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Children's National Heart Institute

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Pediatric Cardiology Fellowship Training Program
Children's National Health System

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Program Overview

The Pediatric Cardiology Fellowship at Children's National is an accredited program committed to the training of outstanding physicians dedicated to the care of patients with pediatric cardiovascular disease. During the program, fellows develop skills in clinical care, research, and teaching over a 36 month period. Fellows benefit from the vast expertise of and dedicated teaching by faculty from the Division of Cardiology as well as the other programs within the Children's National Heart Institute.

The CNHI is a multidisciplinary team comprising Cardiology, Cardiovascular Surgery, Cardiac Intensive Care, and Cardiac Anesthesia. It is a national and international referral center and is the largest congenital heart program in the mid-Atlantic region. This large and diverse patient population offers a robust clinical experience in all facets of pediatric cardiology. Our research benefits from the resources of Children's National including the Children's Research Institute, the Sheikh Zayed Institute for Pediatric Surgical Innovation, and the Clinical and Translational Science Institute, a partnership with George Washington University. We maintain strong collaborations with the National Institutes of Health's National Heart, Lung, and Blood Institute and Washington Hospital Center.

Children's National is a member of the Pediatric Heart Network as well as the NHLBI Bench-to-Bassinet Program's Cardiovascular Development Consortium.

Fellowship Curriculum

An approximate breakdown of the fellowship schedule is shown below:

	Weeks of Training			
	Year One	Year Two	Year Three	*Total*
Research	6	23	24	*54*
CICU	6	4	2	*12*
HKU*	4	4	3	*17*
Consults*	6			
Echo	8	4	6	*18*
EP	4	4	3	*11*
Cath	8	4	4	*16*
Subspecialty	2	2	2	*5*
Nights	4	4	4	*12*
Vacation	4	4	4	*12*

**During the second and third years of training, HKU and consults are performed together*
**Variations in the calendar may result in weeks not equaling 52.*

Clinical Rotations

Clinical rotations include:

- Cardiology Inpatient Service (HKU)
- Inpatient Consultation Service
- Cardiac Intensive Care Unit (CICU)
- Echocardiography
- Cardiac Catheterization
- Electrophysiology
- Adult Congenital Heart Disease
- Heart Failure and Pulmonary Hypertension

Fellows participate in outpatient continuity clinic for one half day per week during their first year and for one full day every other week during their second and third years. Training during the third year includes a "pretending" on-service experience, and elective experiences are encouraged to tailor the year to meet individual training goals.

On call responsibilities for the cardiology fellowship are performed predominantly through a night float system, which allows for continuity of care without sacrificing time from clinical and research duties. Monday night through Saturday night coverage is provided by an in-house cardiology fellow. Saturday day shift and Sundays are covered by an additional fellow, allowing for continuity of care over the weekend. Sunday overnight call may be performed at home if the clinical service allows. Call responsibilities include coverage of cardiology service and consult patients, new consults throughout the hospital and in the Emergency Department, answering parent phone calls, and assisting in the Cardiac Intensive Care Unit as needed. On call fellows may also spend time performing echocardiograms and participating in cardiac catheterizations and electrophysiology procedures as they arise. Fellows are on call for approximately four weeks of night float and four weekends per year.

Cardiac Intensive Care Unit call is approximately every fourth night while on service in the CICU and is shared by cardiology and critical care medicine fellows. Each fellow also performs a limited number of additional cross-cover CICU calls per year. CICU call responsibilities include the primary care of all Cardiac Intensive Care Unit patients.

The cardiology fellowship program is supportive of and compliant with all ACGME duty hour standards.

Research Time

Research experience consists of approximately 12 of the 36 months of training and occurs predominantly in the second and third years. Opportunities for clinical and basic science research are available with Children's National faculty in Cardiology and other divisions as well as at the Sheikh Zayed Institute for Pediatric Surgical Innovation, Washington Hospital Center, and the National Institutes of Health. Fellows are provided support to prepare their research for presentation at national meetings and for publication in peer-reviewed journals.

In July 2010, Children's National was awarded the prestigious Clinical and Translational Science Award (CTSA) grant from the National Center for Advancing Translational Sciences (NCATS) to establish the Clinical and Translational Science Institute at Children's National (CTSI-CN). This is the first, and to date only, such funding awarded directly to a freestanding children's hospital and recognizes the outstanding strengths in clinical and

translational research that will be further enhanced. CTSI-CN is a partnership between Children's National and The George Washington University.

Our fellows have been very successful in their academic endeavors. They routinely publish manuscripts in peer-reviewed journals and present their work at national meetings. Highlights of our fellows' recent research are shown below:

Class of 2016

Publications

Clark BC, Georgekutty J, Berul CI. Myocardial Ischemia Secondary to Synthetic Cannabinoid (K2) Use in Pediatric Patients. J Pediatr. 2015 Sept: :757-761.

Ploutz M, Lu JC, Scheel J, Webb C, Ensing GJ, Aliku T, Lwabi P, Sable C, Beaton A. Handheld echocardiographic screening for rheumatic heart disease by non-experts. Heart. 2015 (epub ahead of print).

May LJ, **Ploutz M**, Hollander SA, Reinhartz O, Almond CS, Chen S, Maeda K, Kaufman BD, Yeh J, Rosenthal DN. A novel pediatric treatment intensity score: development and feasibility in heart failure patients with ventricular assist devices. J heart and lung transpl. 2015: 509-15.

Presentations

Brad Clark:

Minimally Invasive Percutaneous Pericardial ICD Placement in an Infant Piglet Model: Head-to-Head Comparison with an Open Surgical Thoracotomy Approach. E-poster presented at the American Heart Association, 2015.

Getting to Zero: Impact of Electroanatomical Mapping on Fluoroscopy Use in Pediatric Catheter Ablation. Poster presented at the American Heart Association, 2015.

Specificity of the WHF Criteria for the Diagnosis of Rheumatic Heart Disease: Can a low-risk population help to distinguish between early disease and normal? Poster presented at the American Society of Echocardiography, 2015.

Percutaneous Pericardial ICD Placement in an Infant Piglet Model. Poster presented at the Heart Rhythm Society, 2015.

Michael Cunningham

Influence of Age of Repair of Tetralogy of Fallot on Technical Performance and Outcomes. Poster presented at Children's National Medical Center Annual Research & Education Week, 2015.

Michelle Ploutz:

Early Screening for Rheumatic Heart Disease: Accuracy of Non-Physicians Using Handheld Echocardiography. Platform presentation at Children's National Health System Research Day Plenary Session, 2015.

Screening for Rheumatic Heart Disease: Accuracy of Non-Physicians Using Handheld Echocardiography. Poster presented at Children's National Health System Research Day, 2015; poster presented at the American Society of Echocardiography, 2015.

Awards and Grants

Michelle Ploutz:

Children's National Health System: 2015 Excellence in Clinical Research Award

Class of 2015

Publications

Aydin SI, Seiden HS, Blaufox AD, Parnell VA, Choudhury T, **Punnoose A**, Schneider J. Acute kidney injury after surgery for congenital heart disease. Ann Thorac Surg. 2012: 1589-95

Georgekutty J, Cross RR, Rosenthal JB, Heath DM, Sinha P, John AS. Anomalous left coronary artery from the right coronary cusp with gene positive apical hypertrophic cardiomyopathy: a case report and literature review. Cardiol Young. 2014 :397-402.

Georgekutty J, Berul CI. ICD Configurations and indications in adults with congenital heart disease. Progress in Pediatric Cardiology. 2015 (in press).

