CONGENITAL CARDIOLOGY TODAY
Timely News & Information for Congenital/Structural Cardiologists & Cardiothoracic Surgeons Worldwide

North American Edition
Vol. 22 - Issue 9

September 2024

Table of Contents

A Rare Case of Criss-Cross Heart with Ventriculo-Arterial Discordance with D-Transposed Aorta and Pulmonary Stenosis

Kalyan Munde, MD, DM; Anant Ramkishanrao Munde, MD, DM; Mohan Paliwal, MD, DM

Introduction

Congenital heart defects are present in about eight cases per 1000 newborns at term. Criss-cross heart anomaly is extremely rare, accounting for less than 0.1% of all congenital heart defects, not exceeding 8 per 1,000,000 births.[1] The morphological essence of the criss-cross heart is a rotation of the ventricular mass along its major axis.[1] This conformational change may be associated with any malformation described in cardiac segments, resulting in different relationships and connections between the atria, ventricles and great vessels.[2] Due to the complex structural changes and the rarity of the disease, this anomaly of rotation is often misdiagnosed due to lack of awareness of the medical team, bringing potential harm to appropriate surgical approach.[3] The failure to obtain a characteristic four-chamber view in any plane with transthoracic echocardiography is diagnostic for recognition of the criss-crossed atrioventricular junctions.[4]

Case Report

A 26-year-old male was referred to our clinic with complaints of dyspnea on exertion (NYHA class III) and easy fatigabity since two-years-old. He had underwent bidirectional Glenn shunt operation at the age of three-years-old and was asymptomatic thereafter. Now, his physical examination revealed delayed pulmonary component of second heart sound in the left second intercostal space. A 3/6 systolic murmur was best heard at right lower parasternal area. He had mild cyanosis. A characteristic four-chamber view in any plane with transthoracic echocardiography was not possible. Echocardiography demonstrated situs solitus with levocardia. The base of the heart (atria) remains unchanged in its spatial position, the ventricles appear to have been twisted along their longitudinal axis with atrio-ventricular concordance (right atrium emptying into left sided ventricle with right ventricular morphology and left atrium emptying into right sided ventricle with left ventricular morphology) in subcostal and apical four chamber views. His morphologic right ventricle was situated antero-superior and to the left in parasternal short axis view (PSAX). As well as, transposition of great arteries with dilated right anterior aorta arising from morphologic right ventricle and running parallel to hypoplastic pulmonary artery (arising from morphologic left ventricle) in basal PSAX. Also, patient had large inlet ventricular septal defect (VSD), atrial septal defect (ASD) and valvular and subvalvular pulmonary stenosis (PS) with a maximum pressure gradient of 124 mmHg. The morphologic right ventricle was dilated, hypertrophied and dysfunctional. The patient is currently receiving decongestive therapy for left ventricular (morphologic RV) failure.

SEPTEMBER ISSUE 2024

North American Edition Vol. 22 - Issue 9

TABLE OF CONTENTS

Discussion

This congenital defect was first described by Lev & Rowlatt[4] in 1961, but it was only in 1974 that Anderson et al.[5] first used the term criss-cross heart. The diagnosis of criss-cross heart is based on the intersection of the axes of the ventricular entries. In a normal heart these axes are virtually parallel. This condition is characterized by a spatial change of the ventricular mass that guides each ventricle in a contralateral position in relation to the corresponding atrium. While the base of the heart remains unchanged in its spatial position, the ventricles appear to have been twisted along their longitudinal axis. This promotes a change in hemodynamics characterized by crossing flows through the atrioventricular valves, resulting in the false impression that each atrium is being directed to the contralateral ventricle.[1]

The criss-cross heart may present with concordant or discordant atrioventricular and ventriculo-arterial connections. These connections were demonstrated in 1961 by Lev & Rowlatt[4] through the study of the anatomy of two hearts presenting atria in solitus position communicating with morphologically discordant ventricles in normal position. Another case of criss-cross heart was described by Van Praagh in 1962,[6] in which the morphologically right atrium connected to the morphologically right ventricle on the left side, in a case example with concordant atrioventricular connections.

There are cases of criss-cross heart described in the literature with discordant atrioventricular connections associated with transposition of the great vessels which results in a corrected physiological circulation. Patients with this type of anomaly (which represents 0.05% of Congenital Heart Diseases[7]) may be symptomatic not because of the criss-cross heart, but by the presence of other associated anomalies such as VSD, pulmonary outflow obstruction, tricuspid valve abnormalities.[8] A literature review revealed no cases of this anomaly occurring in isolation. Most patients have ventricular septal defects, transposition of the great arteries, double-outlet right ventricle, hypoplastic right ventricle, pulmonary stenosis, and tricuspid hypoplasia, the latter present in most patients. Other associated defects, although less frequent, are straddling mitral or tricuspid valve, subaortic stenosis, aortic arch obstruction and mitral stenosis.[1,8-10] Anomalies of the coronary circulation may be present and usually related to the ventricular position, and in these cases, magnetic resonance image (MRI) and angiography are useful tools in the diagnosis and approach.[10]

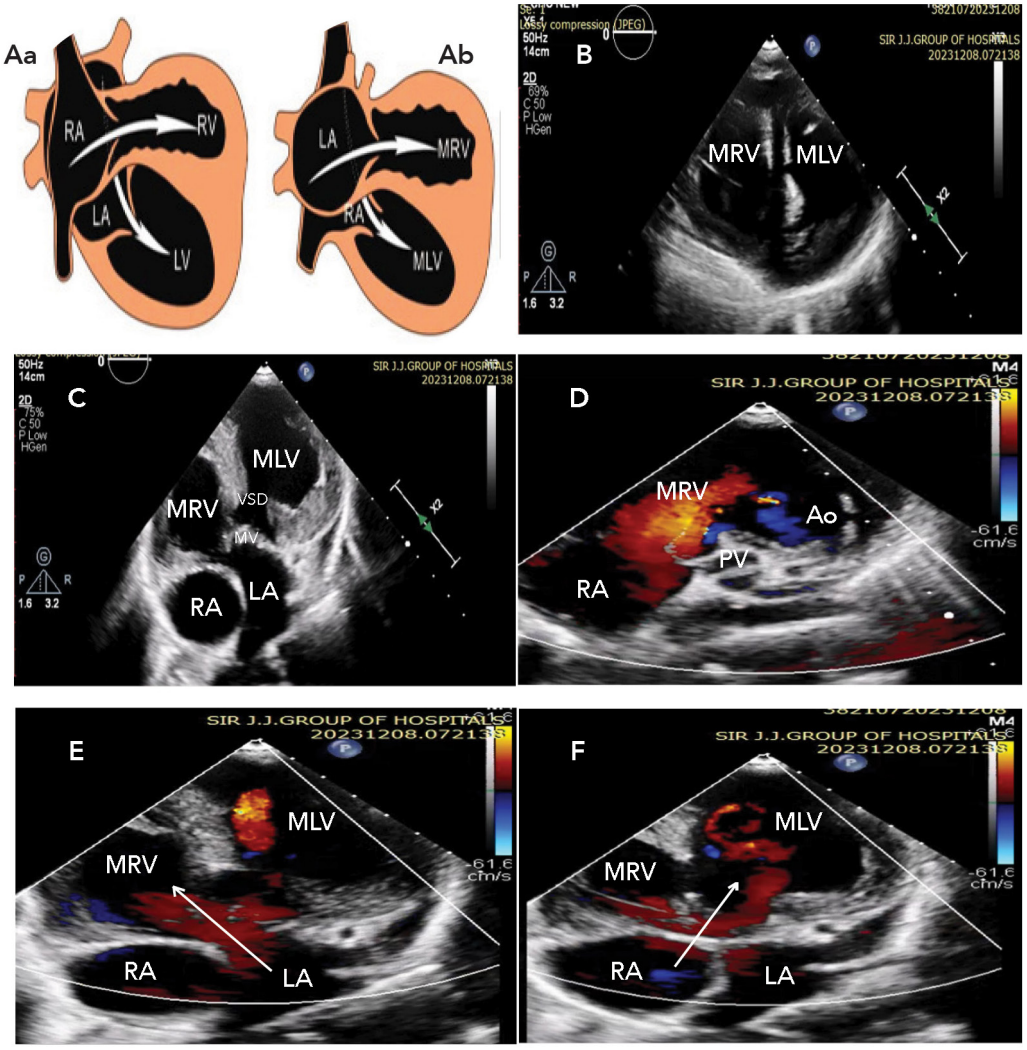


FIGURE 1 Criss-Cross Heart Illustration

Aa) *Schematic diagram of atrioventricular concordance with crisscross morphology.*
Ab) *Schematic diagram atrioventricular discordance with crisscross morphology.*
B) *Parasternal short axis view showing vertical orientation of the inter-ventricular septum and side-by-side ventricular relationship.*
C) *Echocardiography view of atrioventricular discordance with crisscross morphology.*
D) *Right atrioventricular inflow color Doppler image with dilated dextroposed aorta with bicuspid pulmonary valve of hypoplastic pulmonary artery.*
E) *Color Doppler image with arrow showing direction of blood flow from LA to MRV.*
F) *Color Doppler image with arrow showing direction of blood flow from RA to MLV.*
Abbreviations: LA, Left Atrium; RA, Right Atrium; MLV, Morphologic Left Ventricle; MRV, Morphologic Right Ventricle; MV, Mitral Valve; VSD, Ventricular Septal Defect; PV, Pulmonary Valve; Ao, Aorta.

In literature there are some studies linking the Cx43 gene mutation to pathogenesis of the criss-cross heart. Deletion of gene would result in a delay in establishing heart dextroposition, which makes the right ventricle to maintain a craniomedial position, resulting in a 90° rotation of the atrioventricular mass.[11] Reaume et al.,[12] in 1995, reported that animals with deletions in both alleles of Cx43 died shortly after

Pediatric Cardiologist/Imaging

Central Texas

Baylor Scott & White Health McLane Children's Medical Center is conducting a national search for an **experienced pediatric cardiologist** with additional **training in imaging including CT/MRI/Transesophageal echo**. The program is developing a robust pediatric cardiac surgical program. The successful candidate will have the chance to envision and support our developing heart center's future growth. The candidate must be a full-time BC/BE fellowship trained Pediatric Cardiologist to join our team of four Pediatric Cardiologists in Central Texas. Additional training in Imaging is preferred.

