Activity Report 2017

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

January
- Asmara, Eritrea: 1 mission (congenital cardiac surgery)
- Ukrainian Children’s Cardiac Centre (UCCC): 1 missions (1 cardiology)
- Yankin Children’s Hospital, Yangon, Myanmar: 1 mission (congenital cardiac surgery)
- Presentation of EurAsia Heart Foundation’s collected rare clinical cases at the Annual Practical Course for Echocardiography, Lucerne, Switzerland (by invitation)
- Erebouni Medical Centre, Yerevan, Armenia: 1 mission (team approach: cv-surgery, cardiology, echocardiography, perfusion technology)

February
- St. Petersburg State Pediatric University: 1 mission (congenital cardiac surgery)
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)
- Kiev: Presentation of EAHF/Research Project at the National Academy of Sciences of Ukraine
- Yangon, Myanmar: 3 missions (cardiology, cv-surgery; congenital cardiac surgery)

March
- St. Petersburg State Pediatric University: 1 mission (congenital cardiac surgery)
- Yangon + Mandalay, Myanmar: 1 mission (cv-surgery)
- Bishkek, Kirgizia: Scientific Research Institute of Heart Surgery and Organ Transplantation: 2 missions (cv-surgery; congenital cardiac surgery)
- Astana, Kazakhstan: 2 missions (cv-surgery, congenital cardiac surgery)
- Tashkent, Uzbekistan: 2 missions (cv-surgery, cardiology) at the Republican Specialized Centre for Cardiology (team-approach)
- Ukrainian Children’s Cardiac Centre (UCCC): 1 mission (cardiology)
April

- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (cardiology; cv-surgery)
- St. Petersburg State Pediatric University: 1 mission (congenital cardiac surgery)
- Tashkent, Uzbekistan: 3 missions (cv-surgery, congenital cardiac surgery, cardiology) at the Republican Specialized Centre for Cardiology + the Pediatric University (team-approach)

May

- St. Petersburg State Pediatric University: 1 mission (congenital cardiac surgery)
- Tashkent, Uzbekistan: 1 missions (interventional cardiology) at the Republican Specialized Centre for Cardiology + Presentation at the Annual Meeting of the Uzbekistan Society of Cardiology
- Kokschetau + Astana, Kazakhstan: 1 mission (congenital + adult cardiac surgery)
- Almaty + Taraz: 2 missions (congenital + adult cardiac surgery)
- Nishni Tagil, Russia: 1 orthopaedic surgery mission (shoulder surgery; hip joint surgery)

June

- St. Petersburg State Pediatric University: 2 missions (congenital cardiac surgery)
- Kiev, Ukraine: 1 mission (cardiology) at the UCCC
- Wuhan, China: Union Hospital Annual Meeting: EAHF-presentations: 2 different topics (by invitation; EAHF as Faculty Member)
- Yangon, Myanmar: 1 mission (cardiology)

July

- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (cardiology; cv-surgery)

August

- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (1 cardiology; 1 cv-surgery)
- St. Petersburg State Pediatric University: 2 missions (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)
- Archangelsk: cardiovascular Meeting St. Petersburg/Northwest-Russia (by invitation; several presentations + EAHF as Faculty Member)

October

- St. Petersburg, Kaliningrad: cardiovascular Meeting St. Petersburg/Northwest-Russia (by invitation; several presentations + EAHF as Faculty Member)
- Ukrainian Children’s Cardiac Centre (UCCC): 1 mission (cardiology)

November

- Ukrainian Children’s Cardiac Centre (UCCC): 1 mission (cardiology)
- Astana, Almaty, Kazakhstan: fact finding mission; visit to a total of 18 different departments in six different cities, including two children’s hospital; meeting with the Director of the Nasarbajev-University in Astana; meeting with Minister of Health and personal physician of the President: evaluation of extended commitment of EAHF to Kazakhstan
- Presentation of EAHF at the Lions Club Cosmopolitan, Zurich (by invitation)
- Yangon, Mandalay, Myanmar: 1 mission (cv-surgery)

December

- Yangon + Mandalay, Myanmar: 1 mission (cv-surgery)
- Ukrainian Children’s Cardiac Centre (UCCC): 2 missions (cardiology; cv-surgery)
2) Specific Meetings and Events (EAHF as Faculty Member and/or Organiser)

- March: Presentation of EAHF/Research Projects at the National Academy of Sciences of the Ukraine in Kyiv (EAHF: 1st presentation from a foreign expert)
- March: Charity-Concert of London Philharmonic Orchestra at Tonhalle Zurich, Switzerland
- April: Charity-Concert for EAHF/UCCC at Opera House Kyiv, Ukraine
- 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 (by invitation; several presentations + EAHF as Faculty Member)
- September: Archangelsk: Cardiovascular Meeting St. Petersburg/Northwest-Russia
- October: St. Petersburg, Kaliningrad: scientific presentations (by invitation)
- November: Astana, Almaty, Kazakhstan: fact finding mission; visit to a total of 18 different department, including two children’s hospital; meeting with Minister of Health and personal physician of the President: evaluation of extended commitment of EAHF to Kazakhstan
- November: Presentation of EAHF at the Lions Club Cosmopolitan, Zurich (by invitation)
- November: Charity concert from EAHF cardiologist and pianist Dr. Pierre Levis in Kiev, Ukraine.
- December: Presentation of rare and exceptional EAHF-patients at the University Hospital, Zurich