Grant EK, Faranesh AZ, Cross RR, Olivieri LJ, Hamann KS, O'Brien KJ, Hansen MS, Donofrio MT, Lederman RJ, Ratnayaka K, Slack MC. Image fusion guided device closure of left ventricle to right atrium shunt. Circulation. 2015: 1366-7.

Nair AG, Cross RR. Mesalamine-induced myopericarditis in a paediatric patient with Crohn's disease. Cardiology in the Young. 2014.

Presentations

Justin Georgekutty:

Observational, Retrospective of Adults with a Systemic Right Ventricle (D-TGA with Atrial Redirection Surgery or CC-TGA). Presented at the 24th Annual Program on Congenital Heart Disease in the Adult: An International Symposium, 2014

Elena Grant:

Fusion Guided Device Closure of Gerbode Type Defect - *Best Case Presentation Award*
Platform presentation at the Society for Cardiovascular Angiography and Interventions Fall Fellows Meeting, 2014

Whole Exome Sequencing to Establish a Genetic Etiology for Pentalogy of Cantrell: In Rare Diseases the Code can be Difficult to Decipher.
Poster presented at the National Heart Lung and Blood Institute Research Day, 2014

Humans and Mice with Pentalogy of Cantrell.
Poster presented at Gordon Conference – Human Single Nucloetide Polymorphisms and Disease, Easton, MA, 2014

Ann Punnoose:

Broad spectrum of cardiac defects in Mks1 mouse model of Meckel Gruber Syndrome (Finalist in Basic Science section). Poster presented at the Children's National Medical Center Research Day 2014 and Pediatric Academic Society's 2014 annual meeting.

Cardiac Disease Burden and the Risk for Mortality in Muscular Dystrophy. Oral presentation at the American Heart Association 2014 Scientific Session.

Awards and Grants

Justin Georgekutty:

Children's National Medical Center Board of Lady Visitors Grant for TomTec4D Right Ventricular Quantification software ($25,000)

Ann Punnoose:

American Heart Association's 2014 Women in Cardiology Excellence in Training Award

Class of 2014

Publications

Dean PN, Skeete A, Moak JP, Berul CI. Cryoablation and angiographic evidence of a concealed right atrial appendage to right ventricle accessory pathway in an infant. Congen Heart Dis. 2013; 8: E183-7.

Dean PN, McHugh KE, Conaway MR, Hillman DG, Gutgesell HP. Effects of race, ethnicity, and gender on surgical mortality in hypoplastic left heart syndrome. Pediatr Cardiol. 2013; 34:1829-36.

Dean PN, Slack MC. Stent angioplasty to relieve left pulmonary artery obstruction caused by patent ductus arteriosus device occlusion: bipartisan teamwork by two interventional devices. Catheter Cardiovasc Interv. 2013; 82: 480-4.

Jordan CP, Wu K, Costello JP, Ishibashi N, Krieger A, Kane TD, Kim P, Berul CI. Minimally invasive resynchronization pacemaker: a pediatric animal model. Ann Thorac Surg. 2013; 96 :2210-3.

Weinberg J, Ottolini M, Sestokas J, Greene E. Use of a case scenario based self-teaching module increased the overall skill and confidence in ECG interpretation for pediatric residents. MedEdPortal; 2013. Available from: www.mededportal.org/publication/9648.

Presentations

Peter Dean:

Effects of race, ethnicity, and gender on surgical mortality in hypoplastic left heart syndrome. Poster presented at the American College of Cardiology 2013 Scientific Sessions.

Chris Jordan:

Electrocardiographic effects of procainamide for Brugada Syndrome in pediatric patients. Poster presented at the Heart Rhythm Society 2013 Meeting.

Minimally invasive epicardial pacemaker implantation: a feasibility study in an animal model. Oral presentation at the Heart Rhythm Society 2013 Meeting.

Jay Patregnani:

Monitoring anti-coagulation through automated adverse event detection. Poster presented at the Pediatric Academic Societies 2013 Annual Meeting.

Nefthi Sandeep:

Developing in vitro and in vivo assays of angiogenesis for cyanotic congenital heart disease patients with aortopulmonary collateral vessels. Poster presented at NIH/NHLBI Division of Intramural Research Annual Scientific Retreat, 2013.

Jacqui Weinberg:

Surgical ligation of patent ductus arteriosus in the United States, 2003 to 2009: Variability in recent practice. Poster presented at the Pediatric Academic Societies 2013 Annual Meeting.

Awards and Grants

Peter Dean:

Best Fellow-in-Training Poster, American College of Cardiology 2013 Scientific Sessions

Children's National Medical Center Board of Lady Visitors Grant: Sports participation and quality of life in adolescents and young adults with congenital heart disease (SQUAD Study)

Chris Jordan:

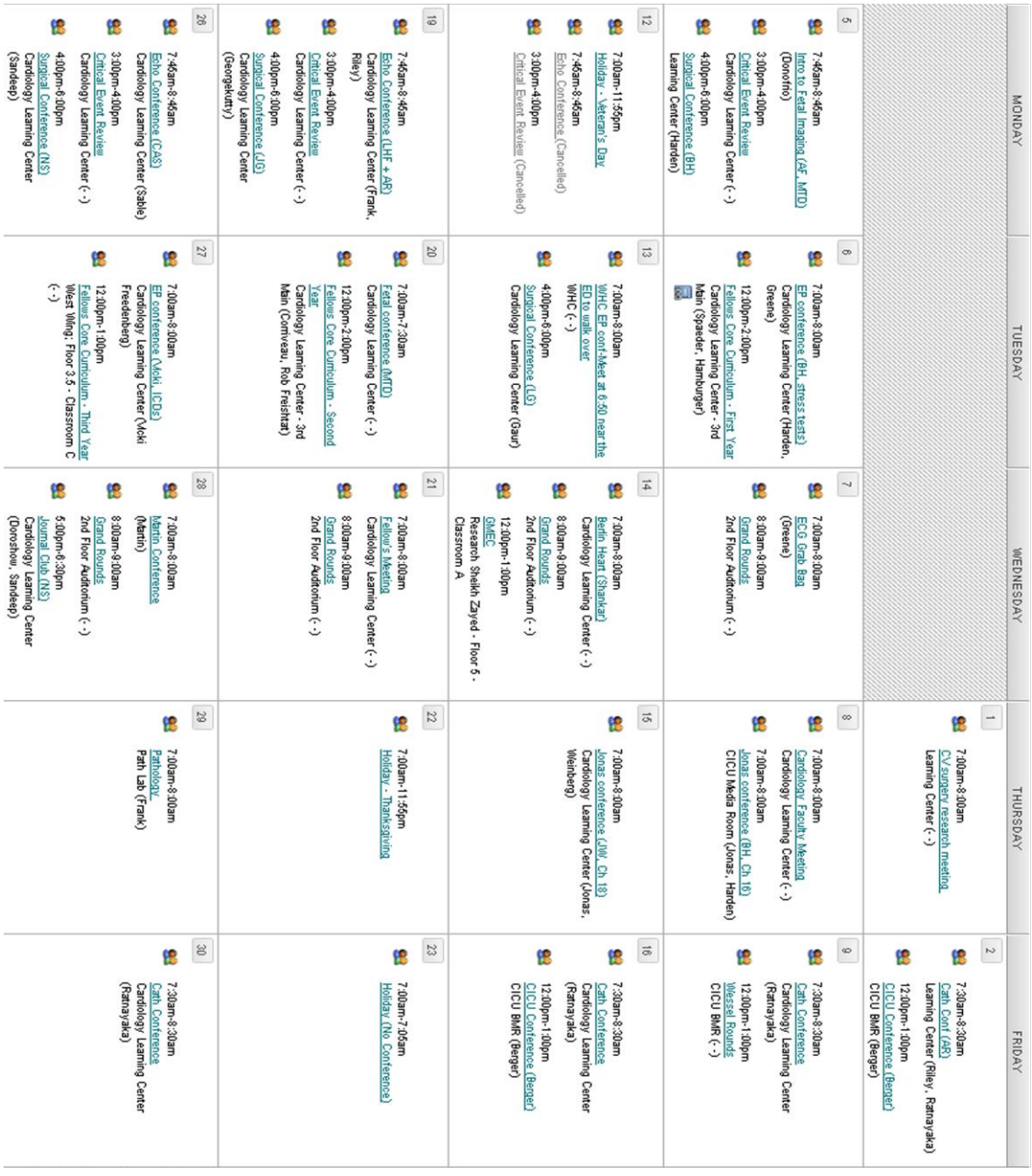
2013 Honorable mention, poster presentation, Children's National Medical Center Research and Education Week 2013

