UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Metabolomic

2122-1-F0901D046-F0901D091M

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 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

Prerequisites

Basic knowledge in the field of Chemistry, Biochemistry and Statistics

Teaching form

Lectures and practical lessons

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 and oral question is present during the exam of the Proteomics and Metabolomics course

Office hours

Every day upon appointment