

The 29th International Research Interdisciplinary School 2021, Slovakia. IRIS Slovakia 2021 on-line Bratislava, September 13-17, 2021

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During the last two years, our professional as well as personal lives have been considerably influenced by the COVID 19 pandemics. This situation has required fundamental changes how to approach and maintain our activities. However, in spite of the pandemic situation we continue organizing the International Research Interdisciplinary School (IRIS) courses annually for already 16 years.

This year IRIS was organized by Premedix Academy, NGO, Slovakia in collaboration with the scientific journal Heart, Vessels and Transplantation, under the patronage of the Ministry of Education, Research, Science and Sport of the Slovak Republic. Because of the persisted pandemic situation, the on-line format was used. IRIS was sponsored by Pfizer, which recognizes the need of training soft skill for young researcher.

In this report, we summarize the experience from this year, benefits and limitations: related both to the topic of the course as well as to organizational aspect.

The on-line format of the course allowed to invite more faculty members. The core faculty included Ljuba Bacharova (Slovakia), Gulmira Kudaiberdieva (Kyrgyzstan), Katarzyna Piotrowicz (Poland), Peter Skrak (Slovakia), Jonathan Lipton (Australia) and Eric Eisenstein (USA). The role of the core faculty was to introduce briefly individual workshops and consequently to moderate the plenary discussions.

The advantage of the on-line format of the course was the possibility to invite additional supporting faculty members represented by Mustafa Inan (Turkey), Uliana Pidvalna (Ukraine), Lubica Murinova (Slovakia) and Vaclav Bacovsky (Czech Republic). They participated in a "part-time" mode, and contributed to the variety of views so needed in scientific discussions.

In the year 2021, we experienced an unusually high proportion of cancelations – 64% of those who originally applied for the course. During the years 2021 and 2022, i.e. during the Covid restrictions, three IRIS courses were organized, utilizing the possibilities of on-line communication. The number of participants in these courses ranged from 6 to 12, what is remarkably lower compared to the in-person courses (ranging from 8 to 22). The reason declared from a few of them was professional overload due to pandemic situation in hospitals. However, we assume that it could be also due to increasing offer of various on-line courses, and additionally due to a simple tiredness and frustration from the pandemic situation. As a result, there were only 6 participants this year. They were divided into two international and interdisciplinary groups and during the course, they gradually developed research study protocols for the following projects:

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Act-C Com: Association of low dietary compliance and action crisis in diabetic patients type II. (Svitlana Zhemanyuk, Natália Sabolová, Barbara Šalingová);

Bioglass: The effect of pH 8.5 on change of expression of growth factors in fibroblasts in presence of bioglass. (Milena Kaszuba, Olha Skurikhina, Andrea Marciníková).

The on-line format has its considerable advantages as well as limitations. The most important advantage is the possibility to maintain international activities in spite of travel limitations.

It allows inviting international “core” faculty from distant countries. Also, it is possible to invite additional “part-time” faculty and observers to participate in discussion on specific topics during selected periods to enrich the discussions and provide variety of experts’ input.

As for participants, they do not need to travel and they can arrange their participation in relation to their professional and private schedule. Especially for young researchers, who are the target group of the IRIS courses, it means that they are not separated from the families, and if they have small children, it is easier to organize baby-sitting for shorter periods.

In practical terms it means no need for arranging travelling, accommodation and the venue, in other words it decreases costs and managerial load for organizers as well as for the faculty and participants. On the other hand, however, the time difference becomes an issue.

In the same time, the on-line format has its limitations. The most important is the reduced social interaction: the reduced interaction between participants and faculty, within as well as between the groups. Although the ZOOM is very practical in creating plenary as well as the room meetings, the interaction is not as spontaneous and flexible as in the case of personal contacts. Since one of the priorities of the IRIS courses is the intensive interaction of involved, we feel this limitation as a very serious. Another limitation is the distraction of participants by their daily professional duties they cannot sometime avoid, as well as by private daily routines.

The most challenging workshop is the WS #1. First, the participants need to adapt for the circumstances of the workshop – the on-line arrangement and mutual interaction. Second, the participants have to select a topic for their projects, since defining the objectives and hypothesis are essential prerequisites for further development of the project during the following workshops. Traditionally, in the in-person arrangement, a lot of time and discussions are devoted to precisising both objectives and hypothesis, utilizing also discussions during coffee breaks, lunches and dinners. However, this is not possible in the on-line arrangement. In this respect, the smaller number of participants has its advantages. Having just two projects, it was possible to devote additional time to discussing details.

While WS #1 and #2 are focused on the research topic, WS #3 and WS #4 are more devoted to the data organization and

analysis, as well as on the project management. Spending the whole day in front of the screen is extremely demanding. In spite of breaks, it is not easy to maintain the concentration for four days. It was reflected in the WS#4 that is devoted to the project administration. Due to the communication and time limitations, it was not possible to go into details, although the project administration and management represent the important part of the study protocol and is vital for any project – how to make the study doable. Based on this experience, as well as on the experience from previous years we are thinking about preparing and organizing an additional course devoted explicitly to the project management, as the crucial part for preparing and completing a successful research study.

Summarizing, in spite of limitations, the organization of the on-line courses provides important experience in using communication platforms for international trainings. For the IRIS Slovakia 2021 the goals of the course were achieved – the participants experience the process of developing an international interdisciplinary project. What is more encouraging, one of the suggested training projects has an ambition to continue as an international multicenter project.

For the next year, we wish and hope to enjoy already the in-person meetings as well as to benefit from the positive experience of the on-line arrangement.

Feedbacks from participants:

Natalia:

“Thank you for the opportunity to attend this course. Even though I was very tired after the sessions, because of the pace of the course and not enough people in our group, I am grateful for this experience. You were right that we witnessed some kind of a miracle.

This is my feedback. A very intense course, however at the same time knowledge-rich. I am very grateful that I could work in an international environment, getting directions from many inspirational professionals. It would be great if future summer schools could have more participants, so brainstorming and decision making within the groups are more effective and less last-minute like.”

Milena:

“Great international experience. The course itself was very intense which was a good thing because in a short amount of time we were able to cover so many important issues; at the same time that intensity made the whole experience a little bit exhausting. I would appreciate if the future IRIS courses were face to face.”

Olha:

“This IRIS 2021 school was a great experience, where you are pushed over the edge of your skills and knowledge to create a competitive science project. For me, as a Ph.D. student in inorganic chemistry, the training showed real-life examples of how it is significant to understand study design that the

research questions are in the submission phase of the project, even before the implementation. In my case, I was very lucky with the team and approach we used, which helped us to get through the intense schedule and pressure. I would definitely recommend the IRIS school to anyone who plans to be an independent scientist.

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Figure 1. The faculty photo of IRIS Slovakia 2021



Lviv region, Ukraine, 2021. Uliana Pidvalna, Lviv, Ukraine.