Bioengineered Organs
CONSTRUCTING LONGER LIFE

ENGINEERING
THE NEXT GENERATION OF REPLACEMENT HUMAN ORGANS

What are bioengineered organs?
Bioengineered organs are a new generation of long-term replacement human organs engineered from a combination of bioprinted cellular and synthetic materials. This life-saving technology has the potential to eliminate the current organ transplant waiting lists.

Each year in the United States:

7,000,000 patients experience heart failure
871,000 patients experience renal failure
800,000 patients experience lung failure
633,000 patients experience liver failure

THE MAJORITY OF THESE PATIENTS ARE NOT PUT ON THE ORGAN TRANSPLANT WAITING LIST AND WILL NEVER BE CONSIDERED FOR A TRANSPLANT BECAUSE THERE AREN’T ENOUGH NATURAL HUMAN ORGANS AVAILABLE.

OUR GOAL IS TO SAVE LIVES
BY INCREASING THE AMOUNT OF ORGANS AVAILABLE TO PATIENTS IN NEED.

How will bioengineered organs help?
Collaborative research at Carnegie Mellon University in 3-D printing, tissue engineering, biomaterials, cellular mechanics, and artificial organs can support or replace diseased organs. These bioengineered organs can improve survival rates for the million of patients with end-stage organ failure in the United States.

Carnegie Mellon University
College of Engineering

Learn about the next generation of replacement human organs, visit engineering.cmu.edu/organisms