Pediatric Heart Transplant Society

PEDIATRIC HEART TRANSPLANTATION TODAY

PHTS NEWSLETTER

October 2023

Dr. Juan "Chuck" Alejos, Senior Editor
Dr. Neha Bansal, Junior Editor

PHTS GROWTH*

12,047	patients enrolled
12,457	total listings/ relistings entered
9,770	transplants/ retransplants entered
532	listings for 2022
29	transplants for 2022
286	listings for 2023
12	transplant for 2023

*as of October 1, 2023

A MESSAGE FROM THE EDITORS

Happy October!

We have quickly entered autumn 2023! It wasn't that long ago that we were starting spring together in Denver. We have some big changes to celebrate in this edition of the PHTS newsletter.

First, I want to congratulate Neha on the birth of her son Arjun!! Arjun Bansal Navre joined the PHTS family on August 25!! Both mom and baby are doing well. Congrats Neha who I am sure is enjoying her time with her beautiful son!! But I look forward to you coming back!!

Second, now 27 years after Dr. Lori West pioneered the first ABO incompatible heart transplant, we continue to see advancements that only help improve the outlook for those waiting for this life saving procedure. First, the benefit was only for the youngest infants under 1 year of age who qualified and subsequently the bar was raised to those under 2 years of age. The success that has been found in this strategy has allowed us to raise the bar by making this an option for those under 18 years of age. This edition of PHTS Newsletter highlights this important landmark and its' impact on the families whose children are impacted by heart transplantation.

Chuck

Juan 'Chuck' Alejos

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Desperate times can facilitate important innovation – the evolution of ABO incompatible heart transplantation in children.

Simon Urschel, MD

In the early 1990s many infants born with severe congenital heart disease, especially variants of single ventricle physiology were facing desperate perspectives: the surgeries for staged palliation creating a long-term stable circulation and oxygen distribution were just evolving and fraught with a high probability of non-survival. The first mid-term results for infant heart transplantation were very encouraging, however, there were far more children in need of a transplant organ than children considered for organ donation, especially with strict application of brain death criteria. The probability not to survive to a transplantation in Toronto in the early 90s was around 50%, while at the same time organs that were not of a suitable blood group for a potential recipient were discarded and lost as an opportunity to save another child's life. Facing these grim perspectives for their patients, the team around Dr Lori West started considering important features of the infant immune system: overall weaker targeted immune response in a period when learning to separate self from foreign reflected especially in absence of antibodies against blood group antigens that rise as 'natural' antibodies typically only between 12 and 24 months of age. They wondered if this gap in immune response could represent a window of opportunity to break with a dogma existing since the "infancy" of organ transplantation: transplanting across ABO-incompatibility is an unsurmountable obstacle. This dogma was based on previous experiences with hyperacute and acute rejection in blood group incompatible organ transplantation in adults and a small series in heart transplanted children with overall dismal outcomes.

The outcomes of the first 10 patients transplanted with an ABO-incompatible (ABOi) heart published in 2001 (1) showed that, similar to ABO compatible (ABOc) recipients, 8 of the 10 children survived the first year post-transplant and up to 4.6 years post-transplant at the time of publication. The study also found similar freedom from rejection compared to 10 ABOc recipients and reduction of the local wait list mortality from 58% to 15% in children listed up to 6 months of age. The most stunning discovery, however, was that in contrast to healthy children and recipients of ABOc hearts the children after ABOi transplantation did not develop antibodies against blood group of their donor in the expected age frame, suggesting persistent adaption of the immune response to tolerate this additional foreign surface. Convinced by these findings, other pioneer centers in Canada, Germany, and the United Kingdom followed the successful protocol with equally good results, leading up to the first published multicenter study including the experience of these and two progressive US centers (2). It showed that up to nearly 10 years post ABOi transplant the recipients still showed selective deficiency of antibodies against the donor blood group, and survival, freedom from cellular and antibody mediated rejection and coronary allograft vasculopathy not higher than expected for ABOc transplanted children of this age group on similar immune suppressive regimens.

