EurAsia Heart Foundation
Dedicated to People
As Swiss people, we benefit daily from one of the best health care systems in the world. We are confident, that the next generation of medical experts will be educated and trained by most experienced professionals. For many countries, such conditions are a distant dream. We often forget that in developing or emerging countries many people – and especially many children – have no or only minimal access to a backward medical system.

Although hospital infrastructure and medical equipment are available in these countries, the local practitioners often lack the appropriate knowledge how to apply the current techniques. In order to generate the necessary knowledge and skills experienced teachers are necessary who are often difficult to find in the respective countries.

In 2000, I was asked for the first time to demonstrate surgical tactics and techniques during a heart operation in China, which resulted in multiple requests to organise similar training missions. To meet the growing number of requests, I decided to found “EurAsia Heart – A Swiss Medical Foundation” in 2006 in Zurich aiming to support our colleagues in developing and emerging countries through on-the-job training in their own countries. Since then, a partnership with numerous hospitals all over EurAsia has developed. EurAsia Heart Foundation experts are visiting our partner hospitals several times a year to support medical education and practical training in their own environment, using their own resources assisting them the treatment of their own patients. The success of this kind of cooperation is immediately visible: decrease in operative mortality; extension of the scope of disease which can be treated; improved training of local specialists and, finally, a tremendous increase in the confidence of the local population in their respective hospitals and institutions. “Help for self-help” on the spot including the practical transfer of knowledge, experience and “how-to-do-it” are invaluable.

The increasing number of requests from foreign hospitals and the ever-increasing number of experts who would like to get involved with EurAsia Heart shows that this kind of “help for self-help” is convincing and highly effective.

Therefore, it is my pleasure to introduce EurAsia Heart Foundation on the following pages. I thank you for your interest.

Prof. Dr. med. Dr. h.c. Paul R. Vogt
President of the Board of EurAsia Heart – A Swiss Medical Foundation
Experts from many institutions and countries constitute the dedicated team of EurAsia Heart Foundation:

- Klinik Im Park, Zurich, Switzerland
- University Hospital, Zurich, Switzerland
- University Children's Hospital, Zurich, Switzerland
- University Hospital, Berne, Switzerland
- Cantonal Hospital, Aarau, Switzerland
- Hospital Hietzing, Vienna, Austria
- Medical University AKH Vienna, Austria
- University Hospital, Munster, Germany
- Ukrainian Children's Cardiac Centre Kiev, Ukraine
- The Harley Street Clinic, London, UK
- Yale School of Medicine, New Haven, USA
- University Hospital St. Marina, Varna, Bulgaria
- Military Medical Academy, St. Petersburg, Russia
- St. Petersburg Children's State Medical University, St. Petersburg, Russia
- Pediatric Cardiac Surgery Hospital, Tomsk, Russia

EurAsia Heart is a Swiss Medical Foundation established in 2006 in Zurich. The main focus of the foundation is on cardiology and cardiovascular surgery and includes medical, interventional as well as surgical treatment of congenital heart defects in children as well as of acquired heart diseases of the adult.

EurAsia Heart consists of a group of mainly European doctors, led by Swiss surgeons. On a voluntary basis, experts of EurAsia Heart offer international cooperation to Eastern European, Asian and African countries in the fields of cardiology, cardiac and vascular surgery, anaesthesia, intensive care and prevention.

The principle of “helping people help themselves” empowers the local teams to use the newly acquired knowledge and skills in the shortest time possible without the presence of EurAsia Heart and thus to treat the entire spectrum of their patients on their own.

“In Switzerland, every child with heart disease gets cardiac surgery, if necessary. However, where EurAsia Heart becomes active, only 1 out of 5000 has been treated so far!”
Cardiovascular diseases – a major problem worldwide

In developing countries, cardiovascular diseases are the major cause of death in neonates, children, adolescents and adults. Untreated congenital heart disease is the major cause of death worldwide in children younger than five years of age, exceeding the combined death rate caused e.g., by malaria, tuberculosis or HIV.

In many developing countries, life expectancy is limited to an average of 58 to 64 years of age. In addition, quality of life is markedly reduced while the number of disabled patients and those, being dependent from social welfare is steadily increasing. The major cause is undiagnosed and untreated cardiovascular diseases. Eighty percent of all cardiovascular deaths worldwide occur in developing countries.