We provide comprehensive pediatric cardiac care including diagnosis and management of cardiac problems in the unborn child (fetus), neonatal cardiology and preventive cardiology. Cardiac studies, such as electrocardiography, echocardiography (trans-thoracic and fetal), stress testing, Holter and event monitor testing are offered by our staff.

Position Highlights

- Appointment at the rank of clinical assistant, associate or professor of pediatrics with Baylor College of Medicine, Temple TX
- Additional training in Imaging is preferred to help support the growth of our future heart center's growth
- Prefer strong experience in the management of cardiac postoperative patients, ICU/inpatient cardiology, and electrophysiology
- Teach medical students, residents, sonographers and nurses
- Perform, supervise and interpret electrocardiograms, Holters and trans-thoracic echocardiograms in approximately 7 hospitals located in and around central Texas area
- Our main clinic is located in Temple, Texas but also covers several outreach clinics

About McLane Children's Medical Center

Our five-story McLane Children's Specialty Clinic is located next to our free-standing Children's Hospital in Temple, Texas. The hospital features include 112 patient beds, 48 private medical/surgical rooms, 16 private Pediatric ICU rooms and a 24-hour, level II pediatric emergency department and verified trauma center equipped to deal with the most serious pediatric trauma cases. A level IV, 48 bed Neonatal ICU is located nearby on the main BSWMC, Temple campus.

About the Community

Central Texas, commonly known as the Texas Hill Country, is well known for its rolling hills, fine wine, and authentic cuisine. From March until April, you can see the famous Texas bluebonnets blanketing the landscape, a popular destination for photographers and artists. The region includes large metropolitan cities like San Antonio and Austin and seven world-class colleges and universities. Known as one of the top retirement destinations in the U.S., Central Texas enjoys a robust economy, no state income taxes, and a cost of living that's lower than the national average. Small-town charm and big-city convenience make Central Texas a great place to call home.

About Baylor Scott & White Health

Baylor Scott & White Health (BSWH) is the largest not-for-profit health care system in Texas and one of the largest in the United States. With a commitment to and a track record of innovation, collaboration, integrity and compassion for the patient, BSWH stands to be one of the nation's exemplary health care organizations. Our mission is to serve all people by providing personalized health and wellness through exemplary care, education and research as a Christian ministry of healing. Joining our team is not just accepting a job, it's accepting a calling!

Benefits

- Immediate eligibility for health and welfare benefits
- 401(k) savings plan with dollar-for-dollar match up to 5%
- 457(f) savings plan with employer contribution
- CME reimbursement and paid time off
- Excellent Relocation Assistance packages

Contact *Magdalena.Catala@BSWHealth.org* to explore further

birth, with no major phenotypic differences compared to controls, except for cyanotic appearance. Necropsy revealed cardiac defects, thereby revealing vital importance of this protein in cardiac development during embryonic development.

The anatomic and physiologic diagnosis of this anomaly can be established by echocardiography, along with other diagnostic methods, such as MRI and cardiac catheterization if necessary.[13]

The transthoracic echocardiography can be used to identify the position and morphology of all cardiac chambers and AV valves, in addition to the connections between chambers and vessels. The subcostal window will determine the location of the heart apex and assess mainly the ventricles characteristics. The trabeculae morphological features, will determine the morphologic ventricle characteristics.[7] The great arteries connections are better visualized in the parasternal window[14,15] Echocardiographic findings include an inability to obtain a characteristic four-chamber view in any plane, displaying the crossing of long axes of atrioventricular valves as seen in the subcostal long axis or coronal plane sweep.[16,17] This anomaly can also be diagnosed prenatally with fetal echocardiography considering these findings.[18]

Studies with cardiac magnetic resonance imaging demonstrated clear visualization of the heart with criss-cross morphology and provided reconstructed three-dimensional images of the heart.[19]

Cardiac catheterization may be necessary only to obtain pressure and oximetry data and to rule out additional septal ventricular defects.[13] Some indications for the invasive study were assessment of pulmonary vascular resistance, angiographic analysis of coronary arteries, and presence of pulmonary valve atresia or pulmonary anomalous veins. [13]

Congenitally corrected transposition of the great arteries in criss-cross morphology was reported previously.[3,20-23] Our patient had a d-transposed aorta (right anterior aorta), described as "S,L,D" according to the Van Pragh notation system, which is a rare finding in ccTGA. To the best of our knowledge very few cases of criss-cross heart with corrected transposition with d-transposed aorta (right anterior aorta) have been reported to date. In a study by Allwork et al.,[24] of the 32 patients with ccTGA, two had a right-sided aorta. Symons et al.[3] reported a case with a criss-cross heart presenting with ccTGA and a d-transposed aorta. In another study carried out by Fang et al.,[17] of 10 patients, all had abnormal ventriculo-arterial connections including transposed in five and double-outlet right ventricle in the remaining patients. Fang et al.[17] reported the incidence of hypoplastic right ventricular and pulmonary stenosis in 30% and 60% of the patients, respectively. However, it is unclear that whether these are secondary or primary in the pathogenesis of a criss-cross heart. Straddling atrioventricular valve and double-inlet ventricle were also reported in the literature with a criss-cross heart.[17] Since it is almost always with other complex cardiac defects, patients usually present early in life with cyanosis, murmur or with heart failure symptoms, as seen in our patient for which he underwent Glenn shunt surgery. The clinical outcome of a criss-cross heart predominantly depends on the underlying hemodynamic abnormalities. Surgical treatment varies from palliative correction to definitive anatomic correction. In the majority of the patients with a criss-cross heart, a two-ventricle repair may not be possible and these patients are staged toward a Fontan-type operation.

Conclusion

A criss-cross heart is a rare and complex anomaly which should be kept in mind to recognize during echocardiography. Inability to obtain a characteristic four-chamber view in any echocardiographic plane is diagnostic for this anomaly in most cases.

References

1. Sanders, S. Crisscross Heart. Orphanet encyclopedia, Feb 2003. Disponível em <http://www.orpha.net/data/patho/Pro/ en/CrissCrossHeart-FRenPro8602.pdf> Acesso em 29 de fevereiro de 2012.
2. Cavellucci PMSM, Suaide CE, Ferreira LDC, Tandrafilov MD, Pimentel BDPA, Lerner M, et al. Entrecruzamento das vias de entrada ventriculares (criss-cross heart) e transposição ana-tomicamente corrigida das grandes artérias: relato de caso e revisão de literatura. Rev Bras Ecocardiogr Imagem Cardiovasc. 2012;25(4):292-7.
3. Symons JC, Shinebourne EA, Joseph MC, Lincoln C, Ho Y, Anderson RH. Criss-cross heart with congenitally corrected transposition: report of a case with d-transposed aorta and ventricu-lar preexcitation. Eur J Cardiol. 1977;5(6):493-505.
4. Lev M, Rowlatt UF. The pathologic anatomy of mixed levocardia. A review of thirteen cases of atrial or ventricular inversion with or without corrected transposition. Am J Cardiol 1961;8:216-63.
5. Anderson RH, Shinebourne EA, Gerlis LM. Criss-cross atrioventricular relationships pro-ducing paradoxical atrioventricular concordance or discordance. Their significance to nomen-clatura of congenital heart disease. Circulation. 1974;50(1):176-80.
6. VanPraagh R, VanPraagh S, Vlad P, Keith JD. Anatomic types of congenital dextrocardia: diagnostic and embryologic implications. Am J Cardiol. 1964;13:510-31.
7. Wallis GA, Debich-Spicer D, Anderson RH. Congenitally corrected transposition. Orphanet J Rare Dis. 2011;6:22.
8. Croti UA, Mattos SS, Pinto Jr VC, Aiello VD. Cirurgia cardiovascular pediátrica. 1ª ed. São Paulo:Roca;2008.
9. Gatzoulis MA, Webb G, Broberg C, Uemura H. Cases in adult congenital heart disease. Complex congenital heart conditions. 2010;1:278-80.
10. Angelini P, Lopez A, Lufschanowski R, Nemeth MA, Flamm SD. Coronary arteries in crisscross heart. Tex Heart Inst J. 2003;30(3):208-13.
11. Ya J, Erdtsieck-Ernste EBHW, Boer PAJ, Van Kempen MJA, Jongsma H, Gros D, et al. Heart defects in connexin 43-deficient mice. Circulation Research 1998, 82:360-6.
12. Reaume AG, Sousa PA, Kulkarni S, Langille BL, Zhu D,

Davies TC, et al. Cardiac mal-formation in neonatal mice lacking connexin43. Science. 1995;267(5205):1831-4.
13. Robinson PJ, Kumpeng V, Macartney FJ. Cross sectional echocardiographic and angiocar-diographic correlation in criss cross hearts. Br Heart J. 1985;54(1):61-7.
14. Carminati M, Valsecchi O, Borghi A, Balduzzi A, Bande A, Crupi G, et al. Cross-sectional echocardiography study of criss-cross heart and superoinferior ventricles. Am J Cardiol. 1987:59(1):114-8.
15. Attie F, Zabal C, Buendia A. Cardiologia pediátrica diagnóstico y tratamiento. México. 1993;1:353-62.
16. Yang YL, Wang XF, Cheng TO, Xie MX, Lü Q, He L, et al. Echocardiographic characteristics of the criss-cross heart. Int J Cardiol 2010;140:133-7.
17. Fang F, Li ZA, Yang Y, Zheng CH, Lam YY. Deciphering the mysteries of crisscross heart by transthoracic echocardiography. Echocardiography 2011;28:104-8.
18. Ayabakan C, Binnetoğlu K, Sarısoy Ö, Tokel K. Crisscross heart with tricuspid atresia diagnosed in utero. Congenit Heart Dis 2013;8:153-6.
19. Ming Z, Yumin Z. Magnetic resonance evaluation of crisscross heart. Pediatr Cardiol 2008;29:359-65.
20. Taksande AM. Echocardiographic recognition of a crisscross heart with double outlet right ventricle. Images Paediatr Cardiol 2013;15:3-7.
21. Yadav S, Haranahalli PE, Shukla M, Varma CM. Criss-cross heart with atrial inversion and juxtaposed atrial appendages: an echocardiographic study. Turk Kardiyol Dern Ars 2013;41:564.
22. Muneer PK, Kalathingathodika S, Chakanalil GS, Sony MM. Crisscross heart with dextrocardia and intact interventricular septum. Ann Pediatr Cardiol 2014;7:70-1.
23. Martínez Quintana E, Rodríguez González F, Agredo Muñoz J. Criss cross heart in a congenitally corrected transposition of the great arteries. Int J Cardiol 2008;130:81-2.
24. Allwork SP, Bentall HH, Becker AE, Cameron H, Gerlis LM, Wilkinson JL, et al. Congenitally corrected transposition of the great arteries: morphologic study of 32 cases. Am J Cardiol 1976;38:910-23.