In parallel to increasing documentation of excellent clinical outcomes, particularly the Edmonton group focused on elucidation of the immunological backgrounds facilitating this unique phenomenon of antigen-specific tolerance after solid organ transplantation. The biochemical nature of the antigens underlying the ABO blood group system is of crucial importance: these are polysaccharides in contrast to the human leucocyte antigens (HLA) which are proteins. Since the 1980s it was recognized in infectious diseases and vaccine studies, that children up to 5 years of age experience much more frequent and severe infections with polysaccharide encapsuled bacteria. Attempts to overcome these vulnerabilities by applying the surface antigens in pure polysaccharide vaccines did not result in the required antibody response observed in adults when given to children younger than 24 months of age. The underlying immunological difference is, that in contrast to peptides such as HLA-fragments, polysaccharides are not presented in the MHC II complex and thus cannot trigger the predominant pathway of T-mediated B cell activation. Instead, we found that similar to other polysaccharides, the response to the A and B blood group antigens relies heavily on T-independent pathways of B cell activation. These use cross-linkage between the innate immune system (complement cascade fragment C3d) and it's receptor on the B cell, CD21 as part of the B-cell co-receptor (3). The latter is mostly expressed on B cells of the marginal zone of the spleen, an area that is highly underdeveloped in the first 1-2 years of life. The immaturity in this complex immune interaction results in low presence of IgM expressing memory B cells, the cell type quickly and specifically responding to foreign blood group antigens (4). Interestingly, these memory B cells remain fewer after ABOi than ABOc transplantation and also the blood concentration of C3d remains lower, suggesting a permanent modulation

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modulation of the global immune response after ABOi transplantation. These alterations affect not only the response to the blood group antigen itself but also towards HLA and we found that donor specific and overall class II HLA antibodies were less common in children <2 years after ABOi than ABOc transplantation, leaving them at with a potential long-term benefit rather than added risk, a finding later confirmed by others. In keeping with this potential benefit, several studies suggested lower acute rejection rates for ABOi recipients, however, there may be confounding effects such as young age. In the most recent PHTS analysis a difference in incidence of rejection was no longer visible when comparing cohorts closely matched for age and clinical parameters (5). Fortunately, this study also showed that the immunological changes did not result in a vulnerability to other polysaccharides such as those of encapsulated bacteria. To our surprise infections with these and other bacteria were actually less common in the ABOi than the ABOc patients even in the matched comparison, dispelling a major concern and suggesting another potential benefit.

From an immunological perspective all these findings are very exciting, since they challenge many classic models and show that the immune response is much less black and white and more intertwined than suggested in textbooks. The non-responsiveness to polysaccharides in early childhood has been overcome by conjugating the polysaccharides to peptides or proteins in conjugate vaccines, that lead to the near extinction of some vital threats such as Haemophilus influenzae type B epiglottitis and are now successfully used for prevention of pneumococcal and meningococcal diseases in young children. Similarly, it is now evident, that the immune response to blood group antigens is using multiple modalities including T cell support, and that the tolerance towards the donor blood group also affects the immune response to other antigens on the transplant organ.

The key question is: how long does this immaturity persist and can it be re-induced at a later time in life with immune-manipulation. Plasma isohemagglutinin titers provide some guidance, however, the clinically used quantification methods are somewhat crude and determined thresholds also need to take other factors into account such as age, passively acquired antibodies, non-specific stimulation, the blood group and group A subtype against which they are directed (e.g. Anti A naturally reaches higher maximal titers than Anti B and Anti A1 antibodies are not directed against A2 donor hearts). Antibodies that bind red blood cells in the tests may also not be harmful to the transplanted organ since the A and B antigens expressed vary in different tissues. The quantification of memory B cells still requires clinical validation and determination of predictive thresholds, as do other, more sophisticated quantification techniques for isoagglutinin concentrations.

In regards to age, the real-life limits have well exceeded 2 years. A recent study from the UK reported successful ABOi transplant in children as old as 8 years (6), our own center has transplanted up to 6 years of age after desensitization with B cell depletion with persistent absence of donor directed isohemagglutinins and in the PHTS analysis 27 children older than 2 years at transplantation were found to have similar survival to the overall cohort (5). In fact, successful ABOi heart transplantation has been performed intentionally after desensitization in selected adult patients and in those adults reported to the ISHLT registry, who accidentally received an ABOi heart the long-term survival after an initially moderately elevated mortality was similar to ABOc recipients (7).

