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International Research Interdisciplinary School 8-12 June 2015, Bosteri, Cholpon-Ata, Issyk-Kul, Kyrgyzstan

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The international scientific summer schools are now renamed as International Research Interdisciplinary Schools (IRIS), as they are now not only held in summer but also in winter – due to expanding geography and increasing frequency since the first summer school in 2006 (1-11). This year IRISs were held in Austria, Kyrgyzstan, and Brazil. The rationale, objectives and methodology of IRIS has been described in detail in the reports published after each research school (1-11). The analysis of outcomes of research education in form of workshops was also published (12).

We would like thus to present Kyrgyzstan research school in a different way: describing the formal introductory part and leaving the description of the research school to participants, allowing them to reflect on their impressions, both the positive aspects of the methodology as well as identifying areas for improvement.

IRIS 2015 in Kyrgyzstan was held between June 8-June 12 on the shore of Issyk-Kul lake, Bosteri, Cholpon-Ata in the hotel Ai-Kol (Fig.1). We should acknowledge, that it was the first research school held in Central Asia. The school was organized by Central Asian Medical Journal, National Center of Cardiology and Internal Medicine (NCCIM), Center of Postgraduate Education and Research at Scientific Research Institute of Heart Surgery and Organ Transplantation (SRI HS&OT) under patronage of the Journal of Electrocardiology and journals of research school initiative (13, 14) with sponsorship of Association of

Physicians in Internal Medicine of Kyrgyz Republic. The international faculty was represented by editors of the Journal of Electrocardiology - Prof. Galen Wagner — Editor-in-Chief, Durham, NC, USA and Prof. Ljuba Bacharova -Executive Editor, Bratislava, Slovakia; IRIS Faculty — Jonathan Lipton, MD, PHD from Melbourne, Australia; IRIS Faculty - Adam Stanczyk, MD, PHD from Warsaw, Poland; IRIS Faculty - Dr Cigdem Koca from Manisa, Turkey; Prof. Aynagul Dzhumagulova — Editor-in-Chief of the Central Asian Medical Journal, Ryskul Kydyralieva MD, DSc, Aliina Altymysheva MD, PHD from NCCIM, Taalaibek Kudaiberdiev MD, PHD and Dr. Ruslan Sadabaev from SRI HS&OT Bishkek, Kyrgyzstan, and IRIS Faculty Prof. Gulmira Kudaiberdieva from Adana, Turkey.

Twenty-one participants of 9 different specialties, including cardiology, cardiac surgery, pediatric cardiology, endocrinology, hygiene disciplines, allergology, gastroenterology and biomedical engineering from four different countries took part:

Berik Bolatbekov – cardiac surgery, Taraz, Kazakhstan; Yelena Chernokurova – gastroenterology, Almaty, Kazakhstan; Tatyana Tsivinskaya – hygiene disciplines, Bishkek, Kyrgyzstan; Bahytgul Esomova – allergology, Almaty, Kazakhstan; Gulzada Imanalieva – cardiology, Bishkek, Kyrgyzstan; Bakytbek Imanov – cardiology, Bishkek, Kyrgyzstan; Samat Kadyrov – biomedical engineering, Vienna, Austria; Zarina Kakharmanova – cardiology, Bishkek, Kyrgyzstan, Inna Lutsenko – neurology, Bishkek,

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Kyrgyzstan, Zhahongir Mamasaidov -cardiology, Bishkek, Kyrgyzstan; Ikrom Mukhamedov - cardiac surgery, Taraz, Kazakhstan; Tatiana Nekrasova — cardiology, St.Petersburg, Russia; Zulfiia Radzhapova — cardiology, Bishkek, Kyrgyzstan; Aida Shyman - endocrinology, Almaty, Kazakhstan; Zhanmedet Shyman - endocrinology, Almaty, Kazakhstan; Elnura Somkulova — hygiene disciplines, Bishkek, Kyrgyzstan; Kaiyrnisa Tilemanbetova — pediatric cardiology, Bishkek, Kyrgyzstan, Aleksey Tregubov - cardiology, St.Petersburg, Russia; Omurbek Uraimov — cardiac surgery, Osh, Kyrgyzstan; Iuliana Zalesskaya —cardiology, Bishkek, Kyrgyzstan, Zarema Zhakipova - cardiac surgery, Bishkek, Kyrgyzstan.

Participants were divided into 5 research teams based on diversity of specialties, countries, institutions and gender; during 4 days of workshops they prepared and presented the following projects:

EAGLES (Fig. 2,3): Samat Kadyrov, Ikrom Muhamedov, Kaiyrnisa Tilemanbetova, Tatyana Tsivinskaya, Iuliana Zalessakya: - Impact of depression on development of acute coronary syndrome in patients with coronary heart disease.

CARDIAC UNION (Fig. 4,5): Berik Bolatbekov, Bermet Kurmanbekova, Aida Shyman, Aleksey Tregubov: Percutaneous coronary intervention before or after coronary artery bypass grafting during hybrid operation in patients with type 2 diabetes mellitus and multivessel coronary artery disease.