Nefthi Sandeep:

Pediatric Hematology and Transfusion Medicine Multidisciplinary Research Training Program – T32 Training Grant: Developing in vitro and in vivo assays of angiogenesis for cyanotic congenital heart disease patients with aortopulmonary collateral vessels.

Academic Curriculum

The fellowship prides itself on a robust schedule of protected time education, including formal fellow lectures, cardiology division conferences, and hospital-wide conferences. Division conferences include Surgical Conference, Catheterization Conference, Journal Club, and Critical Event Review. Fellow conferences incorporate a wide variety of both learning modalities and topics and are relevant to both a robust education in pediatric cardiology as well as the pediatric cardiology board examination. Regular fellow conferences include sessions on echocardiography, electrophysiology, cardiac critical care, core book review, surgical techniques and perspectives, pathology, embryology, and principles of outpatient management. Fellows are also encouraged to attend Pediatric Grand Rounds, Pediatric Professorial Rounds, hospital basic science research lectures, and Washington Hospital Center cardiology conferences. A sample month's conference schedule is included below.



Fellows Core Curriculum

The Fellow Core Curriculum is a monthly two hour block of protected time over lunch with fellows from other specialties throughout the hospital. This well-rounded curriculum includes didactic sessions in biostatistics, manuscript preparation, grant writing, and poster preparation as well as informal meetings to discuss quality improvement activities, ethics, job search skills, and contract negotiating. The FCC meets the ACGME requirements for exposure and training in these important topics. Sessions cover aspects of research, medical education, quality improvement, the business of medicine, and finding a job. Topics include:

- Basics of Biostatistics
- Design of Health Studies
- Healthcare Finance
- Dealing with Learners in Difficulty
- Navigating the IRB
- Writing an Abstract
- Poster and Oral Presentations for Scientific Meetings
- Health Advocacy
- Developing a Career Plan
- Manuscript Preparation
- CV Building
- Adult Learning Principles
- Writing Grant
- Quality Improvement Workshops
- Leading a Team
- Job Search Strategies
- Negotiating a Contract

International Opportunities

Dr. Sable has been organizing and leading medical missions to Uganda for over 12 years. What started as a single provider seeing children with heart disease has evolved into a large team including cardiologists, intensivists, anesthesiologists, nurses, perfusionists, and cardiac surgeons. Many of our fellows have accompanied him on trips, where activities have included large-scale screening of children with unrepaired congenital heart disease, post-operative care of cardiac patients, and most significantly, education of the local teams. Doctors at the Uganda Heart Institute are now independently performing heart surgery where no such program previously exists. Dr. Beaton conducts grant-funded research on rheumatic heart disease and has conducted multiple trips with fellows for large-scale screening of school children, assessing the psychosocial impact of rheumatic heart disease, and interfacing with local teams to provide care.

Children's National Heart Institute Programs
A description of select components of the CNHI's programs is provided below.

Cardiac Catheterization
Over 650 cardiac catheterizations per year are performed at Children's National in our three state-of-the-art digital catheterization laboratories, including balloon dilation, stent placement, coil embolization, endomyocardial biopsies, Melody percutaneous pulmonary valve placement, and ASD and VSD closures. Interventional cardiologists at Children's National routinely utilize intracardiac echocardiography for guidance during procedures. Our iCMR (interventional cardiac magnetic resonance imaging) suite is one of the only pediatric catheterization laboratories in the world with XFM technology – x-ray fused with magnetic resonance – allowing for specialized imaging during procedures with reduced radiation.

Cardiac Intensive Care
The CICU at Children's National is a 26-bed state-of-the-art unit that cares for surgical and medical patients including neonates, infants, children, and adults with congenital heart disease. This 34,000 square foot unit includes state-of-the-art monitoring equipment, a fully equipped simulation room, and a comprehensive digital media room.

Children's National has a long history as a national leader in extra-corporeal membrane oxygenation (ECMO) and employs other advanced forms of mechanical support including the Berlin Heart ventricular assist device. The CICU is staffed by physicians with backgrounds in cardiology, critical care medicine, and anesthesiology.

Cardiac MRI
The Cardiac MRI program at Children's National is a busy clinical service, performing over 600 cardiac MRIs annually on infants, children, and adults with congenital heart disease. The cardiac MRI program is engaged in cutting-edge research efforts, working with scientists and physicists at the National Institutes of Health to create innovative imaging sequences as well as make current imaging faster and more accurate. Children's National recently installed a state-of-the-art hybrid fluoroscopy and MRI suite designed to allow for cardiac catheterization under MRI guidance as well as image fusion techniques designed to reduce radiation exposure.

Cardiac Procedure Recovery Unit
The CPRU is a team of practitioners specially trained in the procedural and recovery care of infants, children, and adults undergoing cardiac catheterization, electrical cardioversion, and transesophageal and sedated transthoracic echocardiograms.

Cardiovascular Surgery

Over 550 cardiac operations are performed each year at Children's National. Repair of simple and complex cardiac disease in children and adults with congenital heart disease is carried out including complex neonatal repairs in the smallest infants. Dr. Richard Jonas, one of the most accomplished pediatric cardiac surgeons in the world, joined Children's National in 2004 after leading the cardiac surgery program for many years at Children's Hospital Boston. In addition to its active clinical program, the Division of Cardiovascular Surgery maintains an active research laboratory in the Children's Research Institute.

Echocardiography

The Echocardiography Laboratory was the first digital pediatric echocardiography lab in the country and performs approximately 18,000 echocardiograms per year. Activities include routine inpatient and outpatient transthoracic echocardiography, transesophageal echocardiography, fetal echocardiography, telemedicine, three-dimensional echocardiography, strain and strain-rate imaging, and dyssynchrony and cardiac resynchronization studies. The Echocardiography Laboratory includes a telemedicine terminal as well as a dedicated research station with state-of-the-art software to analyze ventricular mechanics. Children's serves as a development site for industry leaders in echocardiography and telemedicine and frequently has access to new technology before it is released to the market.

Electrophysiology

A wide range of invasive and non-invasive electrophyisologic procedures are performed at Children's National. State-of-the-art equipment is used in our electrophysiology laboratory, including over 100 ablations and 40 pacemakers and implantable defibrillators. Noninvasive testing includes pacemaker interrogation, electrocardiograms, Holter monitoring, event recorders, tilt table testing, and signal-averaged electrocardiography. The electrophysiology team is comprised of four electrophysiologists and four dedicated nurses and nurse practitioners.