In summary, the immune response to polysaccharides such as blood group antigens still needs much better understanding and as such a cautious approach to novel strategies in transplantation is justified. However, extrapolation from adult findings, outdated dogmas and arbitrary limits prevent important progress and overly rigid regulations may have resulted in disadvantages to these patients that are most desperate in need for a donor heart in the past (8). The clinical evidence for the safety of ABOi heart transplant younger children with low isohemagglutinin titers is now vastly undisputed, but regulations need to keep possibilities open, at least on a case-by-case basis, to allow ABOi transplant in older children and adults. This includes

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patients with deficient or medically modulated immune systems, those needing retransplantation after initial ABOi transplant and other clinically unique situations. It has to be clear, that operating outside the well-established safe limits requires careful consideration and discussion with the affected families and possibly ethics boards, however, establishing arbitrary limits bares the risk of preventing progress and jeopardizing life-saving opportunities for individual patients.

References

1. West LJ, Pollock-Barziv SM, Dipchand AI, et al.: ABO-incompatible heart transplantation in infants. N Engl J Med 2001;344:793-800.

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4. Urschel S, Ryan LA, I ML, Biffis K, Dijke IE, West LJ: Development of B-cell memory in early childhood and the impact on antigen-specific tolerance after heart transplantation. J Heart Lung Transplant 2016;35:491-9.

5. Urschel S, Ballweg JA, Cantor RS, et al.: Clinical outcomes of children receiving ABO-incompatible versus ABO-compatible heart transplantation: a multicentre cohort study. Lancet Child Adolesc Health 2021;5:341-9.

6. Issitt R, Booth J, Crook R, et al.: Intraoperative anti-A/B immunoadsorption is associated with significantly reduced blood product utilization with similar outcomes in pediatric ABO-incompatible heart transplantation. J Heart Lung Transplant 2021;40:1433-42.

7. Bergenfeldt H, Andersson B, Bucin D, et al.: Outcomes after ABO-incompatible heart transplantation in adults: A registry study. J Heart Lung Transplant 2015;34:892-8.

8. Amdani S, Deshpande SR, Liu W, Urschel S: Impact of the Pediatric ABO Policy Change on Listings, Transplants, and Outcomes for Children Younger Than 2 Years Listed for Heart Transplantation in the United States. J Card Fail 2023.

The 2023 OPTN ABO-incompatible heart transplantation policy changes explained

Joseph P. Hillenburg

When we think about "disparity" we often assume that it is referencing race, socio-economic status, or other social determinants of health. However, disparities in transplantation take many forms. In pediatric heart transplantation, this can include factors such as initial diagnosis (ie. the reason for listing), transplant center volume, and ABO blood type.

If you are reading this article (whether a provider or caregiver of a patient) you are likely intimately familiar with the fact that solid organs typically are matched so that the blood groups of the donor and recipient do not cause an acute immune response to the transplanted organ. What is often surprising to nearly every non-provider I know, and even to many providers outside the "transplant public" is that many babies have safely received blood group incompatible (so called ABO-incompatible or ABOi) heart transplants. These patients thrive and have similar outcomes with ABOi transplantation, often leading others to react in amazement and awe, and proclaiming the wonders of modern medicine.

Initial steps by the US Organ Procurement and Transplantation Network (OPTN) over a decade ago allowed for ABOi heart transplantation, after other countries had been using the procedure. The initial policy allowed for titer levels of 1:4 or below, and as a result, my son (Type B) was listed for and received an AB heart in 2011, with an excellent outcome.

This technology, largely borne out of necessity by our Canadian colleagues, has been slow to be adopted by the OPTN. These researchers, as well as a number in the US, have demonstrated through careful research that there is no demonstrable difference in outcomes.

Subsequent changes in 2016 loosened OPTN policy to allow for titer levels of 1:16 for children under age 2. Between these changes and reduced hesitancy, more children were listed with the option for receiving an ABOi heart, but still some hesitancy persists, affecting both willingness to further liberalize policy and to list potentially eligible children.

