



Fourth announcement of the first course

Basics in human genetic diagnostics – A course for CLGs* in education

*Clinical Laboratory Geneticists

<u>Details – program see below:</u>

Dates: 20.-24. June 2016; Monday, 8:30 hrs to Friday 18:30 hrs

Location: The Cyprus Institute of Neurology and Genetics

6 International Airport Ave. Ayios Dhometios, 2370 Nicosia, Cyprus

Main organizers: Thomas Liehr (Jena, Germany),

Leonidas A. Phylactou (Nicosia, Cyprus) Carolina Sismani (Nicosia, Cyprus)

Registration: is open; use the enclosed application form

Costs: EUR 500 (including tea, coffee, 5 lunches and 2 dinners, abstract book

and USB-drive);

Travel and stay: to be organized by the participants themselves

Sponsored by: - Carl-Zeiss (Jena, Germany)

- DAKO - an Agilent Technologies Company

- European Society of Human Genetics

- Illumina

- MetaSystems (Altlussheim, Germany)

- MRC-Holland (Amsterdam, The Netherlands)

- Oxford Gene Technology and Cytocell

- ZytoVision GmbH (Bremerhaven, Germany)









AetaSystems











DAY 1 - 20.06.2016

Topic: Basics of Human Genetics and Genetics Counselling	
08.30-08.45	Opening of the course
08.45-09.15	Short introduction in human genetics
09.15-09.45	Basics of genetics
09.45-10.15	Genomic Analysis: from Karyotype to NGS
10.15-10.35	break
10.35-12.00	Mendelian and non-Mendelian inheritance
12.00-13.00	break
13.00-13.30	Overview on syndromology and genetic syndromes
13.30-14.15	Basics of genetic counselling
14.15-15.00	Risk calculations in genetic counselling
15.00-15.20	break
15.20-17.20	Practical part: - do own risk-calculations
17.20-17.30	break
17.30-18.00	Written test

DAY 2 - 21.06.2016

Topic: Syndromology	y, Genetic syndromes and Cytogenetics
08.15-08.45	Results of test from day before
08.45-09.45	'Frequent' chromosomal syndromes and databases
09.30-10.00	Teratology - basics
10.00-10.20	break
10.20-12.00	Classical and banding cytogenetics (pre- and postnatal diagnostics)
12.00-13.00	break
13.00-13.45	Tumor cytogenetics – how to perform
13.45-15.00	Reporting in prenatal, postnatal and tumor cytogenetics incl. guidelines
15.00-15.20	break
15.20-16.00	Human chromosomes 1-22, X and Y
16.00-17.20	Workshop: identify human chromosomes
17.20-17.30	break
17.30-18.00	Written test
~19.30	Common dinner

DAY 3 - 22.06.2016

Topic: Molecular Cytogenetics and Molecular Genetics I	
08.30-08.45	Results of test from day before
08.45-09.10	Molecular cytogenetics - basics
09.10-09.45	Interphase-FISH and Multicolour-FISH
09.45-10.00	FISH-applications in diagnostics
10.00-10.15	break
10.15-10.45	FISH as a routine diagnostic tool in pathology labs
10.45-11.15	CGH and array-CGH - introduction





DAY 3 - 22.06.2016 (ctd.)

11.15-12.00	Array-CGH
12.00-13.00	break
13.00-14.00	Workshop: Reporting incl. databases and confirmation of aCGH-results -
	aCGH results interpretation
14.00-14.45	Molecular Genetics - overview of the field
14.45-15.30	'Frequent' monogenetic syndromes and databases
15.30-15.50	break
15.50-16.50	PCR techniques and applications (I)
16.50-17.10	break
17.10-17.40	Written test

DAY 4 - 23.06.2016

Topic: Molecular Genetics II	
08.30-08.45	Results of test from day before
08.45-09.30	PCR techniques and applications (II)
09.30-10.10	MLPA and related techniques and applications
10.10-10.30	break
10.30-12.00	Examples for PCR/MLPA approaches - reporting and databases
12.00-13.00	break
13.00-15.30	MLPA applications
15.30-15.50	break
15.50-16.20	Technical basis of Sanger sequencing
16.20-17.00	Technical basis of NGS
17.00-17.30	break
17.30-18.00	Written test

DAY 5 - 24.06.2016

Topic: Molecular Genetics III and future directions of the field	
08.30-08.45	Results of test from day before
08.45-09.30	NGS applications
09.30-10.15	Non Invasive Prenatal Diagnosis
10.15-10.30	break
10.30-12.00	Future of human genetics services: the European perspective
12.00-13.00	break
13.00-13.30	Biochemical genetics – diagnostics of metabolic diseases
13.30-14.00	Biochemical genetics case studies
14.00-14.30	Reporting and databases for sequencing results
14.30-15.00	The future of diagnostics with Proteomics
15:00-15:30	The future of diagnostics with Transcriptomics
15:30-16:10	Epigenetics – uniparental disomy and imprinting
16.10-16.30	Genetherapy – any relevance for diagnostics?





DAY 5 - 24.06.2016 (ctd.)

16.30-17.00	break
17.00-17.30	Written test
17.30-18.00	break
18.00-18.30	Concluding session
~19.30	Common dinner

Speaker list by country of origin and in alphabetical order

- Cyprus, Nicosia
 - o Patsalis Philippos
 - o Phylactou Leonidas
 - o Sismani Carolina
 - o et al.
- Finland, Helsinki
 - o Kääriäinen Helena
- Germany, Bremerhaven (ZytoVision)
 - o Hauke Sven
- Germany, Jena
 - o Liehr Thomas
 - o Weise Anja
- The Netherlands, Amsterdam (MRC Holland)
 - o Kuilboer Romy





Return this form to: <u>Thomas.Liehr@med.uni-jena.de</u> and <u>efwkliehr@yahoo.com</u>

Pesonal Data:	
Name, first name,	title:
Institutional Addre	ess:
Telephone / FAX:	
e-mail:	
I herewith register	r for the course (normally before 1. June – if later contact Dr. Liehr):
Basics in	h human genetic diagnostics – A course for CLGs* in education *Clinical Laboratory Geneticists
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Costs:	EUR 500.00 (including tea, coffee, 5 lunches and 2 dinners, abstract book and USB drive)
Travel and stay:	to be organized by the participants themselves
correspond	declare that I will transfer the course fee within 1 week of receiving the ding payment details by Dr. Liehr. ation is closed! erall 11 fellowships could be granted covering tuition and partial travel fees.
(place, date, sig	gnature, stamp)