## The 9<sup>th</sup> International Scientific Summer School 2012 in Makov, Slovakia

Slovakya Makov'da 9. Uluslararası Bilimsel Yaz Okulu 2012

The biomedical research is by its nature interdisciplinary, and research as such becomes more and more international. Thus, the biomedical research includes at least two aspects: the scientific research discipline/ area and managerial intercultural/ international aspects. In the traditional university education the discipline specific aspects dominate, therefore trainnigs that extend these possibilities are highy appreciated.

This year already the 9<sup>th</sup> Scientific Summer School took place in Makov, Slovakia, between June 17-22, 2012. Twenty participants from six countries met together (Austria, Greece, Slovakia, Sweden, Romania, Turkey) with a diverse range of professional backgrounds including public health care specialists, medical doctors, PhD students, nurses, and biomedical engineers. The program of the Summer School is based on an intensive interaction between the participants and faculty, and this year also younger new faculty members were invited. The faculty included Ljuba Bacharova (Executive Editor of the Journal of Electrocardiology, Slovakia), Gulmira Kudaiberdieva (Editor of the Anatolian Journal of Cardiology, Turkey), Alexandra Misak (Croatia), Elisabeth Alder-Wuerrer (Austria), Jonathan Lipton (The Netherland), Nina Hakacova (Sweden), Ioana Mozos (Romania), and Radana Kollarova, Katarina Sebekova, Lubica Palkovicova, Kinga Lancz, Zora Krivosikova (Slovakia).

The program of the Summers School follows the 4-days workshop program of the Research Practicum developed in the Duke University, Durham, NC, USA (1-8): (1) "Introduction to an Outcomes Research Study"; (2) "Study Population and outcomes"; (3) "Data Collection and analysis"; and (4) "Research Administration". The teaching methods are based on the "learning-by-doing" and "problem-solving" processes, where the participants are active learners rather passive ones, and they experience two parallel processes: developing a research study protocol and international team building.

Developing the study protocol is the "discipline related" aspect of the training. The participants are divided into groups and each group selects a topic for their common project where each of the group member can actively participate. During the four days, the groups gradually design individual workshop protocols that are presented. Brief presentations of these work are followed by discussions and participants were encouraged to be involved actively in the discussions and exchange ideas with other participants and the faculty. The relatively small number of participants provided the opportunity for in-depth discussion. Thus, the projects are drafted, discussed, re-considered within the groups, again discussed, aiming to benefit from mutual discussions, to train the critical appraisal and to benefit from the feedback from peers and faculty.

The topic really depends on the structure of the professionals in the group. This year Summer School was characteristics with a high proportion of public health professionals, so the topics were very much related to the public health aspects. On the



Address for Correspondence/Yazışma Adresi: Ljuba Bacharova, MD, PhD, MBA, International Laser Center Ilkovicova 3 812 19 Bratislava-*Slovakia* Phone: +421.2.654 21 575 Fax: +421.2.654 23 244 E-mail: bacharova@ilc.sk Available Online Date/Çevrimiçi Yayın Tarihi: 08.08.2012 © Telif Hakkı 2012 AVES Yayıncılık Ltd. Şti. - Makale metnine www.anakarder.com web sayfasından ulaşılabilir. © Copyright 2012 by AVES Yayıncılık Ltd. - Available on-line at www.anakarder.com

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Makazumi team



Toxix team



other hand, the enrichment of this year Summer School was the participation of nurses, the professionals that are very close to patients. Thus this year projects developed during the Summer School were as followed:

**1. Group Makazumi** (Mirka Hargasova, Slovakia, Karin Theren, Sweden, Zuzana Holosova, Slovakia, Matej Mucka, Sloiva-



**OBI** team



Twitters team



Healthy Heart team

kia): Comparing the incidence of ventilatory associated pneumonia in pediatric intensive care unit Bratislava using recommendations for VAP prevention 2006 and 2012.

2. Group: Toxix Team (Kinga Lancz, Slovakia, Marina Björk, Sweden, Martina Sperkova, Slovakia, Juraj Tihanyi, Slovakia): Comparison of polychlorinated biphenyls serum concentration in cord blood of newborns in 2000 and 2012/2013 in Michalovce district.

**3. Group: OBI Team** (Christos Vazaios, Greece, Ovidiu Jupaneant, Romania, Vierka Illikova, Slovakia, Patricia Kramarova, Slovakia): *Effects of weight reduction by physical activity or diet on bone mass density and fracture risk in obese postmenopausal women.* 

**4. Group: Twitters** (Dogu Kılıç, Turkey, Jana Svehlikova, Slovakia, Anna Petterson, Sweden, Alexandra Gajdosikova, Slovakia): *The effect of sending reminder text messages to patients with primary hypertension on blood pressure control rate – txt2 control study.* 

**5. Group: The Healthy Heart** (Martin Bachler, Austria, Jana Lenkova, Slovakia, Zuzana Chabadova, Slovakia, Anna Bencekova, Slovakia): *The influence of learning of a positive LDLR gene mutation on the compliance of patients with hypercholesterolemia.* 

The team building process represents another parallel process during the Summer School. The groups are constructed from professionals with different professional background, and they if possible, they are from different countries. During a short period of four days they experience the typical stages of the group dynamics:

- Forming: the initial stage of introduction of group members and the basic orientation in the group, the basic selection of the study topic;
- Storming: dealing with conflict that arises from the selection of the topic, and from the critical feedback provided during the plenary discussion;
- Norming: gradual role defining within the group;
- Performing: and finaly moving to solutions and planning the project.

This process is not easy, since the participants are working under considerable time stress, and for many of the participants it is an experience very different from their previous learning experience. However, according to the participants feedback expressed during the final wrap-up, the Summer School was a very beneficial experience, valuable for improving their critical thinking and communication skills in English as well as for establishing new contacts and connections. The next year Scientific Summer School is planned to be in Timisoara, Romania and we are looking forward to the 10th anniversary of this interesting international experience.

## Photos by Ioana Mozos and participants

Doğu Kılıç<sup>1</sup>, Ljuba Bacharova<sup>2,3</sup> <sup>1</sup>Department of Cardiology, Faculty of Medicine, Pamukkale University, Denizli-*Turkey* <sup>2</sup>International Laser Center, Bratislava-*Slovakia* <sup>3</sup>Institute of Pathological Physiology, Medical Faculty of the Comenius University, Bratislava-*Slovakia* 

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