Finally, and more recently, the OPTN Pediatric and Heart Committees worked together to examine what more could be done to help younger children, particularly those who might be older than age 2 but with lower titer levels. These changes, approved at the June 2023 OPTN Board of Directors meeting, include:

- *Eliminate the 24-month age cap, making all pediatric recipients eligible, provided the child's titer level are 1:16 or less.*
- *Include Status 2 candidates (previously only 1A and 1B were included).*
- *Include simultaneous heart/lung candidates. · In the event of listing for a second transplant, pediatric candidates may be eligible to receive an offer of both their compatible and original incompatible types.*
- *Add data collection points that will provide data on outcomes for older patients who receive ABOi heart transplants to inform further practice and policy changes.*

OPTN Public Comment, though overwhelmingly supportive, indicated a number of potential issues which were left on the table, and hopefully the community will consider further liberalization in time. Some of the comments reflected points such as:

- *When all other factors that impact organ priority are the same (distance from donor, urgency status, weight/height ranges, time on waiting list), organ offers will go first to ABO-compatible (ABOc) transplant candidates and then ABOi transplant candidates for children aged 1 and older.*

The 2023 OPTN ABO-incompatible heart transplantation policy changes explained

Joseph P. Hillenburg

- *Adults who received ABOi hearts as a child are not eligible to be listed for incompatible blood types once they turn 18. While this population is likely currently near 0, it will only increase as children like my son continue to thrive.*
- *Allow for the use of newer and more advanced assays.*
- *Potentially removing the 1:16 titer cap and need for monthly blood draws to check titers while listed and leaving this to center discretion.*

Unfortunately, none of the modifications proposed in public comment were included in the final policy, and it will be up to the pediatric heart transplant community (ie. us) to ensure that the OPTN further advances policy to follow clinical advancements. The inclusion of additional data collection by the OPTN will form the basis for further changes in the future.

With all of that said, our community has much to be hopeful for in the passing of this policy change. The OPTN contract is administered by the United Network for Organ Sharing (UNOS), whose Information Technology (IT) department estimated a 12–18-month implementation schedule. I look forward to more young lives being saved once implementation is complete, so other children will have the same opportunity as my son.

Joseph Hillenburg is the father of an 11-year-old heart transplant recipient. His son was diagnosed with Dilated Cardiomyopathy in 2011, and transplanted with an ABO-incompatible heart at what is now Ann & Robert H. Lurie Children's Hospital of Chicago. Mr. Hillenburg currently serves as Strategy Advisor for Transplant Families, an advocacy and support organization for families of pediatric transplant recipients. He also serves as a parent representative on the PHTS Scientific Committee and has served on the OPTN/UNOS Board of Directors.

Links:

https://optn.transplant.hrsa.gov/policies-bylaws/public-comment/modify-heart-policy-for-intended-incompatible-blood-type-aboi-offers-to-pediatric-candidates/

https://www.nejm.org/doi/full/10.1056/NEJM200103153441102

https://pubmed.ncbi.nlm.nih.gov/33743201/

https://www.jhltonline.org/article/S1053-2498(20)31525-4/fulltext

https://www.youtube.com/watch?v=HfXX5BSiUnA

**Special thanks to Dr. Brian Feingold for vetting the science*

PHTS Fall Proposal Cycle

The fall proposal cycle is open from October 1 - 31, 2023 and the accepted proposals will be submitted to AHA, though investigators are not restricted to only submitting to AHA.

Data frequency request **MUST be submitted at least 2 weeks prior to the proposal deadline** to allow sufficient time for the DCC staff to process these requests prior to your proposal submission.

