



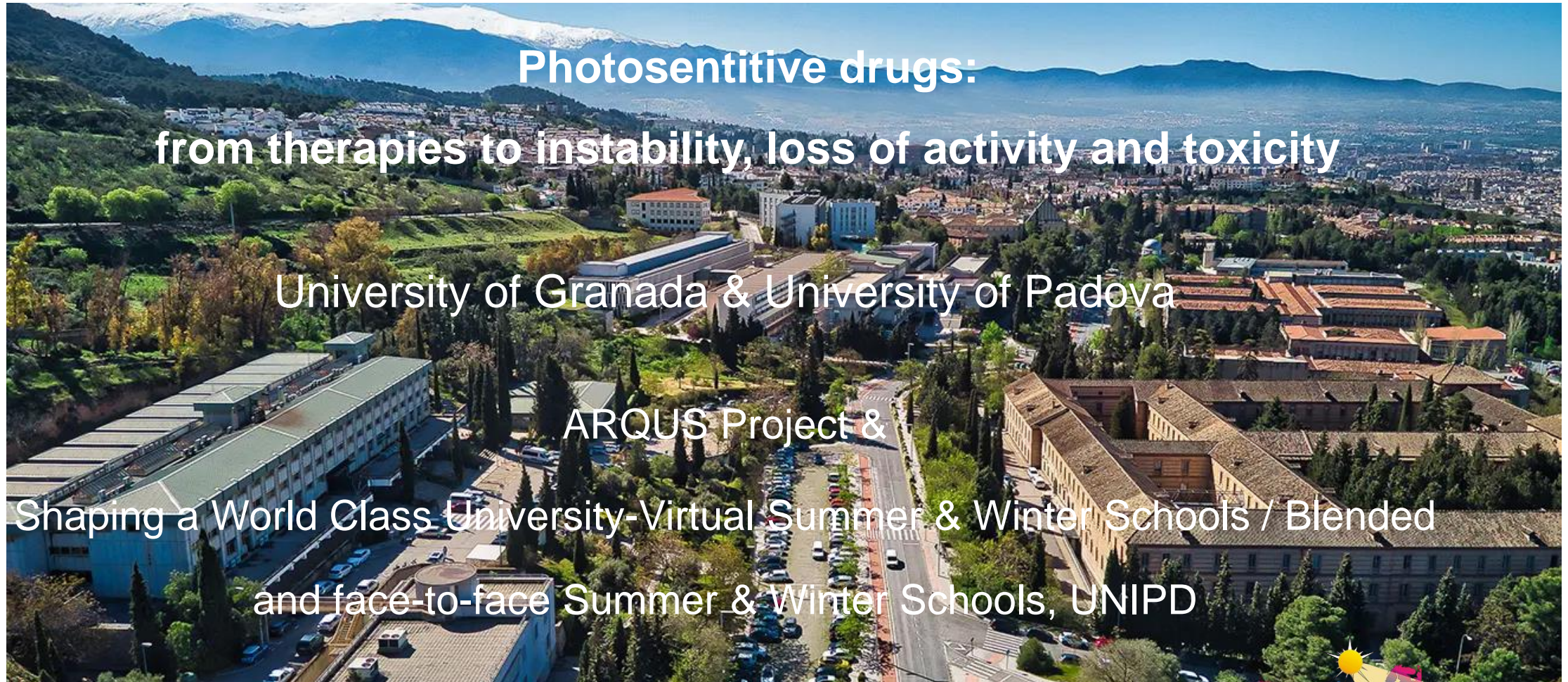
UNIVERSIDAD  
DE GRANADA

# Summer School - Granada 2023

July 17<sup>th</sup>-21<sup>st</sup> 2023



UNIVERSITÀ  
DEGLI STUDI  
DI PADOVA



And under the patronage of the European Society for Photobiology (ESP)



**Address of home university/organization/institute/department**

**Department of Pharmaceutical and Pharmacological Sciences,  
University of Padova, Via Marzolo, 5, 35131 Padova, Italy**

**Telephone**

**#39 0498275705**

**Email address**

**giorgia.miolo@unipd.it**

**Host institution**

**University of Granada**

**Luis Crovetto [luiscrovetto@ugr.es](mailto:luiscrovetto@ugr.es)**

**Maria J. Ruedas-Rama, Vice-dean of International Relations**

**[mjruedas@ugr.es](mailto:mjruedas@ugr.es)**

The **Summer School** in “**Shaping a World Class University**-Virtual Summer & Winter Schools / Blended and face-to-face Summer & Winter Schools” for the year 2023 is organized by the two Faculties of Pharmacy involved of the University of Padova and University of Granada on behalf the Arqus project and the funds of the University of Padova for a Summer-Winter school.