KALYAN MUNDE, MD, DM

Professor, Department Head, Cardiology
Grant Government Medical College &
Sir J.J. Group of Hospitals
Mumbai, Maharashtra, India
kalyanmunde@yahoo.com

ANANT RAMKISHANRAO MUNDE, MD, DM

Assistant Professor, Cardiology Department
Grant Government Medical College &
Sir J.J. Group of Hospitals,
Mumbai, Maharashtra, India
anantmunde09@gmail.com

MOHAN PALIWAL, MD, DM

Corresponding Author
Senior Resident, Cardiology Department
Grant Government Medical College &
Sir J.J. Group of Hospitals
Mumbai, Maharashtra, India
drmohanpaliwal@gmail.com

CAREER OPPORTUNITIES

Children's Hospital Colorado

Affiliated with University of Colorado Anschutz Medical Campus

Follow Your Heart at Children's Hospital Colorado

The Children's Hospital Colorado Heart Institute's goal is simple: to improve the quality of life for all patients with congenital and childhood heart conditions. We do this by bringing together multidisciplinary experts, innovative research and advanced procedures. Join us in this work to help us make a meaningful difference for children and families through expert and compassionate care.

700+
Heart surgeries performed annually

90+
Cardiologists and advanced practice providers

20+
Outreach locations, spanning four states and 1000+ miles

OPEN POSITIONS

Medical Director, Cardiovascular Imaging

The Medical Director of Cardiovascular Imaging will provide overarching leadership for all noninvasive cardiovascular imaging activities. This position will be empowered to promote advancements in cardiac imaging techniques, provide mentorship and career development for faculty, and promote the education and training of fellows.

About our program:

- Imaging team that includes 14 faculty and 28 sonographers and technicians
- Advanced fellowship in cardiac imaging and cardiac echo research with core laboratory capability
- High-volume, multimodality imaging program (25,000+ echos, 1,700+ fetal echos and 600+ cardiac MRIs performed annually)
- Robust telehealth capabilities across referral region
- Faculty with expertise and research interests in 3D echo, strain imaging, cross-sectional imaging (including fetal cardiac MRI) and intracardiac echo

Medical Director, Single Ventricle Program

The inaugural Medical Director of the Single Ventricle Program will provide leadership of established single ventricle outpatient clinics and will be encouraged to develop a vision for how to optimize and advance the inpatient transition of single ventricle patients across all surgical stages.

About our program:

- Team includes six physicians, two advanced practice providers and a dedicated nurse coordinator
- Tied for the most Norwood procedures in the country in 2023
- Home to Complex Congenital Heart Disease Clinic for interstage patients with a home-monitoring program and Single Ventricle Continuity Clinic for patients stage 2 and beyond
- Fontan Multidisciplinary Clinic that includes expertise in pediatric and adult congenital heart disease cardiology, hepatology, pulmonology, neuropsychology and nutrition
- 96.6% Norwood survival

Medical Director, Fetal Cardiology

The Medical Director of Fetal Cardiology will provide critical leadership of strategic planning efforts and advancing medical education, research and quality improvement initiatives in both the Heart Institute and the Colorado Fetal Care Center.

About our program:

- Fetal cardiology team includes four cardiologists, two sonographers and a dedicated nurse coordinator
- 240+ deliveries with 105 attributed to cardiac abnormalities
- High-volume fetal echo telehealth program
- Membership in the Fetal Heart Society
- Regional referral center for fetoscopic laser photocoagulation treatment in twin-twin transfusion syndrome, fetal arrhythmias, heart block, cardiomyopathies, complex congenital heart disease and more

Medical Director, Heart Institute Quality And Safety

The Medical Director of Quality and Patient Safety will provide overall leadership of quality improvement and patient safety initiatives in the Heart Institute. This strategic leadership role will collaborate with the Chief of Cardiology, Cardiovascular Surgery and hospital and quality/safety nursing leadership to create sustainable plans for inpatient and outpatient teams in clinical effectiveness and patient and team member safety.

About our program:

- Robust partnerships with the cardiothoracic surgical team
- Monthly, multidisciplinary morbidity and mortality conferences
- ELSO Platinum Center of Excellence and only ECMO program in the region
- Core site for the Pediatric Heart Network, together with Washington University

To apply, please contact:

SHELLEY MIYAMOTO, MD
Co-Director, Heart Institute, Children's Hospital Colorado
Chair, Pediatric Cardiology, University of Colorado School of Medicine
Shelley.Miyamoto@childrenscolorado.org

Matters of The Heart and Mind: Bad Decisions Make Good Experience, or is it… Bad Experience Leads to Good Decisions?

Neil Wilson, MBBS, DCH, FRCPCH, FSCAI

Who would have thought Mark Twain was an interventional cardiologist? I think we have all learned from his take on decision and experience theory. I adjust his quotes only slightly when I say at meetings with nightmare type sessions that 'Bad experience leads to good decisions…or is it…bad decisions lead to good experience'? That 'I will not do that again' ia a feeling you occasionally get in the catheter lab. Certainly same old same old decisions can breed familiarity and indolent thinking, though please note I am not advocating change just for the sake of it. But here is a funny story. Talking of same old, same old decisions…

Two mornings ago, I tried to brush my teeth with shaving cream. I did not actually get to the brushing stage. I absent mindedly had put shaving cream on my toothbrush but recognised the folly before plunging the brush into my mouth. Now why on earth would I do that? The tube of toothpaste and the tube of shaving cream sit upright on the basin. They are different colours. The toothpaste tube is white (of course) and the toothpaste is white. On the other hand, the shaving cream tube is morphologically identical except blue. The shaving cream itself is white. Obviously, I have dispensed and used the said tubes, toothbrush, and razor thousands of times and until two days ago had never tried to shave using toothpaste or brush my teeth using shaving cream. So, all those thousands of appropriate actions and then two days ago folly. Perhaps a demonstration that if it is possible to make a bad decision without real provocation or consequence then sure enough when the chips are down, we can do the same. What on Earth is the old timer going on about?

'That device is going nowhere' I said confidently about fifteen years ago as the very competent senior registrar had positioned an Amplatz duct device in a slightly 'kinked' medium sized duct in a two year old child. With the device still attached to the cable an aortogram showed that there was a puff of residual flow over the superior aspect of the device. "Give it a tug," I said. Tug performed. "Looks OK to me." "Shall I release?" says the senior registrar. "You make the decision and I'll support whichever decision you make," I said, supremely confident that all would be well. Well, he did release…upon which the device dislodged and did a triumphant cartwheel briefly into the main pulmonary artery and then flew into the mid-right pulmonary artery. Of course, this being a busy day and only the first case as a warmer upper of trickier cases ahead, the device settled with the attachment screw pointing distally. Sure, we got it out eventually and even used and repositioned the same device but that's not the point. Nobody, particularly me, felt anything other than an idiot. I should have paid a bit more attention to the kink in the duct, the residual shunt, I should have perhaps used an AVP II, should have done an echo. Should not have been impatient wanting to get on with the next case. You know, the could have/would have/should have feelings. That release was a bad decision, but led to a good experience, not least of all --the experience of retrieving duct devices from the RPA when the screw is pointing in the wrong direction! Turning the device over so the screw is accessible and then snaring the tip of the screw for retrieval through the sheath. But the real experience is the point above about the decision to release with residual over the superior margin of the device. And there is more…

But hey, we have all had devices embolise. Nightmare case sessions at conferences almost always have a presentation with a device of some sort doing a walk about in the circulation. In the days of the popular use of Gianturco coils for occluding ducts, it was relatively common that multiple coils were required. They were sometimes positioned separately, releasing one before inserting another, often begging the question how much of a residual puff of flow on an angiogram you would tolerate before deciding another coil was required. Some operators chose to position coils simultaneously with separate delivery cables before release, creating a 'nest.' Not a bad idea.

Thirty years ago I had an entertaining case of embolization using two 5mm coils to close a duct. First coil in fine, released, angiographic residual flow which was predictable, (we were anticipating using two or even three coils), so a second coil was positioned and released. Hey, presto! In a heartbeat, one coil embolised the RPA and the other to the LPA. Bad experience. Retrieval uncomplicated, but certainly extended fluoroscopy time. Better decision next time?

There is even more… at about the same time, I gained good experience which led me to learn that I would do all I could to ensure there was complete occlusion of the duct on angiography when using coils to close a duct. This bad experience I am about to describe which, subsequently led to me making good decisions in the future involved an adult lady of 63 from a small town in a remote area of Northern, Scotland, an area of outstanding natural beauty you would pay money to go and vacation there. Did I mention there is a selection of outstanding whisky distilleries in the same area? To add insult to injury, the patient was a doctor, family practitioner. Now you know this is going to be a story... I can not quite remember how the duct was diagnosed. Certainly, she had no symptoms that you could attribute to a small duct. I seem to remember she had a mild anaemia (clue). Down to Glasgow she comes for an interventional closure. I think this was the first duct in an older person (60+) I

More THAN A Hospital | Akron Children's Hospital

Pediatric Cardiologist Opportunity
Northeast Ohio

Ohio-based Akron Children's Hospital seeks a Pediatric Clinical Cardiologist to join its expanding Heart Center. Akron Children's Hospital is the largest pediatric healthcare system in Northeast Ohio and is ranked among the best children's hospitals.

This integrated healthcare delivery system includes:

- Two free-standing pediatric hospitals
- More than 800 providers, who manage over 1.1 million patient visits annually
- A network of more than 50 primary and specialty care locations
- Robust research and innovation endeavors

The successful candidate will join a well-established group, expanding the services of the Heart Center team. Our team includes 16 pediatric cardiologists, 7 advanced practice providers and 2 cardiothoracic surgeons who provide a complete spectrum of coordinated, compassionate, cardiac care to over 10,000 patients annually. Services include advanced diagnostics, complex surgical procedures, an adult congenital heart disease program, a fetal imaging program and a cardiac MRI program.