More information can be found at
https://pediatricheartransplantsociety.org/new-study-proposal/

PHTS Research

Manuscripts Accepted for Publication in Pediatric Transplantation



Irene Lytrivi, MD

Contemporary Outcomes of Pediatric Cardiac Transplantation with a Positive Retrospective Crossmatch



Marc Richmond, MD, MS

Three Decades of Collaboration Through the Pediatric Heart Transplant Society Registry: A Journey through Registry Data with a Highlight on Children with Single Ventricle Anatomy



Bethany Wisotzkey, MD

Risk Factors for One-Year Allograft Loss in Pediatric Heart Transplant Patients Using Machine Learning: An Analysis of the Pediatric Heart Transplant Society (PHTS) Database

PHTS at AHA 2023

Abstracts Accepted to AHA 2023



Joseph Spinner, MD

Oral Presentation

Graft Loss and Rejection following COVID in Pediatric Heart Transplantation - a PHTS Propensity Matched Analysis



Ryan Butts, MD

Oral Presentation

Waitlist Outcomes for Pediatric Heart Transplantation in the Current Era: AnAnalysis of the PHTS Database



Melanie Everitt, MD

Oral Presentation

Prevalence and Time Course of Adverse Events After a Biopsy Diagnosis of Antibody-Mediated Rejection in Pediatric Heart Transplant Recipients



Scott Auerbach, MD

Oral Presentation

Impact of Ventricular Assist Device Use on Pediatric Heart Transplant Outcomes in a Linked Cohort of the Advanced Cardiac Therapies Improving Outcomes Network (ACTION) and Pediatric Heart Transplant Society (PHTS) Databases



Natalie Shwaish, MD

Poster Presentation

Chronic Corticosteroid Immunosuppression in African American Pediatric Heart Transplant Recipients Does Not Improve OutcomesGraft Loss and Rejection following COVID in Pediatric Heart Transplantation - a PHTS Propensity Matched Analysis

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PHTS Foundation

Welcome



Riki Graves, MHA

Please welcome Riki Graves as our newest member to the PHTS Foundation Board of Directors. Riki will serve as a Parent Representative on the Board of Directors. Riki is a caregiver to a heart transplant recipient. Her daughter, Juliana, received a heart transplant at just 17 days old after surviving breast cancer herself when pregnant with Juliana. Riki first began volunteering at Texas Children's Hospital with the Fetal Center and Heart Center shortly after Juliana was born. Through connections with Juliana's medical team, Riki became an active vaccine advocate working with The Immunization Partnership, Immunize Texas, Voices for Vaccines, and Trust for America's Health. She has also worked with media on public health and vaccine advocacy pieces, as well as presented to staffers on the importance of strong vaccination policy at Capitol Hill in Washington, DC. Riki serves on the ACTION Learning Network Families in ACTION (FACT) and Cardiac Neurodevelopment Outcomes Collaborative (CNOC) Committees, the PHTS Quality Initiatives Committee, the American Liver Foundation's Texas Medical Advisory Committee, and as a Transplant Families Board Member. She has a Master's in Healthcare Administration and is employed by Houston Methodist's J.C. Walter Jr. Transplant Center as a Business Development Specialist for the Sherrie and Alan Conover Center for Liver Disease and Transplantation.

PHTS 2023 Holiday Fundraiser with Beachwood Street



PHTS is partnering with Beachwood Street again to offer PHTS Holiday Ornmanets.

Beachwood Street provides beautiful eco-friendly handmade pottery. Proceeds from sales will go towards benefiting the PHTS Foundation.

Purchasing information coming soon!

Beachwood Street

PHTS Fall Meetings

PHTS Virtual Fall Business Meeting

Tuesday, October 24, 2023

3:00pm - 5:00pm CT

Registration can be found at www.PHTSociety.org



PHTS Fall Annual Meeting

Sunday, November 12, 2023

6:00pm - 9:00pm ET

The Children's Hospital of Philadelphia

Registration can be found at www.PHTSociety.org

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Information Corner

Job Postings

Medical Director, Pediatric Heart Transplantation at Northwell Health; Pediatric Heart Transplant APN and Pediatric VAD Coordinator

The Department of Pediatrics at the Cohen Children's Medical Center of New York, Northwell Health, is building a Heart Failure, Heart Transplantation and Mechanical Circulatory Assist program. We have already obtained UNOS certification, have submitted our CON, and have an experienced VAD/ transplant surgeon, Dr. Timothy Martens, and senior transplant cardiologist, Dr. Jeffrey Gossett, in place. We are now seeking a Medical Director, for this program who is BE/BC in Pediatric Cardiology and meets UNOS criteria for Pediatric Heart Transplantation to lead the initiation of these programs.