In Western countries, there are around 1000 cardiac operations performed per 1 million people. The mean number of patients operated in developing countries may be as low as 16 to 25 patients per 1 million people. Hence, there are millions of children, adolescents and adults waiting for cardiac surgery suffering from chronic cardiovascular disease. In addition, the majority of neonates with congenital heart disease are going to die early after birth despite the fact that curative surgical treatment would be possible.

The current generation of cardiac surgeons in Western European countries already had experienced teachers and grew up with constantly more difficult to treat patients. By contrast, surgeons in Eastern European and Asian countries are confronted from at the beginning with difficult to treat and chronically ill patients, complex technologies and advanced knowledge in the operating theatre as well as in the intensive care station. For these reasons many centres in developing countries have – even in simple cases – high mortality and complication rates and are only able to treat a limited spectrum of patients being in urgent need for cardiac surgery.

In addition, patients and relatives are often surprisingly well informed through the Internet and are aware of the current medical state-of-the-art. This puts enormous pressure on all parties involved.

Well-educated staff including well-trained and highly motivated doctors supported by an experienced nursing team represents the most important part of a well functioning cardiovascular surgical department. Regardless of the amount of money governments may invest into a newly established department, three things can simply not be bought: knowledge, experience and skills. These are exactly the challenges EurAsia Heart Foundation is dealing with supporting local educational programs in cooperating hospitals based on the principle of help to self-help.

EurAsia Heart Foundation – The solution

The most sophisticated way of teaching is to transfer knowledge, experience and skills directly into these centres. EurAsia Heart is not compiled by a group of doctors travelling around to do surgery only on their own. The basic principle of EurAsia Heart is to assist. The local team should work on its own using EurAsia Heart’s staff to improve their skills, to solve their problems and to discuss all relevant topics they need to improve the treatment of their own patients.

The foundation offers a one-to-one teaching with the corresponding local experts using their own equipment and treating their own patients in their own hospitals.

The aim of such a kind of cooperation consists of:

1. Decrease of the operative mortality rate;
2. Decrease of the rate of complications and, hence, the number of patients being disabled from unsuccessful interventional or surgical procedures;
3. Expansion of the scope of patients being able to get adequate treatment;
4. Demonstration how cardiovascular patients can be treated cost-effectively;
5. Support of international cooperation;
6. Organisation of international multicentre studies according to the current guidelines for good clinical practice.
The way EurAsia Heart Foundation works

EurAsia Heart consists of a pool of physicians, who work on a rotating basis in the cooperative countries. Experts from Europe, America and Asia are available as trainers allowing EurAsia Heart to recruit experts from various specialties.

The goal of EurAsia Heart is the transfer of medical knowledge and skills in the fields of cardiology, cardiovascular surgery, intensive care medicine, anaesthesia, perfusion and nursing. In addition, EurAsia Heart promotes the dissemination of knowledge about specialties, which are indispensable for the care of cardiovascular patients, such as infectious diseases, hygiene, data collection and data analysis.

This kind of help to self-help is based on four conditions:

1. The governmental institutions of the corresponding country are involved and support the entire project.
2. The cooperation is based on the local infrastructure, which will steadily be improved.
3. A local team must be present which can benefit from this kind of cooperation.
4. The cooperation must be based on a long-term commitment of both players: the local staff as well as the experts of EurAsia Heart Foundation.

The experts from EurAsia Heart Foundation work voluntarily. The Foundation covers the following costs: travel expenses; on-site expenses; the premiums for travel and liability insurance as well as the operation of the website.

Where we are active

EurAsia Heart represents the only foundation worldwide directly transferring knowledge, experience and skills in the way as described above. The health care systems from developing and emerging countries cannot be compared with those of industrialized countries. Hence, support is vital.

Armenia

In Armenia, cooperation has been established with the Erebouni Medical Centre with regard to cardiovascular surgery. So far, several missions have been carried out and numerous patients have been consulted and operated. This is the first and only international cooperation of Erebouni Medical Centre.

Bulgaria

The “Saint Marina” University Hospital in Varna has several joint ventures with Swiss hospitals, e.g. with the University Hospital Berne in the field of renal transplantation; or with the Cantonal Hospital St. Gallen and the University Hospital Zurich for the treatment of pulmonary hypertension.

With regard to cardiac surgery, cooperation has been established with Prof. Plamen Panayotov, Director of the Department of Cardiovascular Surgery. The main topics within this cooperation concern the elimination of superficial or deep sternal wound infections following cardiac surgery, intraoperative myocardial protection as well as the prevention of perioperative neurological complications.

