

**Beijing, China**  
**July 1 - 9, 2017**



**The Gift of Life, Inc.**



The Novick Cardiac Alliance is committed to bringing sustainable health care solutions to children with cardiac disease in the developing world.

We are dedicated to improving the skills, knowledge, technology and experience of local health-care providers in regions of the world without access to quality Pediatric Cardiac Care.

We aim to provide comprehensive care to all children with congenital or acquired heart disease regardless of gender, ethnicity, religion, political ideation, genetic factors or economic means.

Our vision is that in the future all children with heart disease, no matter where they are born, will be able to receive the medical and surgical care they require to live a long and healthy life.





Two team members comprised the 13th team led by Dr. Novick to Beijing Children's Hospital. The trip was organized in conjunction with an invitation for Dr. Novick to speak at the 3rd China International Forum of Pediatric Development June 30-July 2.

During our trip a total of 17 children received surgery, of which 4 were directly involving Dr. Novick, and the remainder done by the local team independently.

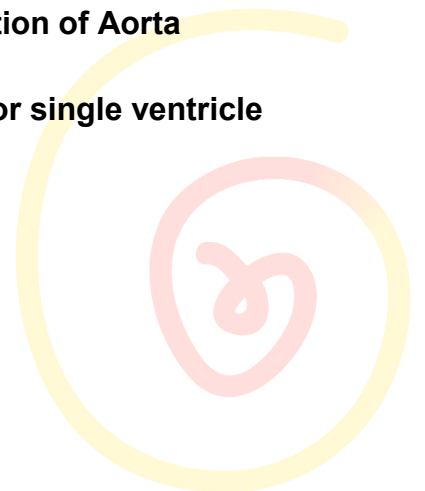
A small selection of complex surgeries were consulted upon, and one in particular had been consulted on extensively prior to the trip. One child had received surgery with Dr. Novick's team in 2010, and received a follow up definitive operation.

Education issues covered included surgical assessment, specifics of surgery. In ICU new evidence and practices were discussed around sedation, cardiac drugs, antibiotic therapy, and pulmonary complications related to specific operations.

The local team has a high level of expertise, now performing over 700 surgeries annually, and the nursing team in particular is highly motivated and competent.

# Patient List

1. Yang Aokun	8 months	VSD Closure
2. Zheng Juntao	5 months	Repair of Severe Pulmonary Stenosis
3. Ren Shuhao	1 1/2 years	VSD Closure
4. Ji Quinjiayu	3 years	VSD Closure
5. Sun Qian	3 years	Unifocalisation of Right Pulmonary arteries
6. Huang Yufei	10 months	Repair of Double Outlet Right Ventricle
7. Feng Shilan	2 months	Repair of Coarctation of Aorta And PDA legation
8. Yu Meng Yang	1 year	Repair of coronary artery Fistula
9. Liu Qianshuo	7 years	Fontan operation for complex single ventricle
10. Yang Jun Kai	1 year	Aortoplasty and pulmonary artery plasty
11. Sun Lu	2 years	Repair of Double Aortic Arch
12. Liang Mingshuo	9 months	ASD Closure
13. Zhang Zi Yu	3 years	Repair of Coarctation of Aorta
14. Liu Chuxia	1 year	Glenn operation for single ventricle
15. Wang Xinuo	6 years	VSD Closure
16. Li Yitong	10 months	VSD Closure
17. Liu Shumei	5 years	VSD Closure





**Sun Qian,  
3 years  
Tuesday, July 4th**

Sun Quian is a 3 year old girl with pulmonary Atresia, VSD and Multiple Aortopulmonary Collateral Arteries (MAPCAs) who had a prior palliative surgery as a small baby at Shanghai Children Medical Center (SCMC). This defect-fatal if not palliated early in infancy, usually requires a minimum of 3 surgeries in order to get over 10 years of age.



SCMC was not able to help Sun with the subsequent procedures she needed since the team there felt the risk was too high. Additionally, the parents had consulted at several centers abroad, and were quoted \$800,000 - \$900,000 for an operation in the USA. Sun had her operation by Dr. Novick and Dr. Song Bai (who was a trainee surgeon when we first started to visit Beijing in 2005). Sun came off the ventilator the next morning but developed some lung issues so was placed back on the ventilator but that issue is progressing and she is recovering well.







