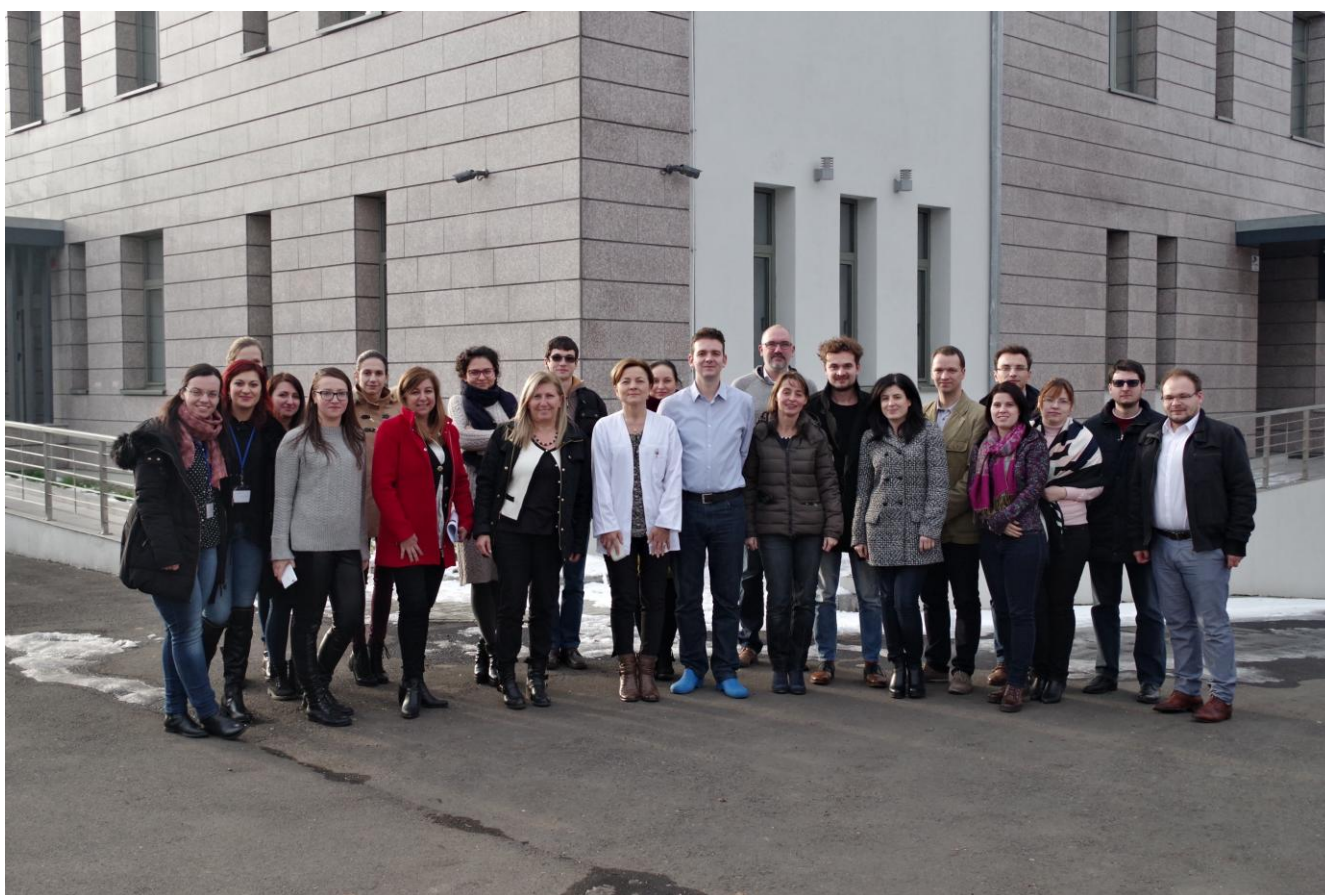


8th Beginner's Course in Molecular Diagnostics
4th to 9th December, 2016
Tîrgu Mureș, Romania



The 8th 'Beginner's Course in Molecular Biology' was held on 4th to 9th of December in Tîrgu Mureș, Romania. The vice-president of the Romanian Association of Laboratory Medicine and Head of the CCAMF (Advanced Medico-Pharmaceutical Research Center of University of Medicine and Pharmacy Tîrgu Mureș) Prof. Minodora Dobreanu, MD, PhD, together with Prof. Claudia Banescu, MD, PhD (Head of Molecular Biology Laboratory, CCAMF) invited officially all C-CMBC members to hold the 8th workshop, acting as local partner covering all organization issues.