For further details and opportunities, please contact: Jeffrey Gossett, MD; Vice President and System Chief, Pediatric Cardiology, jgossett1@northwell.edu

Ochsner Hospital for Children Seeking Director of Pediatric Heart Transplant/Heart Failure

Ochsner Hospital for Children in New Orleans is recruiting a pediatric cardiologist to direct our Pediatric Heart Failure/Heart Transplant Program. This position includes care of patients with cardiomyopathies, heart failure, transplant, congenital heart disease, and ventricular assist devices. Candidates would be joining two heart failure/heart transplant cardiologists and a newly hired heart failure/transplant physician assistant in the only pediatric heart transplant center in Louisiana. The transplant team is supported by dedicated transplant coordinators, transplant psychologist, transplant social worker, transplant pharmacist, and palliative care team. Ochsner Health has all pediatric cardiac sub-specialties including EP, ACHD, interventional cardiology, imaging including echocardiography and cardiac MRI and CT, and fetal cardiology. We have 3 congenital heart surgeons and a dedicated pediatric cardiac intensive care unit. Ochsner is an active participant in PHTS and ACTION. Interested applicants should be BC/BE in pediatric cardiology and have completed an advanced fellowship in pediatric heart failure/heart transplant or minimum of 5 years of experience in the field. In addition to patient care, the physician will be responsible for the education of Tulane-Ochsner pediatric residents and medical students, and our own University of Queensland medical students.

Interested applicants can also reach out to Thomas Young, MD. Section Head of Pediatric Cardiology. thyoung@ochsner.org

Pediatric Heart Transplant/Heart Failure Position at UCLA Mattel Children's Hospital

UCLA Mattel Children's Hospital Division of Pediatric Cardiology is seeking a Pediatric heart failure and transplantation physician. Applicants should have completed a formal 4th year fellowship with training in pediatric heart failure, cardiomyopathy, transplantation, and mechanical circulatory support and must be board certified/eligible in Pediatric Cardiology. Current trainees are welcome to apply.

Please apply online with your CV and cover letter: https://recruit.apo.ucla.edu/JPF07971

Faculty Position at Children's Healthcare of Atlanta and Emory University

The division of Pediatric Cardiology at Children's Healthcare of Atlanta (CHOA) and Emory University School of Medicine is seeking a pediatric heart failure and transplant cardiologist to join our faculty and Advanced Cardiac Therapies team. Applicants should have formal training in pediatric heart failure, cardiomyopathies, mechanical circulatory support, and heart transplantation and must be board certified/eligible in pediatric cardiology. Applicants currently in advanced training are welcome to apply.

Applicants should submit a letter of interest and curriculum to: Chad Mao, MD, maocha@kidsheart.com

Information Corner

Job Postings

Pediatric Heart Transplant/Heart Failure Positions at Phoenix Children's

Phoenix Children's - Division of Cardiology, is actively seeking up to 3 full-time faculty to join the Advanced Heart Failure – Cardiac Transplant Team at the level of Instructor, Assistant, or Associate Professor of Clinical Pediatrics and Child Health. There is an opportunity for the right candidate to join as or develop into the role of Director of Mechanical Circulatory Support depending on experience. The program performs an average of 12-15 heart transplants annually, follows heart failure patients in both the inpatient and outpatient setting and supports a mechanical circulatory support program offering the full range of pediatric and adult devices. Applicants must have an M.D. or equivalent degree, be board certified or board eligible in Pediatric Cardiology by the American Board of Pediatrics and eligible for medical licensure in the State of Arizona. Candidates will have already completed an ACGME accredited 3-year fellowship in Pediatric Cardiology, with additional 1-2 years of advanced subspecialty training in pediatric advanced heart failure including management of cardiac transplant patients and mechanical circulatory support. This position is not currently accepting J1 visa candidates.

