

## FISABIO SUMMER SCHOOL 2026

### Module 3 – Basic Computational Skills in Metataxonomy for Microbial Diversity Exploration

**Dates:** July 13th - July 17<sup>th</sup>, 2026

The course is addressed to students and professionals of biology, biomedical research, the health sciences and related fields who are interested in learning the basic computational skills required to pursue their own microbial diversity analyses. The module will be eminently practical and hands-on and will teach participants skills ranging from the installation and basic use of Linux systems to the building of analysis pipelines for microbial ecology. Theoretical lectures and practical hands-on sessions will be taught by FISABIO researchers and informaticians. Official language: English. Central Europe Time.

#### Instructors:

- Giuseppe D’Auria. PhD., FISABIO-SP, Head of Bioinformatics Service.
- Rosario Gil. Associate professor, University of Valencia.
- Mariana Reyes. PhD., FISABIO-SP, Bioinformatician at Sequencing and Bioinformatics Service.
- Josefina Arcagni, Grupo de Biología Computacional en la Universidad de Navarra.

#### Course program:

Monday 13/07/2026		
09:15 – 10:00	Next generation sequencing technologies: the birth of the Genomics Era	Rosario Gil
10:00 – 10:45	Comparative genomics for genome annotation and functional analysis.	Rosario Gil
11:00 – 11:45	NGS in microbial ecology (Taxonomy and metagenomics).	Rosario Gil
11:45 – 13:00	From office automation to computation for NGS.	Giuseppe D’Auria
13:00 – 14:30	Lunch	
14:30 – 15:30	Basic Linux system setup and Q&A	Giuseppe D’Auria
15:30 – 16:30	Students Projects – History and Laboratory Visit	Mariana Reyes Prieto
Tuesday 14/07/2026- Qiime and metataxonomy		
09:00 – 10:45	Sequencing methods	Giuseppe D’Auria

11:00 – 12:00	Metataxonomy Intro	Mariana Reyes-Prieto
12:00 – 13:00	Hands-on	Mariana Reyes-Prieto
13:00 – 14:30	Lunch	
14:30 – 16:30	Hands-on	Mariana Reyes-Prieto
Wednesday 15/07/2026		
09:00 – 10:45	Hands-on (16S metataxonomy)	Mariana Reyes-Prieto
11:00 – 12:00	Hands-on	Mariana Reyes-Prieto
12:00 – 13:00	Hands-on	Mariana Reyes-Prieto
13:00 – 14:30	Lunch	
14:30 – 15:30	Nanopore Metataxonomy	Giuseppe D'Auria
15:30 – 16:30	Nanopore Metataxonomy	Giuseppe D'Auria
Thursday 16/07/2026		
09:00 – 10:45	Q2Met-net and databases	Josefina Arcagni
11:00 – 12:00	Hands-on	Josefina Arcagni
12:00 – 13:00	Hands-on	Josefina Arcagni
13:00 – 14:30	Lunch	
14:30 – 15:30	Hands-on	Josefina Arcagni
15:30 – 16:30	Hands-on	Josefina Arcagni
Friday 18/07/2026		
09:00 – 10:45	Creating scripts and pipelines.	Giuseppe D'Auria
11:00 – 12:00	Brainstorming session on students' real-life cases	Mariana Reyes-Prieto
12:00 – 13:00	Questionnaire, final remarks and closure.	Giuseppe D'Auria

**Location:** Library - Fisabio-Salud Pública. Av. Catalunya, 21. 46020 Valencia

**Module price:** 350€