

International Interdisciplinary School IRIS, June 11-16, 2018, Issyk-Kul, Kyrgyzstan

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IRIS 2018 is organized by Center for Postgraduate Education and Research, Bishkek, Kyrgyzstan under patronage of the Journal of Electrocardiology and Heart Vessels and Transplantation with support of Scientific Research Institute of Heart Surgery and Organ Transplantation.

Faculty of the IRIS Issyk-Kul 2018 consisted of Gulmira Kudaiberdieva Editor-in-Chief, Heart Vessels and Transplantation, Jonathan Lipton - Associate Editor of Heart Vessels and Transplantation, Senior Clinical Lecturer at the University of Tasmania, Australia, Taalaibek Kudaiberdiev – Editor Heart Vessels and transplantation, Scientific Research Institute of Heart Surgery and Organ Transplantation, Center for Postgraduate Education and Research, Bishkek, Kyrgyzstan.

After welcome ceremony, Faculty formed three groups. In each group there was a participant who had the experience of the previous school IRIS2017 in Astana and Taraz, Kazakhstan (Zhenisgul Tlegenova, Kairat Nurbekov, Daniyar Cholponbaev); a participant with academic teaching experience (Nurlan Torokeldiev, Kudaibergen Osmonaliev, Adylbek Shadykanov) and a practicing cardiologist (Damirbek Abibillaev, Nuraim Zhakybalieva, Aiperi Toktosunova,).

During the IRIS programs, each group developed their own research project. The IRIS training consists of four workshops spread over an equal number of days: project selection and introduction to research proposal, research design and

methods; data collection/analysis and the final workshop addresses research administration. Key aspects of the IRIS program are the group discussions.

After working groups on their project, each group presented the progress of their project design. After each presentation, participants and faculty discussed the project. All the group discussions were in English to familiarize with the language and terms used in international scientific publication. For the first workshop discussion, the faculty took the lead, but by the final workshop discussion, the participants moderated themselves. After the discussions, the participants utilized the questions and suggestions to clarify or modify their project design.

Faculty emphasized the value of skills and knowledge gained from this active feedback process, as well as the importance of each of the steps in study design. For example, the importance of a logical significance and the connection to the study hypothesis of a scientific project.

The beautiful nature of the Issyk-Kul lake, many common interests and close cultures of the participants, as well as an informal but highly experienced faculty created a very friendly but effective learning environment. The participants were able to discuss their own career and scientific research projects as well as learning from experiences from other participants and the faculty members.

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Received: 17.06.2018 **Accepted:** 17.08.2018

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Table 1. IRIS teams and their research projects

Team name	Participants	Research project
“CardioGene”	Zhenisgul Tlegenova, Kazakhstan, cardiologist Damirbek Abibillaev, Kyrgyzstan, cardiologist Nurlan Torokeldiev, Kyrgyzstan, evolutionary geneticist	Assessment of single nucleotide polymorphisms in children with ventricle septal defect in rural areas of Kyrgyz Republic
“Jailoo and Saamal”	Kairat Nurbekov, Kyrgyzstan, resident cardiosurgery Nuraim Zhakybalieva, Kyrgyzstan, cardiologist Kudaibergen Osmonaliev, Kyrgyzstan, surgery teacher	Influence of Saamal (fresh horse milk) on total cholesterol level after two-month diet course in population from high-altitude of Kyrgyzstan.
“BOZO”	Daniyar Cholponbaev, Kyrgyzstan, resident cardiosurgery Aiperi Toktosunova, Kyrgyzstan, cardiologist Adylbek Shadykanov, Kyrgyzstan, surgery	Utilization of national drink BOZO for treatment of mild degree (110-90 g/l) iron deficiency anemia

**Figure 1. Discussion of the workshop: Project selection and introduction to research proposal.**



Figure 2. Presentation of BOZO team: Aiperi Toktosunova, Daniyar Cholponbaev, Adylbek Shadykanov



Figure 3. The groups working on their scientific projects outside.



Figure 4. Participants and Faculty after intensive workshop: Kairat Nurbekov, Daniyar Cholponbaev, Damirbek Abibillaev, Gulmira Kudaiberdieva (Faculty), Aiperi Toktosunova, Nuraim Zhakybalieva, Zhenisgul Tlegenova, Jonathan Lipton (Faculty), Nurlan Torokeldiev, Kudaibergen Osmonaliev, Adylbek Shadykanov.



Figure 5. Issyk-Kul Provincial State Historical Cultural Museum-Reserve: Kudaibergen Osmonaliev, Adylbek Shadykanov, Nurlan Torokeldiev, Damirbek Abibillaev, Jonathan Lipton (Faculty), Nuraim Zhakybalieva, Zhenisgul Tlegenova, Gulmira Kudaiberdieva (Faculty), Aiperi Toktosunova, Daniyar Cholponbaev.



Figure 6. Cholpon-Ata, Petroglyphs: Adylbek Shadykanov, Kudaibergen Osmonaliev, Damirbek Abibillaev, Zhenisgul Tlegenova, Nurlan Torokeldiev.



