DIPARTIMENTO
DI SCIENZE BIOCHIMICHE
A. ROSSI FANELLI

SAPIENZA
UNIVERSITÀ DI ROMA

SCUOLA DI BIOLOGIA E MEDICINA MOLECOLARE

PhD Biochemistry PhD Life Sciences

FUNDAMENTALS OF ENZYME KINETICS
(3rd Edition)

CFU: 2 (12 hours of theoretical and practical lectures)

Teachers: Roberto Contestabile, Francesco Malatesta & Serena Rinaldo

Location: Lectures will be held remotely at the zoom link:
https://uniroma1.zoom.us/j/87660761186?pwd=OEVrT0N0YTZYR3hPNDJnQVhRT0NhQT09
Meeting ID: 876 6076 1186 Passcode: 515696

Calendar:

Thursday February 24, 2-4 pm (F. Malatesta)
Friday February 25, 2-4 pm (F. Malatesta)
Monday February 28, 2-4 pm (F. Malatesta)
Thursday March 3, 9-11 am (S. Rinaldo)
Thursday March 3, 2-4 pm (S. Rinaldo)
Friday March 4, 9-11 am (R. Contestabile)
Friday March 4, 2-4 pm (R. Contestabile)
Friday March 4, 4-4:20 pm (F. Cutruzzolà)*

Application guidelines:
The course is addressed to 1st & 2nd year students of the BeMM PhD School and is open to anybody who is interested.
Applications should be sent by e-mail to *serena.rinaldo@uniroma1.it*, not later than February 21 2022. Please, indicate “Enzyme Kinetics Course" as the e-mail object, and your Surname and Name, as well as the title of your Ph.D. course, in the text body

Aim of the Course:
The goal of this short Course is to introduce cell biology, biotechnology, molecular biology and biochemistry Students to the kinetics of enzyme-catalyzed reactions, and to cover in detail the assumptions, derivation, and meaning of the Michaelis–Menten equation within a biological context. Special emphasis will also be given on the practical aspects of enzymology and its biological relevance as detailed by specific examples.

Detailed program:
Basic principles of chemical kinetics ❖ Introduction to enzyme kinetics ❖ Practical aspects of enzyme kinetics ❖ Derivation of steady-state rate equations ❖ Reversible inhibition ❖ Multisubstrate enzymes ❖ Frontiers in steady-state enzyme kinetics ❖ From theory to practice: the cases of phosphodiesterases and cyclases controlling biofilm formation ❖ Enzyme inhibition and activation ❖ Types of inhibition ❖ Complex inhibition systems ❖ Examples from the literature.

* MOSBRI European Infrastructure: an opportunity for PhD students to exploit molecular biophysics

Logo Credits: Dr Giorgio Giardina

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