



Università degli Studi di Pavia

PhD Program in Earth and Environmental Science

RECENT ADVANCES IN NATURAL PRODUCTS

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Visiting Professor

19th December 2017

AULA D4

Section Earth Sciences

Department of Earth and Environmental Sciences

Via Ferrata 1, PAVIA

11.00-13.00 (90 minutes talk+30 minutes discussion)

Follow-up of Natural Products: Isolation, Separation, Purification and Identification

1. General Methods of Extraction of Natural Products (Steps Involved in the Extraction of Medicinal Plants; Modern Methods of Extraction of Essential Oils; Supercritical Fluid Extraction)
2. An Introduction to Column, Flash Chromatography and other Low-Pressure Liquid Chromatography
3. Thin layer chromatography-TLC and High Performance Thin Layer Chromatography-HPTLC
4. Process-scale up using High Performance Liquid Chromatography
5. Identification using LC-MS, GC-MS and NMR

Break 13.00-14.00

14.00-16.00 (90 minutes talk+30 minutes discussion)

Bioassay Screening Methods in the Search for Pharmacologically Active Natural Substances

1. Bioassays for Antibacterial and Antifungal Activities
2. Bioassays for Screening Anthelmintic Activity
3. Bioassays for Screening Antiviral Activity
4. Bioassays for Screening Anticancer Activity
5. Bioassays for Screening Antiaging Activity
6. Toxicity
 - a. (in vitro) cytotoxicity
 - b. (in vivo) *C. elegans*

No registration fee is required. The course is worth 1 credit and will end with an examination. Participants will be given a certificate of attendance.

To register, please contact solveiq.tosi@unipv.it

<http://phd-dsta.unipv.it>