Enduring Hearts
Healthy Kids ♥ Stronger Hearts ♥ Better Lives

2023 Enduring Hearts Targeted Research Areas

Enduring Hearts seeks to fund projects for up to 2 years that have a combination of the best science, innovation, and potential for impact on our priorities. Specific areas of research that would align with the mission of Enduring Hearts include the following:

1. Improving longevity and quality of post heart transplant life by reducing/eliminating rejection and cardiac allograft vasculopathy (CAV) by:

1.1. Integrating accurate non-invasive surveillance methods, technologies and/or biomarkers for recipient care strategies and EARLY identification of the onset of acute cellular rejection (ACR), antibody-mediated rejection (AMR) and/or cardiac allograft vasculopathy (CAV).

1.2. Developing improved therapeutics and/or therapeutic strategies for acute cellular rejection (ACR), antibody-mediated rejection (AMR) and/or cardiac allograft vasculopathy (CAV).

1.3. Developing novel immunotherapies, identification of novel targets for immunosuppression, improving methods for monitoring and determining the optimal level of immunosuppression to prevent ACR, AMR, and/or CAV while reducing/eliminating secondary conditions that may arise due to immunosuppression (e.g., renal; infectious).

1.4. Developing and validating experimental models to study the underlying mechanisms, therapies, and/or prevention of CAV.

1.5. Developing more evidence-based person-centered post-transplant care guidelines, including nutrition and exercise guidelines.

2. Development of evidence-based strategies to improve longevity of adolescent recipients including:

2.1. Improving transitioning from pediatric to adult care/medication adherence.

2.2. Development of evidence-based tools for improving pediatric heart recipient and family education related to heart transplantation.

2.3. Improving evidence-based diverse psycho-social support methods including technologies, hosted peer action groups, virtual visit models and remote metrics.

3. Strengthen pre-transplant strategies, innovations or new technologies for children waiting for, and immediately after receiving, a heart transplant including:

3.1. Applying advanced data analytics to better integrate extracardiac and cardiovascular candidate risk factors including degree of multiorgan dysfunction and frailty, race and ethnic group, and HLA and non-HLA sensitization.

3.2. Innovative strategies that would improve organ availability, matching, utilization, and allocation.

3.3. Pre-transplant modifications in donor heart immunogenicity.

3.4. Promotion of evidence-based optimization and standardization of pre-transplant protocols including donor selection and management.

3.5. Pediatric scaled xenotransplantation and/or tissue engineering.

In addition to a proposal's alignment with the above listed priorities, additional weighting is afforded to the impact of a proposed research study as evidenced by its potential to translate to a clinical application (could be a device, procedure, protocol, blood test, etc.) within the next five years; directly involving pediatric heart transplant recipients and/or their families; and its potential to promote equity as well as standardization of post-transplant care of pediatric heart recipients.