This position offers opportunities for:

- Partnership with an established team of Cardiologists affording exceptional work-life balance
- Active involvement in medical student and resident education; academic appointment at Northeast Ohio Medical University is available and commensurate with experience
- An attractive compensation plan that includes bonus compensation

Requirements include board eligibility/certification in Pediatric Cardiology and the ability to obtain an active medical license in the state of Ohio.

Akron Children's Hospital is set in the beautiful Cuyahoga Valley, just minutes south of Cleveland. From major league attractions to small-town appeal, Northeast Ohio has something for everyone. The area is rich in history and cultural diversity, and provides a stimulating blend of outstanding educational, cultural and recreational resources. This four-season community offers outdoor enthusiasts more than 40,000 acres of parks for year-round enjoyment. Northeast Ohio has become a premier destination to work, live, play, shop and dine.

Interested candidates may contact Jane Hensley, Physician Recruiter at 330-543-3015 or jhensley@akronchildrens.org. To learn more, visit our website at www.akronchildrens.org.

One Perkins Square | Akron, OH 44308 | akronchildrens.org

had closed. I did note heavy calcification in the wall of the duct, but morphologically, it funneled nicely symmetrically and was a slam dunk for a 5mm coil delivered from the arterial side. There was a puff of residual flow on repeat angio. "That's definitely going to close completely in the next hour or two!" I confidently announced to the lab. The next morning, Echo showed a tiny jet of residual flow. Well, it probably just needs another day or two I conclude. The patient goes home back to the North.

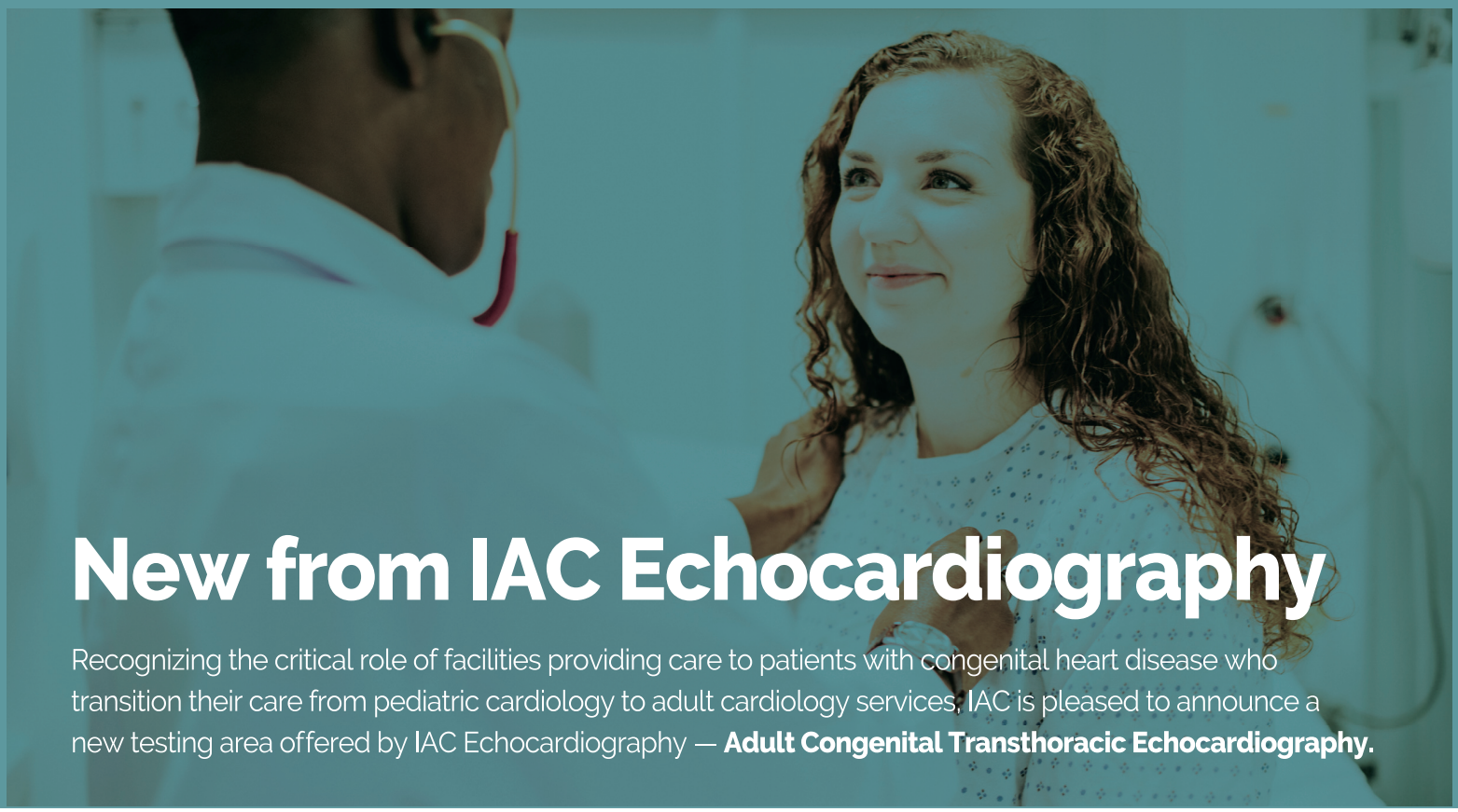
A few days later I get a lovely thank you letter from her. A big 'Thank You' to the team. Very kind. A few weeks later, I get another letter, this time, from her cardiologist in Inverness. My patient has (have you guessed yet?) a haemolytic anaemia. Haemoglobin 7.6 g/dl. Of course, calcium, stainless steel, high velocity narrow jet. I should have thought about that but, (but there is always an excuse) this was the fist calcified duct I'd come across for interventional closure. It was a bad decision to leave even that tiny residual flow, smashing red cells into the calcium & stainless steel interface. Idiot Wilson (yet again).

So, this is now an unforgettable bad experience leading to a new good decision not to leave any residual flow with coils and calcium in juxtaposition. Thankfully, the second coil did the trick for complete closure. Home. Two more letters. A second 'Thank You' and a few weeks later an anxiety relieving letter from the cardiologist… Haemoglobin up to 11.4 g/dl.

Back to Mark Twain… is it a bad decision leading to good experience or is it a bad experience leading to good decisions? You choose. Good luck with your own decisions. You make them and I will support whichever decisions you make.

NEIL WILSON, MBBS, DCH, FRCPCH, FSCAI

Formerly Professor of Pediatrics
University of Colorado School of Medicine
Formerly Director Cardiac Catheter Laboratory Children's Hospital Colorado
Colorado, USA
Neilwilson1955@icloud.com



New from IAC Echocardiography

Recognizing the critical role of facilities providing care to patients with congenital heart disease who transition their care from pediatric cardiology to adult cardiology services, IAC is pleased to announce a new testing area offered by IAC Echocardiography — **Adult Congenital Transthoracic Echocardiography.**

IAC provides a unique approach to accreditation and is leading the field with innovative, customized solutions for your facility. IAC provides quality improvement-focused solutions such as the IAC QI Self-Assessment Tool, to help facilities optimize processes and improve patient safety and outcomes.

In addition to the testing area for Adult Congenital Transthoracic, **IAC offers accreditation specific to Echocardiography in the following areas:**

Adult Transthoracic
Adult Transesophageal
Adult Stress
Adult Congenital Transthoracic *(New!)*
Pediatric Transthoracic
Pediatric Transesophageal
Fetal
Perioperative Transesophageal *(New!)*

ACCREDITED
IAC
INTERSOCIETAL ACCREDITATION COMMISSION
FACILITY

Now Available! IAC Heart and Vascular Center of Quality Designation

The IAC Center of Quality designation recognizes health care organizations that demonstrate an ongoing, multi-disciplinary integration of diagnostic imaging and intervention-based procedures. Their commitment to the patients they serve throughout the continuum of care is exemplary. Learn more at **intersocietal.org/centerofquality**.

IAC

Improving health care through accreditation®

intersocietal.org | 800.838.2110

Contact IAC today or visit **intersocietal.org/echo**.

CAREER OPPORTUNITY

UNIVERSITY OF IOWA CARVER COLLEGE OF MEDICINE
University of Iowa Health Care

Pediatric Cardiologist Adult Congenital Heart Disease Specialist

University of Iowa Stead Family Department of Pediatrics

University of Iowa Stead Family Department of Pediatrics seeks a cardiologist with expertise in adult congenital heart disease. 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 as a cardiologist specialist in congenital heart disease.

The Division of Cardiology at the University of Iowa Stead Family Department of Pediatrics provides compassionate, family-centered, and state-of-the-art delivery of care to children and young adults with congenital and acquired heart disease. Patients are followed through the transition to adulthood. Dedicated staff have expertise in acquired heart diseases such as cardiomyopathies, cardiac arrhythmias, blood lipid disorders, congenital heart disease, cardiac dysfunction in malignancy, and cardiac implications associated with pediatric obesity. The division provides the only expertise for electrophysiology, diagnostic, interventional and transplant services for children and youth in the state of Iowa. Skilled surgical support and exceptional critical care postoperative support has outcomes that have excellent results in national databases. The division has a multi-purpose diagnostic and interventional procedure lab which is constantly expanding and including state-of-the-art technologies.

Requirements

- Must hold an MD/DO degree, or equivalent
- Board certified or eligible in Pediatrics, or equivalent
- Board certified or eligible in Pediatric Cardiology, or equivalent
- Subspecialty fellowship training in Adult Congenital Heart Disease or ABIM ACHD certification on the experiential pathway
- License or eligible for licensure in the State of Iowa

Desirable Qualifications

- Experience in the management of adults with congenital heart disease
- Experience in patient-oriented research
- Teaching competence in pediatrics for medical students and residents
- Evidence of scholarly activity
- Demonstrated ability to develop and implement new programs
- Strong oral and written communication and interpersonal skills
- Demonstrated experience working effectively in a welcoming and respectful workplace environment

The University of Iowa Roy J. and Lucille A. Carver College of Medicine is one of the nation's top medical schools. It is ranked No. 44 in research in the 2024 U.S. News & World Report listing of "Best Graduate Schools," and it is ranked No. 23 in National Institutes of Health funding among public institutions by the Blue Ridge Institute for Medical Research. The UI Stead Family Department of Pediatrics is currently ranked No. 25 in NIH funding among all public pediatric departments nationwide.

