



PhD program in
Pharmaceutical
Sciences

- Advanced courses -

Faculdade de Farmácia
Universidade de Coimbra

FUNDAMENTALS AND APPLICATIONS OF CENTRIFUGAL PARTITION CHROMATOGRAPHY (CPC) IN THE ISOLATION OF PLANT METABOLITES

18-19th April, 2023 - Faculty of Pharmacy, University of Coimbra

Coordination:

Carlos Cavaleiro: Professor Carlos Cavaleiro
Faculty of Pharmacy, University of Coimbra
CIEPQPF, University of Coimbra
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OBJECTIVES AND SIGNIFICANCE

Following the 2021 and 2022 editions of the Advanced Courses on Natural Products Research, this 2023 edition will be focused on **CENTRIFUGAL PARTITION CHROMATOGRAPHY (CPC)**, a preparative scalable purification technique applicable to the isolation of natural compounds at the highest purity in a minimum lapse of time, sparing on solvent consumption and environmental friendly.

The course will comprise:

- 1) **a conference** (open to the scientific community), an overview on the fundamentals of CPC, design and particulars of equipment, practical tricks and successful applications to natural products fractionation and purification;
- 2) **workshops for qualified PhD students** (qualified Master students can also be admitted) for discussion of practical cases of advantages in the laboratory routine and identification of scaling-up opportunities for industrial proposes.

Both, conference and workshops will be addressed and steered by Professor Raphael Grougnet (University of Paris, Cité).

This is an opportunity for the scientific community, in particular for PhD students, to cross and to share knowledge on isolation of plant metabolites a crucial topic for phytochemical analysis and for the preparation natural compounds at different scale level.

A certificate of attendance (with classification rate) will be delivered to PhD students of FFUC and DEQ-CIEPQPF that have attended to the conference, actively participated in the workshop and have submitted the final report.

PhD students and qualified Master students are asked to register (and book to the workshop) by sending an e-mail to cavaleir@ff.uc.pt by 17 April, 12:00h.



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Provisional PROGRAM

Tuesday, 18th April

Sala UPF

Piso (-1) - Faculdade de Farmácia, Polo (III) das Ciências da Saúde da Universidade de Coimbra

14:30h

Welcome session

Professor Carlos Cavaleiro

Faculty of Pharmacy, University of Coimbra, Portugal

14.45h – 16:00h

Fundamentals and applications of Centrifugal Partition Chromatography (Cpc) in the isolation of plant metabolites

Professor Raphael Grougnet

Faculty of Pharmacy, University, Paris Cité, France

Wednesday, 19th April

Sala 1A.02

Piso (-1), Faculdade de Farmácia, Polo (III) das Ciências da Saúde da Universidade de Coimbra

14:30h – 18:30h

Workshops

Professor Raphael Grougnet

Faculty of Pharmacy, University, Paris Cité, France

Professor Carlos Cavaleiro

Faculty of Pharmacy, University of Coimbra, Portugal

Professor RAPHAËL GROUGNET

PharmD, MSc, PhD



Associate Professor of the Faculty of Pharmacy, University of Paris Cité, teaching Pharmacognosy and Chemical Ecology.

Senior Researcher

**Group Phytochemistry
Team Natural Products, Analysis, Synthesis
UMR/CNRS 8038
Faculty of Pharmacy
PARIS CITÉ UNIVERSITY**

Research activity

- Natural products chemistry/phytochemistry, structural determination, NMR Spectroscopy.
- Fractionation and isolation by methods with low environmental impact, Centrifugal Partition Chromatography, Resin Adsorption Processes.
- Development of libraries of natural and semi-synthetic compounds.