOUT AMERICAN SOCIETY OF NEPHROLOGY**

*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 nearly 20,000 members representing 132 countries. For more information, please visit [asn-online.org](https://asn-online.org) and follow us on [Facebook](#), [Twitter](#), [LinkedIn](#), and [Instagram](#).*

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