China

Although many excellent cardiovascular centres have been developed in China, EurAsia Heart Foundation continues to be solicited and is directly supported by the Chinese Government. Millions of children and adolescents are still waiting for life-saving cardiovascular surgery. For the “China State Administration for Foreign Expert Affairs”, EurAsia Heart represents the “European Doctors Group for Continued Medical Education in China”. Since many Chinese centres have achieved an excellent standard, the cooperation has reached another level: Chinese centres are now working jointly with EurAsia Heart in the field of «Science and Research». Nevertheless, several hospitals asked EurAsia Heart to resume the original missions with patient consulting and practical teaching at the operation table.

Our partner centres in China are a proof of the sustainability of EurAsia Heart’s work. For example, the cardiac surgery department at Union Hospital in Wuhan, where EurAsia Heart’s first educational heart surgery took place in 2000, now belongs to the three top heart centres in China, having reached top international standards in diagnosis and treatment of cardiovascular diseases.
Eritrea

For seven years now, EurAsia Heart has directed the development of a cardiac surgery unit in Asmara, Eritrea, which has been realized in cooperation with the German Hammerforum e.V. Every year, a team of experts travels to Asmara to operate on children and train the local staff members.

Cambodia

The Angkor Hospital for Children in Siem Reap, Cambodia, has a department for cardiac surgery, but operations are only performed with a foreign team in place. Therefore, surgery is limited to a few weeks per year – too few considering a waiting list of 1500 children suffering from congenital heart disease.

On request from Angkor Hospital for Children, EurAsia Heart started a first mission to assess local conditions and the potential for a more extended cooperation.

The EurAsia Heart team consisted of doctors and nurses from the Klinik Im Park, Zurich, the Ukrainian Children’s Cardiac Centre and the paediatric heart surgery department of St. Petersburg State Pediatric Medical University. During this mission the team operated on 20 children with heart valve or heart septal defects. At the same time many children were evaluated by echocardiography. The first mission turned out to be very successful and resulted in both clinics to evaluate long-term collaboration with EurAsia Heart.

Myanmar

Since eight years now, EurAsia Heart cooperates with the department of cardiovascular surgery at Yangon Medical University. Initially, the department in Yangon carried out 120 surgeries per year; the operative mortality was unknown. EurAsia Heart supported the cardiology as well as the cardiovascular surgery department with donated devices and equipment worth several million CHF and has carried out innumerable missions. Today, the department of cardiovascular surgery has two operating rooms, operates more than 350 patients a year, and masters the entire spectrum of adult heart surgery. The mortality rate dropped down to 2 %. But there is still a lot to be done, as only about 600 heart operations are carried out every year in Myanmar – for 56 million inhabitants!

Aside from Yangon Medical University, EurAsia Heart started to support the Yankin Children’s Hospital in Yangon where a paediatric cardiac surgery department has been built-up. However only simple operations can be carried out today in this centre. The only paediatric cardiologist in Myanmar presented a list of 5,000 children, which need vital cardiovascular surgery – and these are only those children, which are already diagnosed to suffer from heart disease.

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Russia

A vast cooperation network has been established in Russia where EurAsia Heart cooperates with the Military Medical Academy in St. Petersburg, the St. Petersburg State Pediatric Medical University, the Meshalkin Institute in Novosibirsk, the Tomsk University as well as the Department of Cardiovascular Surgery in Voronezh. Currently, the main focus lies in the development of cardiovascular surgery for newborn and children at St. Petersburg State Pediatric University – the only children’s university in Russia. In St. Petersburg, EurAsia Heart treats the most complex congenital heart defects educating in the same time the local team, which consists of promising young doctors. After a difficult start, the clinic is now so successful that newborn and children from all over Russia are assigned.

Ukraine

After a long-term cooperation with the Institute of Urgent and Recovery Surgery at the Academy of Medical Sciences in Donetsk, the focus of EurAsia Heart’s cooperation shifted to the excellent Ukrainian Children’s Cardiac Center (UCCC, Director, Prof. Illya Yemets). An exceptional partnership at eye level has been established in cardiology as well as in the surgery of congenital and acquired heart diseases. Doctors and nursing staff at the UCCC have rapidly become teachers within EurAsia Heart Foundation. For example, EurAsia Heart and the UCCC have conducted mixed-team missions in Myanmar, Russia, Kazakhstan and Cambodia. In the UCCC, the local experts and EurAsia Heart also carry out joint scientific studies developing new innovative medical technologies.

