Research with Donated Organs and Tissue

In addition to those waiting for organ transplants, there's another waiting list; one comprised of millions of people waiting for medical breakthroughs that will lead to treatments and cures for illnesses afflicting them and their loved ones. We all know someone who suffers from heart disease, diabetes, asthma or cancer. Researchers are making strides in the fight against these killers with the help of donated human organs that are not suitable for transplantation.

Not every donated organ can be transplanted due to medical or other issues. Research is another way to honor a loved one's gift by making a difference through lifesaving and life-giving medical breakthroughs. Studies focusing on remedies for fatal 21st century epidemics and debilitating diseases are progressing because of organ donation.

Researcher Testimonials

"Our collaboration with IIAM has been extremely rewarding, and its staff goes above and beyond to match the criteria we have established. IIAM has given us unprecedented access to lungs from across the U.S. within the crucial 24-hour window. IIAM is strongly committed to neonatal donors, and it's obvious they're concerned about the families who are giving these precious gifts."

"IIAM has allowed us to work on projects investigating the safety and efficacy of over 300 potential new drugs. Together with IIAM, we believe we are making a real impact on the quality of medicines entering clinical trials."

"IIAM's staff keep me well informed throughout the procurement process, from the initial referral through the tissue delivery. IIAM is extremely thorough and compassionate – always striving to serve and link its donor families and research partners. They provide an extraordinary service."

"I cannot imagine what donor families experience in making this important decision. Research in Type I Diabetes is dependent on examination of human organs and tissues. In our hearts, these are amongst the most special gifts that could come about."

"Medicine has to evolve and only these gifts can make that kind of difference!"

(continued)

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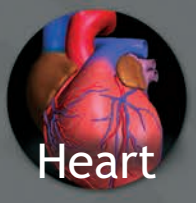
Fast Facts	Organ	Current Research
Cardiovascular Disease ■ Heart disease is the leading cause of death in the U.S. for both men and women, accounting for about 1 of every 3 deaths; coronary heart disease being the most common. About 92.1 million American adults are living with some form of cardiovascular disease. Direct and indirect costs of cardiovascular diseases and stroke are estimated to total more than $329 billion; that includes both health expenditures and lost productivity.	 Heart	Human hearts are utilized to improve researchers' understanding of coronary artery disease and other cardiovascular disorders. Equally important, research is being conducted to determine toxic side effects to the heart that may be the result of medications prescribed to treat non-cardiac related diseases, such as asthma, leading to adverse or fatal outcomes.
Gastrointestinal Disorders ■ About 70% of your immune response takes place in your digestive tract. Antibiotics intended to treat many ailments can not only kill off invading bacteria but often kills off native, helpful bacteria that keeps our digestion smooth and protects from other aggressive bacteria, including Clostridium difficile - a bacteria that can have fatal consequences, especially in the elderly.	 Intestine	Recent studies have shown that antibiotics intended to treat conditions impact the good bacteria in the human gut necessary to maintain a balanced microbiome. This imbalance can lead to drug resistant superbugs as well as contribute to obesity, asthma and cancer. Researchers are working to create less harmful antibiotics and identify ways to maintain a balanced microbial environment.
Chronic Kidney Disease ■ Thirty million American adults (1 in 9) are estimated to have chronic kidney disease (CKD); 90% don't even know they have it. Kidney disease is the 9th leading cause of death in the U.S., largely due to increased rates of diabetes and high blood pressure. The only treatment available once kidneys fail is dialysis or a kidney transplant.	 Kidney	Researchers are studying the kidney's filtering units which, when damaged, can lead to glomerulonephritis - the 3rd leading cause of kidney disease. Non-transplantable kidneys help researchers identify ways to treat and prevent CKD.
Acute & Chronic Liver Failure ■ Liver disease impacts 3.9 million adults. Causes can be from overdose, drug-induced liver injury, metabolic disorders, autoimmune disease, alchohol and obesity, to name just a few. ■ Liver disease can cause acute or chronic injury to the organ. While the liver remains the only organ able to repair itself and produce new cells, both acute and, over time, chronic injury to the organ requires a transplant for a person to survive. ■ Approximately 8,000 liver transplants are performed each year. Nearly 14,000 patients remain on the transplant list; 10% of whom will die waiting.	 Liver	Livers that are not suitable for transplant are invaluable for medical research. Through hepatocyte (liver cells) isolation, researchers are able to study life threatening drug-induced liver injury by creating safer and more effective medications, as well as create new drugs to treat and cure diseases like cancer, hepatitis, diabetes and many more. Researchers also use these cells in areas of regenerative medicine and 3D bioprinting. This technique allows the researcher to create new, functional liver tissue that can be used to develop and test new drugs, study liver disease and, in the future, treat patients who have liver disease.
End Stage Lung Disease ■ Approximately 1,500 patients are waiting for a lung transplant; nearly 18% will die waiting.* **Asthma & COPD** ■ Over 25 million people in the U.S. suffer from lifetime asthma, and 15.3 million from COPD; nearly as many live with COPD undiagnosed. **Respiratory Syncytial Virus** ■ Almost every child will have had the highly contagious RSV infection by their 2nd birthday. For some, the symptoms are cold-like while others experience serious problems like bronchiolitis, pneumonia and asthma.	 Lung	Researchers are formulating new procedures to evaluate suitability of lungs for transplant so that many more can be made available. Scientists are studying human lungs to produce new treatments for viral antagonists of asthma and chronic obstructive pulmonary disease (COPD). Lungs are analyzed for increased knowledge of how RSV is able to infect airway epithelial cells and prevent immune responses from the host. Researchers aim to develop drugs to aggressively fight this virus.
Diabetes ■ More than 30 million Americans are living with diabetes; 86 million are living with prediabetes, a serious health condition that increases a person's risk of type 2 diabetes and other chronic diseases. ■ More than 1.5 million new cases of diabetes are being diagnosed each year.	 Pancreas	Researchers are searching for clues to help develop therapies to prevent and cure type 1 & 2 diabetes. Non-transplantable pancreata help to advance the process of islet isolation to increase the availability of islet cells for transplant and to improve preservation techniques.

Researchers utilize many other organs and tissue for important studies:

- Adipose is used to produce innovative therapies to combat obesity and diabetes.
- Bladders are crucial for the study of incontinence, and to formulate treatments for bladder disorders.
- Reproductive tissue is utilized to develop new therapies for women suffering with infertility.
- Skin specimens enable researchers to study how diseased cells associated with psoriasis or melanoma, as examples, grow in order to create treatments to slow or stop the overproduction of these cells.

We thank the donor families and our recovery partners for making advancements in medicine possible!

* Based on SRTR data; October 2017

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