

ADVANCES IN PEDIATRIC CARDIOLOGY AND CARDIAC SURGERY

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Dr. Ralf Holzer Leads Pediatric Cardiology at Weill Cornell



Dr. Ralf J. Holzer

On June 1, 2017, **Ralf J. Holzer, MD, MSc**, joined NewYork-Presbyterian/Weill Cornell Medical Center and Weill Cornell Medicine as Chief of the Division of Pediatric Cardiology and Director of

Pediatric Cardiac Catheterization at the Komansky Children’s Hospital. Dr. Holzer also serves as a Co-Director of the NewYork-Presbyterian Congenital Heart Center with **Emile A. Bacha, MD**, and **Julie A. Vincent, MD**. He brings with him a leadership career in interventional cardiology that has taken him from the Royal Liverpool Children’s Hospital in the United Kingdom to Nationwide Children’s Hospital in Columbus, Ohio, and back overseas to the Sidra Medical and Research Center in Qatar before putting down roots here in New York City.

“Dr. Holzer is a renowned expert committed to innovative interventional techniques and approaches to pediatric cardiology care,” says **Gerald M.**

Loughlin, MD, the Nancy C. Paduano Professor and Chairman of the Department of Pediatrics at Weill Cornell Medicine, and Pediatrician-in-Chief of NewYork-Presbyterian Komansky Children’s Hospital. “He is adept at even the most challenging

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An ICU Dedicated to Infant Cardiac Care

Emile A. Bacha, MD, Director of Congenital and Pediatric Cardiac Surgery at NewYork-Presbyterian Morgan Stanley Children’s Hospital, leads a team of four pediatric cardiac surgeons who each year perform 175 newborn heart repairs – a volume that makes NewYork-Presbyterian the largest congenital heart defect referral center in the region. These surgeons routinely treat some of the most complex cases, many of which are not able to be managed by other institutions. At the same time, the Hospital has the lowest mortality rate in New York State, and one of the lowest in the country, for pediatric heart surgery.

“Many neonates require heart surgery within hours of birth. Because these babies differ from infants and older children not just in size, but also in the physiology of their maturing organs and systems, we believe they require unique and differentiated care,” says Dr. Bacha, who is also Chief of the Division of Cardiac, Thoracic and Vascular Surgery



Dr. Emile A. Bacha in the new Infant Cardiac Care Unit

at NewYork-Presbyterian/Columbia University Irving Medical Center and NewYork-Presbyterian/Weill Cornell Medical Center.

So it would follow that such specialized needs can best be served in a highly specialized care environment with team members who are all experts

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Dr. Ralf Holzer Leads Pediatric Cardiology at Weill Cornell *(continued from page 1)*

pediatric cardiology cases, and brings a tremendous amount of proven skill, experience, and talent that will enhance the already exceptional care we are known for. Patients with congenital heart disease and cardiac conditions are in the best possible hands under Dr. Holzer's leadership."

Dr. Holzer's expertise spans the full spectrum of transcatheter interventions, including device closure of ventricular septal defects, pulmonary artery stenting, and transcatheter pulmonary valve implantation. He is at the forefront of establishing and evaluating new and innovative procedures for patients with congenital heart disease, including procedures that are based on a close collaboration between interventional cardiologists and cardiothoracic surgeons. His academic interests focus on improving outcomes and quality of care, as well as risk adjustment for transcatheter interventions.

"Quality of care, patient satisfaction, and helping our patients achieve positive outcomes are at the core of our clinical work," says Dr. Holzer. "I look forward to working with this team, which has already received national recognition for its treatment of congenital heart disease, to deliver the highest quality care to patients and their families."

Dr. Holzer received his medical degree from the Johannes Gutenberg University of Mainz in Germany and holds a master of science in Information Technology from the University of Liverpool. He completed his residency training in Germany and the United Kingdom, and his cardiology fellowship at the Royal Liverpool Children's Hospital. He also completed an advanced fellowship in transcatheter interventions at the University of Chicago Children's Hospital.