Uzbekistan

In Uzbekistan, surgeons perform about 800 heart operations per year for 32 million people. The majority of surgical procedures involve rheumatic heart disease, bypass surgery and simple congenital heart defects. Mortality rates are not known. EurAsia Heart has built-up a new heart surgery at the “Republican Specialized Center for Cardiology” in Tashkent. The department has been equipped with donated materials for the operating room and the intensive care unit. In the second year, 250 heart operations have already been performed and many complex and combined procedures have been carried out. The most important point, however, is the fact, that the operative mortality did never exceed 2 % even at the very beginning of the department. In cardiology, new techniques were introduced, which were applied for the first time ever in Uzbekistan. In addition, cooperation with the state foundation “Healthy Generation” and the University Children’s Hospital in Tashkent have been established. Collaboration was also initiated in the Fergana Valley in the Eastern part of Uzbekistan, where neither cardiology nor cardiac surgery is established for its 10 million inhabitants.

Vietnam

In Vietnam 6000 heart operations are performed every year, with official mortality data lacking. Despite considerable progress, thousands of children and adolescents are still waiting for life-saving cardiac surgery. Aside from Ho Chi Minh City, EurAsia Heart Foundation will also become active in the new heart centre in Nha Trang.
Balance of activities  Cardiology  Why should you support EurAsia Heart Foundation?

EurAsia Heart has been operating since the end of 2000 according to the principles described above. Administratively, the foundation was established in Zurich in 2006. Over the past 15 years:

• EurAsia Heart Foundation has spent more than 74 months abroad delivering «help to self-help».
• EurAsia Heart Foundation has performed more than 2900 cardiovascular interventions and operations in neonates, children, adolescents and adults.
• EurAsia Heart Foundation has provided more than 8900 consultations to neonates, children, adolescents and adults and defining the necessary procedures, hence, up to now, EurAsia Heart Foundation has treated more than 11 800 patients in all these countries.

Whether cardiac surgery is performed on children, adolescents or adults, cardiology is an indispensable partner without which EurAsia Heart couldn’t work properly and efficiently. On the one hand, cardiology is involved in peri- and intraprooperaive diagnostics of congenital or acquired heart disease, offering decisive and strong on-site support for the surgical teams. On the other hand, cardiology has become a powerful and independent unit within EurAsia Heart, educating the local staff. The foundation educates colleagues in clinical and interventional cardiology, electrophysiology as well as peri- and intraprooperaive echocardiography. Thanks to generous donations of stents by the industry, EurAsia Heart’s cardiologists have been and are able to help many patients suffering from coronary artery disease who could otherwise not afford interventional stent therapy. This procedure not only saves numerous lives but also restores quality of life in patients suffering from severe limitations. Pediatric cardiology to date is focused on the St. Petersburg State Pediatric University, whereas adult diagnostic and interventional cardiology is mainly performed in Myanmar, Tashkent and Kiev.

Health Care has become a global task. Reinforcing health systems in developing and emerging countries has a positive impact on global health from which we also benefit. EurAsia Heart Foundation has continuously been extending its activities due to numerous requests. Although EurAsia Heart supported the orthopedic surgery department in Ural region, the support for a broader spectrum of medical specialties would need a more complex organisation and far more funding.

Of course, there are many requests from different medical specialties. Nevertheless, cardiovascular medicine represents the core challenge for EurAsia Heart Foundation:

- EurAsia Heart is not about episodic charity work, but ensures constant presence in the cooperating countries. To date, EurAsia Heart is able to provide several simultaneous missions to different countries.
- EurAsia Heart performs operations, provides consultations and helps determine future treatment for thousands of children, adolescents and adults in Eastern Europe and Asia, as well as in some parts of Africa.

EurAsia Heart should therefore be supported because the foundation:

- delivers help to self-help;
- brings education where education is urgently needed;
- offers specific solutions to urgent local needs;
- provides resources that cannot be bought: skills, knowledge and experience;
- supports the development of a cost-effective, tailored infrastructure;
- has successfully been active for 17 years;
- is a registered charity which operates with low overhead costs.