The IFCC tutors:

Four of the tutors and the C-CMBC junior member from Lithuania took part in the course, namely:

- Dr. Evi Lianidou, PhD, Professor of Analytical Chemistry – Clinical Chemistry, University of Athens, Greece (chair)
- Dr. Andrea Ferreira-Gonzales, PhD, Professor of Pathology and Director of Molecular Diagnostics Laboratory, VCU, Richmond, United States
- Dr. Verena Haselmann, MD, PhD, Institute of Clinical Chemistry, University Medicine Mannheim, Medical Faculty Mannheim of the University of Heidelberg, Germany
- Dr. Parviz Ahmad-Nejad, MD, PhD, Professor of Laboratory Medicine, Helios Klinikum Wuppertal, Witten/Herdecke University, Head – Institute for Medical Laboratory Diagnostics, Germany
- Dr. Liucija Bikauskaite, MD, Medical geneticist, Center for Medical Genetics, Vilnius University, Hospital Santariskiu Klinikos, Lithuania



From left to right: Moldovan Valeriu (Romania), Andrea Ferreira-Gonzalez (USA), Evi Lianidou (Greece), Verena Hasselman (Germany), Liucija Bikauskaite (Lithuania), Parviz Ahmad-Nejad (Germany)

The Molecular Biology Course

The Romanian Association of Laboratory Medicine sent dr. Valeriu Moldovan, MD, as a trainee to the Institute for Clinical Chemistry in Mannheim to be introduced into the program. All C-CMBC members were hosted by University of Medicine and Pharmacy Țirgu Mureș and welcomed by Prof. Minodora Dobreanu and Prof. Claudia Banescu.

The course venue was at the Advanced Medico-Pharmaceutical Research Center of University of Medicine and Pharmacy Țirgu Mureș (CCAMF). The molecular biology workshop was attended by 18 participants from across Romania. The participants were divided into four groups, headed by one of the tutors. Participants were supposed to follow an up to date C-CMBC manual during the laboratory work.

The official 'Beginner's Course in Molecular Biology' opening was held by Prof. Minodora Dobreanu.

The introduction course was held by Andrea Ferreira-Gonzalez about basics of PCR, Molecular Biology, Real-time PCR and sequencing, while the rest of the tutors were on their way to Tirgu Mures.

The start of each day was at 9:00 am, with lectures about basic concepts of molecular biology, techniques and diagnostics: laboratory set-up, DNA isolation, genotyping, qPCR, allele-specific hybridisation, molecular oncology, bioinformatics, primer design, etc. Each day after lunch break started the laboratory practical work, by:

- setting up laboratory working area
- preparing buffers and working solutions
- genomic DNA isolation
- quality control of DNA, agarose gel electrophoresis
- setting up a PCR – HPV detection, RFLP for factor V Leiden, allele-specific amplification BRAFV300E
- allele-specific hybridisation of beta-globulin.

Each day one of the tutors, namely Dr. Parviz Ahmad-Nejad introduced for the participants how to design primers (in silico training).

The selection of the new IFCC C-CMBC Junior Member from the Romania Course was based on the evaluation of all participants by:

- written exam outcome
- general performance in the laboratory
- the ability to understand in silico training
- personal interview and ability to speak fluent english.

Mr. Kovacs Zsolt, associate lecturer from University of Medicine and Pharmacy Tirgu Mures, resident doctor in medical genetics was nominated as the next Junior Member of C-CMBC.