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 prepared: waiting for starting chronic animal study in Aachen, Germany; Moscow and Penza, Russia

4) Materials, devices, equipment

- The following hospitals again 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
- **Actually, at the end of 2017 material and equipment for about 2 million Swiss Francs are stored and ready for delivery.**

4) Administration

- Certificate and Regulations of the foundation have been up-dated to the current international needs: both definitely accepted by the “Schweizerische Stiftungsaufsicht des Eidgenössischen Departement des Innern.
- Aggrandizement of the Board of the Foundation of EAHF
- Cooperation with Fund Raising Company, Fribourg, Switzerland with the purpose of professional, institutionalized fund raising
- EAHF entered partnership with the Department of Cardiovascular Surgery of the University Hospital, Zurich (Director: Prof. Francesco Maisano).

5) Miscellaneous

- EAHF did again host several cardiologists and cardiovascular surgeons from different countries allowing them to cooperate with EAHF members in different hospitals in Zurich: University Hospital, Klinik Im Park, Hirslanden-Klinik, all in Zurich
- EAHF has been contacted by a vast number of foreign patients from different specialities. EAHF provided the appropriate experts cooperation with several hospitals all over Switzerland.
In November 2017, EAHF received in Moscow the “Innovation Award 2017” from the Suvorov Prize 2017 for its project: “Joint development and operation of a new department of cardiac surgery for neonates, infants and children at the St. Petersburg State Pediatric University. EAHF has been awarded by the Swiss Russian Forum due to its “Contribution to the Next Generation: Investing into the Future”.

6) Summary of clinical activities
Compared to the 2016 performance, EAHF increased the total number of patients treated interventionally as well as surgically to >3258 patients. In addition, >9300 consultations have been performed. Overall, so far, EAHF treated more than 13'000 patients.

The scope of clinical treatment comprises the full spectrum of congenital and 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

In some areas, teaching and introduction of basic knowledge and basic techniques represent the key task of EAHF. In other areas, however, EAHF has been able to introduce latest technologies organising many “first-of” in various countries. Just to give an example: TAVI-procedure and interventional closure of left atrial appendage have been introduced in Uzbekistan and demonstrated as well as taught for the first time. In the Ukraine, first open surgeries for thoraco-abdominal aortic aneurysms have been carried out successfully at the UCCC in Kiev.

Aside from the tasks as described, clinical missions included:

- 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)
- Introduction and teaching in new technologies
- Teaching in cost-effectiveness: “must-be-done’s” versus “must-not-be-done’s”
- Quality control
- Regular weekly Skype conferences have been performed with the UCCC in Kiev
- Numerous individual patients have been consulted via Internet-based scientific exchange

6A) Example 1: St. Petersburg State Pediatric University, St. Petersburg, Russia:
Results and cumulative survival curves have been presented in the 2016 Activity Report. In 2017, the local team has been able to manage more and more difficult children completely on their own. In addition, ECMO (extracorporeal membrane oxygenation) has been established in this unit saving an additional number of severely sick children with difficult postoperative course.
**6B) Example 3: Yangon Medical University, Yangon, Myanmar:**

The constant increase in the number of patients operated as well as in the mortality rate has already been described in the 2016 Activity Report. In 2017, the Department of Cardiovascular Surgery of the Yangon Medical University 1 is equipped with modern, fully working cardiovascular operating theatres. Nowadays, all kinds of adult cardiovascular operations can be performed safely in this unit. A new generation of medical doctors could be motivated to start cardiological and surgical education. As Yangon Medical University 1 progresses, teaching and education shifted to the Yankin Children’s Hospital in Yangon as well as to the cardiovascular surgical unit in Mandalay. Establishment of new cardiac surgery programs in the Capital of Myanmar will be the next step.

**6C) Example 3: Uzbekistan**

The foundation of the cardiovascular surgery department of the Republican Specialized Centre for Cardiology in Tashkent has also been described in detail in the 2016 Activity Report. In 2017, this department has become the leader of cardiac surgery in Uzbekistan, not with regard to the number of patients operated, but with regard to the complexity of the patients treated and the quality of the results achieved.

EAHF has been contacted by the Uzbekistan government to officially support the foundation of other cardiovascular surgical and cardiological units.

**7) Specialities outside cardiovascular medicine: orthopaedic surgery**

Mission to Nishni Tagil, offering teaching and education in orthopaedic surgery have continued. Many requests have been sent to EAHF asking for support in various other specialties, above all in oncology for children and adults.

**8) Unmet tasks and requests**

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

- Fund raising has been improved until the end of 2017, but still does not meet the demand.
- Requests from several countries and different hospitals remained unmet:
  - Kirgisistan
  - Turkmenistan
  - 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.
  - Requests for support in specialties outside cardiovascular medicine cannot be fulfilled.
- More donations with regard to materials, devices and equipment are needed to boost progress of individual centres. However, this work is extremely time-consuming. EAHF can only increase this highly beneficial part of his work if external support will be given.
- 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 has markedly improved. However, only 2018 will show, if this support will be continued and will work efficiently.
- Support from official Swiss authorities (e.g. such as the Department of development and international cooperation, DEZA) has been and remains: ZERO.

This “Activity Report 2017” will be presented at the Board Meeting of EurAsia Heart Foundation on March 8, 2018 in Zurich, Switzerland.

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