The UI Stead Family Department of Pediatrics comprises the medical staff of UI Stead Family Children's Hospital, Iowa's only nationally ranked children's hospital and home to the state's only accredited Level 1 Regional Resource Pediatric Trauma Center. The ACGME-accredited pediatric residency program at UI Stead Family Children's Hospital trains 50 pediatric resident physicians. For its 2023-24 edition of "Best Children's Hospitals," U.S. News & World Report ranked UI Stead Family Children's Hospital in six pediatric specialties: neonatology, diabetes and endocrinology, nephrology, neurology and neurosurgery, orthopedics, and urology. Visit us on the web at: www.uichildrens.org.

For more information contact:
Ian Law, MD
Clinical Professor of Pediatrics
Division Director, Pediatric Cardiology
ian-law@uiowa.edu

To apply for this position please visit the University of Iowa website at http://jobs.uiowa.edu, requisition number 75234.

Successful candidates will be required to self-disclose any misconduct history or pending research misconduct investigation including but not limited to sexual misconduct in prior employment and provide a related release and will be subject to a criminal background and credential check. This applies to clinical, tenure and research positions.

The SickKids Advanced Cardiology Education (ACE) Program — September 6th, 2024

Alyssa Gumapac, BHSc.

The SickKids Advanced Cardiology Education (ACE) Program, https://cvent.me/Mg2aaw, offers a unique opportunity for healthcare professionals worldwide to benefit from the groundbreaking advancements at the Labatt Family Heart Centre at the Hospital for Sick Children (SickKids).

Over the past nine years, the SickKids ACE Program has attracted healthcare professionals from six continents. This initiative fosters global collaboration through live webinars, real patient case discussions, and peer-to-peer debates on ethical issues in pediatric cardiology, creating a worldwide community dedicated to improving pediatric heart health outcomes.

The 33-week online curriculum, https://cvent.me/eDnZyL?RefId=Sessions, is delivered by over 100 esteemed experts from SickKids to healthcare professionals globally, ranging from early career to novice physicians, nurse practitioners, nurses, respiratory therapists and more. This diverse audience enriches the learning experience for everyone involved. Here's what some participants have shared about their experiences:

Meet Dr. Megha Unadkat MD, MMED MsC

In 2022, Dr. Megha Unadkat was completing her pediatric cardiology fellowship at the Jakaya Kikwete Cardiac Institute, the only cardiac center in East Africa.

Despite the challenges faced by local setups like Jakaya Kikwete, ranging from limited human and financial resources, Dr. Unadkat valued the exposure to the latest innovations in pediatric cardiology that complemented her fellowship:

"There's more to cardiology than just performing echocardiograms and administering anti-heart failure medication. [The ACE Program] integrated seamlessly with my fellowship. Even though my fellowship faces challenges due to limited resources, [the program] introduced me to international advancements, the latest drug trials, and advanced heart failure management. I gained insights from both perspectives, which made learning about pediatric cardiology ideal. I was surprised by how advanced pediatric cardiology is at SickKids and other parts of the world compared to here—such as available drugs and advanced equipment like VADs, ECMOs, and heart transplants, which I've never seen here."

Dr. Unadkat also appreciated the flexibility of the online format. Despite the 7-hour time difference from Tanzania, she leveraged online resources to understand complex concepts and build a global network:

"These are challenging concepts, but the course's repeated reinforcement and access to recordings and slides made them easier to grasp over time. Even though the course was online, I made friends, participated in group presentations with people from around the world, and even found a mentor—I had never experienced that before."

While the ACE Program equips healthcare professionals with technical, collaborative, and cognitive skills through live webinars, Dr. Unadkat highlights how it also broadened her focus to include affective skills. She now feels more confident in managing children with heart disease and communicating with patients and families:

"A case that particularly stood out to me was on 'Long QT Syndrome.' It was fascinating because I hadn't encountered such a patient before. Initially, I struggled to understand it, but the presentation made it clear. Now, if I encounter such a patient, I feel equipped to read the ECG, diagnose, and manage the condition effectively! It can be challenging in East Africa, as the only cardiology site, with many patients and occasional lapses in communication with parents. The course emphasized the importance of compassionate care, patient counseling, and genetic counseling, which significantly impacts patient outcomes. Now that I know more, I want more for my patients and want to save more lives."

Today, Dr. Megha Unadkat is a Pediatric Cardiologist at the Jakaya Kikwete Cardiac Institute. She remains passionate about bridging the gap in Tanzania's cardiology services and improving health outcomes. The ACE Program team had the privilege of meeting Dr. Unadkat in person at the 8th World Congress of Pediatric Cardiology and Cardiac Surgery 2023, where she presented posters on "Age of Diagnosis and Timing of Intervention in Children with Truncus Arteriosus at the Jakaya Kikwete Cardiac Institute, Dar Es Salaam, Tanzania" and "Incidental Diagnosis of Large Aortopulmonary Window Post Patent Ductus Arteriosus Ligation: A Case Report." Recently, she was involved in the first-ever replacement of a stenotic pulmonary valve using the Melody valve (bovine jugular vein) in

University of Colorado
Anschutz Medical Campus

Adult Congenital Heart Disease Cardiologist

The **University of Colorado's** department of **Medicine, Division of Cardiology**, in conjunction with the **Department of Pediatrics and Pediatric Cardiology**, has an **immediate opening** for an **Adult Congenital Heart Disease (ACHD) Cardiologist**. The board-certified or board-eligible AHCD Cardiologist will provide cardiac care to adolescents and adults with congenital heart disease in the outpatient and inpatient settings and will participate in night and weekend call coverage for ACHD patients. This position will help oversee ACHD activities at the University of Colorado Hospital, working collaboratively with the other faculty members under the broader Colorado's Adult and Teen Congenital Heart Program (CATCH) that includes Children's Hospital Colorado on the Anschutz Medical Campus. There is also potential for this to be a section head role depending on experience and qualifications.

Key Responsibilities

- Clinical: The primary responsibilities of this position are to provide patient assessment and care in the Adult and adolescent Congenital Heart Disease and General Cardiology programs. This position will participate in the inpatient and/or cardiology consult services at UCHealth and Children's Hospital Colorado facilities.
- Education: The University of Colorado Anschutz Medical Campus is a teaching institution, and this faculty member is expected to provide mentorship and direction to students, residents, and fellows, including the dedicated ACHD sub-specialty fellowship.
- Research: The division encourages research and scholarly activities. Administrative support is available for grant submission and financial management. The University, Department of Medicine and the Division of Cardiology have multiple mechanisms to assist with support of research endeavors. This can be discussed further during the interview process as needed.
- Administration: Applicants with an adult cardiology training background along with ACHD-specific training will be considered for the directorship of the Department of Medicine and University of Colorado Hospital arm of the CATCH program.

The University of Colorado Anschutz Medical Campus ranks among the top institutions nationally in clinical care, education and research. Its 230-acre campus, designed to enhance collaboration and interprofessional education. Strategically located contiguous to the campus are a biosciences research park and the Veterans Hospital. CU Anschutz offers two undergraduate degrees, 35 graduate degrees, and five first-professional programs. More than 4,000 students learn alongside faculty members who also make meaningful medical discoveries and provide expert clinical care through 1.5 million patient-visits annually. A hub for research and innovation, CU Anschutz receives over $400 million in research awards each year and has filed 1,300 patent applications and formed 53 new companies since 2002.

The University of Colorado offers a **comprehensive benefits package** that includes health insurance, life insurance, retirement plans, tuition benefits, ECO pass, paid time off – vacation, sick, and holidays and more. To see what benefits are available, please visit: https://www.cu.edu/employee-services/benefits-wellness.

Minimum Qualifications

Applicants must meet minimum qualifications at the time of hire.

- MD/DO
- Completed fellowship in Cardiology
- Completed sub-specialty fellowship in Adult Congenital Heart Disease
- Board eligible OR board certified in Adult Congenital Heart Disease

Preferred Qualifications

- Experience as a clinical educator
- Interest in working with all age groups of patients with congenital heart disease (children-adult).
- Experience in leading high-performing, cross-functional teams; designing and implementing processes for strong and effective clinical and practice management operations.

Knowledge, Skills and Abilities

- Ability to integrate clinical, quality/patient safety, management and financial concepts within an academic healthcare setting.
- Strong leadership skills, including interpersonal communication, interdisciplinary collaboration, problem resolution, decision-making and project/change management.

For full consideration, please submit the following documents

1. A letter of interest describing relevant job experiences as they relate to listed job qualifications and interest in the position
2. Curriculum vitae / Resume
3. Five professional references including name, address, phone number (mobile number if appropriate), and email address

Applications are accepted electronically ONLY at
https://cu.taleo.net/careersection/2/jobdetail.ftl?job=33650&lang=en
Questions should be directed to: Bobby Pinter, *Bobby.Pinter@cuanschutz.edu*

This is an open-ended posting used to recruit multiple candidates throughout the year. We will contact candidates when there is an opening.

Tanzania, East, and Central Africa—a significant milestone for the Jakaya Kikwete Cardiac Institute.

Meet Annette Klingmann, NP

Annette completed the ACE Program in 2021 while working as a Clinical Nurse Specialist in the Anesthesia and Intensive Care Unit at the University of Heidelberg, where she has been employed since 1998.

Annually, her unit treats 4,000 to 5,000 patients in the outpatient clinic and 800 to 900 in the inpatient unit, performing over 2,000 surgeries, including 250 on infants. Despite her extensive experience in pediatric cardiology, Annette found the ACE Program to be an invaluable source of new perspectives:

"The program was appealing due to its broad range of topics—from general heart disease in children to cyanotic lesions. Germany has many small centers and fewer cases compared to Toronto, so I learned a lot. I also discovered differences in therapies compared to Europe. For instance, Ventricle Assist Devices (VADs) are used here only in children aged 6 and older, whereas I learned about their use in infants. The program also covered ECG interpretation, heart murmurs, and heart sounds, areas usually handled by physicians rather than nurses in Germany. Learning about ECMO, pacemaker therapy, and the pathology series was incredibly interesting!"

Annette also found the case presentations and collaboration with international colleagues enriching:

"I presented a case from our hospital—a Single Ventricular patient—and learned a lot from the class. Collaborating with colleagues from the Emirates and England provided valuable insights into different approaches. I returned to work and discussed pharmacological differences with my senior doctor and came away with new ideas!"

Like Dr. Unadkhat, Annette appreciated the online format, interactivity, and ability to rewatch lectures:

"There were numerous interactive activities, polls, and breakout groups, and the communication from Carrie and Cecilia was excellent. I always tell my colleagues about the program. The topics are well-chosen, the speakers are outstanding, and I look forward to Fridays. Although the time shift sometimes made the last few lectures tiring, I could listen to the recordings later when I had time."