The school will provide the basic principles of photobiology and photochemistry of photosensitizing biomolecules as well as their applications in drug phototherapy and photodiagnosis. In particular, the lectures will be focused on UV light (from cells to skin tissue, DNA damage, Vit. D effects); Photomedicine; Photodynamic therapy and fluorescence diagnosis; Photopharmacology; Photodermatology; Photoprotection; Biochemistry upon light; Photostability of drugs.

The school will be open to MSc students in Pharmacy and Biology and to PhD-students interested in the field of Drugs, Pharmacology, Biochemistry, Medicinal Chemistry, Therapies and Diagnosis.

Most of the lecturers are teachers of the two Departments involved and experts of the European Society for Photobiology ([www.photobiology.eu](http://www.photobiology.eu)), a stimulating community of photobiologists belonging to a European scientific association that promotes photobiology among members and scientists all around the world.

At the end of the school,, a certificate of participation will be given to the students who have passed the final test.

**Photosensitive drugs:  
from therapies to instability, loss of activity and toxicity**

Program

Monday, July 17<sup>th</sup> 2023

h. 9.00

**PRESENTATION OF THE SCHOOL and WELCOME**

*Professors Luis Crovetto and Giorgia Miolo*

(Organizing Committee)

h. 9.15 Opening Lecture:

Prof. Alessandra Pattanaro (UNIPD): *Light / dark and art*

9.45-14.00 Workshop 1

***Basic principles of photochemistry and photobiology***

Luis Crovetto (Universidad de Granada) and Santi Nonell (ESP): *Basic photochemistry*

*Coffee Break*

Giorgia Miolo (UNIPD): *Drug photobiology: issues and applications*

Luca Menilli (UNIPD): *Biological tests for assessing phototoxicity and photo-antiproliferative activity of drugs*

**Tuesday, July 18<sup>th</sup> 2023**

**9.00-10.00** Donatella Carbonera (UNIPD): *Methodologies in Photochemistry*

**10.00 -14.00** Workshop 2

***Are you afraid of the light? Photodynamic Therapy: chemistry, principles and applications***

Francesca Giuntini (ESP): *Photosensitizers – how do they work?*

Amparo Faustino (ESP): *Basics of PDT and approaches for photosensitizer delivery*

*Coffee break*

Kristjan Plaetzer (ESP): *Antimicrobial PDT to fight resistant microorganisms*

Salvatore Sortino (UNICT): *Light Controlled drug delivery systems*

**Wednesday, July 19<sup>th</sup> 2023**

**9.00-10.00** Davide Rossi (UNIPD) : *Surface Tensiometry and application to drugs under light*

**10.00 -14.00 Workshop 3**

***Photostability of drugs***

Virginie Lhiaubet (ESP): *Photostability of drugs*

*Coffee Break*

Patrizia Polverino de Laureto (UNIPD) : *Analytical methods for protein drugs photostability studies*

Francesca Mastrotto (UNIPD): *Photostability and phototoxicity and sun filters in Cosmetic*

Stefano Dall'Acqua (UNIPD): *Light Controlled Plants and Nutraceutical systems*

**Thursday, July 20<sup>th</sup> 2023**

**9.00-10.00** Giampietro Frison (Aulss3Veneto, Mestre Venezia, IT): *High resolution MS in drug analysis*

**10.00-14.00** Workshop 4

***Illicit drugs: from pharmacology to photostability***

Fabrizio Schifano (Hertfordshire University, UK): *Illicit drugs, mechanism and SAR*

*Coffee Break*

Donata Favretto (UNIPD): *Analysis of illicit drugs and therapeutic drugs and their photostability:  
waters and hair*

Manuela Liberi (Bruker): *Pharmaceutical Applications of EPR: From evaluating degradation, to optimizing  
product stability and Shelf-Life, and other measurements in the pharmaceutical  
processes*



**Friday, July 21<sup>st</sup> 2023**

**17.00-18.30 Final test (multichoice questions) ONLINE**

**END of the School**