

**Tinkering with GRAPEDIA Training School:  
a modern take on grapevine data analysis**

**DATE: 26-28 June 2023**

**VENUE: FEM | Fondazione Edmund Mach,  
Via E. Mach 1. 38098**



The Training School was held in San Michele all'Adige, in Trentino, the heart of the Italian Alps, a region well renowned for its excellent wine, famous apples, and beautiful Dolomites mountains (UNESCO World Heritage Site since August 2009).

This area is the perfect place for those who love mountaineering and hiking in a natural landscape. Trento, the chief town of Trentino, is just 20 km far from S. Michele. Also known as the City of the Council, Trento represents the historical meeting point between the Italian and the mid-European cultures, which are preserved in local monuments and arts.

More information about Trentino at <https://www.visittrentino.info/en>

The training program for the Grapedia Training School is designed to give a comprehensive overview of the technology architecture, the current state of the work done on the Grapedia prototype as well as an anticipation of the upcoming challenges. Grapedia is the community-driven portal where grapevine-related resources will be centralized, interconnected and integrated following a semi-federative database structure. The full stack Grapedia web application is composed of the Grapedia DB Data Lake, the unified data model exposed through the raphQL interface and the Grapedia services, such as workflows, dashboard and the web portal.

The target group for this Training School is the entire scientific community working on grapevine data analysis. Through a combination of lectures and hackathon sessions this Training School will help in shaping the upcoming platform.

# Program

## Day 1, Monday 26th June 2023:

- **9:00** Welcome from FEM Research and Innovation Centre (**Prof. Mario Pezzotti**, Fondazione E. Mach, Italy)
- **9:15** Presentation of the Training School (**Marco Moretto**, Fondazione E. Mach, Italy)
- **9:45** Introduction to the Grapedia Infrastructure (**Marco Moretto**, Fondazione E. Mach, Italy)
- **10:15** Coffee Break
- **10:30** Backend: the unified data model, datasets and GraphQL interface (**Marco Moretto**, Fondazione E. Mach, Italy)
- **11:30** Workflows in Grapedia: Introduction to Nextflow syntax, Docker and GitHub (Zoom – **Marco Di Marsico / Santiago Radio**, Sequentia Biotech SL, Spain)
- **13:00** Lunch
- **14:30** Workflows in Grapedia: Introduction to Nextflow syntax, Docker and GitHub (Zoom – **Marco Di Marsico / Santiago Radio**, Sequentia Biotech SL, Spain)
- **15:30** Workflows in Grapedia: Examples and usage (**Camille Rustenholz**, INRAE Colmar, France / **Antonio Santiago Pajuelo**, I2SysBio, Spain)
- **16:30** Coffee Break
- **16:45** Dashboard: the VitViz reimplementation in Grapedia (**David Navarro / Luis Orduna**, I2SysBio, Spain)

## Day 2, Tuesday 27th June 2023:

- **9:00** ChromoMap: an R package for interactive visualization of multi-omics data and annotation of chromosomes (**Lakshay Anand**, University of Kentucky, USA)
- **10:30** Coffee Break
- **10:45** Ontologies and semantics to ease finding and integration of omic to phenomic datasets (Zoom – **Cyril Pommier**, INRAE Versailles, France)
- **11:45** Sequentia data analysis tools in Grapedia (**Marco Di Marsico / Santiago Radio**, Sequentia Biotech SL, Spain)
- **13:00** Lunch
- **14:30** Sauvignon Blanc 2.0: Genomics approaches to future-proofing New Zealand grapevines (**Annabel Whibley**, Bragato Research Institute, New Zealand)
- **15:30** Working out of the box: query Grapedia for customized data analysis (**Paolo Sonogo**, Fondazione E. Mach, Italy)
- **16:00** Coffee break
- **16:15** Working out of the box: query Grapedia for customized data analysis (**Paolo Sonogo**, Fondazione E. Mach, Italy)
- **17:30** Rules of engagement for last day hands-on sessions (**Marco Moretto**, Fondazione E. Mach, Italy)
- **20:00** **Social Dinner** at Restaurant “La Cacciatora”

## Day 3, Wednesday 28th June 2023:

- **9:00** Working groups on specific Grapedia datasets, dashboards, tools and workflows
- **10:30** Coffee Break
- **11:00** Working groups on specific Grapedia datasets, dashboards, tools and workflows
- **13:00** Lunch
- **14:30** Working groups on specific Grapedia datasets, dashboards, tools and workflows
- **16:30** Wrap-up and end of Training School