Figure 7. CardioGene Team, final presentation: Aiperi Toktosunova, Kudaibergen Osmonaliev, Nuraim Zhakybalieva, Zhenisgul Tlegenova, Nurlan Torokeldiev, Gulmira Kudaiberdieva (Faculty), Damirbek Abibillaev.



Figure 8. Jailoo and Saamal Team, final presentation: Nuraim Zhakybalieva, Kairat Nurbekov, Kudaibergen Osmonaliev and Gulmira Kudaiberdieva (Faculty).



Figure 9. BOZO Team, final presentation: Aiperi Toktosunova, Adylbek Shadykanov, Daniyar Cholponbaev, sit on the left side: Kudaibergen Osmonaliev, Nuraim Zhakybalieva, Gulmira Kudaiberdieva (Faculty), sit on the right side: Jonathan Lipton (Faculty), Zhenisgul Tlegenova, Damirbek Abibillaev.

Although the teams worked from early morning until late at night, there was still time to visit the over four-thousand-year-old Petroglyphs of Cholpon-Ata. Though most of the discussions were centered on the group projects, there was an additional session lead by the faculty (who were also journal editors) on how to write a manuscript, how to choose the right journal, how to handle the peer-review comments, how to communicate with the editor and other aspects of publishing scientific work.

The school concluded with the final presentation of the group projects and a ceremony to award certificates and gather feedback from the IRIS program participants.

Damirbek Abibillaev: As a first step to starting research, participating in IRIS is an invaluable experience. Every step (in research) requires effort and attention to detail as there are so many obstacles. If you are guided by professionals then you feel yourself quietly motivated, supported, endorsed. After summer school, I can recommend the IRIS program to everyone who wants to be involved in research projects.

Kudaibergen Osmonaliev: Reading and understanding a scientific book is hard thing. After reading and understanding application of that knowledge is another problem for scientists, especially if they are beginners. The IRIS program gives us all these things together at once. In my opinion, the workshop was very effective: in a short period of time we learned and applied our knowledge. Another important thing was that we found new friends from different regions of our country and international collaborators.

Zhenisgul Tlegenova: This is my second IRIS school. The knowledge and experience that I received from previous IRIS in Astana helped me to start my own research project. This school has very high level of training standards and practical direction that give chance to develop a research project in a short time. During an additional session, the faculty communicated with participants on how to write manuscript and publish it in an international peer-reviewed journal. It helped us to write our own manuscripts. The approachability of the faculty and rapid learning process along with finding new collaboration opportunities, new ambitious colleagues and very nice nature motivate me. I recommend the IRIS school to all beginner researchers.

Adylbek Sadykanov: IRIS is a great opportunity for doctors, for specialists from different fields to cooperate. This training effectively helps to novice researchers deeply understand how research is carried out. Working in a group of creative, talented people from different countries, you are encouraged to do the science.

Aiperi Toktosunova: The participation in this school gave me very useful skills. It is my first time in such project. However, I have only good emotions here. It was very exciting to take part with high educational level teachers. In 5 days they give us not only information how to write the manuscript but give the inspiration to continue on my scientific way. I hope that we will meet in the future again.

Nurlan Torokeldiev: IRIS was well organized with several workshops based on how to structure research projects in medical and non-medical investigations. Additionally, the program offered short course on how to write a manuscript and deal with post-submission process. Frankly, even holding an internal PhD degree I have learnt a lot of skills on critical thinking and formulating scientific projects. Following the IRIS program I plan to write my own scientific project and apply for grant funding. Also the session on writing a manuscript has broadened my knowledge for participating in the peer-review process of scientific journals. IRIS definitely opens opportunities for research collaboration. Besides, participants have opportunities to start both local and international networking among multidisciplinary institutions. I recommend and encourage medical doctors, scientists and scholars from any disciplines all around the world to experience this world-class workshop. I hope to take in place in the next IRIS events.

Danyar Cholponbaev: We worked hard these 5 days. I was happy to take a part at this summer school. I want to thank every participant and faculty for this. It's very good experience for me, I met new people, gained knowledge and collaboration I'll be happy to take a part in IRIS again.

Kairat Nurbekov: It was a great pleasure to participate in the IRIS. Definitely, it was my most memorable event of this summer. For the time spent here, I learned a lot: how to create my own research project, what details to pay attention to. In addition, the school helps develop critical thinking and teamwork skills. All this is thanks to a non-standard form of training, which in my opinion has multiple advantages over the standard way of teaching.

Besides the main goals, this school also allows you to get to know many interesting people and make new friends. These days have left me with exceptionally warm memories.

Nurayim Zhakybalieva: I was very impressed, because I did not have such kind of program and I learned many things in a short period of time. Workshops were very interesting, especially self-study brainstorm. In addition, I found new friends for collaboration.

The next IRIS school will be held in Slovakia in 2019, for more information on the program please visit www.iriscourse.org.



Figure 10. Award Ceremony: Jonathan Lipton, Zhenisgul Tlegenova, Taalaibek Kudaiberdiev