

## AEPC-JSPCCS-YIEP Fellow's Reports 2017

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Kanagawa Children's Medical Center

Motol University Hospital

From 15th of January to 23th of March,2018

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*Aepc Exchange programme report*

Rizwan Rehman

Birmingham Children's Hospital

Okayama University Graduate School of Medicine

September 2017

Report of my experience at Motol University Hospital

Shin Ono, MD.

Kanagawa Children's Medical Center, Pediatric Cardiology, Kanagawa, Japan

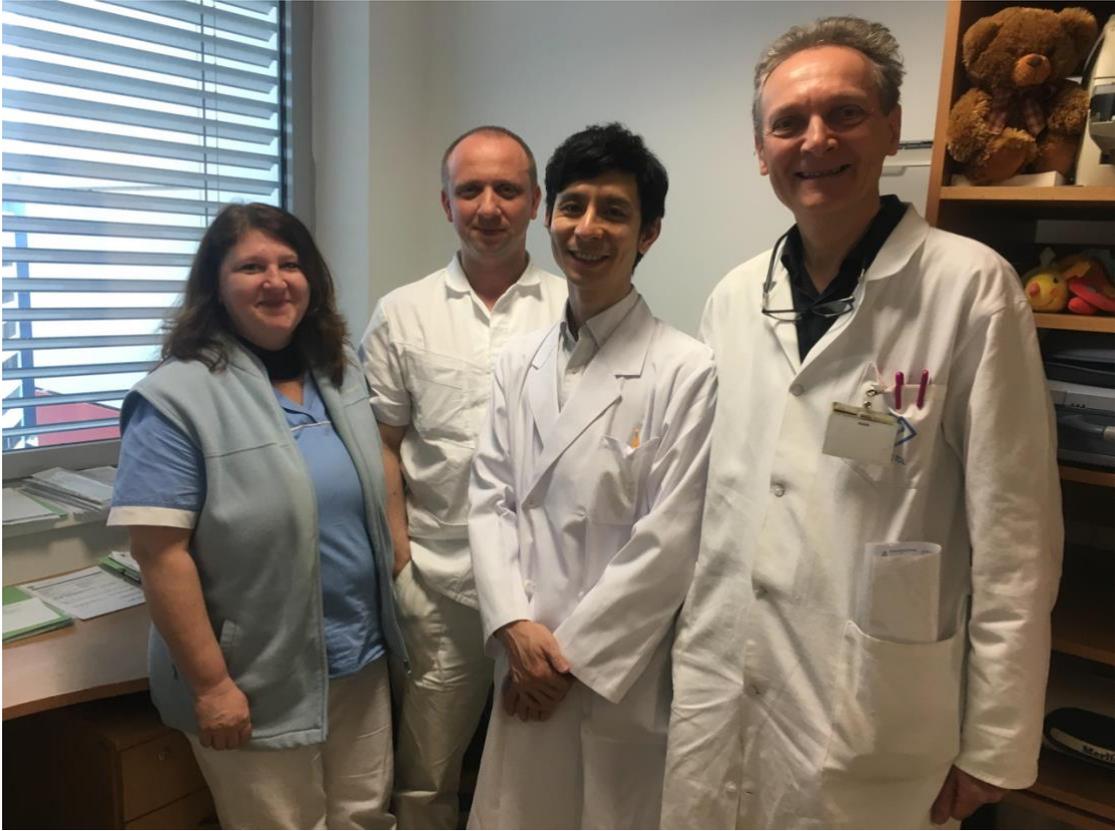
I had an opportunity to have a wonderful experience for 10 weeks from 15th January to 23th March. I visited Motol University Hospital in Prague, Czech.

At first, I was worried about my first stay in a foreign hospital. However, my worry was dissapeard by the smiles of the doctors. Thanks to the young doctor's translation, I could understand what happened in the hospital and join what I was interested in everyday. I learned many new things about electrophysiology, pacemaker, catheter intervention, intensive care and surgery.

Learning about pacemaker therapy including CRT was one of the exciting experiences. Unfortunately there has been a small number of cases of CRT in our institution because of a lack of specialty doctor. I didn't have enough experience nor basic knowledge. However, thanks to detailed explanations by Prof. Janosek and papers published from Motol hospital, I could learn much about that. Especially, I was interested much in pulmonary right ventricle CRT. That is right ventricular CRT for severe right ventricular dyssynchrony with right bundle branch block. They apply this method to perioperative patients as an option of intensive care and also to chronic patients with right heart failure. I was interested in that theory and practicality and I also wanted to apply it to patients in our hospital.