Fetal Heart Program

The Fetal Heart Program addresses the needs of the fetus with heart defects. Our program includes first trimester imaging and a specialized Fetal Delivery Service for has performed these evaluations as early as 12 weeks gestation. The Fetal Heart Program's goal is to understand how heart defects affect fetal well-being in-utero and determine when and if intervention may be possible to best assure that the fetus is well taken care of for the duration of the pregnancy. Fetal cardiologists collaborate with maternal-fetal medicine specialists and obstetricians as well as cardiac intensivists, interventional cardiologists, electrophysiologists, and adult congenital cardiologists to provide care for the fetus and mother and to coordinate risk-adjusted deliveries. Fetal cardiologists also work with other specialists in the Division of Fetal Medicine to care for fetuses with extracardiac abnormalities and in multiple grant-funded research projects.

Heart and Kidney Unit

The Heart and Kidney Unit, a 20 bed acute care unit, cares for neonates, infants, children, and adults with congenital heart disease on the Cardiovascular Surgery and Cardiology Inpatient Services.

Heart Transplantation and Advanced Heart Failure

The Heart Transplantation and Advanced Heart Failure Program at Children's National is a very busy clinical service including inpatient acute and critical care, outpatient care, and pre- and post-transplant care. The team staffs numerous outpatient heart failure and transplant clinics as well as co-rounding with the HKU and CICU teams. Children's National has continually provided medical and interventional pre- and post-transplant care for many years, and has performed approximately 20 transplants over the past three years. Children's National has long been a national leader in ECMO and offers the full array of ventricular assist devices including the Berlin Heart and HeartMate II with a dedicated VAD manager and nurse practitioner.

Outpatient Clinics

Over 12,000 outpatient cardiology visits per year take place at Children's National and its regional outpatient clinics. Specialty programs at Children's National include:

- Single Ventricle Interstage Program
- Hyperlipidemia/Preventive Cardiology Clinic
- Heart Failure Clinic
- Pulmonary Hypertension Clinic
- Cardiac, Oncology, and Blood Disorders follow-up clinic
- Cardiac Neurodevelopmental Outcomes Program (CAN DO)
- Inherited Arrhythmias

Our Single Ventricle Interstage Clinic utilizes telemedicine home monitoring and is staffed by a multi-disciplinary team of cardiologists, nurse practitioners, and a dedicated nutritionist and has resulted in one of the lowest interstage mortality rates in the country.

Washington Adult Congenital Heart Program

A large number of adolescents and adults with repaired or palliated congenital heart disease are followed by Children's National's specialized team of transitional and adult congenital cardiologists. This population includes older patients who underwent the Mustard or Senning operation for D-transposition of the great arteries, modified Fontan operation for single ventricle anatomy, and tetralogy of Fallot repair. Complex issues including arrhythmias, polycythemia, pregnancy, and psychosocial ramifications are addressed by the adult congenital team. A joint clinic is also held with adult cardiologists from the Washington Hospital Center.

Recent Graduates
All graduating cardiology fellows have been successful at pursuing academic, private, or military careers after completing their fellowship, including both research and senior clinical fellowships at Children's National and other prestigious institutions. The post-graduation experiences of our recent graduates are shown below.

Fellow	Year	Post-Graduation Experience
Justin Georgekutty	2015	Adult congenital fellowship at Baylor/Texas Children's
Elena Grant	2015	Interventional cardiology fellowship at Emory
Asha Nair	2015	Cardiac critical care fellowship at Boston Children's
Ann Punnoose	2015	Heart failure and transplantation fellowship at Lurie Chilren's
Peter Dean	2014	Faculty at University of Virginia
Christopher Jordan	2014	Faculty at Walter Reed National Military Center
Jay Patregnani	2014	Critical care fellowship at CNMC
Nefthi Sandeep	2014	T32 research fellowship at CNMC
Jacqueline Weinberg	2014	Advanced imaging fellowship at CNMC
Brandon Harden	2013	Children's Healthcare of Atlanta/Emory faculty
Ofer Schiller	2013	Cardiology/Cardiac Critical Care faculty, Schneider Children's Medical Center, Israel
Lasya Gaur	2013	Imaging/MRI fellowship at CNMC; faculty at Johns Hopkins
Alan Riley	2013	Texas Children's Hospital faculty
Andrea Beaton	2012	NIH K12 Early Career Investigator Award
Smitha Bullock	2012	University of Louisville faculty
Aparna Prasad	2012	Morristown Medical Center faculty
Tom Seery	2012	Texas Children's Hospital faculty
Kristin Burns	2011	Medical officer at NIH, part-time CNMC faculty
Jessica Colyer	2011	CNMC faculty
Amy Sims	2011	Fogarty International Clinical Research Fellow in Malawi
Ahmad Ellini	2010	University of Maryland faculty
Laura Olivieri	2010	Imaging/MRI fellowship at CNMC/NIH, CNMC and NIH faculty
Darren Klugman	2010	CNMC CICU faculty
Jodi Pike	2010	Imaging fellowship at CNMC, CNMC fetal/echo faculty

Benefits
Benefits for all Children's National employees include health, dental and vision insurance; flexible spending accounts, life insurance, sick leave, disability insurance, and back-up dependent child and elder care. More information is available on our website.

The 2014-2015 salary scale for fellows at Children's National Medical Center is as follows:

	FY15 Salary
PGY4	$70,395
PGY5	$74,285
PGY6	$78,466
PGY7	$82,875
PGY8	$87,555
PGY9	$92,485
PGY10	$97,747

All cardiology fellows receive a laptop computer for use during their training in addition to a $1,500 educational stipend per year for books, conferences, and other educational materials.

DIVISION OF CARDIOLOGY
FACULTY ROSTER

Charles I. Berul, M.D.

Dr. Berul is Chief of the Division of Cardiology and Co-Director of the Children's National Heart Institute. He was born in Washington, DC and was raised in the area. He earned his bachelor's and master's degrees in biology from Bucknell University and then received his doctorate of medicine from the University of Maryland. Dr. Berul completed his internship and residency in pediatrics at Yale, followed by specialty fellowship training in pediatric cardiology and electrophysiology at Children's Hospital of Philadelphia. He was the director of the Pacemaker Program at Children's Hospital Boston, Harvard Medical School until coming to Children's National Medical Center in 2009. Dr. Berul is a professor of Pediatrics at George Washington University School of Medicine. Dr. Berul is a fellow of the Heart Rhythm Society, the American Academy of Pediatrics, the American College of Cardiology, the Society for Pediatric Research, and the American Heart Association's Council on Cardiovascular Disease in the Young. Dr. Berul has over 150 publications in the field of pediatric cardiology. He is an invited speaker nationally and internationally and is an acknowledged expert in the area of pediatric cardiac electrophysiology.

Lowell H. Frank, M.D.

Dr. Frank joined the faculty of Children's National in 2010 and is the Director of the Cardiology Fellowship Training Program. He received his B.A. *with Distinction in All Subjects* at Cornell University with dual majors in music and biochemistry and received his M.D. from the Weill Medical College of Cornell University. Dr. Frank completed his training in pediatrics at Cornell where he received the Department of Pediatrics Award for Teaching Excellence in his final year. He completed his fellowship training in pediatric cardiology here at Children's National, where he twice received the David Lewis Award for Most Outstanding Fellow. He subsequently completed a senior fellowship in advanced cardiac imaging at Children's National Medical Center. Dr. Frank has conducted research at the National Heart, Lung, and Blood Institute of the National Institutes of Health analyzing ventricular mechanics in models of congenital heart disease. His research interests include advanced echocardiographic measures of ventricular function, dyssynchrony, and echocardiographic resource utilization. Dr. Frank leads the fellows' pathology sessions and contributes to the weekly echo conference. He participates in transthoracic, transesophageal, and three-dimensional echocardiography as well as inpatient and outpatient care, with a particular interest in medically complex patients.

Christopher F. Spurney, M.D.