SNOW LEOPARD (Fig. 6,7): Yelena Chernokurova, Zhahongir Mamasaidov, Zarema Zhakipova: **Prevalence of high cholesterol levels among population of high and low altitudes.**

SUNSHINE (Figure 8,9): Zarina Kakharmanova, Zulfiia Radzhapova, Zhanmedet Shyman, Elnura Somkulova, Omurbek Uraimov - The influence of thyroid-replacement therapy on left ventricular ejection fraction and LDL-cholesterol in patients with subclinical hypothyroidism and coronary heart disease.

PROGRESS (Fig. 10,11): Bahytgul Esomova, Gulzada Imanalieva, Bakyt Imanov, Inna Lutsenko and Tatiana Nekrasova



Figure 1. IRIS group photo: Aliina, Ljuba, Adam, Aynagul, Jonathan, Gulmira, Ryskul, Çiğdem, Zarema, Aida, Kaiyrnisa, Zulfiia, Inna, Yelena, Zarina, Gulzada, Berment, Bahytgul, Tatiana, Iuliana, Tatyana, Elnura

Sitting: Ruslan, Zhahongir Bakytbek, Ikrom, Zhanmedet, Aleksey, Berik and Samat

- The prevalence of metabolic syndrome in young adults residents of high and low altitudes in Kyrgyzstan

Guided by four workshops, the teams worked in groups on their projects, presented and took part in group and plenary discussions of the projects, and moderated discussions. The faculty carried out their duties by working with participants and



Figure 2. team EAGLES -Storming – Tatyana, Kaiyrnisa, Iuliana, Samat and Ikrom



Figure 3. team EAGLES: Presentation of the project —Iuliana, Ikrom, Samat and Kaiyrnisa



Figure 4. team Cardiac Union; Storming: Berik, Aida, Aleksey and Bermet



Figure 5. team Cardiac Union; Presentation of the Project: Aleksey, Berik. Aida and Bermet



Figure 8. team SUNSHINE: Storming — Elnura, Omurbek, Zarina, and Zulfiia. Zhanmedet



Figure 6. team Snow Leopard: Storming — Yelena, Zhahongir and Zarema



Figure 9. team SUNSHINE: Presentation of the project –Omurbek, Zhanmedet, Zulfiia and Zarina



Figure 7. team Snow Leopard: Presentation of the project - Zarema, Zhahongir and Yelena

groups, and Prof. Galen Wagner joined the faculty meetings and met with the groups during interactive Skype sessions from Durham, NC (Fig. 12).

There was an additional session where faculty and participants exchanged their experience on how to submit a manuscript and get it published in an international peer-reviewed journal.



Figure 10. team PROGRESS: Storming — Gulzada, Tatiana, Bahytgul, Bakytbek, and Inna

The social part of the program included a welcome dinner and opening ceremony, a cultural event — visit of Cholpon-Ata and Ruh Ordo museum, and farewell party. Local organizer Prof. Aynagul Dzhumagulova on behalf of Association of Physicians in Internal Medicine awarded honorary diplomas to faculty members for their contributions (Fig. 13).

Though the time schedule was tight and teams worked from early morning till late evening, participants and faculty still had the opportunity (during short breaks on the few days of sunny weather) to enjoy swimming and the beach.

On the final day, after the presentations of participants, the faculty (Jonathan Lipton, Adam Stanczyk and Ljuba Bacharova) gave presentations summarizing the groups projects and lessons learned during the workshops in an entertaining but also educational form. (Fig. 14-16). This was followed by certificate award ceremony (Fig. 17) and farewell party.

Below we selected some of the feedback we received from the participants on the research school. We would like to thank all participants for their great collaborative team work and their extraordinary activity and willingness to learn and pursue the objectives of the program, responsibility in fulfilling tasks after summer school and simply for being brilliant young researchers and personalities.

Impressions of participants after International research interdisciplinary school 2015 in Cholpon-Ata, Issyk-Kul, Kyrgyzstan

Berik Bolatbekov (Taraz, Kazakhstan)

Having groups with participants from different professional and geographic background made us unite all efforts, knowl-



Figure 11. team PROGRESS: Presentation of the project - Tatiana, Bahytgul, Bakytbek, Inna and Gulzada



Figure 12. Skype session with Prof. Galen Wagner – meeting with participants and groups

edge and experience to create a common research study. Though initially weak, by the end of the training we had a solid team bonded by a strong chain.



Figure 13. Award Ceremony of Honorary Diplomas by Association of Physicians in Internal Medicine of Kyrgyz Republic— Ryskul Kydyralieva, MD, DSc, Prof. Aynagul Dzhumagulova and Prof. Ljuba Racharova



Figure 14. Faculty Presentations: Çiğdem Koca and Jonathan Lipton



Figure 15. Faculty Presentations: Adam Stanczyk



Figure 16. Faculty Presentations: Ljuba Bacharova



Figure 17. Certificate award ceremony: Ljuba, Gulmira, Adam, Çiğdem, Jonathan, Iuliana, Aliina and Taalaibek (Ruslan is absent in this photo - as he was taking the pictures.)