For more information please consult:
- www.eurasiaheart.com
- http://mediex.online.fr
- www.paulvogt.com

Support EurAsia Heart Foundation with your donation:

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Your donation to EurAsia Heart Foundation is applicable for tax purposes.
Activity Report 2016

Cardiology – cardiovascular surgery (cv-surgery): active clinical practice; continued education; teaching assistance in daily clinical practice; scientific presentations

January
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)
- St. Petersburg State Pediatric University: 2 missions (congenital cardiac surgery)
- Presentation of EurAsia Heart Foundation’s collected rare clinical cases at the Annual Practical Course for Echocardiography, Lucerne, Switzerland (by invitation)

February
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)
- St. Petersburg State Pediatric University: 3 missions (pediatric cardiology; pediatric intensive care medicine; congenital cardiac surgery)
- Erebouni Medical Centre, Yerevan, Armenia: 1 mission (team approach: cv-surgery, cardiology, echocardiography, perfusion technology)

March
- St. Petersburg State Pediatric University: 1 mission (congenital cardiac surgery)
- Yangon, Myanmar: 1 mission (cv-surgery)

April
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (cardiology; cv-surgery)
- St. Petersburg State Pediatric University: 3 missions (congenital cardiac surgery)

May
- St. Petersburg State Pediatric University: 1 mission (congenital cardiac surgery)
- Erbil, Iraqi-Kurdistan: 1 mission (cv-surgery)
- Tashkent, Uzbekistan: 2 missions (cv-surgery) at the Republican Specialized Centre for Cardiology and the Republican Research Centre for Emergency Medicine
- Asmara, Eritrea: 1 mission (congenital cardiac surgery)
- Chimkent, Kazakhstan: 1 mission (congenital cardiac surgery)
- Nishni Tagil, Russia: 1 orthopedic surgery mission (shoulder surgery; hip joint surgery; feet surgery)

June
- St. Petersburg State Pediatric University: 2 missions (congenital cardiac surgery)
- Moscow: EAHF-presentation about emergency coronary surgery at the Russia PCI (by invitation)
- Novosibirsk, Russia: 75y-Anniversary of Meshalkin-Institute; EAHF-presentations: 4 different topics (by invitation; EAHF as Faculty Member)
- Wuhan, China: Union Hospital Annual Meeting: EAHF-presentations: 2 different topics (by invitation; EAHF as Faculty Member)
- Yangon, Myanmar: 2 missions (cardiology, cv-surgery; congenital cardiac surgery)

July
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)
- Yangon, Myanmar: 1 mission (cv-surgery)

August
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)
- Chimkent, Kazakhstan: 2 missions (cv-surgery; congenital cardiac surgery)

September
- St. Petersburg State Pediatric University: 3 missions (congenital cardiac surgery)
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)

October
- Yangon, Myanmar: 2 missions (cardiology; congenital cardiac surgery; EAHF-presentations cardiology and cv-surgery at the Annual ASE-AN-Meeting; different topics (by invitation; EAHF as Faculty Member)
- Voronezh, Russia: 1 mission (cv-surgery; EAHF-presentation: 4 different topics (by invitation; EAHF as Faculty Member)

November
- Ukrainian Children’s Cardiac Centre (UCCC): 3 missions (2 cardiology; 1 cv-surgery)
- Tashkent, Uzbekistan: 1 mission (team approach: cv-surgery, congenital cardiac surgery; perfusion; interventional cardiology (first TAVI in Uzbekistan)
- Presentation of EAHF at the Widenmoos-Resort (by invitation)

December
- St. Petersburg State Pediatric University: 3 missions (pediatric cardiology; pediatric intensive care medicine; congenital cardiac surgery)
- Ekaterinburg, Russia: 1 mission (congenital cardiac surgery)
- Tashkent, Uzbekistan: 1 mission (cv-surgery, congenital cardiac surgery)
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (cardiology)
- Yangon, Myanmar: 1 mission (cv-surgery)
2) Specific Meetings and Congress Events (EAHF as Faculty Member and/or Organiser)

- May: Tashkent, Uzbekistan: invitation by the Ministry of Health; Presentations at the Republican Research Centre for Emergency Medicine; Presentations at the Annual Meeting of the Uzbekistan Society of Cardiology
- June: Wuhan, China: Huazhong University of Science and Technology (see above)
- October: Voronezh (see above)
- November: Yangon, Myanmar: First International Heart Valve Repair Workshop at Yangon Medical University

3) Science and Research

- Intellistent Project: development of a pulmonary artery flow restrictor for the treatment of pulmonary artery hypertension; Eisenmenger-syndrome and left heart failure: acute animal studies successfully performed; chronic animal study in preparation
- Infection prevention: Scientific presentation and publication of infection prevention after median sternotomy in cooperation with University of Vienna (paper accepted for publication)