Interested candidates can also contact the program director directly:
Steve Zangwill MD szangwill@phoenixchildrens.com

Pediatric Heart Transplant/Heart Failure Physician

The Division of Cardiology & Cardiovascular Medicine within the Pediatric and Adult Congenital Heart Center at Cleveland Clinic Children's is seeking a candidate for the Heart Function and Heart Transplant Program to join our existing group of 3 physicians and 2 Advanced Practice Providers. The position will have a primary appointment in the Department of Heart, Vascular & Thoracic in the Children's Institute. The successful candidate will have completed a 4th year advanced pediatric heart failure and heart transplantation fellowship with significant exposure to mechanical support and heart transplantation of patients with heart failure.

Interested Candidates should apply online at clevelandclinic.org/physicianrecruitment

Pediatric Heart Transplant/Heart Failure Physician at the University of Iowa

University of Iowa Stead Family Department of Pediatrics seeks a heart failure, cardiomyopathy, and transplant cardiologist. The University of Iowa Stead Family Department of Pediatrics Heart transplant program has performed 25 heart transplants in the past three years and has performed 16 ventricular assist devices. Appointment rank is open and may be to either the tenure track or clinical (non-tenure) track consistent with clinical experience and research interest. Appointment rank to Instructor of Pediatrics (non-tenure or clinical track) may also be considered. The individual selected will join the Division of Cardiology to provide patient care, teaching, and consultative services.

Ian Law, MD ian-law@uiowa.edu

Heart Transplant Position in Nashville

Monroe Carell Jr. Children's Hospital at Vanderbilt in Nashville, Tennessee is recruiting a pediatric heart failure/transplant cardiologist to join our growing program. Applicants should have a formal 4th year of fellowship training in pediatric heart failure, heart transplantation, and mechanical circulatory support or relevant clinical experience.

Interested applicants should send a brief cover letter and current CV to Dr. David Bearl (david.w.bearl@vumc.org).

Information Corner

Job Postings

Director Advanced Heart Therapies: Children's Hospital at Montefiore

The Pediatric Heart Center at The Children's Hospital at Montefiore (CHAM) and the Albert Einstein School of Medicine is seeking a pediatric heart failure and transplant cardiologist to join our dynamic and growing faculty and serve as the Director of the Pediatric Advanced Heart Therapies Program. Our pediatric heart transplant program was started in 2009 and is the UNOS-approved pediatric component of the Montefiore Einstein Heart Transplant program.

Applicants should submit a letter of interest and curriculum vitae to: Nicole Sutton, MD, FAAP, FACC, FSCAI, Chief of the Division of Pediatric Cardiology at nsutton@montefiore.org.

Advanced Heart Failure Cardiologist/Transplant Physician: Children's Hospital at Montefiore

The Pediatric Heart Center at The Children's Hospital at Montefiore (CHAM) and the Albert Einstein School of Medicine is seeking a pediatric heart failure and transplant cardiologist to join our dynamic and growing faculty and specialize in pediatric advanced heart failure therapies. Our pediatric heart transplant program was started in 2009 and is the UNOS-approved pediatric component of the Montefiore Einstein Heart Transplant program. CHAM is an active participant in the PHTS and the ACTION network and is participating in six multicenter research studies in heart failure and transplant. The mechanical circulatory support program has access to the full range of available ventricular support devices and the Montefiore Einstein Heart Transplant Program is a leader in the use of DCD donors and Transmedics support.

Applicants should submit a letter of interest and curriculum vitae to: Nicole Sutton, MD, FAAP, FACC, FSCAI, Chief of the Division of Pediatric Cardiology at nsutton@montefiore.org.

Heart Transplant & Heart Failure Advanced Practice Position

The Johns Hopkins Heart Institute is seeking a highly motivated Advanced Practice Provider (NP or PA) to join our Transplant and Heart Failure program. This is a great opportunity to join our growing program with great 1-year and 3-year post-transplant survival rates.

For initial inquiries, please reach out to the below to discuss the position: Alfred Asante-Korang MD, Medical Director at aasante5@jhmi.edu or M. Taylor Lanctot, DNP, APRN,PPCNP-BC, NE-BC mlancto1@jhmi.edu

More information about each job posting can be found on PHTS Basecamp under Resources for Job Opportunities.

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