Dr. Spurney is the Associate Director of the Cardiology Fellowship Training Program. He joined the division of cardiology in July 2004 after completing his pediatric residency at Columbia and in pediatric cardiology fellowship at Children's National Medical Center. Dr. Spurney obtained a B.A. in biology at Cornell University and completed his medical degree at New York Medical College. He performs research at the Center for Genetic Medicine, investigating non-invasive imaging of small animals and molecular mechanisms of cardiomyopathy. His clinical interests include inpatient cardiology, echocardiography, and outpatient care, where he runs a specialized muscular dystrophy clinic. Dr. Spurney has a long track record of successful research mentoring of medical students, residents, and cardiology fellows.

Andrea Z. Beaton, M.D.
Dr. Beaton joined the Children's National faculty in 2013 after completing her fellowship training here in Washington, DC. She graduated from the University of Louisville School of Medicine and completed her pediatric residency at Mount Sinai Hospital in New York City. Her research focuses on the screening and prevention of rheumatic heart disease and she has made multiple international trips including the largest prospective screening of African school children. Dr. Beaton is funded by an NIH K12 Physician Scientist Award as well as multiple other large grants and has presented her RHD research nationally and internationally.

Jeffrey A. Becker, M.D.
Dr. Becker joined Children's National in August 2008 and is director of Outpatient Services. He is the primary pediatric cardiology consultant at Holy Cross Hospital and sees patients throughout the DC region. He is board certified in general pediatrics and pediatric cardiology, a diplomat of the National Board of Medical Examiners, a fellow of the American Academy of Pediatrics and the American College of Cardiology, and a member of the North American Society for Cardiac Imaging. Dr. Becker received his doctorate of medicine from the George Washington University School of Medicine. He completed his residency in pediatrics at Walter Reed Army Medical Center, Washington, D.C. and his fellowship training in cardiology at Children's National Medical Center. His primary interests include non-invasive cardiac imaging, outpatient cardiology, and quality management.

Stanley D. Beder, M.D.
Dr. Beder's primary interests include outpatient cardiology and electrophysiology. He has been in practice for over 25 years. He is board certified in pediatric cardiology and a fellow of the American Academy of Pediatrics and the American College of Cardiology. He received his training in pediatric cardiology at the Texas Children's Hospital. He has performed research in the areas of pharmacologic and non-pharmacologic evaluation and treatment of arrhythmias, investigational pacing devices, and antiarrhythmic drugs in neonates, infants, children, and adolescents.

John T. Berger, III, M.D.
Dr. Berger has joint appointments Divisions of Cardiology and Critical Care at Children's National Medical Center and is board certified in pediatric critical care and pediatric cardiology. In addition to serving as medical director of the Cardiac Intensive Care Unit, he serves as director of the pulmonary hypertension program. He has completed the Master Teacher program at George Washington University and has been an invited speaker regionally and nationally. Dr. Berger serves as the co-investigator in the NIH funded Collaborative Pediatric Critical Care Research Network and is the site investigator and consortium cardiologist for the Therapeutic Hypothermia After Pediatric Cardiac Arrest trials.

Linda Bradley-Tiernan, M.D.
Dr. Bradley is an attending in cardiology with interests in outpatient cardiology, the care of the medically complex patient with congenital heart disease in subacute care, and the transitioning of young adults with congenital heart disease. Dr. Bradley completed her pediatric residency and pediatric cardiology fellowship at Children's National Medical Center in 1985. Following her training, she spent two additional years in a research fellowship studying inflammatory mediators in the newborn pulmonary and coronary circulation. Dr. Bradley developed "Follow My Heart," the first electronic personal health record specific to congenital heart disease, which has been endorsed by the American College of Cardiology and the Adult Congenital Heart Association.

Kristin M. Burns, M.D.
Dr. Burns joined the Children's National Medical Center faculty in 2011. She received her bachelor's degree from Wellesley College and her medical degree from the University of Massachusetts. Dr. Burns completed her pediatric residency and chief residency at Hasbro Children's Hospital and Brown University and her pediatric cardiology fellowship at Children's National Medical Center. She is also a medical officer in the Heart Development and Structural Diseases Branch in the Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute (NHLBI), part of the NIH.

Sarah B. Clauss, M.D.
Dr. Clauss joined our staff in September 2002 and leads the Single Ventricle Program. She received her bachelor's degree from Cornell University and her medical degree from SUNY Buffalo. She completed her pediatric residency at Children's Hospital of Pittsburgh and her pediatric cardiology fellowship at Johns Hopkins. Dr. Clauss's interests include echocardiography, fetal cardiology, and dyslipidemias.

Jessica H. Colyer, M.D.
Dr. Colyer joined the Children's National Medical Center faculty in 2011 and is the Medical Unit Director for the Heart and Kidney Unit. She received her undergraduate degree from the College of the Holy Cross and her medical degree from Pennsylvania State University. She completed her pediatric residency, chief residency, and pediatric cardiology fellowship training here at Children's National. During her fellowship, she performed research the National Heart, Lung, and Blood Institute (NHLBI) of the NIH in interventional cardiac MRI. Dr. Colyer participates in inpatient and outpatient care and is focusing her clinical practice on northern Virginia, the eastern shore of Maryland, and Delaware.

Russell R. Cross, M.D.
Dr. Cross is Director of the Cardiac MRI program. He is active in inpatient and outpatient care as well as in the echocardiography laboratory. He received his B.S. in electrical engineering from the University of Texas at Austin and his master of science in biomedical engineering and his doctorate of medicine from the University of Texas Southwestern. After pediatric residency training at the University of Texas Houston, he completed his cardiology fellowship training at Children's National Medical Center. Dr. Cross was the director of pediatric cardiology inpatient services at Children's National for nine years. His interests include information technology in medicine. He is active in the Joint Council on Congenital Heart Disease's National Pediatric Cardiology Quality Improvement Collaborative.

Susan D. Cummings, M.D., M.P.H.
Dr. Cummings' primary interests are in inpatient and outpatient care as well as echocardiography. Dr. Cummings joined the Children's National staff in 1998. She received her bachelor's degree from Duke University, her medical degree from Johns Hopkins University, and her pediatric residency and pediatric cardiology fellowship at Children's Hospital Boston. She subsequently completed a senior fellowship in echocardiography at Children's National Medical Center. Dr. Cummings' focus includes education in transthoracic, transesophageal, and fetal echocardiography, and she was awarded the inaugural Jodi I. Pike Award for Excellence in Cardiology Fellow Education.

Niti Dham, M.D.

Dr. Dham completed her fellowship in pediatric cardiology and a senior fellowship in advanced cardiac imaging fellowship at Children's National Medical Center. Prior to this, her cardiology fellowship included training at Columbia University and Tulane University. Her clinical interests include echocardiography, heart failure, and inpatient and outpatient care. Dr. Dham is the lead cardiologist involved in Children's National's Cardiology-Oncology-Blood Disorders Clinic, a multidisciplinary clinic focusing on the cardiac evaluation and management of children and young adults with a history of malignancies and hematologic diseases. Her research is focused on echocardiography in the evaluation of patients with sickle cell disease and heart failure.

J. Wesley Diddle, M.D.

Dr. Diddle graduated from the University of Virginia and then subsequently medical school at the University of Tennessee. He completed his pediatric residency at Seattle Children's Hospital followed by fellowship in pediatric cardiology at Children's Hospital of Boston. After his fellowship in cardiology, Dr. Diddle completed a critical care medicine fellowship at the Children's Hospital of Pittsburgh. Dr. Diddle's interests include studying the use of extracorporeal support in acute myocarditis, bedside hemodynamic monitoring, critical care echocardiography, and the effects of dexmedetomidine on low cardiac output syndrome. He also has been very active in the arena of global health, having visited many resource poor nations to provide service and teaching.