4) Materials, devices, equipment

- The following hospitals donated material, devices and equipment for free for EAHF: Triemli Hospital Zurich; Klinik Im Park, Zurich; Hirslanden-Klinik, Zurich; University Hospital, Zurich; Heart-Centre Kreuzlingen, Switzerland; Heart-Centre Konstanz, Germany
- Different medical companies provided devices, materials and implants for free for poor patients in developing countries
- Overall, materials, devices and equipment have been donated to Yangon, Kiev, St. Petersburg, Yerevan and Asmara for a total of 3 million Swiss Francs.

5) Administration

- Certificate and Regulations of the foundation have been up-dated to the current international needs: both accepted by the “Schweizerische Stiftungsaufsicht des Eidgenössischen Departement des Innern (December 2016).
- Restoration and aggrandizement of the Board of the Foundation of EAHF.
- Cooperation with Fundraising Company, Fribourg, Switzerland with the purpose of professional, institutionalized fundraising.

6) Miscellaneous

- EAHF did again host several guest doctors from different countries allowing them to cooperate with EAHF members in different hospitals in Zurich: Triemli Hospital, University Hospital, Klinik Im Park, Hirslanden-Klinik

7) Summary of clinical activities

EAHF achieved one of his long-term goals: being active at least once per month in at least one of the EAHF destinations. Moreover, EAHF was able to organise several mission per month, some being held in parallel. Compared to the 2015 performance, EAHF increased the total number of patients treated interventionally as well as surgically to >2700 patients. In addition, >8700 consultations have been performed. The scope of clinical treatment comprises the full spectrum of congenital and as well as acquired diseases of the heart and the vessels and this is true with regard to:

- Diagnostic and interventional cardiology
- Cardiovascular surgery
- Intensive care treatment
- Anaesthesiology
- Perfusion technology (heart-lung machine and associated technical devices)
- Preventive care
- Follow-up care
- Preventive care
- Follow-up care
- Presentations of all kind of topics in cardiovascular medicine: hence, numerous presentations have been given at every mission (list beyond the scope of this summary)
- Introduction and teaching in new technologies
- Teaching in cost-effectiveness: “must-be-done’s” versus “must-not-be-done’s”
- Quality control
- Clinical missions include:

- Practical clinical work by EAHF members in complex and first-done procedures in interventional cardiology and cv- or congenital heart surgery
- Teaching assistance in real-time daily practice
- Clinical visits on the intensive care station, the regular ward as well as the outpatient departments
- Patient consulting in clinical rounds and morbidity-mortality conferences: hence, decision making for clinical patients: which patients need surgery, which patients need interventional treatment; which patients need medical treatment and follow-up visits only; which patients do not need any treatment at all
- Presentations of all kind of topics in cardiovascular medicine: hence, numerous presentations have been given at every mission (list beyond the scope of this summary)
7A) Example 1: St. Petersburg State Pediatric University, St. Petersburg, Russia

As presented in the activity report for 2015, the St. Petersburg State Pediatric University serves as an excellent model to demonstrate the efficiency of EAHF in starting and establishing a new cardiovascular department. Figure 1 below again demonstrates the progress achieved in 2016: increases number of procedures, decrease in mortality and morbidity achieving a hospital mortality rate in the most difficult field of neonatal congenital cardiac surgery which competes favourably with Western European results. The improvements in the clinical practice correlates well with the missions carried out by different EAHF members.

Figure 1: EAHF started with clinical support, when the operative mortality of this congenital cardiac surgery department at the St. Petersburg State Pediatric University approached 40 %, of course threatening the existence of the entire unit. Among other factors, the reason for the high mortality was due to the referral of the sickest preterm and neonatal babies with the most complex congenital heart malformations. Up to 30 % of patients had been rejected before by established paediatric centres. After 28 missions in 24 months, the operative mortality rate dropped to 3.3 %, which compares favourably with the risk-adjusted mortality of Western departments.

7B) Example 2: Yangon Medical University, Yangon, Myanmar

The second example of the efficiency of EAHF is given by the excellent development of the cardiovascular department of the Yangon Medical University in Yangon, Myanmar. Figure 2 below depicts the increase in the caseload when EAHF started support. The figure below, however, does not show several important points, namely that:

- The operative mortality rate decreased to an internationally acknowledged level of 1 % to 2 %.
- The entire spectrum of cv-surgery can be operated nowadays at Yangon Medical University.
- A young generation of future cardiovascular surgeons decided to choose this specialty because they acknowledge the education given in this department.
- A second operation theatre has been opened and is fully working now.
- The patients in and around Yangon got confidence into the performance of this unit demonstrated by the fact that the waiting list for cv-surgery extends to 2019.

