UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Metabolomica

2627-1-F0902D010-F0902D01002

Aims

The course will introduce metabolomics technologies and platforms applied to biomedical investigations

Contents

Main concepts and definitions used in metabolomics. Analytical approaches and methods in used metabolomics studies for biomedical investigations.

Detailed program

Introduction to metabolomics: concepts, approaches and definitions

Analytical technologies in metabolomics

Experimental design in metabolomics

Lipidomics and Fluxomics

Functional and statistical data analysis

Prerequisites

Basic knowledge in the field of Chemistry, Biochemistry and Statistics

Teaching form

4 lessons (2 hours) in presence mode

Textbook and teaching resource

Reviews e and scientific articles published on international journals will be provided during the course. Downard K., Mass spectrometry . A foundation course. Royal Society of Chemistry, 2004 ISBN 0-8504-609-7 Gary Siuzdak, Mass Spectrometry for Biotechnology, Academic Press 1996 Per consultazione: J. H. Gross, Mass Spectrometry. A Textbook, Berlin – Heidelberg, Springer Verlag, 2004 E. De Hoffmann, V. Stroobant, Mass Spectrometry. Principles and Application, 2nd Edition Chichester, John Wiley & Sons, 2001. C. Dass, Principles and Practice of Biological Mass Spectrometry, New York, Wiley-Interscience, 2000. ISBN 0471330531 Chapman, John R. Mass Spectrometry of Proteins and Peptides, Humana press 2000, ISBN 0- 89603-609-X Walker, John M. The Proteomics Protocols Handbook Humana Press, 2005

Semester

Second semester

Assessment method

One written question is present during the exam of the Proteomics and Metabolomics course

Office hours

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Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION