

European Network on Myalgic Encephalomyelitis/Chronic Fatigue Syndrome
COST Action - CA15111 Training School:
**“OMICS TECHNOLOGIES AND BIOINFORMATICS APPLICATIONS IN ME/CFS
RESEARCH”**

Program

Monday 17 July 2017: Introduction to the training school:

10:30 Welcome Roberta Ardino - President of the “Associazione Malati di CFS/AMCFS-Onlus”

11:00 Participants’ presentations

12:00 Lack of specific biomarkers and the consequences in diagnostics: the case of ME/CFS
Dr. Lorenzo Lorusso: Pitfalls in diagnostic procedure for CFS

13:00 Lunch

14:30 Prof. Enrica Capelli/Dott. Lorenzo Lorusso: which biomarkers for CFS?

I. microRNA

II. microbial dysbiois

16:00-17:00 Discussion

Tuesday 18 July 2017: gene expression and miRNA

9:00 Prof. Enrica Capelli: Micro RNA sequencing and quantitation: which samples, which technological approaches?

11:00 Laboratory practical activities: RNA extraction (sample, methods, yields, quality check, sequencing flow chart)

13:00 Lunch

14:30-17:30 Dr. Simone Marini: Bioinformatics of miRNA sequence data

I. miRNA annotation

II. Identification of new miRNA

...



Wednesday 19 July 2017: analysis of miRNAs

9:00 miRNA Laboratory practice activities: miRNA expression tests (type of tests, technologies...)

11:00 Discussion

13:00 Lunch

14:30 Laboratory practice activities: miRNA in biological fluids

16:00 Discussion

Thursday 20 July 2017: analysis of miRNAs

9:00 Prof. Enrica Capelli/Dr. Valeria D'Argenio: miRNA libraries and sequencing procedures

11:00 Prof. Enrica Capelli: DNA extraction (type of sample, technologies, strategies, metagenomics approaches)

13:00 Lunch

14:30-17:30. Microbiota and CFS

Laboratory practice activities: metagenomics approaches to characterize microbial communities

I.16s amplicon

II.ITS 1 amplicon

Friday 21 July 2017

9:00 Dr.Simona Panelli. microbial identification by culture independent methods

II. disbiosis of bacteriome and pathological consequences

11:00 Prof. Laura Baldo: Bioinformatics after amplicon sequencing

12:00 Lunch

14:30 Dr.Simona Panelli: Mycome characterization (principles and strategies)

16.00 Prof. Laura Baldo: Statistical analysis of metagenomic data



Saturday 22 July 2017

9:00 Prof. Enrica Capelli/ Lorenzo Lorusso: Biomarkers for ME/CFS:

designing researches for biomarkers discovery using micro-RNA and/or microbial composition (each participant)

11:00 Evaluations and Discussion

12:00 Lunch

14:30 Prof. Enrica Capelli/ Dr. Lorenzo Lorusso. Conclusive remarks.



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