Annette, a seasoned nurse, acknowledges the nuances of caring for children with heart disease and the need for improved interprofessional collaboration and patient communication in her center:

"It's interesting to see engagement from the interdisciplinary team. When congenital heart disease is diagnosed, there's extensive instruction for parents and assistance from social workers. Here, parents often only speak to physicians, and the process isn't as organized as in Canada. The course provided great input on how we can improve. Nurses are with parents most of the time, and I can apply these lessons to enhance communication in my ward."

Despite being on opposite sides of the world, both Dr. Unadkat and Annette highly recommend the ACE Program:

"If you have any interest in cardiology, go for it! I know it's intense and time-consuming, but it's worth it. It's not only about learning cardiology but also engaging with people, learning about the latest drug trials, devices, and interventions. Even if you don't apply everything now, it will be valuable in the future." — Dr. Megha Unadkat

"You must take the program! I always tell my colleagues, especially physicians. I've been working a long time in my ward and suggest changes, but it's more impactful when physicians hear things from other physicians." — Annette Klingman, NP

You can join many like Dr. Unadkat and Annette this fall. It's not too late to register! Semester 1 begins on **September 6, 2024**. Registration will remain open passed the Semester 1 start date.

Visit our website to register or for more information:
https://cvent.me/dknaYG

For inquiries, email: ace.program@sickkids.ca

Quotes may have been edited for brevity and grammatical correctness.

CAREER OPPORTUNITY

Creating a healthier future requires the brightest minds today.

Now hiring an Adult Congenital Cardiologist

Nemours Children's Hospital, Delaware, seek an adult congenital cardiologist to join our expanding Adult Congenital Heart Disease (ACHD) Program. The ACHD team includes:

- Two full-time ACHD congenital cardiac surgeons
- Two board-certified ACHD cardiologists
- One PA, social worker, ACHD nurse, and clinical psychologist

Our program offers advanced imaging, cardiac catheterization, electrophysiology, anesthesia and intensive care. We need an additional full-time ACHD cardiologist who is ACHD board-eligible or certified to provide inpatient and outpatient care.

Requirements

- ACHD Cardiologists (pediatric or adult cardiology track)
- Board Certification (or eligibility) by ABIM for ACHD

Nemours Children's Cardiac Center Highlights

- Celebrating its 25th anniversary
- OPTUM Center of Excellence
- Magnet designated cardiac nursing

We Offer

- **Compensation:** Competitive salary, annual incentives for clinical activity, academic accomplishments and quality improvement
- **Benefits:** Comprehensive health, life, dental and vision insurance
- **Financial Support:** Mortgage assistance, relocation packages and a 403B with employer match
- **Loan Forgiveness:** Eligibility for Public Service Loan Forgiveness

NEMOURS CHILDREN'S HEALTH

Well Beyond Medicine

Apply today!

For confidential consideration, please send your CV and cover letter to **Physician Recruiter Angelique Walbroel, CPRP** at angelique.walbroel@nemours.org.

To learn more, scan the QR code or visit www.Nemours.org.

About Wilmington, Delaware

Wilmington offers urban sophistication and suburban comfort with schools, museums, theatres and restaurants. Notable attractions include the Hagley Museum and Library and the Nemours Estate, adjacent to the hospital.

First-Ever Successful Use of Modified Double-Decker Technique for Scimitar Syndrome in a Child

Scimitar Syndrome, a rare congenital heart disease, involves an anomalous pulmonary venous return where the right pulmonary veins return to the inferior vena cava instead of the left atrium. It is mainly diagnosed in infants, with an estimated prevalence of 1–3 per 100,000 births. Delayed treatment can lead to pulmonary hypertension, right heart failure, respiratory failure, heart arrhythmia, and growth disorders.

This syndrome is characterized by anomalous pulmonary venous drainage to the inferior vena cava, and the usual surgical repair involves re-implanting the right pulmonary veins (scimitar vein) to the left atrium or creating an intra-atrial tunnel to redirect the scimitar vein to the left atrium. However, these methods have a critical problem of postoperative pulmonary vein obstruction. If this occurs, it can lead to severe pulmonary venous congestion and subsequent hemoptysis. In such patients, the success rate of re-intervention for pulmonary venous obstruction is very low.

We have just performed an unprecedented surgical procedure on a two-year-old child diagnosed with scimitar syndrome. The procedure was the world's first successful application of the "Double-decker Technique" used to repair another type of partial anomalous pulmonary venous return. This new procedure, a modified double-decker technique for scimitar syndrome, uses no artificial material and reconstructs two blood flow pathways (right pulmonary vein and inferior vena cava) using only the patient's atrial wall. This novel surgery was conducted by a pediatric cardiac surgery team led by Senior Professor Genichi Sakaguchi from the Department of Cardiovascular Surgery, Kindai University Hospital, Affiliate Professor Shinichiro Oda from the Department of Cardiovascular Surgery, Kindai University Hospital, and Associate Professor Satoshi Asada from the Department of Cardiovascular Surgery, Kindai University Hospital, University Hospital in Osakasayama, Japan..

The patient was referred to our hospital for suspected congenital heart disease from another public hospital after developing a fever. The patient was diagnosed with scimitar syndrome by cardiac echocardiogram and contrast-enhanced computed tomography. After the surgery, there were no problems with the reconstructed blood flow pathways in the right pulmonary veins and inferior vena cava. The patient was discharged from our hospital 10 days after the surgery without any postoperative complications.

The advantage of this new technique is that the new blood flow pathway of the inferior vena cava is created outside (on the pulmonary venous pathway). This technique can create wide pathways separately and reduces the risk of obstruction. The conventional intra-atrial tunneling divides the inferior vena cava into two pathways for the right pulmonary vein and the inferior vena cava. That is why the conventional technique is likely to create narrower pathways and develop obstructions. In addition, the surgical site is expected to grow following the patient's somatic growth because these pathways were reconstructed by the pedicled atrial wall without any artificial material.

The success of this surgery can make this a common surgical technique for scimitar syndrome, and surgical outcomes for this rare disease are expected to be improved in the future.

PennState Health
Children's Hospital

Outpatient Pediatric Cardiologist

Penn State Health Children's Heart Group is seeking a dedicated outpatient pediatric cardiologist who has the desire to develop a community-based practice that will align itself with local hospitals and neonatology practices, provide personalized services to pediatricians and family practice providers in these communities, and grow the practice in these cities. The intention is for the successful applicant to reside in one of the following cities, or a nearby community: Lancaster, York, or Reading.

Join our Division of Pediatric Cardiology now! We are committed to excellent clinical care, teaching, and research. **Interested applicants, please apply here and send CV and Cover Letter to John P. Breinholt, MD Professor and Chief, Pediatric Cardiology jbreinholt@pennstatehealth.psu.edu**

Our team of providers consists of 12 board-certified pediatric cardiologists, 6 adult congenital cardiologists, 5 advanced practice providers and support staff. Our cardiologists have expertise in pediatric cardiology, adult congenital heart disease (ACHD), interventional cardiology, cardiac imaging and MRI, fetal cardiology, electrophysiology, preventive cardiology, and telemedicine.

We have state of the art facilities in these communities, supported by APPs, echo sonographers, and close alignment to the specialized services provided at the medical center, including: exercise physiology, electrophysiology, interventional cardiology, and cardiac surgery. We are closely aligned with the ACHA accredited Adult Congenital Heart Disease program who provide outreach services to these areas. There is an ACGME accredited fellowship program that accepts one fellow per year.

- The ideal candidate has at least one to three years of clinical experience and demonstrated excellence in outpatient pediatric cardiology care
- Supported by on-site clinical support staff and sonography services
- Academic position as an assistant or associate professor of pediatrics at Penn State College of Medicine
- The Echocardiography laboratory at Penn State Children's Hospital is accredited in pediatric transthoracic, TEE and fetal echocardiography
- Fetal cardiology abilities are desirable, but not required. Fetal cardiologists provide services to these areas at present, however a cardiologist with this skill set would be able to utilize it in this practice location.
- Opportunity to participate in the inpatient service is optional, based on applicant preference.

What we're seeking:

- We are seeking someone BC/BE trained in Pediatric Cardiology.
- M.D., D.O., or foreign equivalent
- Candidates must be board certified or board eligible in pediatric cardiology and able to obtain an unrestricted PA license.
- BLS and PALS certification is required.

Opportunity highlights:

- Competitive salary and benefits
- Sign on bonus and Relocation assistance,
- CME time and funds,
- LTD and Life insurance, and so much more!
- Penn State University tuition discount for employees and dependents

Area highlights:
Penn State Health has opened new pediatric outpatient centers in Lancaster and York in 2022. We are looking to open a new clinic in Reading. The Lancaster Pediatric Center (47,000 sq feet) houses more than 40 exam and consultation rooms. It includes 20 medical and surgical pediatric specialty and sub-specialty services. It also offers consultations with psychiatrists and behavioral health specialists. The York Leader Heights Center (5600 sq feet) houses pediatric sub-specialties, reproductive endocrinology and fertility. It provides a wide spectrum of care for children including 5 medical and surgical pediatric sub-specialty services.

Forbes magazine describes Lancaster as a "newly hip Victorian city—just three hours from New York City—is still one of the U.S.'s best kept secrets. The center of Amish country is bucolic but boasts a bustling food scene and is quickly becoming a cultural hotbed. The architecture is the real star, so explore the alleys and cobblestone streets by foot, checking out the many repurposed old warehouses that house thriving businesses... The arts are central to Lancaster's growth, notably the stunning Fulton Theatre and neighboring Prince Street, Lancaster's gallery row, which pulses with art on summer first Fridays."

Founded in 1741, the city of York is considered by many as the first capital of the United States. The Articles of Confederation were signed by the Second Continental Congress here in 1777. Its beautifully restored historic district is an architectural treasure. While York retains its farming and manufacturing heritage, at its heart York is a thriving cultural community that has attracted creative talent and innovative entrepreneurial investors from across the nation. Life in York County offers affordable housing, options for higher education, a thriving arts and cultural community, historical attractions, parks and recreational resources, a semiprofessional baseball team, fine dining and more — within an easy drive of major East Coast cities, including Baltimore, Washington D.C., and Philadelphia. It is also near the scenic Pocono Mountains to the north.