## **Liu Qianshuo, 7 years Wednesday, July 5th**

Liu Qianshuo is a 7 year old boy born with a complex Single ventricle, usually requiring 2 - 3 surgeries. Liu had a Glenn operation by Dr. Novick in September 2010. He had been doing well and was ready for his Fontan operation completing the necessary redirect of blood flow to give him normal oxygen levels. The operation was led by Dr. Novick, Dr. Xiaofeng Li. Liu came off the ventilator after two hours and left the ICU two days after surgery.

## **Yang Jun Kai, 1 year Thursday, July 6th**

Yang Jun Kai is a 1 year, 2 month old boy with supraventricular aortic stenosis and left pulmonary artery stenosis. Yang was very small for his age and the operation required two patches to relieve the obstruction which was placing strain on both sides of his heart. Yang's operation was led by Dr. Novick and Dr. Song Bai. Postoperatively he encountered some problems with a slow heart rhythm and required support of a temporary pacemaker. This resolved by 1 postoperative day and he was off the ventilator and breathing comfortably on Friday noon.



**Liu Chuxia, 1 year  
Friday, July 7th**

Liu is a 1 year old boy with a single ventricle and pulmonary stenosis. He presented to Beijing Children's Hospital during the team's visit and had a Glenn operation needing to be done on the left and the right. He is expected to be able to leave the ICU in about two days.



**\*\*Abbreviations and Terms used in this report**

**PDA** - Patent Ductus Arteriosus, a channel between the aorta and pulmonary artery

**VSD Ventricular Septal Defect**—a hole between the two pumping chambers

**ASD Atrial Septal Defect**—a hole between the two collecting chambers

**Unifocalisation** - joining together multiple pulmonary artery vessels on the right or the left to make a single pulmonary artery on one side

**BT Shunt** - a palliative procedure to provide some flow to the pulmonary arteries usually in the case of Pulmonary Atresia.

**Supravalvar Aortic Stenosis** - a narrowing above the aortic valve

**Glenn operation** - an operation for single ventricle, connecting the main vein draining from the right neck - directly to the pulmonary arteries.

**Fontan operation** - the next stage after a Glenn operation - connecting the main vein from the lower body directly to the pulmonary arteries.





# Cardiac Alliance Team

**Dr. William Novick**

**Cardiothoracic Surgeon**

**Tennessee, USA**

**Frank Molloy**

**Nurse Educator**

**United Kingdom**





# Four Core Principles of NCA

## COLLABORATE

We Collaborate with Governments, Health Ministries, healthcare professionals and Humanitarian Organizations to provide total cardiac care to children in developing countries. The children we serve have limited access to quality care and the families lack the financial resources to seek care elsewhere. This collaboration will enable local health-care authorities to build Pediatric Cardiac care services in country and in time eliminate the need to send these children abroad for surgery.

## EDUCATE

We educate Local health-care professionals and work with their educational institutions to improve the standard of training and hence care provided to children with Heart disease. Our education model is open and flexible and is delivered using multiple modalities. We work with each site individually to find the best template for education and development of clinical judgement. We provide clinical bedside teaching, didactic lectures and ad hoc teaching sessions on site: and encourage the use of internet based resources and access to international academic journals. We are currently in the process of building a virtual learning environment using “Moodle”™ as the platform.

## SUSTAIN

Our goal is that of our partner site's – to develop full independence over time and to operate on and care for the children with a home grown team of experts and no continuing need for direct outside assistance. We monitor the quality and effect of our assistance, and tailor our teams size and skill set accordingly. We commit to maintaining professional relationships with those hospitals and personnel well into the future and focus on areas such as academic work, conference attendance and occasional short visits. We have seen that a significant proportion of volunteers and core staff on our teams enthusiastically emerge from previously assisted sites.

## INNOVATE

We facilitate practical and affordable solutions to a variety of clinical, technical and patient problems, which are unique to the sites we work in. First world approaches are often unaffordable or inappropriate to the needs of our partner sites. Surgical, Interventional Catheter and ICU techniques are tailored and modified to address the needs of the population we serve. Many of the children we see are much older than would typically be seen in developed countries and consequently the medical and surgical options for these children are very different. Many of these innovations emerge from professionals at our partner sites and we encourage presentation and publication of such in conferences and journals.



## **The Gift of Life, Inc.**

Thank You for your generous and continued support and for helping the children of China with congenital heart disease!



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