

Dialysis is an expensive, outdated therapy. A proposed kidney disease XPRIZE competition could revolutionize patient care.

“A fatal autoimmune disease shut down my kidneys at age 17, relegating me to a life of endless dialysis. I was fortunate to receive a transplant, freeing me from the physically exhausting and mentally draining process of four hour dialysis four times a week. But the kidney failed and I was devastatingly transitioned back to dialysis. I am now 50 but look and feel 20 years older.”

– 50-year-old dialysis patient

Magnitude of kidney failure:

- Kidney failure is increasing globally, but 90% of patients do not get treated and die
- More than 20 million Americans have kidney disease, and half a million have kidney failure
- Patients on dialysis never get better and half die within three years: dialysis patients’ mortality is worse than cancer patients’ mortality.

Dialysis is inadequate:

Transplant is the best treatment, but there are not enough kidneys for those on dialysis: most patients die waiting for a kidney.

Despite some incremental improvements, dialysis technology has not fundamentally changed since the 1970s. Unlike other “lifesaving” treatments, dialysis is not a cure. It does not return patients to full health or a normal lifestyle. Three hour, thrice weekly dialysis is emotionally exhausting and physically debilitating. Frequent hospitalizations, life-threatening infections, and severe exhaustion are common side effects of dialysis.

“Before I started dialysis I was tired and did not feel well. Once I started dialysis I didn’t feel any better. I was tired all the time. The treatment wipes me out and sometimes I go home and sleep until late tomorrow.”

– 59-year-old kidney patient

Why hasn’t there been more innovation?

- Medicare pays for dialysis for every American regardless of age, at a cost of nearly \$35 billion annually-more than the National Institutes of Health’s total budget-yet federal investments in kidney research are less than 1% of total Medicare costs for the care of patients with kidney disease.
- Bundled reimbursement for dialysis care stymies innovation.
- Lack of competition among dialysis providers stymies innovation.
- Patients on dialysis are too sick to advocate for better treatment.

Why a Competition?

- Revolutionize patients' lives with a wearable/implantable tether-free, self-regulating kidney replacement therapy:
 - Improve outcomes, return functionality, restore quality of life, and keep patients alive to receive a transplant.
- Bring together disparate scientific, medical, and engineering expertise to overcome wide-ranging technology barriers and fundamentally transform kidney treatment:
 - Research in bioengineering, matrix technology, and cell biology is poised to support revolutionary changes in kidney failure treatment.
 - Enable the promising innovators who have struggled to obtain the investment needed to translate their concepts into reality.
- Provide patients the quality of care that \$35 billion a year Medicare price tag should deliver and generate new technologies to compete in this market

“A wearable or implantable artificial kidney would be a game changer for me. It would simply improve the quality of my life. Dialysis keeps me alive but how I long for being able to truly live unencumbered by, and being tethered to a machine.”

– 50-year-old dialysis patient

Sponsor Brand Recognition

The Title Sponsor is the sole primary sponsor of the Kidney XPRIZE and the driving force behind breakthroughs benefitting millions of people worldwide

- Name featured in prize name and on all prize marketing materials and media content
- Billions of media impressions
- Title Sponsor may fully leverage all promotion, advertising, and communications of the Competition and relationship with XPRIZE, internationally recognized as a leader at the forefront of innovation

Sponsor R&D Opportunities

- Right to reproduce, distribute, and create derivative works of the competition
- Exposure to expert competitors in array of disciplines from around the globe
- ROI: Greater than 10x the amount of the prize purse is invested in the course of the typical prize competition
- The component technologies emerging from the prize will create or advance other industries, including:
 - Ion separation technologies for desalination
 - Needleless access to body fluids for point-of-care and wearable diagnostics
 - Tissue and blood materials interactions applicable to prosthetics