Following his training, Dr. Holzer worked as a consultant in pediatric cardiology and led interventional services at the Royal Liverpool Children's Hospital. He subsequently served for nine years as Co-Director of the Cardiac Catheterization Laboratory at Nationwide Children's Hospital before moving in 2014 to the Sidra Medical and Research Center in Qatar, where he served as Medical Director of Cardiac Catheterization and Interventional Therapy and Acting Division Chief of Pediatric Cardiology.

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An ICU Dedicated to Infant Cardiac Care *(continued from page 1)*

in neonatal and pediatric cardiac care. With a \$5 million gift in dedication to Vivian and Seymour Milstein by their grandchildren, the Vivian and Seymour Milstein Family Infant Cardiac Intensive Care Unit became a reality in September 2017 with an official ribbon-cutting ceremony.

The first-of-its-kind facility in the United States – the Infant Cardiac Unit is a state-of-the-art ICU dedicated solely to the cardiac care of infants three months and younger. "This newly dedicated unit fosters an advanced, multidisciplinary approach to providing specialized neonatal cardiac intensive care," says **Ganga Krishnamurthy, MD**, Medical Director of the Infant Cardiac Unit. "It is an incredible advance for infants with severe congenital heart disease."

NewYork-Presbyterian's pediatric cardiac surgeons routinely treat some of the most complex cases. At the same time, the Hospital has the lowest mortality rate in New York State, and one of the lowest in the country, for pediatric heart surgery.

Forging a New Model of Care

The 17-bed unit cares for newborns – primarily premature or low birth weight – who not only need expert surgical care, but also require specialized life support technology, small-scale tools, and medical and surgical equipment designed for the tiniest of patients. The unit contains the most advanced support technology, including ECMO (extracorporeal membrane oxygenation), specialized modes of ventilation, neurologic monitoring, and continuous veno-venous hemofiltration for patients whose care may also involve cardiac



Dr. Ganga Krishnamurthy, Medical Director, and Svetlana Streltsova, Patient Care Director, officiate at the debut of the Infant Cardiac Unit.

assist devices, such as the Berlin Heart, and 3-D printing to help guide surgery.

The unit's highly skilled team includes neonatal and pediatric cardiac intensivists, pediatric cardiologists, neonatal cardiac nurses, and neonatal and pediatric cardiac nurse practitioners. "We believe this highly specialized care model provides the best outcomes for newborn infants with congenital heart disease," says Dr. Bacha. "The Infant Cardiac Unit offers the perfect complement to the extraordinary care our healthcare teams provide on a daily basis to infants with conditions, including extreme prematurity, respiratory failures, very low birth weight, congenital heart disease, and complex congenital abnormalities that may require surgery."

For More Information

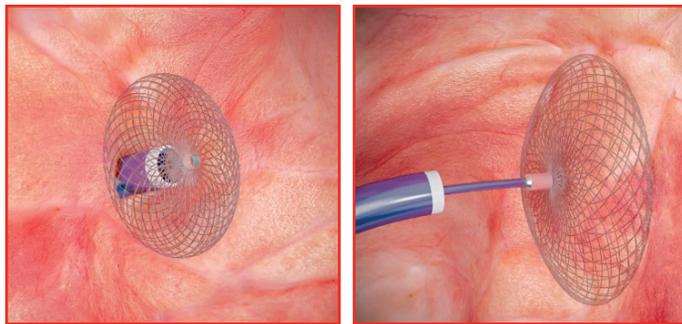
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Patent Foramen Ovale: Preventing the Potential for Recurrent Stroke

The relevance of patent foramen ovale as an antecedent to cryptogenic stroke, particularly in young, otherwise healthy, individuals has long been the subject of debate and continues to garner significant attention. According to **Harsimran S. Singh, MD**, Director of Adult Congenital Heart Disease and a specialist in interventional cardiology at NewYork-Presbyterian/Weill Cornell Medical Center, several retrospective and randomized control trials have investigated the association of PFOs with cryptogenic stroke and the efficacy of PFO closure in the prevention of recurrent stroke.

These studies culminated in October 2016 with the FDA approval of the first device dedicated to PFO closure – the AMPLATZER™ PFO Occluder – for patients with cryptogenic stroke predominantly between the ages of 18 and 60 years. The PFO occluder reduces the risk of stroke in patients who previously had a stroke believed to be caused by a blood clot that was able to reach the brain through a portal created by the patent foramen ovale. The device, studied in the multicenter RESPECT trial, compared outcomes after PFO closure to medical therapy in patients with cryptogenic stroke and evidence of a PFO.



