

**IFCC**

**Beginner´s Course**

**in Molecular Diagnostics**

**Committee-Clinical Molecular Biology Curriculum**

**C-CMBC**

**………………………………………………………………………Slovakia**

**18th -24th Feb 2018**

**COMMITTEE AND TUTORS**

1. **Evi LIANIDOU, PhD, Professor of Analytical Chemistry – Clinical Chemistry, University of Athens, Greece (Chair)**
2. **Andrea Ferreira-Gonzalez, PhD, Professor of Pathology and Director Molecular Diagnostics Laboratory, VCUHS, Richmond, USA**
3. **Verena HASELMANN, MD, Department: Institute for Clinical Chemistry, University Medicine Mannheim, Medical Faculty Mannheim of the University of Heidelberg, Germany**
4. **Ettore Domenico Capoluongo, Professor of Clinical Biochemistry and Clinical Molecular Biology, Laboratory of Clinical Molecular and Personalized Diagnostics, Department of Laboratory Medicine, Catholic University – Agostino Gemelli Teaching Hospital, Rome, Italy**
5. **Drd.Kovács Zsolt, Associate lecturer, Department of Biochemistry and Environmental Chemistry, University of Medicine and Pharmacy of Tîrgu Mureș, Romania, Junior IFCC member**

**LOCAL ORGANIZATION SUPPORT: BIOMED MARTIN, Dr. Katarína Baluchova, Ing. Beata Hubkova UPJS LF Kosice, SSKB President Prof. Oliver Rácz, MD, PhD**

**Supported by:**

The C-CMBC of the International Federation for Clinical Chemistry will run a course for **Beginners in Molecular Diagnostics** in the basic techniques and procedures of *designing, setting-up, performing and validating of molecular genetic tests (MGT), their application in Health care and quality assessments*.

The course comprises lectures, lab work and seminars; participation is limited

**C-CMBC COURSE OUTLINE**

**1. Lectures**

1. The very Basics" in nucleic acids amplification for Molecular Diagnostics: Principles, Biochemistry and their Applications: A. Ferreira-Gonzalez
2. Molecular diagnostics of genetic disorders: A. Ferreira-Gonzalez
3. Molecular Genetic Testing (MGT) ; Guidelines for "Good Molecular Practice in MGT", Quality Assurance, EQA and Accreditation, Nonmeclature: V. Haselmann
4. Interpretation of genetic variants: A. Ferreira-Gonzalez
5. Pharmacogenetics: E. Capoluongo
6. SNP genotyping: V. Haselmann
7. Infectious diseases: A. Ferreira-Gonzalez
8. Molecular Oncology: E. Lianidou
9. Real time PCR quantification aspects, LODs, LOQs and High Resolution Melting analysis: E. Capoluongo
10. Validation of assays: A. Ferreira-Gonzalez
11. State-of-the-Art Lecture: Liquid Biopsy : E. Lianidou
12. State-of-the-Art Lecture: Next Generation Sequencing technologies : V. Haselman
13. State-of-the-Art Lecture: Personalized Medicine: present and future: V. Haselmann

 **2. Lab work**

Peripheral blood sampling, DNA isolation , Preparation of agarose gel buffers , gDNA quantitation (UV-spectrophotometer) , PCR , Trouble-shooting PCR, RFLP assay, Quantitative PCR, Real time PCR for genotyping, High Resolution Melting analysis

**3. in-silico training on PCR assay design**

**4. Written Exams**

**5. Interviews with candidates applying as an IFCC junior member**

 *prof. MUDr. Oliver Rácz, CSc. prezident SSKB*

 **Slovenská spoločnosť klinickej biochémie**

**C-CMBC, 6 Days Beginners’ Course in Molecular Diagnostics**

6-dňový kurz v molekulovej diagnostike pre začiatočníkov (prednostne pre členov SSKB a študentov SZU)

**Určenie**: pre 16 – 20 odborníkov z laboratórnej diagnostiky na Slovensku

**Miesto**: laboratóriá BioMed, Malá Hora 4, 036 01 Martin

**Termín:** 18. – 24. február 2018

**Lektori**: poprední odborníci z IFCC a EFLM

i.

ii.

iii.

iv.

v.

**Miestna garantka kurzu:** Dr. Katarína Balúchová, PhD., BioMed Martin

**Výber uchádzačov:** na základe prihlášok a ich vyhodnotenia komisiou SSKB

**Dead line pre prihlášky**: 8. január 2018

**Výberová komisia SSKB:**

i. prof. MUDr. Oliver **Rácz**, CSc.

ii. prof. MUDr. RNDr. Gustáv **Kováč**, CSc., MBA

iii. doc. Ing. Pavel **Blažíček**, CSc.

iv. doc. RNDr. Erika **Halašová**, PhD.

v. Dr. Katarína **Baluchová**, PhD.

vi. MUDr. Eva **Ďurovcová**, PhD.

**Kurz podporuje:**

**1) IFCC:**

letenky pre zahraničných odborníkov do Viedne a späť;

honorár lektorov;

materiály kurzu (chemikálie, písomné materiály).

**2) SSKB:**

doprava zahraničných účastníkov z Viedne do Martina a späť;

ubytovanie a strava pre zahraničných lektorov a účastníkov kurzu;

cestovné náklady pre Dr. Balúchovú do Mannheimu (cestovné a ubytovanie) určené na prípravu kurzu.

**3) BioMed Martin:**

poskytnutie laboratórnej a seminárnej miestnosti pre účastníkov;

uvoľnenie Dr. Balúchovej na prípravu kurzu do Mannheimu a na vedenie kurzu.