Figure 2: Illustrates the number of cardiovascular operations done at Yangon Medical University, Yangon, Myanmar. EAHF started to support this unit in 2009.

7C) Example 3: Uzbekistan

The development of cardiovascular surgery in Tashkent is another example for the efficiency of EAHF. In 2015, EAHF donated a fully equipped operating theatre to the Republican Specialized Centre for Cardiology to start with cardiac surgery. 114 patients have been operated in 2015, and 233 in 2016. The scope of surgery comprises acquired heart disease as well as congenital heart disease in adolescents and adults. Complex combined coronary, valve and aortic surgery are already possible including methods such as deep hypothermic circulatory arrest. The most important point, however, is the operative mortality rate, which is already below 2 %.

Aside from the Republican Specialized Centre, EAHF also supports the congenital heart surgery program of the Paediatric University in Tashkent to increase the scope of surgery above the level simple atrial or ventricular septal defects.

In December 2016, the first visit to Fergana valley took place - on request of the new government. Fergana valley has around 10 million people. Neither cardiology nor congenital or adult cardiac surgery is established in Eastern Uzbekistan - a huge task for EurAsia Heart Foundation.
8) Specialities outside cardiovascular medicine: orthopedic surgery

In 2016, EAHF carried out another mission to Nishni Tagil, Russia, in to support orthopaedic surgery: complex shoulder, hip joint and feet operations and re-operations including consulting of a large number of patients as well as different presentations of three most experienced Swiss orthopaedic surgeons. The Ural Clinical and Rehabilitation Centre is a new, huge multidisciplinary hospital with orthopedic surgery being one of its key specialties. The style of teaching and education of EAHF, which is widely known in Russia, stimulated this Centre to ask for support in orthopedic surgery. Basically, orthopedic surgery is outside the scope of EAHF, however, as the Ural Centre provided full financial support of all missions, EAHF decided to start cooperation. A contract was signed between the Ural Centre, the Governor of Ekaterinburg as well as EAHF to support medical education in the Ural region. Consequently, in December, the first successful mission was carried out to the paediatric cardiovascular centre in Ekaterinburg.

9) Unmet tasks and requests

Despite the progress described above, EAHF still struggles with various problems and is confronted with unmet requests:

- Fundraising still is insufficient to meet the increasing requests of our partners.
- Requests from several countries and different hospitals remained unmet:
  - Kazakhstan
  - Kirgisistan
  - Several African countries
  - Several hospitals in countries, where EAHF is already active, e.g. Russia: Vladivostok, Khabarovsk and other cities or regions such as e.g. Caucasus.
- More donations with regard to materials, devices and equipment are needed to boost progress of individual centres.
- The involvement of wealthy local people in the corresponding countries to support their own health care system still is insufficient.
- The involvement of political and administrative decision makers in the corresponding countries to support EAHF locally still is insufficient.
- Support from the Swiss Government, respectively its developmental agencies, e.g. such as the DEZA is completely inexistent.
- More donations with regard to materials, devices and equipment are needed to boost progress of individual centres.

Prof. Paul R. Vogt
President of the Board of the Foundation

A common goal

And now, here comes Ella, EurAsia Heart’s Russian-born business manager, to lead me through the bewildering maze of corridors, staircases and lifts into a spartanly-furnished office area containing maybe half a dozen computer work stations and some ugly imitation parquet flooring made of threadbare linoleum. A small side room is home to a sagging sofa, a coffee machine and a table bearing Ella’s modern MacBook.

«More donations with regard to materials, devices and equipment are needed to boost progress of individual centres.»
I put down my substantial outer clothing, geared towards minus 20 degrees C, and follow Ella again through the catacombs towards the surgical suite. Just before we get there, we happen upon our three colleagues in their familiar green surgical overalls: Paul Vogt – the founder of EurAsia Heart – with his two guest surgeons, Sabine (from Düsseldorf) and Sergey (from St. Petersburg). They greet us in high spirits, with an invitation to accompany them to the staff canteen, where they intend to get something to eat at last.