Placement of AMPLATZER™ PFO Occluder (Courtesy of Abbott)

“This trial provided evidence supporting the observational data and physiologic hypothesis that PFO closure can help prevent recurrent stroke in appropriately selected patients with an approved device specifically designed for this purpose,” notes Dr. Singh in an article recently published in *Cardiology in Review*. Upon approving the device, the FDA stressed the importance of collaborative decision making between neurologists and cardiologists before consideration of PFO closure.

In an editorial published in the December 26, 2017, issue of *JAMA Neurology*, stroke expert **Hooman Kamel, MD**, a neurologist



Dr. Hooman Kamel

with the Feil Family Brain and Mind Research Institute at Weill Cornell Medicine, seconded the argument for consideration of PFO in certain stroke patients. “Clinicians can now make recommendations with much more certainty about the risks and benefits, and eligible patients have an additional proven treatment option for preventing stroke,” says Dr. Kamel, citing the research data that shows that PFO closure should be

considered only in patients younger than 60 who have had an ischemic stroke that has no other apparent cause. He also cautions that PFO closure should not be offered to patients with other types



Dr. Harsimran S. Singh

of stroke that are not caused by PFO, or to those with transient ischemic attack.

“It is also important to note that PFO should not automatically be considered the cause of an ischemic stroke,” adds Dr. Kamel. “Before agreeing to PFO closure, patients should ask whether their profile fits the profile of patients in the clinical trials. If it does not, there is no way to know whether PFO closure will lead to more benefit than harm.”

At NewYork-Presbyterian/Weill Cornell, the decision to close a PFO is made in consultation with a multidisciplinary team of neurologists and interventional cardiologists. “A good relationship between the two services is crucial,” says Dr. Singh, who performs the PFO closure procedure. “Presence of a PFO alone is not enough reason to close. We work together with our colleagues in neurology to evaluate every patient to determine if a closure procedure is warranted. I think patients appreciate the collaborative approach – they know they are getting our best advice.”

“Even when indicated, PFO closure does not provide lifelong protection against stroke because patients can develop other risk factors as they age. This is another crucial reason for multidisciplinary care,” says Dr. Kamel. “When a decision is made to perform PFO closure, our interventional cardiologists have the experience and skill to perform these procedures safely, and our stroke neurologists then provide expert follow-up care. Patients should receive lifelong monitoring and intensive management of common stroke risk factors.”

Reference Articles

Singh HS, Katchi F, Naidu SS. PFO closure for cryptogenic stroke: A review and clinical treatment algorithm. *Cardiology in Review*. 2017 Jul/Aug;25(4):147-57.

Kamel H. Evidence-based management of patent foramen ovale in patients with ischemic stroke. *JAMA Neurology*. 2018 Feb 1;75(2):147-48.

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Children's Cardiomyopathy Program Awarded Accreditation

NewYork-Presbyterian Morgan Stanley Children's Hospital has been named an accredited center of care by the Children's Cardiomyopathy Foundation (CCF), a national nonprofit organization committed to improving the health outcomes and quality of life for children with cardiomyopathy. The Hospital's Program for Pediatric Cardiomyopathy, Heart Failure, and Transplantation, directed by pediatric cardiologist Linda J. Addonizio, MD, provides treatment for children and young adults suffering from cardiomyopathy, heart failure due to cardiomyopathy or congenital heart disease, and those in need of heart transplantation.

The accreditation recognizes the consistent, high quality cardiac care and the specialized disease management the Hospital provides to children with cardiomyopathy, including its high volume of approximately 240 patients in a one-year period, range of clinical services and expertise, and its academic affiliation and status as a research hospital.

"The accreditation validates the Hospital's expertise in offering high quality, comprehensive family-centered care to children with cardiomyopathy."

— Linda J. Addonizio, MD

"The accreditation validates the Hospital's expertise in offering high quality, comprehensive family-centered care to children with cardiomyopathy," says Dr. Addonizio. "CCF-accredited centers provide an important resource for families seeking the best specialized medical care."

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