As a clinician, seeing treatments not done in our institution is a great learning experience. Furthermore, it was a great harvest for my physician's life to be able to take a glimpse of the series of flows including making an interesting attempt at a clinical site, analyzing it and writing it in a paper.

Finally, I really appreciate all kindness of Prof. Janosek and all staffs in Motol University Hospital.



## **The Young Investigator Exchange Program in Paris: A Report**

Kenji Suzuki, MD, PhD

Department of Cardiovascular Surgery, Nippon Medical School

Beginning in April 2018, I studied at Hôpital Necker-Enfants Malades (Necker Sick Children Hospital) in Paris for 2 months as part of the Young Investigator Exchange Program between the Association of European Pediatric Cardiology (AEPC) and the Japanese Society of Pediatric Cardiology and Cardiac Surgery (JSPCCS). Located in the center of Paris, this hospital is considered the world's oldest hospital for children and accepts referrals of pediatric patients from all over France. The hospital conducts approx. 20 surgeries per week performed by 4 surgeons including Professors Pascal Vouhe and Olivier Raisky.

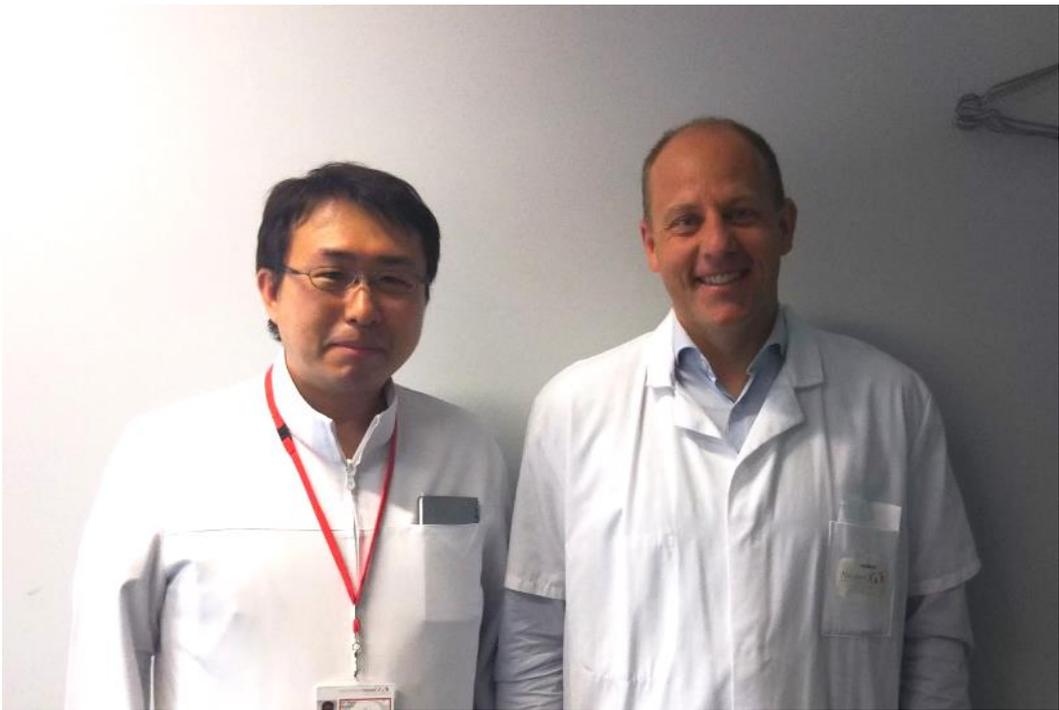
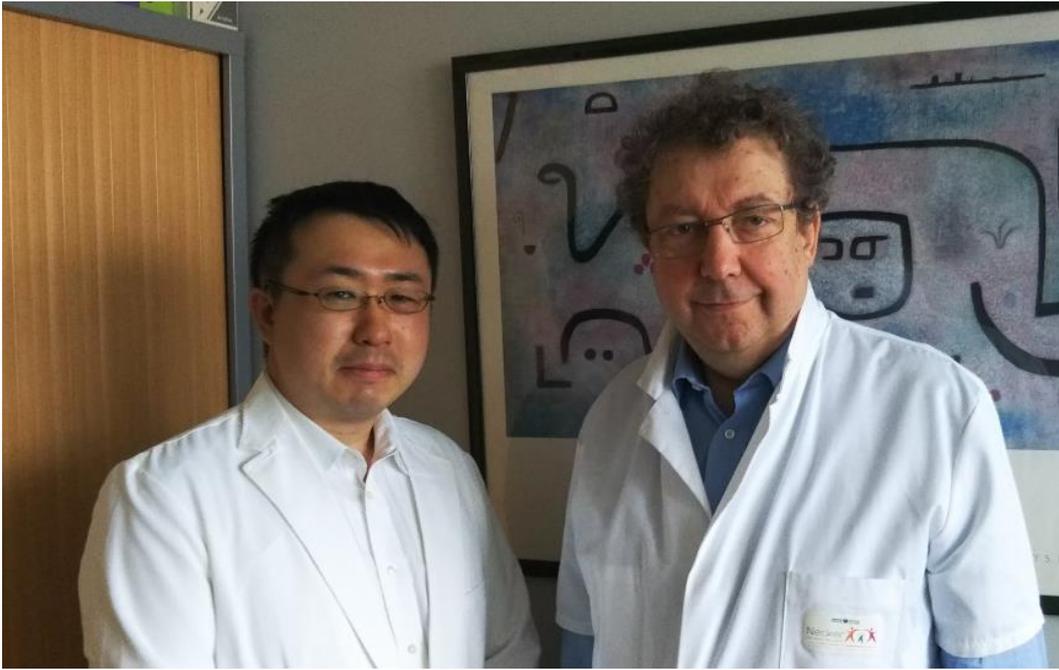
All of the hospital staff welcomed me very warmly. A place was secured for me at many surgeries, and the surgeries were explained in English when I participated. The surgeons always had time to answer my questions after surgeries. Fellows and residents also contacted me when they had emergency operations at night or on holidays, and they helped me secure training opportunities.