This is an opportunity to direct program growth in one of our population centers, and tailor a practice to your expertise and interests. Neighboring cities are also potential areas of growth.

About Penn State Health: Penn State Health is a multi-hospital health system serving patients and communities across 29 counties in central Pennsylvania. It employs more than 18,000 people systemwide.

The system includes Penn State Health (PSH) Milton S. Hershey Medical Center, Penn State Health Children's Hospital and Penn State Cancer Institute based in Hershey, Pa.; PSH Hampden Medical Center in Enola, Pa.; PSH Holy Spirit Medical Center in Camp Hill, Pa.; PSH Lancaster Medical Center in Lancaster, Pa.; PSH St. Joseph Medical Center in Reading, Pa.; Pennsylvania Psychiatric Institute in Harrisburg, Pa., and 2,450+ physicians and direct care providers at 225 outpatient practices. Additionally, the system jointly operates various healthcare providers, including PSH Rehabilitation Hospital, Hershey Outpatient Surgery Center and Hershey Endoscopy Center.

In 2017, Penn State Health partnered with Highmark Health to facilitate creation of a value-based, community care network in the region.

Penn State Health shares an integrated strategic plan and operations with Penn State College of Medicine, the University's medical school. With campuses in State College and Hershey, Pa., the College of Medicine boasts a portfolio of more than $150 million in funded research and more than 1,700 students and trainees in medicine, nursing, other health professions and biomedical research.

Children's Colorado Accepted into the Pediatric Heart Network

Children's Hospital Colorado (Children's Colorado) announced its acceptance into the Pediatric Heart Network (PHN), a collective of leading hospitals working to improve outcomes and quality of life for children – and more recently adults – with heart disease. The hospital's Heart Institute will become one of nine clinical research centers across North America selected to be a part of this national network.

"We are thrilled to be accepted as a new core site for the Pediatric Heart Network. As one of only eight stand-alone pediatric cardiology research centers in the country, we are uniquely positioned to ensure that children and young adults with heart disease in the Midwest and Rocky Mountain regions have equitable access to these important research studies," shares Shelley Miyamoto, MD, Professor and Jack Cooper Millisor Chair of Pediatric Cardiology and Co-Director of the Heart Institute.

The goal of the PHN is to bring cutting-edge treatments, trials and studies to patients through the collaboration of the nine participating hospitals. Over the next seven years, the selected congenital heart centers will work together to conduct multisite research in pediatric and congenital heart disease projects, bringing even more leading and innovative trials, studies and treatments to patients treated at these sites.

Funded by the National Heart, Lung and Blood Institute of the National Institutes of Health (NIH), the PHN will provide $2.4 million over the term of the award to Children's Colorado, which was selected as a core site in the Gateway to the West consortium with Washington University School of Medicine in St. Louis. As such, Children's Colorado pediatric leaders will participate in all PHN-led clinical studies and serve on the executive committee and all other PHN committees.

The network aims to improve health outcomes in children with heart disease – particularly congenital heart disease –and more recently, in adults, by unifying an at-times fragmented congenital heart disease research community. Over the past 22 years, the multicenter collaborative effort has supported 25 large studies, including 10 clinical trials, adding treatments and improving care for pediatric heart disease patients.

The application process, to be a part of the PHN, is a competitive and rigorous endeavor that spanned six months. The application process began in January of 2023. Awardees had to demonstrate a strong institutional commitment to pediatric cardiovascular research and education, the infrastructure to participate and lead multicenter clinical trials, and a broad range of expertise among study team members. In addition, each site had to develop and pitch a study proposal, which is currently being considered for the next phase of clinical studies.

"We are confident that our exceptional outcomes and team members were key to securing this award," Miyamoto said. "We are thrilled to be able to have even more collaboration and information from other PHN hospitals and to be able to offer even more valuable resources and options to our patients."

Leading the new core site alongside Children's Colorado's Dr. Miyamoto is Emily Bucholz, MD, PhD, Assistant Professor of Pediatrics and a Fetal Cardiologist, in collaboration with Washington University's Andrew C. Glatz, MD, the Louis Larrick Ward Professor of Pediatrics, and Jennifer N. Silva, MD, a Professor of Pediatrics and of Biomedical Engineering. The two centers will work together as the Gateway to the West consortium, with regular virtual and in-person meetings, as well as a shared plan to enhance diversity in research participants, and a shared mentorship model to train the next generation of pediatric cardiology clinical investigators.

Phoenix Children's

Pediatric Cardiologist
Heart Transplant and Advanced Heart Failure

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.

Candidates should demonstrate a rigorous academic focus preferably in clinical and/or translational research, however, basic science opportunities are also available. Academic clinical faculty appointments will be facilitated at the University of Arizona College of Medicine – Phoenix and Tucson, Creighton University School of Medicine, and Mayo Clinic School of Medicine – Scottsdale. Additional research collaborations exist with the Translational Genomics Research Institute (tGen) and the Arizona State University, Department of Bioengineering.

The Division of Cardiology currently hosts a fellowship training program in general pediatric cardiology with 9 fellows distributed over 3 years. The Phoenix Children's Center for Heart Care also hosts subspecialty fellowships in pediatric cardiac critical care, advanced cardiac imaging, and interventional cardiac catheterization. The inpatient service includes a 48-bed CV intensive care unit and transition care unit. Patient care is interdisciplinary involving transplant cardiology, cardiovascular surgery, and dedicated cardiac NP and PA providers. The provision of both workplace based and didactic teaching to fellows, residents, medical students, and nurses is an expectation in this role. The successful candidate(s) will join our program with 24 cardiologists, 13 cardiac intensivists, 3 cardiovascular surgeons, and 25 advanced practice providers. Inpatient pediatric cardiac care is centered at the Phoenix Children's Hospital while adult congenital inpatient care and procedures are also provided at St. Joseph's Hospital and Medical Center. Ambulatory cardiac services are centered at the Center for Heart Care – Thomas Campus and satellite offices are located throughout the Phoenix metropolitan area. Additional general cardiology outreach offices are in Tucson, Prescott, and Yuma AZ.

The Phoenix metropolitan area is the 5th largest metropolitan area in the United States with a population of ~1.6M and an estimated pediatric population of 1M in Maricopa county alone. Phoenix Children's is one of the largest freestanding children's hospitals in the nation with 433 licensed beds and a faculty of over 1200 employed / affiliated physicians. Phoenix is consistently ranked among the Best Places to live in the United States and boasts over 300 sunny days per year and convenient access to ocean and mountain attractions.

Interested candidates should send a curriculum vitae with a cover letter of introduction to:

David Blaha
Physician Talent Acquisition Partner
dblaha@phoenixchildrens.com

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

SEPTEMBER

04TH-07TH

PICS 2024
San Diego, California, USA
https://www.picsymposium.com/

05TH-07TH

PEDS Cardio AI Conference
Austin, Texas, USA
https://cvent.utexas.edu/event/13c4218a-9814-431e-b116-b3661d7adea6/summary

06TH-08TH

Annual PICS Fellows & Early Career Course
San Diego, California, USA
https://register.rcsreg.com/r2/pics2024/fellow/top.html

OCTOBER

04TH-06TH

CSI ASIA-PACIFIC 2024
Bangkok, Thailand
https://www.csi-congress.org/asia-pacific

04TH-05TH

Tips and Tricks in Congenital & Structural Interventions
Milan, Italy
https://www.victoryproject.it/Pdf/654_TIPS_AND_TRICKS_PROGRAM.pdf

NOVEMBER

07TH-10TH

Great Wall International Congress of Cardiology 2024
Beijing, China
http://www.gw-icc.com/en

CAREER OPPORTUNITY

Creating a healthier future requires the brightest minds today.

Now hiring an invasive and/or non-invasive electrophysiologist

Nemours Children's Cardiac Center is seeking an electrophysiologist to join our comprehensive pediatric and adult congenital cardiac center renowned for its excellence in patient and family centered care and quality outcomes. We welcome candidates with varying levels of experience.

About Us

- **Integrated Care Practice:** Our team includes cardiothoracic surgeons, cardiac anesthesiologists, intensivists and cardiologists. We have Magnet-designated cardiac nursing staff and dedicated ancillary support.
- **Expanding Facilities:** Our center features state-of-the-art cardiac operating rooms, catheterization labs and a cardiac peri-operative recovery suite.
- **National Collaboration:** Participate in national registries and research networks.

Electrophysiology Services

- Comprehensive services including catheter ablation, electrophysiology studies and device implantation.
- Specialized clinics for channelopathies, sudden death and autonomic dysfunction.
- Care for arrhythmias from fetal life through adulthood.

Clinical Responsibilities

- Perform and supervise invasive electrophysiology procedures.
- Maintain an outpatient cardiology practice.
- Provide inpatient arrhythmia consultation.
- Read ECGs and ambulatory cardiac monitoring studies.

We Offer

- Competitive salary, annual incentives for clinical activity, academic accomplishments and quality improvement.
- Comprehensive health, life, dental and vision insurance.
- Mortgage assistance, relocation packages and a 403B with employer match.
- Eligibility for Public Service Loan Forgiveness.

NEMOURS CHILDREN'S HEALTH | Well Beyond Medicine

Apply today

For confidential consideration, send your CV and cover letter to Physician Recruiter **Angelique Walbroel, CPRP** at Angelique.Walbroel@nemours.org.

Learn More: Scan the QR code below or visit www.Nemours.org.

About Wilmington

Wilmington offers urban sophistication and suburban comfort with excellent schools, museums, theaters and restaurants. Notable attractions include the Hagley Museum and Library and the Nemours Estate, adjacent to the hospital.

Wilmington is also conveniently close to Philadelphia and Delaware beaches, providing ample recreational opportunities.

More THAN A Hospital | Akron Children's Hospital

Adult Congenital Cardiologist Opportunity
Northeast Ohio

Ohio-based Akron Children's Hospital seeks an additional ***Adult Congenital Cardiologist*** to join its expanding Heart Center. Akron Children's Hospital is the largest pediatric healthcare system in Northeast Ohio and is ranked among the best children's hospitals.