Mary T. Donofrio, M.D.

Mary T. Donofrio is director of the Fetal Heart Program, director of High-Risk Delivery Services, director of the Advanced Cardiac Imaging Fellowship, and co-director of the Echocardiography Laboratory. She has developed and expanded the Fetal Heart Program to include first trimester fetal cardiac imaging and coordinated delivery services for babies with complex critical defects. She joined the staff at Children's National Medical Center after spending nine years at the Virginia Commonwealth University School of Medicine, directing the echocardiography laboratory there. She graduated from Johns Hopkins University, received her M.D. from Mount Sinai School of Medicine, and completed her pediatric residency at the New York Hospital – Cornell Medical Center. Dr. Donofrio completed her cardiology fellowship training at Children's Hospital of Philadelphia and received advanced training in fetal echocardiography at Yale University. Dr. Donofrio is a fellow of the American College of Cardiology, American Academy of Pediatrics, and American Society of Echocardiography. Her research has focused on fetal cardiovascular physiology and heart function, including studies of autoregulation of cerebral blood flow in fetuses with congenital heart disease and the neurodevelopmental outcome of babies born with congenital heart disease. She is a national expert in the areas of fetal cardiology, echocardiography, and pediatric cardiology. Dr. Donofrio is on several journal editorial boards, research committees, and has published over 50 papers and abstracts.

Robin W. Doroshow, M.D.

Dr. Doroshow's primary interests include outpatient cardiology, echocardiography, and medical education. She leads the Georgetown University pediatric cardiology program. She has been in practice since 1978 after completing fellowship training at the University of Colorado and a research fellowship at Children's Hospital Boston. She joined the staff at Children's National Medical Center in 2003 after spending 12 years in the University of California, Los Angeles Medical System. Dr. Doroshow is a fellow of the American College of Cardiology and American Academy of Pediatrics. She is the faculty leader of the division's journal club and is active in medical student, resident, and fellow education.

Ashraf S. Harahsheh, M.D.
Dr. Harahsheh joined Children's National in September 2008 after completing his residency and fellowship training at the Children's Hospital of Michigan. Dr. Harahsheh is board certified in pediatric cardiology, a fellow of the American Academy of Pediatrics and the American College of Cardiology, and a member of the American Heart Association and the American Medical Association. He received his doctorate of medicine from the University of Jordan-College of Medicine, Amman, Jordan. Dr. Harahsheh is director of resident education in the Division of Cardiology and is active in inpatient and outpatient care as well in the preventive cardiology program with a focus on hyperlipidemia. He is active in the Joint Council on Congenital Heart Disease's National Pediatric Cardiology Quality Improvement Collaborative.

Deneen Heath, M.D.
Dr. Heath's primary interests are in echocardiography, fetal cardiology, heart failure, inpatient cardiology, and resident education. She joined Children's National after five years of private practice in the metropolitan Washington area. She completed her pediatric residency at Georgetown University and her pediatric cardiology training at Texas Children's Hospital. During her fellowship, she served as a cardiac transplantation fellow. Dr. Heath spent an additional year of fellowship in pediatric echocardiography with emphasis on fetal and cardiology. She is a fellow of the American Academy of Pediatrics and a member of the American Society of Echocardiography.

Anitha S. John, M.D., Ph.D.
Dr. John joined Children's National Medical Center in 2011 with a primary interest in adult congenital heart disease and is Director of the Washington Adult Congenital Heart Program. After completing an accelerated undergraduate degree from Villanova University in 1994, she obtained a Ph.D. in the molecular pathobiology program in 1999 and completed her medical degree in 2001 from the Drexel University Medical School. She completed a combined internal medicine-pediatrics residency program at Brown University in 2005. Thereafter, she completed her pediatric cardiology fellowship at Children's Hospital of Philadelphia and a senior fellowship in adult congenital heart disease at the Mayo Clinic. Dr. John practices at Children's National and participates in the Echocardiography Laboratory at the Washington Hospital Center. Her recent research has focused on liver dysfunction in patients with the Fontan palliation for single ventricles.

Jonathan Kaltman, M.D.
Dr. Kaltman joined Children's National Medical Center in 2007 after serving on faculty as the Children's Hospital of Philadelphia, where he completed his pediatric internship and residency, his pediatric cardiology fellowship, and his subspecialty training in clinical electrophysiology. He is board certified in pediatrics and pediatric cardiology and is a fellow of the American Academy of Pediatrics and a member of the Heart Rhythm Society. Dr. Kaltman also serves as a Branch Chief in the Heart Development and Structural Diseases Branch in the Division of Cardiovascular Sciences at the National Heart, Lung, and Blood Institute (NHLBI), part of the NIH. In this role, he is responsible for developing new research initiatives and managing basic and clinical research grants in the multiple areas of pediatric cardiology-related disease states. Dr. Kaltman provides leadership for the Pediatric Cardiac Genomics Consortium, a multi-center translational research group investigating the association of genetic variation with congenital heart disease diagnosis and outcome. He also helps oversee the Pediatric Heart Network, a multi-center clinical research network conducting studies in children with congenital heart disease. His clinical interests are management of arrhythmia patients, catheter ablation and device placement.

Joshua P. Kanter, M.D.
Dr. Kanter is director of the Cardiac Catheterization Laboratory at Children's National. He received his medical degree and pediatric training from the State University of New York Health Science Center at Syracuse and completed fellowship training in pediatric cardiology and interventional pediatric cardiology at the New York Presbyterian Hospital, Columbia University Medical Center. Dr. Kanter specializes in diagnostic and interventional pediatric cardiac catheterization for the treatment of congenital heart disease. He has extensive experience implanting the Melody® Transcatheter Pulmonary Valve, and is an expert in the device closure of atrial septal defects, ventricular septal defects, and patent ductus arteriosus. He is an investigator in a number of national multi-center research studies to examine new devices and to track clinical outcomes. He serves on several national committees including the NCDR IMPACT™ Registry Implementation Group and the American College of Cardiology Annual Scientific Session Program Committee.

Darren Klugman, M.D.
Dr. Klugman joined the Children's National faculty in 2010 as an attending in the Cardiac Intensive Care Unit. He completed his undergraduate studies at Emory University and received his Masters of Science at Drexel University. He received his medical degree at the George Washington University School of Medicine and subsequently completed his pediatric residency and a joint 5-year program in Cardiology and Critical Care Medicine at Children's National Medical Center. His current responsibilities include inpatient care in the Cardiac Intensive Care Unit as well as serving as Director of Quality Improvement for the Heart Institute and Director of Medical Safety for Children's National.

Anita N. Krishnan, M.D.
Dr. Krishnan joined the Division of Cardiology in October 2009. She received her undergraduate degree from M.I.T., where she studied chemical engineering. She attended Northwestern University for medical school, and then completed her pediatric residency and pediatric cardiology fellowships at Children's National. During her fourth year fellowship, she was involved in research comparing cardiac development in murine and human fetuses at the National Heart, Lung, and Blood Institute of the NIH. Her research interests include fetal effects of maternal lupus and other connective tissue diseases as well as neurodevelopmental outcomes of neonates with congenital heart defects. Her clinical practice focuses on fetal cardiology, transthoracic and transesophageal echocardiography, and inpatient and outpatient care.