During my training period there were two heart transplants, and I participated in one of them. Heart transplants for children are conducted in Japan but the number of cases is limited, and it is rare to have an opportunity to participate in such a surgery in Japan.

I was very impressed by the surgeons' expertise and attitude about selecting the appropriate techniques and executing them precisely, without hesitation. I have made a determination to concentrate my full effort to meet the performance standards that I observed among the four surgeons at Hôpital Necker-Enfants Malades .

Many trainees come from all over the world to study and be trained at this hospital, and my conversations with the other trainees were very stimulating. I plan to maintain the connections that I made with several of these new colleagues in the future.

I would like to convey my sincere gratitude to the AEPC and JSPCCS for giving me the opportunity to have this excellent experience; to Prof. Damien Bonnet, Prof. Pascal Vouhe, Prof. Olivier Raisky and everyone at Hôpital Necker-Enfants Malades, who provided such valuable training and kindness to me; Prof. Nitta and other staffs at Nippon Medical School, who sent me to study abroad without hesitation; Dr. Aoki of Chiba Children's Hospital, who proposed me for this program; and my wife Nobuko, who always supported me.



Report of my experiences in Birmingham Children's Hospital

Yoshihiko Kurita

Department of Pediatrics Okayama University Graduate School of Medicine

From 3<sup>th</sup> April to 23<sup>th</sup> of May, 2018

Thanks to this AEPC and JSPCCS exchange program, I had an opportunity to have seven weeks stay of Birmingham Children's Hospital (BCH) from 3<sup>th</sup> April to 23<sup>th</sup> of May. It was a great and fantastic experiences for me. This hospital is located in the northwest of London, and it takes about one-half hour with a rapid railway. It has the history of over one hundred fifty years and we can look a beautiful historical building of the red brick.

There are ten consultant doctors in the section of pediatric cardiology. Each of them has speciality about catheter, echocardiology, other image evaluation (CT, MRI), and fetal cardiology. I mainly learned a catheter intervention from Dr. Oliver Stumper who is a very knowledgeable expert and has many experiences of difficult catheter interventions. In BCH, there are about five hundred fifty cardiac catheters and five hundred cardiac surgeries per one year. I studied many interventional techniques. It was very good for me to have a look at devices which are not approved now in Japan, for example muscular VSD Occluder, ADO- II and covered stent. I was very interested to the stenting of right ventricle outflow tract(RVOT) and patent ductus arteriosus(PDA). I could see many patients with stent of RVOT and PDA. In UK, they often put stent as palliation to patients who have pulmonary stenosis or atresia. I was surprised to that strategy because such patients usually undergo surgical systemic-pulmonary shunt in Japan. Dr. Stumper taught me not only how to use the device but also basic knowledges about catheter evaluation. The most impressive case for me was a stenting of RVOT for PA/VSD/MAPCAs. RVOT perforation and stenting was very shocking procedures. In addition to stenting, I have come to think that muscular VSD Occluder is very effective treatment. I feel that that it is necessary in Japan. In addition, I could have a contact with radiographers and nurses. They were very kind to me and had many advices about cardiac catheter to me when I asked.

