

**C-CMBC: Beginner's Course in Molecular Diagnostics- Manila, Philippines:
A short Overview**

14th-19th December 2014

Tutors

Evi Lianidou, PhD, Professor: ACTC lab, Department of Chemistry, University of Athens, Athens, Greece

Andrea Ferreria-Gonzalez, MD, PhD, Professor: Division of Molecular Diagnostics, Department of Pathology, Virginia Commonwealth University, Virginia, USA

Verena Haselmann, MD, PhD: Institute for Clinical Chemistry, University Medicine Mannheim, Medical Faculty Mannheim of the University of Heidelberg, Germany

Parviz Ahmad-Nejad, MD, PhD, Professor: HELIOS Klinikum Wuppertal, Witten/Herdecke University, Head - Institute for Med. Laboratory Diagnostics, Wuppertal, Germany

Atsushi Watanabe, MD, PhD, Assoc. Professor: Division of Personalized Genetic Medicine, Nippon Medical School Hospital, Tokyo, Japan

Madelein Hoffman, IFCC Junior Member (South Africa Course, 2013), Department of Chemical Pathology, National Health Laboratory Service, Tygerberg Hospital Laboratories, Cape Town, South Africa

The 6th C-CMBC course was successfully held in Manila, Philippines on the **14th-19th December 2014** at the United Laboratories, Inc. in Manila. Dr. Romeo Joseph Ignacio, President, and Dr Leila Florento, former President of the Philippine Association of Medical Technologists (PAMET), Manila, acted as local partner covering organizational issues. Dr Florento was sent by the PAMET as a trainee to the Institute for Clinical Chemistry, in Mannheim, Germany to receive an introduction to the course and upon her return to the Philippines, she was instrumental in locating a suitable venue for the course and confirming that all laboratory and lecture room requirements were met.

At the official course start, the IFCC Tutors' group was welcomed by Dr. Ignacio and Dr. Florento. The course was attended by 19 participants of heterogeneous professional backgrounds in molecular biology diagnostic skills ranging from "no idea" to "some DNA sequencing experience". The first day was dedicated to pre-course lectures, given by Dr. Andrea Ferreria-Gonzalez to bring everyone to the same level. On the first day it was announced that one participant would be chosen as an IFCC junior member based on his/her performance during all these days as well as on the results of the final written evaluation exam. Every morning thereafter started with an introductory lecture for the day's practical and ended off with informative and educational lectures from the C-CMBC tutors. Students randomly divided themselves into 5 groups for the practical sessions and followed a detailed practical manual provided by C-CMBC and printed by PAMET. All participants were enthusiastic about the practicals, asked questions and performed all steps with precision and in record time, resulting in successful solution preparation, DNA isolation, performing PCR

reactions, allelic-specific DNA amplification, hybridization, and computer-lab work which entailed gene identification in OMIM, variant analysis in SNPdp/SNPedia, primer design in Primer 3, NEB cutter for *in-silico* restriction fragmentation analysis. This was the first time that a quantitative PCR experimental work was added in the course. More specifically, the basics and clinical applications potential of qPCR were introduced to participants, by giving a specific lecture on that topic, and by combining this lecture with CMV quantitation in DNA isolated from peripheral blood. The last day finished off with computer–lab work and state of the art lectures, followed by a 30 mark question paper, and course questionnaire and last but not least the IFCC-Certificate Ceremony, where each participant received an IFCC certificate of completion and a CD containing all the course lectures, practical videos, results from each practical session and photographs that were taken during the course. Thereafter, goodbyes were said with everyone going their separate ways and back to their respective countries.

The hospitality and organization of all PAMET board members was impeccable. Everything was very comfortable, friendly and well organized. C-CMBC tutors were hosted by PAMET board members almost every evening after the course. We would like to thank all participants for their enthusiasm, and all the PAMET board members for their excellent hospitality and perfect organization of the course. We would also like to thank all IFCC C-CMBC course sponsors: Biorad, Eppendorf, Lesser-Loewe Foundation and Roche Diagnostics for providing essential equipment and reagents.

References

1. *Lianidou et al, Advancing the education in molecular diagnostics: The IFCC-Initiative “Clinical Molecular Biology Curriculum” (C-CMBC); A ten year experience., Clin.Chim. Acta, 2014, Sep 25; 436:5-8*
2. **IFCC C-CMBC Course Website:** <http://www.ifcc.org/ifcc-education-division/emd-committees/c-cmbc>
3. **IFCC e-newsletter, Jan-Feb 2015:** <http://www.ifcc.org/ifcc-news/2015-02-20-ifcc-eneews-jan-feb-2015/>

LIST OF PARTICIPANTS

NAME	EMAIL
SANDOVAL, KRISTIA MARIE	kris_sandoval05@yahoo.com
ARCETA, ALYSSA GEORGIA	taga_figworth_ako@yahoo.com
BANAN, HEIDE	h_banan@yahoo.com
MABILANGAN, SHERRY GRACE	sherrygracerecio@yahoo.com
DUMAOAL, OLIVER SHANE	oliver_dumaoal@yahoo.com
FELIZAR, ALLAN	alf_mmmh@yahoo.com
ALFEROS, VINCENT THOMAS	vtalferos5_ust@yahoo.com
SALADAR, JC BELLE	icbellesaladar@gmail.com
ATIENZA, MARILYN	mratienza.marilyn@gmail.com
REYES, LAURIE ANNE	Reyes.Laurie@sysmex.com.ph
Evgenia Kyriakopoulou	kyriakopoulou.evgenia@gmail.com
CATAPANG, MA. CONCEPCION	mmcatapang@unilab.com.ph
MANAHAN, EDILBERTO	edilberto_manahan@yahoo.com
TANTINGCO, RACHEL ANN	tantingco.ram@gmail.com
REYES, SHERWIN	snreyes@feu-nrmf.ph
ATIENZA, LITO	latienza@cmc.ph
SILVESTRE, VIRGINIA	giesilvestre@ymail.com
AMAN, JOYCELLYN	joycellyn.aman@yahoo.com
BANIQUED, MARIVIC	mc_baniqued@yahoo.com

Photos

C-CMBC Course Tutors (from left to right: Dr. Parviz Ahmad-Nejad, Dr. Atsushi Watanabe, Dr. Evi Lianidou, Dr. Verena Haselmann, and Dr. Andrea Ferreira-Gonzalez)



C-CMBC Manila Course: The Tutors and PAMET board members



C-CMBC Manila Course group photo



C-CMBC Manila Course group photo



C-CMBC Manila Course experimental work



C-CMBC Manila Course: Lab- training in setting up a PCR reaction



C-CMBC Manila Course: Lab- training in setting up a PCR reaction



C-CMBC Manila Course: *In-silico* training in Molecular Diagnostics



C-CMBC Manila Course: the exams



C-CMBC Manila Course: the IFCC Award ceremony