Linda Leatherbury, M.D.
Dr. Leatherbury returned to Children's National Medical Center in October 2001 after 16 years on the faculty at the Medical College of Georgia. She is board certified in pediatric cardiology. Dr. Leatherbury completed her residency and fellowship at Children's National and was recognized for excellence in teaching during her time here. Her primary interests are inpatient and outpatient care, clinical and basic science education, and basic science research. Dr. Leatherbury has mentored numerous undergraduates, post-doctoral fellows, and cardiology fellows in the Laboratory of Developmental Biology at the NIH and is active in research investigating genetic mutations in mouse models of congenital heart disease.

Adam Lowry, M.D.

Dr. Lowry joined the Children's National faculty in 2013. He received undergraduate degree at Murray State University and his medical degree from the Emory University School of Medicine and completed his residency and cardiology fellowship at Texas Children's Hospital. Dr. Lowry subsequently completed a year of advanced training in cardiac critical care at the Lucille Packard Children's Hospital – Stanford University. Dr. Lowry's research interested include cardiopulmonary resuscitation in cardiac patients.

Gerard R. Martin, M.D.

Dr. Martin has been in practice at Children's National Medical Center since 1986. He is the Senior Vice President for the Center for Heart, Lung and Kidney Disease at Children's National; the C. Richard Beyda Professor of Cardiology; Professor of Pediatrics at The George Washington University School of Medicine; and formerly served as Co-Director of the Children's National Heart Institute. He has previously served as Chief of the Division of Cardiology, director of the Echocardiography Laboratory, and director of the Cardiology Fellowship Training Program. He earned his bachelor's degree in biology from Syracuse University and his M.D. from SUNY-Upstate Medical Center. Dr. Martin completed his residency in pediatrics at Rhode Island Hospital in Providence. Subsequently, he completed his cardiology fellowship at the University of California, San Francisco. He is board certified in pediatric cardiology, a fellow of the American Academy of Pediatrics and the American College of Cardiology, and a member of the Society for Pediatric Research, American Pediatric Society, the American Heart Association's Council on Cardiovascular Disease in the Young. Dr. Martin has also served on the American Board of Pediatrics Sub-Board in Pediatric Cardiology and as a member of the National Heart, Lung, and Blood Institute's Cardiology Data and Safety Monitoring Board. He is currently the Chair of the American College of Cardiology's Adult Congenital and Pediatric Cardiology Section. He Martin has more than 85 publications in the field of pediatric cardiology. He is an invited speaker nationally and internationally and is an acknowledged expert in the area of pediatric echocardiography. Dr. Martin is a national leader in the role of pulse oximetry in screening for congenital heart disease and has presented this work at many regional and national meetings as well as to state legislatures.

Michele Mietus-Snyder, M.D.

Dr. Mietus-Snyder is co-director of the Obesity Institute after practicing in the UCSF Departments of Pediatric Medicine and Physiological Nursing. She received her undergraduate and M.D. degrees from the University of California, San Diego and did her pediatric residency and cardiology fellowship training at Children's Hospital Boston. Her interest in the molecular pathways responsible for early preclinical atherogenesis led her to pursue basic science research in lipoprotein gene regulation at Harvard and at the Gladstone Institute for Cardiovascular Disease Research. Her studies of redox-sensitive genes important in early heart disease impressed upon her how many cardiovascular risk factors function via common metabolic pathways that promote vascular oxidative stress, including dyslipidemia, unhealthy diet, sedentary lifestyle, hypertension, and psychological stress. Her clinical practice focuses on preventive cardiology.

Jeffrey P. Moak, M.D.
Dr. Moak is director of Electrophysiology and Pacing at Children's National. Dr. Moak has been in practice for over 20 years, joining the staff here in 1992 after serving as an attending at Texas Children's Hospital. He received his training in pediatric cardiology at the Columbia University College of Physicians followed by a fellowship in cellular electrophysiology at the same institution. He is board certified in pediatric cardiology and a fellow of the American Academy of Pediatrics and the American College of Cardiology. Dr. Moak's primary interests include sudden cardiac death, neurally mediated cardiac syncope, and pacemakers and cardiac function. His clinical practice includes inpatient and outpatient electrophysiology as well as the full spectrum of interventional electrophysiologic procedures.

Jai K. Nahar, M.D.
Dr. Nahar joined the division of cardiology in July 2006 after completing his training at Children's National Medical Center. After his pediatric postgraduate training in India, he finished his pediatric residency at Sinai Hospital of Baltimore. Prior to joining the cardiology fellowship, Dr. Nahar worked as a primary care pediatrician in Hagerstown, MD. His primary focus is outpatient cardiology.

Michael L. O'Byrne, M.D., M.Sc.
Dr. O'Byrne joined the interventional is an interventional cardiologist at the Children's National Heart Institute. He received his bachelor's degree from Harvard University and his medical degree from Columbia University's College of Physicians and Surgeons He completed pediatric residency, pediatric cardiology fellowship, and advanced fellowships in interventional cardiology and cardiovascular research at The Children's Hospital of Philadelphia. Clinically, Dr. O'Byrne specializes in diagnostic and interventional catheterization procedures for the treatment of congenital heart disease. He is board certified in Pediatrics and Pediatric Cardiology. He is an Associate Fellow of the American College of Cardiology. Dr. O'Byrne also has advanced training in clinical epidemiology, including a Master's of Science in clinical epidemiology from the University of Pennsylvania. His research focuses on improving outcomes in children with congenital heart disease through both multi-center observational studies and patient-centered outcomes.

Laura J. Olivieri, M.D.
Dr. Olivieri splits her time between the Division of Cardiology and the Sheikh Zayed Institute for Pediatric Surgical Innovation. She received her undergraduate degree at Worcester Polytechnic institute and her medical degree at the University of Chicago. Following her pediatric residency and chief residency at Hasbro Children's Hospital and Brown University, she completed her pediatric cardiology fellowship at Children's National and a senior fellowship in advanced cardiac imaging and cardiac MRI at Children's National and the NIH. Dr. Olivieri's research has included computational models of flow dynamics and presently focuses on using MRI and echocardiographic in 3D printing of heart models. Her clinical practice includes inpatient and outpatient care, echocardiography, and cardiac MRI.

Gail D. Pearson, M.D., Sc.D.
Dr. Pearson is the Chief of the Heart Development and Structural Diseases Branch of the National Heart, Lung, and Blood Institute, NIH. In this capacity, she leads the multi-center Pediatric Heart Network and oversees multiple clinical research protocols. Other responsibilities include developing clinical research policy and programs for NHLBI, consultation to the FDA and other NIH Institutes on topics pertaining to pediatric cardiology, and overseeing an extramural research grant portfolio focused on heart development, congenital heart disease, cardiac inflammation, and valvular disease. Dr. Pearson is a part-time Children's National faculty member, focusing on outpatient cardiology, echocardiography, and training the cardiology fellows. She is board-certified in pediatric cardiology, and is a fellow of the American Academy of Pediatrics, the American College of Cardiology, and the American Heart Association. Dr. Pearson represents the NHLBI on the AHA's Cardiovascular Disease in the Young Leadership Council. Her interests include clinical research and echocardiography. She serves as the faculty mentor for the cardiology fellows' core book club conference.

Craig A. Sable, M.D.
Dr. Sable is the director of the Echocardiography Laboratory and the director of Telemedicine for Children's National. He has previously served as director of the Fellowship Training Program. He received his undergraduate education at Northwestern University, his medical education at the University of Chicago, and his pediatric residency and pediatric cardiology fellowship training at Children's National. He is chairman of the Sub-Board of Pediatric Cardiology of the American Academy of Pediatrics, past chairman of the Cardiovascular Disease in the Young section of the American Heart Association, and is an editor of the journal *Pediatric Cardiology*. Dr. Sable's primary interests include telemedicine, advanced echocardiography, and rheumatic heart disease. He has a strong interest in international medicine, having lead over a twenty medical missions to Africa to establish a sustainable congenital heart program in Uganda. Dr. Sable directs the fellows' weekly echocardiography conference.