I also took part in many conferences and consultant's round of PICU and cardiovascular wards. I could see very active discussions between cardiologists and surgeons. Echo meeting and other educational meetings were also very interesting to me. And I observed unit of outpatient clinic and could see many patients and echocardiology. These doctors and technicians taught me the medical care system, insurance and problems in UK. I had a chance to have a quick presentation about my trouble case of the catheter intervention in morning conference, and I could get many useful advices from catheter consultants.

I visited to AEPC2018(Association for European Paediatric and Congenital Cardiology) in Greece from 9<sup>th</sup> to 12<sup>th</sup> May. I attended many presentations and lectures and have communications with several kind of people in this meeting. In my stay, I used the student accommodation of a university near BCH. It was very

comfortable to live and the staffs were very helpful.

There are many beautiful places in UK, I had a visit to Windemere, Edinburgh and London in weekend. These trips gave me deep understandings about British cultures.

Finally, I sincerely would like to appreciate Dr Stumper, all staffs in BCH and all people who gave me such a great opportunity.





Aepc Exchange programme report

Dr Rizwan Rehman, Specialist Registrar in Paediatric Cardiology, Birmingham Children's Hospital, UK

Placement: Okayama University Hospital, September 2017

I was fortunate to be part of the AEPC- Japan exchange programme and travelled to Okayama University hospital in September 2017. The Japanese efficiency was evident at outset with early communication with my supervisor Dr Kenji Baba, Associate Professor, which meant that all the paperwork and registrations were complete well before my departure from the UK.

I travelled to Okayama after a 5-month fellowship at the Institut Jantung Negara (IJN) Malaysia and it was interesting to see how a similar spectrum of disease, significant number of right heart pathology, was dealt with at different centres within Asia. IJN is a very interventional driven unit whereas Okayama (as with many Japanese centres) is surgically driven. The RF perforation wire has only in the last year become available in Japan and PDA or RVOT stenting is not widely practised. Surgical BT shunt continues to be the mainstay of initial palliation. The surgical presence is enhanced by the fact that Mr Shunji Sano (Sano modification in the Norwood Procedure) was the surgical lead and during my stay it wouldn't be long before a reference or comment was made about Mr Sano's contribution to the unit.

The unit is a relatively large unit located in the Okayama Prefecture in western Japan. Thankfully we were some distance from the North Korean test missiles across Japan whilst I was there! It serves a population of 5-6 million and takes referral from across the prefecture and neighbouring Hiroshima. Cath activity is approx. 350 cases (200 interventions) and 350 Paediatric Surgical cases. Once per week outpatient's clinics will see 70-80 patients per week with all patients being seen by Dr Baba (as is the expectation). The ward is a mixed paediatric ward with 40 paediatric and 35 cardiac beds. There is an onsite Neonatal unit, PICU and CICU. A comprehensive health insurance system means patients are not required to pay for their treatment.

There is a hierarchical structure with the department being led by Professor Ohtsuki

followed by Dr Kenji Baba as the Associate professor. The remaining team comprises of 2 staff (Consultants) and 4 fellows. As it is a University Hospital medical students are attached to the team. The Japanese work ethic was exemplified by joint cardiac meetings that would be run between 7 pm and midnight on a Monday.

The common cases seen at Okayama University hospital includes single ventricle, heterotaxy, TAPVD, Tricuspid and Pulmonary atresia. Pulmonary vein abnormalities are relatively common.

Okayama has expertise in RV overhaul for PA IVS. Due to long term results they aim to achieve biventricular or 1 ½ ventricle repair. It was interesting to see their approach to patients with coronary fistula and their strategy for staged decompression.

I found their recent work stem cell therapy fascinating. Their experience started in humans in 2013/14 and are now conducting a multicentre trial. This is reserved for single ventricle patients with EF <50% on MRI/Echo where cells are obtained from the RA appendage at time of Cavopulmonary shunt. After processing in the lab for 1 month the patient undergoes cardiac catheter where a microcatheter and balloon are advanced into the coronary arteries. The balloon is inflated whilst stem cells are infused distally over a minute. It will be interesting to see how this work progresses and whether it can improve outcomes for our patients.

I found the language barrier difficult and am grateful for Dr Baba who helped translate. Away from work it was great to see Okayama Castle and the picturesque Korakuen gardens. I joined the team at some amazing Japanese traditional and sushi restaurants, undergoing an intensive course in Japanese fish! Leaving present of chopsticks meant I could continue my good form back home.

I would like to thank the AEPC and Dr Kenji Baba and his team for the fantastic opportunities I had to share ideas and experiences. I have made many new friends and contacts. As the exchange programme continues I hope clinicians are able to translate this experience into being able to provide better care for our patients.

