

The Proteomass scientific society and Bioscope Group in collaboration with the Spanish network of proteomic labs, ProteoRed, announce the following course:

## Python4Proteomics (P4P) Introduction to proteomic data management through Python

10th to 13th of February 2020

Python is a programming language very close to natural language, very simple to learn and with a large number of users in various fields of application, especially in the scientific field.

Python allows us to treat proteomic data reproducible and traceable. The use of Python facilitates the automation of routine procedures using reusable and flexible scripts, avoiding errors and other problems inherent in the manual processing of data with spreadsheets. In addition, Python has powerful tools for the data management, transformation and visualization.

In this course we will learn how to handle proteomic data in excel, csv or similar format from search engines like Proteome Discoverer and MaxQuant, in a simple and automated way. We will also learn how to read and operate fasta and mgf files and how to complete our data with information extracted from Uniprot or other online services such as BLAST. The content is organized with eminently practical criteria, focusing on real working problems and giving special importance to data visualization methods through applications like Matplotlib.

This is an introductory and eminently practical course, aimed to any personnel involved in the management of proteomic data. It is not necessary previous knowledge in programming.

Technical requirements: All students must have their own laptop. The instructions for installing the necessary software will be sent to attendees a few weeks before the begin of the course.

TEACHERS				
Joaquin Abián	Gianluca Arauz	Oscar Gallado		
IIBBCSIC, Barcelona	IRBBarcelona	IIBBCSIC, Barcelona		

## Additional info

Venue: ALDEIA DOS CAPUCHOS GOLF & SPA Hotel http://www.aldeiadoscapuchos.pt/

**Price:** 225€ (The price includes course support material and lunches for day 11<sup>th</sup> – 13<sup>th</sup> February 2020)

**Application:** Course application must be done via email to <u>jlcm@gmail.com</u> and <u>su.jorge@biocopegroup.org</u>, <u>before 10<sup>th</sup> of January, 2020.</u>



scientific society | www.proteomass.org

## **P4P Schedule**

	Monday,	Tuesday,	Wednesday,	Thrusday,
	10 <sup>th</sup> February	11 <sup>th</sup> February	12 <sup>th</sup> February	13 <sup>th</sup> February
09:00			<u>.</u>	
09:30		1 INTRO	2 BIOPYTHON	3 PANDAS
10:00		PYTHON	2 DIOI I IIION	workflow 2 (Quat)
10:30				
11:00		Coffee-break	Coffee-break	Coffee-break
11:30				
12:00		1 INTRO	2 BIOPYTHON	3 PANDAS
12:30				workflow 2 (Quat)
13:00				
13:30				
14:00		LUNCH	LUNCH	LUNCH
14:30				
15:00			3 PANDAS	4 BEYOND
15:30 16:00	0 SETUP	1 INTRO	INTRO	Pyteomics,
16:30	+		workflow 1	wxPython
17:00	INTRO JUPYTER	Coffee-break	Coffee-break	
17:30	INTROJOTTIER	Corree-break	Collee-pleak	
18:00			3 PANDAS	
18:30		1 INTRO workflow 1 (Qu		
19:00				