This integrated healthcare delivery system includes:

- Two free-standing pediatric hospitals
- More than 800 providers, who manage over 1.1 million patient visits annually
- A network of more than 50 primary and specialty care locations
- Robust research and innovation endeavors

The successful candidate will join a well-established group, expanding the services of the Heart Center team, and will treat ACHD patients. Our team includes 16 pediatric cardiologists, 7 advanced practice providers and 2 cardiothoracic surgeons who provide a complete spectrum of coordinated, compassionate, cardiac care to over 10,000 patients annually. Services include: advanced diagnostics, complex surgical procedures, an adult congenital heart disease program, a fetal imaging program and a cardiac MRI program.

This position offers opportunities for:

- Partnership with an established team of Cardiologists affording exceptional work-life balance
- Active involvement in medical student and resident education; academic appointment at Northeast Ohio Medical University is available and commensurate with experience
- An attractive compensation plan that includes bonus compensation

Requirements include board eligibility/certification in Adult Congenital Heart Disease and the ability to obtain an active medical license in the state of Ohio.

Akron Children's Hospital is set in the beautiful Cuyahoga Valley, just minutes south of Cleveland. From major league attractions to small-town appeal, the greater Akron area has something for everyone. The area is rich in history and cultural diversity, and provides a stimulating blend of outstanding educational, cultural and recreational resources. This four-season community offers outdoor enthusiasts more than 40,000 acres of parks for year-round enjoyment. Northeast Ohio has become a premier destination to work, live, play, shop and dine.

Interested candidates may contact Jane Hensley, Physician Recruiter at 330-543-3015 or jhensley@akronchildrens.org. To learn more, visit our website at www.akronchildrens.org.

One Perkins Square | Akron, OH 44308 | akronchildrens.org

PEDIATRIC CARDIOLOGY

PRACTICE DETAILS

Sanford Children's Specialty Clinic, a multi-specialty pediatric clinic, is seeking a BC/BE Pediatric Cardiologist to add depth to the existing program.

• Join a team of four Pediatric Cardiologists.
• Sanford Children's Specialty clinic is a well-established, full range practice. This very busy and growing practice is particularly interested in physicians who share their philosophy to establish strong relationships with patients, their families and relate well to referring physicians and colleagues.
• Ideal opportunity for an individual who desires to have an academic environment in a primarily clinical practice. Teaching medical students, pediatric residents and adult cardiology fellows is expected.
• Research opportunities are also available.
• Largest pediatric sub-specialty group in the region consisting of 70+ pediatric sub-specialists.
• Sanford Children's Hospital has 146 beds and is the only free-standing children's hospital in the state of SD

Sanford Health offers a nationally competitive compensation plan with an additional physician benefits package including a health, dental and vision insurance, 401K plan, short-term and long-term disability, life insurance, CME allowance, vacation, malpractice insurance and tail coverage, and a relocation allowance.

To learn more, please contact:
Mary Jo Burkman, CPRP
Lead Physician Recruiter
605-328-6996
Mary.jo.burkman@sanfordhealth.org

T-884-420-733 Rev. 4/23

Dedicated to the work of health and healing

Sanford Health is one of the largest integrated health systems in the United States. Driven by a vision to improve the human condition at every stage of life, Sanford Health is dedicated to the delivery of health care, genomic medicine, senior care and services, global clinics, research and affordable insurance. Headquartered in Sioux Falls, South Dakota, the health system includes 46 medical centers, 1,500 physicians and more than 200 Good Samaritan Society senior living centers in 26 states.

About Sanford Health in Sioux Falls

- 545 hospital beds
- The only Level I Adult verified Trauma Center in South Dakota
- The only verified Level II Pediatric Trauma Center in South Dakota
- Free standing Sanford Children's Castle of Care Hospital
- Sanford Boekelheide Neonatal Intensive Care Unit is the region's only Level IV NICU
- Large referral area
- Research opportunities
- Serving a city population of 277,076
- 540+ Physicians and 550+ APPs

Life in Sioux Falls

Located in the heart of the Midwest, Sioux Falls balances an excellent quality of life with a strong economy in a safe, clean environment in southeast South Dakota. With a competitive cost of living, no state income tax and amenities of a community twice its size, such as fine dining, shopping, arts, sports and nightlife, Sioux Falls is a welcoming and friendly place to call home.

To learn more, scan the code
sanfordcareers.com/physicians

Massachusetts General Hospital
Founding Member, Mass General Brigham

Mass General Brigham
Mass General for Children

Non-Invasive Pediatric Cardiologist

Massachusetts General Hospital
Mass General for Children

The Division of Pediatric Cardiology and Congenital Cardiology at Massachusetts General Hospital (MGH) and MassGeneral for Children (MGfC) invites applications for a full-time non-invasive Pediatric Cardiologist appointment as an Assistant in Pediatrics or Assistant Pediatrician to join a team of multidisciplinary pediatric cardiology clinicians. The successful candidate will have earned an M.D. or M.D./Ph.D. or equivalent and be BC/BE in Pediatric Cardiology.

We offer this community-based position for a candidate to join our Holyoke Massachusetts Pediatric Cardiology practice with an emphasis on the outpatient care of patients, performance and interpretation of trans-thoracic and fetal echocardiograms and the interpretation of electrocardiograms, and ambulatory heart rhythm monitors. The division expanded its clinical catchment area and as such, the candidate will have the opportunity to join an established community-based practice. A portion of his/her time may be devoted to research and other scholarly activities.

The Division of Pediatric Cardiology and Congenital Cardiology at MGfC consists of 12 successfully established pediatric cardiologists. The Pediatric Cardiology division seeks candidates whose experience, teaching, and research has prepared them to contribute to our commitment to excellence. MGfC offers the dual advantage of a children's hospital within the internationally renowned Massachusetts General Hospital, consistently ranked as one of the top general hospitals in the world. Pediatric cardiologists and other pediatric specialists benefit from a vast campus with outstanding clinical resources and research activities within the MassGeneral Brigham healthcare system, the largest health care network operating within the greater Boston area.

Interested candidates should submit a curriculum vitae and a one-page narrative of clinical, teaching and research interests to:

Oscar Benavidez, M.D., MBA
Chief, Division of Pediatric Cardiology and Congenital Cardiology
Massachusetts General Hospital
Department of Pediatrics
55 Fruit Street
CPZS 5-510
Boston, MA 02114
Attn: Filomena Morton

Electronic submission to fmorton@mgh.harvard.edu is strongly encouraged.

We are an equal opportunity employer, and all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability status, protected veteran status, gender identity, sexual orientation, pregnancy and pregnancy-related conditions or any other characteristic protected by law.

LOMA LINDA UNIVERSITY
FACULTY MEDICAL GROUP

Advanced Pediatric Non-Invasive Cardiologist

Loma Linda University Faculty Medical Group is seeking a Board Certified **Advanced Pediatric Non-Invasive Cardiologist**. A prior 4th fellowship in non-invasive imaging is preferred. The ideal candidate should possess a strong track record of expertise in the non-invasive field, with specialized skills in fetal echocardiography, transthoracic echoes and performing/reading transesophageal studies. Experience in CT/MRI is also preferred but not required.

The successful applicant will join a team of academic pediatric cardiologists providing a full spectrum of clinical pediatric cardiology services with expertise in multi-modal diagnostic imaging, interventional cardiology, electrophysiology, fetal cardiology, heart failure, cardiac transplantation, and pulmonary hypertension. Responsibilities would include echocardiography (transthoracic, transesophageal, fetal, and 3D), and if applicable, cardiac MRI, and cardiac CT angiography. Academic affiliations will be available starting at the Assistant/Associate Professor level and adjusted depending on prior experience.

Loma Linda University Children's Hospital

Loma Linda University Children's Hospital is a 364-bed tertiary/quaternary children's hospital located in Loma Linda, California, and provides care for the children of the Inland Empire and the Greater Southern California Region. A brand new state-of-the-art medical center opened in 2021, which is the new home for pediatric cardiac imaging including echocardiography, stress testing and the catheterization laboratories, featuring two new biplane Siemens Artis q.Zen catheterization laboratories. The Children's Hospital Heart program was ranked in the top 50 programs by US News and World report and performs approximately 300 cardiac surgeries a year and around 450-550 cases in our catheterization. Approximately 9,700 echocardiograms including 1400 fetal echocardiograms are performed annually.

Loma Linda University Faculty Medical Group

Loma Linda University Faculty Medical Group is affiliated with Loma Linda University Medical Center, Children's Hospital and School of Medicine, with the mission to deliver whole-person care at a world-class level of clinical excellence. The Medical Center serves as the largest tertiary referral source in both Riverside and San Bernardino counties with a surrounding population approaching 4 million.

For over 100 years, Loma Linda University Health has been dedicated to excellence in health care, research, and education. We are expanding and enhancing our already robust research enterprise through a new collaborative research center and program endowments.

Loma Linda University Health continues to lead in integrating a faith-based approach to whole person health care. As a Seventh-day Adventist organization, our mission is to follow the healing and teaching ministry of Jesus Christ 'to make man whole.' Together, we strive for Compassion, Integrity, Excellence, Teamwork, and Wholeness.

About the Area

Loma Linda, Redlands and the surrounding communities are nestled at the base of the San Bernardino Mountains in Southern California. The desert, ski resorts, beaches and major cities (Los Angeles and San Diego) are all within 45 – 90 minutes. The local schools are some of the best in the state of California.

Compensation

The compensation range listed is for starting base compensation only and is adjusted based upon years of experience and/or faculty rank: $240,000 - $300,000. This amount does not include variable compensation or extra productivity and is subject to the individual department compensation plans. More information on compensation is discussed with the departments during the recruitment process.

Benefits

- Generous Retirement Contribution
- Comprehensive Medical/Dental Coverage
- Competitive Vacation & Sick Days
- CME Days and Funds
- Relocation Assistance (if applicable)
- Paid Malpractice Insurance
- Paid Life Insurance
- Loan Repayment/State & Federal (If eligible)

Information on Loan Forgiveness
Please click on the links below:
Physicians for a Healthy California
Public Service Loan Forgiveness

We are a California Employer
Please note that a California residency is required upon start date. This opportunity is not eligible for a J1 Waiver.

For more information or to apply, please contact:
Jessica Maynez, Recruitment Specialist
RecruitMD@llu.edu

CONGENITAL CARDIOLOGY TODAY

CORPORATE OFFICE
PO Box 52316
Sarasota, FL 34232 USA

CORPORATE TEAM

EDITORIAL BOARD

OFFICIAL NEWS & INFORMATION PARTNER OF

PICS Society
Pediatric and Congenital Interventional Cardiovascular Society

ISSN 1554-7787 print. ISSN 1554-0499 electronic.
Published monthly.