"Help without help": the faculty answered our question with a question, thereby our idea was developed based on our own decisions, helping us to defend the main idea and importance of the study.

By keeping discussion in English, if at the beginning only some members and faculty could ask questions, at the end each participant was able to share their opinion or criticize a research project.

Zarema Dzhakipova – Bishkek, Kyrgyzstan:

There is an expression "Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime". The workshop taught us how to fish!

Gulzada Imanalieva (Bishkek, Kyrgyzstan):

The obtained knowledge during the program an incentive to continue performing research in medicine. I gained knowledge on how to design a clinical studyand properly present it. Also, I was happy to get a big emotional charge from the environment: pleasant and intelligent people, a friendly atmosphere and of course the beautiful surroundings.

Inna Lutsenko (Bishkek, Kyrgyzstan):

Participants in each group were from different countries, different medical specialties, different levels of knowledge in medicine, different degrees of English language proficiency and different backgrounds in research.

The handout was brief and stimulated thought processes, associative thinking, analytical skills of participants, and of course, creativity. The model of the training had a certain freedom of expression of participants: we proposed to choose the theme of the project by ourselves and we were not restricted in this choice.

Brainstorming was a key part of the educational process.

We learned how to ask and answer questions; slowly, formulating the question, and as presenter repeating it prior to giving an answer.

At conferences, I frequently see situations where the speaker responds as if to another question than the one asked, or opens other topic that is unrelated to the question. In such a situation almost always people asking the question remain unsatisfied.

Valuable advice was given on preparing the study manuscript: to start writing at the beginning, while designing the study. That way, at the end of the study most of the manuscript will be completed and you can just add the numerical and statistical data.

Discussions about the publication process (including advice about interaction with editor, publisher and coauthors) removed our unnecessary fear, and motivated us to submit future publications to international journals.

I not only gained knowledge for conducting clinical studies, creating a design that will help me in the future in research work, but also I got an experience of working in a team. This team building, cooperation with foreign colleagues and participants was really beneficial and productive for me.

The contacts made during the program will allow me to get experience reviewing manuscripts in my area of expertise for the international journal.

The experience has motivated me to become a Faculty member in future IRIS workshops.

I call upon all doctors and professors at least once to take part in training IRIS, which will only add to their research work!

Tatiana Nekrasova (Sankt Petersburg, Russia):

It was interesting to see the international aspects of research, as well as to learn how to prepare and submit an article to a high impact scientific journal.

For the English practice, it is very helpful when you can immerse in the language environment. Initially I felt ashamed and was afraid to make a mistake. But over the time, this fear began to disappear. I also observed improvement in the understanding and perception of foreign speech.

The friendship and intercultural experiences obtained in the School are equally priceless.

Zulfiia Radzhapova (Bishkek, Kyrgyzstan)

Although I already have PhD in cardiology, participation in IRIS was extremely beneficial for me. I have obtained a lot of new information related to carrying out research projects,

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developed skills in communication with the doctors who have totally different interests in medicine, and even more important - how to work as team!

Aleksey Tregubov (Sankt Petersburg, Russia)

Alternating working in groups and the subsequent collective discussion is perfect for school. I was pleased to note the friendly style of the debate. This creates a subtle atmosphere of criticism and at the same time support, this can facilitate producing worthy ideas.

It could be useful if the group work was preceded by providing some examples of the most remarkable and interesting studies in evidence-based medicine. This knowledge could be valuable for novice researchers.

Iuliana Zalesskaia (Bishkek, Kyrgyzstan)

Plenary and group discussions, as well as the group presentations make it possible to improve not only communicative skills in English language, but also skills in advocating our own views. and argumentation. Different composition of groups gives an opportunity to establish cross discipline interaction and to develop skills in team networking.

Kaiyrnisa Tilemanbetova (Bishkek, Kyrqyzstan).

The program gave a lot of information and directions for development of my professional scientific work. The seminar gave me

new idea in scientific work; I understand and see now more clearly the direction for the thesis that I am currently working on..

Working in groups was difficult as everyone had their own opinions, but it once again reminded us of usefulness to sometimes hear and see others.

The seminar gave me the opportunity to get acquainted with interesting people from different backgrounds.

Tatvana Tsivinskava (Bishkek Kvrqvzstan)

This program helps young scientists to publish their research in our country and abroad. For me it was a great opportunity to expand my knowledge and skills.

Samat Kadyrov (Vienna, Austria):

It was a great pleasure for me to be part of the program. It was very useful for me!

Bakytbek Imanov (Bishkek, Kyrgyzstan)

Participation in this school inspired me to maximize the opportunities that I encounter both in life and work. I learned that we can achieve goals that we had not thought possible before.

We gained an unforgettable experience from working in groups: people took on different roles, but during the discussions we supported each other. The team spirit motivated all to perform at their best.



IRIS-2015 Facility- hotel Ai-Kol, Bosteri, Cholpon-Ata, Issyk-Kul

The participants and faculty members were objects of inspiration: I am sorry that IRIS summer school ended so quickly!

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