## International Research Interdisciplinary Schools 2019 (IRIS 2019)

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In the year 2019, two IRIS courses were held, one in Ukraine and one in Slovakia, completing the total number of 25 courses since the year 2006.

The IRIS courses (International Research Interdisciplinary Schools, previously International Scientific Summer Schools) are organized already 14 years, aiming to satisfy the needs in training young researchers in preparing a qualified research proposal, academic writing and international collaboration.

## **IRIS Ukraine 2019**

IRIS Ukraine 2019 was held from June 8 to 13, 2019, in a picturesque environment of the Carpathian Mountains, to the south- west from Lviv, in the ski resort Oryavchyk. It was already the second IRIS course, organized under the leadership of Mykhaylo Sorokivskyy.

The faculty team included Erik Eisenstein and Barbara Eisenstein, Duke University, Durham, NC, USA, Ljuba Bacharova, International Laser Center and Comenius University, Bratislava, Slovakia, Jonathan Lipton, Hobart University, Australia, together with Mykhaylo Sorokivskyy, Lviv University, Ukraine. And the first experience as the faculty members for Uliana Pidvalna and Anastasia Aker, who were trained in previous courses as participants.

Participants were mostly from Ukraine (the privilege of the organizing country), and from neighboring country Slovakia. But as well there were participants travelling quite a long distance – from Aktobe, Kazakhstan. The Kazakhstan participants had also a specific mission. Their participation was recommended by Zhenisgul Tlegenova, who attended two previous courses in Astana, Kazakhstan in 2017, and in Issik-Kul, Kyrgyzstan, 2018, which were organized under the leadership of Gulmira Kudaiberdieva. Participants from Kazakhstan were interested to experience the course by themselves, and exploring a possibility to organize the IRIS course in the year 2020 in their country.

During the IRIS Ukraine 2019, the following projects were developed:

Dr. Strange: Impact of patient vaccination education on on the DTP vaccination rate in children under 2 years in Lviv. (Jana Svantnerova, Kamshat Tazhgarina, Olga Turjanska, Serhii Korchaka)

Neuro-rats: Effect of electrical stimulation of n. vagus on the survival rate in rats with heart failure. (Zuzana Dzurjaskova, Anissa Mukhambetzan, Roman Chekh, Iryna Soroka)

UK: The impact of cycling on the C1 stage of varicose veins.

Address for Correspondence: Ljuba Bacharova, International Laser Center, Bratislava, Slovakia Email: Bacharova@ilc.sk Received: 05.08.2019 Accepted: 06.08.2019 Copyright ©2019 Heart, Vessels and Transplantation (Dilda Tilekenova, Merey Aliyeva, Rostyslav Kovalchuk, Tetiana Kovalchuk)

Cardiorunners: Association of premature atrial contraction burden with new-onset of atrial fibrillation in middle-aged high endurance athlets over 5 years. (Gulmira Yerimbetova, Marta Bazylevych, Vasyl Levchuk, Ulyana Dyakiv)

On the final day of IRIS 2019 in Ukraine a new educational project "Scientific conference of the IRIS Faculty" was held. It was open conference and young doctors and scientists from Lviv and nearby cities could take part in it. The IRIS faculty members gave lectures about open questions in electrocardiology, new trends in electrophysiology and own experience of the clinical research creation. Overall, 73 participants took part in this event. It was a great opportunity to meet new people and feel constructive and friendly atmosphere of IRIS.

## **IRIS Slovakia 2019**

While the IRIS Ukraine 2019 was held in mountains, the IRIS Slovakia, 2019, was held in the lowland, close to Bratislava, in a summer resort Senec. It was the fourth IRIS course, organized in Slovakia, under the leadership of Ljuba Bacharova.

The faculty team included Erik Eisenstein and Barbara Eisenstein, Duke University, Durham, NC, USA, Ljuba Bacharova, International Laser Center and Comenius University, Bratislava, Slovakia, Lia E. Bang, Copenhagen, Denmark, Jonathan Lipton, Hobart University, Australia, and Lubica Murinova, Slovak Medical University, Bratislava, Slovakia. The participants included young researchers from Slovakia, Lithuania, Poland and Ukraine. The IRIS Slovakia 2019 was sponsored by the Pfizer Independent Medical Education.

During the IRIS Slovakia 2019, the following projects were developed:

Group M.A.N.A.M.: Change in the levels of biochemical biomarkers for the detection of anthracycline-induced cardiotoxicity in breast cancer patients (Milos Lajmon, Alexandra Filova, Nikola Hapakova, Augustinas Tumenas, Marta Mielniczuk)

Group H-BE-All: Association of acute otitis media with perforation of tympanic membrane with the incidence of acquired cholesteatoma in children (Adrian Kiss, Simona Stankova, Jonas Jucevicius, Renata Huchko, Ivona Matejova)

Group Partners in Crime: Agreement between Amazfit Smart Watch 2 and ECG-Holter in detecting A-fib in patients with documented A-fib paroxysms in the last 7 days (Peter Snopek, Daniela Subova, Tomas Uher, Laima Tamkeviciute, Yaryna Penstak)

Group In Progress: Effectiveness of 6 weeks intereferon alpha treatment in patients with incessant pericarditis and Coxsackie virus type B infection (Michaela Pospisilova, Gabriel Balint, Maciej Bieganovski, Mariana Vachalcova, Natalia Ivanjuk, Dominika Komarova)

Since it was already the fourth IRIS course organized in Slovakia, and Slovak participation at the courses is quite regular, this year the total number 96 of Slovak trainees was achieved. This number represents a solid local network of trained young researcher, and faculty. It was decided to create a local IRIS Alumni Club (Slovakia) with the aim to share this training experience, to exchange the information and expertise - in general to support and motivate young researchers to do research, including also additional skills such as academic writing skills, academic English and statistics, as well as networking. And of course, to share and link the local activity with the international IRIS trainees.

The participants highly evaluated their experience from the workshops - especially the possibility to gain skills how to design a study protocol, what is the main topic of the IRIS course. But also additional important skills, such as international team building, active listening and critical thinking, and last not least the encouragement to step out from the comfort zone and present own thoughts and ideas.

For the next year, there are two candidates for organizing the IRIS courses – Kazakhstan and Kyrgyzstan. We will keep you informed about the locations and dates, as soon as they will be confirmed, and we are looking forward to meeting you at these courses.

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Figure 1. Groups photo of the IRIS Ukraine 2019 participants.



Figure 2. Groups photo of the IRIS Slovakia 2019 participants.



Figure 3. Groups photo of the "Scientific conference of the IRIS Faculty" participants.