List of participants and contacts

Name, surname and email	Institution	Current position
Bogliș Alina alinaboglis@gmail.com	University of Medicine and Pharmacy of Târgu Mureș	Specialist physician in medical genetics / PhD student
Tripon Florin tripon.florin.2010@gmail.com	University of Medicine and Pharmacy of Târgu Mureș	PhD student
Nedelcu Ioana oana.ned@gmail.com	„C.I. Parhon” Endocrinology National Institute, Bucharest	Research assistant / Biologist
Terebent Maria maria.terebent@reginamaria.ro	„Unirea” Medical Centre, Brasov	Biochemist
Zaharescu Andrei andrezaharescu1988@gmail.com	„Fundeni” Clinical Institute, Bucharest	Resident physician in laboratory medicine
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Man Adrian adiman.email@gmail.com	University of Medicine and Pharmacy of Târgu Mureș	Specialist physician in laboratory medicine

Pirvu Andrei andreimihaipirvu@gmail.com	SCJUC - Centrul Regional de Genetică Medicală Dolj	Resident physician in medical genetics
Gavril Eva Cristin cristy_gavril@yahoo.com	„Sf. Maria” Children’s Emergency Clinical Hospital Iași	Resident physician in medical genetics

SPONSORS

The Lab Suitcase was completed/extended with the help of faithful sponsors of the program. Specifically, equipment (e) and reagents (r) were provided by BioRad (e), Eppendorf (e), the Lesser-Loewe-Foundation (e,r) and Roche Diagnostics Lithuania. Reagents were bought and shipped through courier, while a real time PCR machine (LightCycler 2.0) was provided by the local Roche Diagnostics Department in Romania. Roche Diagnostics Greece provided the CMV kit, and all the necessary reagents used for the real time quantitative PCR experiment.



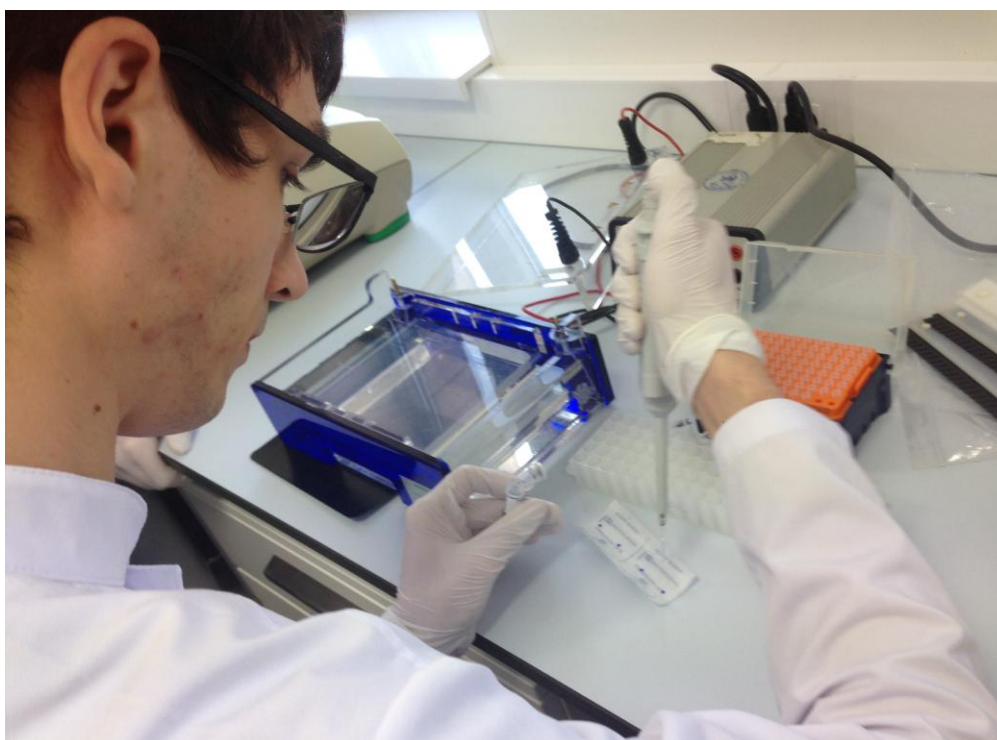
Buffer and working solution preparation



Blood collection for DNA isolation



DNA isolation



Agarose gel electrophoresis



In situ hybridisation



Lecture

Final exam