The “Canteen” consists of a bare room housing a few tables and stools, but the service is warm and friendly. The midday meal is traditionally Russian and the portions more than simply sufficient – which is also traditional.

The conversation revolves around cultures, food and the differences between them, but it always and repeatedly goes back to the little patients – who are the reason we are all here, after all. It becomes clear very quickly that what we have here are three highly qualified professionals who are completely immersed in their passion. As a management specialist and medical lay person, it is immediately obvious to me that there is no trace here of one-upmanship or rivalry, never mind any lusting for power; this is no “Team of leaders”; far rather, this is a real “Leadership Team”!

To illustrate this difference: if a group of managerial employees get into a lift, that’s a “Team of Leaders” – but if the lift then gets stuck for a couple of hours, they’ll soon get on with forming a “Leadership Team” – because they’ll all have just the one thing in mind; to get out of that lift, whatever the price.

The first ward round

Following our rather delayed lunch, it’s time to go on the “Ward round” to see the children who have just undergone surgery in the Intensive Care ward. From the layperson’s point of view, this ward looks just as hi-tech as the equivalent at the Hirslanden Klinik in Zurich, even if there is a suspicion that the equipment might not entirely be of 2016 vintage.

It looks as if things are going well for the 3 year old boy who had his operation today: Paul bends over him for just a short time and then turns away again with satisfaction after making a couple of professional remarks. Things are a little different when it comes to the 6-week-old baby. This baby also lies motionless, but after a successful operation yesterday morning, the specialists had been kept busy here until 10 o’clock at night. It had taken that long to stabilize this baby’s circulation, despite a wide variety of different attempts.

When I look at these two children, completely “wired up” and lying there helplessly, I can’t help thinking that they may well not have seen the next summer without these operations.

But I’m allowed very little time for sentimentality; we’re all heading straight back up to the large office space, where we are awaited by some junior doctors, and Konstantin, the young Chief Surgeon of this pediatric department. Even though he’s just 38 years old, he already has twenty years experience as a cardiac surgeon. Naturally, I ask myself how that could be possible, but it’s perfectly simple, as Paul explains with an impish smile.

Even as an 18-year-old student, he took on the simpler operations – of the type that would maybe be carried out by a 30-year-old junior doctor within our own systems. He didn’t do this from over-confidence, but modestly and effectively, because there was nobody else there who might have been able to do the job...
Massive gratitude

Sabine takes over the leadership role for the following process, which lasts for several hours. What looks at first like an interrogation of the local doctors is in reality a structured professional practice.

The doctor providing the child’s treatment describes the clinical history and the preliminary diagnosis for that child, including computer tomography and other diagnostic aids. The travelling surgeons ask precise questions, thus encouraging the doctors to provide more detail to supplement their answers, or even to make some corrections. After cross-checking the “theory” – which can sometimes take an hour – they move on to “the practice”: A few rooms further along from where they are meeting, the relevant mother has prepared her child for a live ultrasound and the whole team checks out what they have understood up till then against the moving pictures.

Back in the consulting room, the final verdict is given: they decide upon which surgical intervention they will use, with what aim and using which method. Hardly has “this case” been concluded then the whole process is repeated for the next child.

This time, the mother in question can’t cope with the many specialists and observers, the jumble of languages, the specialist jargon and the anonymity of the examination; she just howls as she bundles her son, that helpless little scrap of humanity, back in a blanket and carries him away. It seems that she is extra anxious because the operation for her little Sergey is planned for the following day. In the course of the subsequent discussion between the experts about what is to be done about all this, and how, a consensus soon emerges that the small hole in the internal wall of the heart with which the boy was born will very probably heal up of its own accord. As a result, the verdict is that there should be no operation – just more observation for another 3 months.

Ella and I immediately get permission from the committee to bring this news to the mother. Shortly afterwards, we find her – still crying – with her Sergey in her arms. After a degree of skepticism at first, her eyes brighten slowly and we sense endless relief and massive gratitude...

Back in the consultation room, the process goes on to the next child, and the next, and, and,... – I don’t dare ask about the length of the waiting list, but from a glance at the pile of folders, I would say it must be dozens.

I am deeply grateful to have had the opportunity to witness a few such happy moments. And yet, I am tortured by the thought of all those other children, whose future is so uncertain that even their mothers no longer dare to believe in a happy ending...

Felix Fluck, December 2016

«I am tortured by the thought of all those other children, whose future is so uncertain that even their mothers no longer dare to believe in a happy ending...»
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