Janet N. Scheel, M.D.
Dr. Scheel is the medical director of Advanced Heart Failure and Cardiac Transplantation at Children's National. She received both her bachelors and medical degrees from Georgetown University followed by an internship in pediatrics at The New York Hospital - Cornell Medical Center and residency at Johns Hopkins, where she remained for her cardiology fellowship. At Hopkins, she helped lead and grew the pediatric heart transplant program. She has lectured nationally and internationally and is a member of the International Society for Heart and Lung Transplantation, the American Society of Transplantation, and the International Pediatric Transplant Association. Dr. Scheel serves on the boards of The Pediatric Heart Transplant Study Foundation and The Enduring Hearts Foundation.

David N. Schidlow, M.D.
Dr. Schidlow joined the cardiology division in 2014 after completing his pediatric residency at UCLA and his general cardiology fellowship as well as an advanced imaging fellowship at Boston Children's Hospital. He received his B.A. from Brandeis University He received his master's degree in music followed by his medical degree from the Temple University School of Medicine. Dr. Schidlow's clinical interests include echocardiography and fetal cardiology as well as inpatient and outpatient care.

Gregory Yurasek, M.D.
Dr. Yurasek is a graduate of the College of the Holy Cross and the Columbia University College of Physicians and Surgeons. Subsequently, Dr. Yurasek completed his pediatric residency and cardiology fellowship at Children's Hospital of Boston. After his fellowship in cardiology, Dr. Yurasek completed a pediatric critical care fellowship at Massachusetts General Hospital. Greg has been recognized for his exceptional teaching throughout his training and has won numerous awards, including the Fellow Teacher of the Year while at Massachusetts General Hospital. He has interest in pedagogical methods in medical education and has been involved in multiple projects aimed at re-tooling instructional methods for the new generation learners.

David L. Wessel, M.D.
Dr. Wessel joined Children's National in July 2007 and now serves as Chief Medical Officer for Hospital Services. Dr. Wessel was educated and trained at Oxford, Yale and Harvard and is board certified in anesthesiology, pediatrics, pediatric cardiology, and pediatric critical care medicine. He is regarded by many as one of the fathers of pediatric cardiac critical care. He was the founding president of the Pediatric Cardiac Intensive Care Society, an international society which honored him with its 2004 award for contributions to improving children's heart health. While in Boston, he designed a training program for pediatric cardiac intensive care and trained numerous fellows and staff who are now leaders in that field throughout the country.

DIVISION OF CARDIOVASCULAR SURGERY
FACULTY ROSTER

Richard A. Jonas, M.D.
Dr. Jonas is the Chief of Cardiovascular Surgery at Children's National Medical Center and Co-Director of the Children's National Heart Institute. He joined our staff in July 2004 after spending 20 years at The Children's Hospital Boston, where he was Cardiovascular Surgeon-in-Chief for 10 years. He completed his post-doctoral training in Melbourne, Australia, Auckland, New Zealand, and Boston. His surgical skills in management of all aspects of congenital heart disease are world renowned. He is an international leader in pediatric cardiovascular surgery, caring for patients from all over the world. He has had leadership roles in several professional societies including the Congenital Heart Surgeons Society and the American Association for Thoracic Surgery. He is an author on over 250 peer reviewed manuscripts and 30 book chapters. He has authored 5 textbooks including the "Comprehensive Surgical Management of Congenital Heart Disease." He is principle or co-investigator on 5 active NIH funded grants. His more recent research has focused on the study of support techniques during cardiac surgery to maximize intellectual development and minimize neurological injury.

Dilip Nath, M.D.
Dr. Nath joined Children's National Heart Institute at Children's National Medical Center in July 2010. He received a Bachelor of Science in Bioengineering from the University of California, Berkeley in 1995. He obtained a Doctor of Medicine degree from New York University in 1999. He completed his residency in general surgery at the University of Minnesota in 2004. His research interests include developing cell based purity and viability assessments of islets as well as studying cytoprotective effects of antioxidants in porcine endothelial cells under fatty acid stress.

Pranava Sinha, M.D.
Dr. Sinha joined Children's National Heart Institute at Children's National Medical Center in September 2008. He received his Bachelor of Medicine and Surgery from Grant Medical College, University of Mumbai, India. After his cardiothoracic residency there he further trained in the specialty at St. Thomas's Hospital in London, UK, and at Boston Medical Center and Boston University. Dr. Sinha trained in Pediatric Cardiac Surgery at Children's National Medical Center, Washington DC.

Cardiac Intensive Care Unit
Attending Staff

John T. Berger, M.D.
Medical Director
Anna Brown, M.D.
J. Wesley Diddle, M.D.
Craig Futterman, M.D.
Darren Klugman, M.D.
Adam Lowry, M.D.
Jen Schuette, M.D.
Jamie Schwartz, M.D.
Lillian Su, M.D.
Shankar Venkat, M.D.
Greg Yurasek, M.D.

Cardiac Anesthesia
Attending Staff

Nina Deutsch, M.D.
Director
Anna Brown, M.D.
Richard Kaplan, M.D.
Andy Matisoff, M.D.
Jamie Schwartz, M.D.
Karen Thomson, M.D.
Chinwe Unegbu, M.D.

2014 – 2015 Children's National Cardiology Fellows

Third year fellows

Bradley Clark, M.D.	Residency	Children's National Medical Center
	Medical School	UMDNJ
	College	Emory University
Michael Cunningham, M.D.	Residency	Walter Reed National Military Medical Center
	Medical School	Uniformed Services University of the Health Sciences
	College	United States Naval Academy
Joshua Hayman, M.D.	Residency	Children's Hospital at Montefiore
	Medical School	Albert Einstein College of Medicine
	College	University of Pennsylvania
Michelle Ploutz, M.D.	Residency	Lucille Packard Children's Hospital - Stanford University
	Medical School	Tufts University School of Medicine
	College	Smith College

Second year fellows

James Enos, M.D.	Residency	New York Presbyterian/Weill Cornell Medical Center
	Medical School	Brown University School of Medicine
	College	Florida State University
Jacob Hartz, M.D., M.P.H.	Residency	Duke University
	Medical School	University of New Mexico School of Medicine
	MPH	Columbia University
	College	Emory University
Yue-Hin Loke, M.D.	Residency	Children's National Medical Center
	Medical School	Indiana University School of Medicine
	College	University of Maryland
Lauren Talemal, M.D.	Residency	Yale University
	Medical School	Temple University School of Medicine
	College	Lehigh University

First year fellows

Ashish Doshi, M.D., Ph.D.	Residency	Washington University of St. Louis
	Medical School	Duke University (M.D.-Ph.D.)
	College	Case Western Reserve University
Ian Hovis, M.D.	Residency	Children's Hospital at Montefiore
	Medical School	New York Medical College
	College	University of Wisconsin
Bryan Siegel, M.D.	Residency	Yale University
	Medical School	New York University School of Medicine
	College	Dartmouth University
Nimisha Verma, M.D.	Residency	Children's National Medical Center
	Medical School	University of Missouri, Kansas (combined 6 year program)
	College	University of Missouri, Kansas

Please let us know if we can answer any questions about life in DC and at Children's National!

Name	Year	E-mail
Bradley Clark	3rd	brclark@childrensnational.org
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Michelle Ploutz	3rd	mploutz@childrensnational.org
James Enos	2nd	jenos@childrensnational.org
Jacob Hartz	2nd	jhartz@childrensnational.org
Tom Loke	2nd	yloke@childrensnational.org
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