

Fondo Sociale Europeo Plus 2021/2027

FSE+

Sportello 2025 P.S. 20/24

Sostegno alla realizzazione di dottorati di ricerca

With Decree No. 9526/GRFVG of February 28, 2025, the Friuli Venezia Giulia Region published the Notice regarding the submission of operations for Specific Program No. 20/24, which aims to support higher education through the realization of PhD programs.

Specific Programme 20/24, through the funding of doctoral scholarships, contributes to the achievement of the objectives of the Sustainable Smart Specialisation Strategy (S4). It supports the development or strengthening of integration with the regional production system and/or research organisations, through coordination and collaboration mechanisms with regional enterprises or research bodies, or by leveraging the potential for technology transfer of processes, products, applications, or, more broadly, research outcomes.

- Sportello 2025
- Ciclo 41
- CUP J93C25000640008
- Progetto 2025/6525/23

Dottorato in Chemistry

“Sustainable pharmaceutical technologies for the development of novel nanomedicines ”

The PhD project focuses on the production of new crystalline multicomponent pharmaceutical forms (cocrystals) containing active ingredients and biocompatible polymeric molecules and on the subsequent biopharmaceutical characterization, both conducted according to the principles of sustainability. Unlike traditional chemical synthesis, cocrystals are formed by avoiding drastic experimental conditions. Mechanochemistry, by exploiting mechanical energy, promotes such reactions without solvents, reducing the environmental impact. The project will be divided into four phases:

1. Screening of new polymeric cocrystals
2. Structural characterization of the new forms and study of the formation mechanisms
3. Process optimization
4. In vitro characterization of biopharmaceutical properties

The scientific results will be presented at national and international conferences as well as submitted in the form of scientific articles to high-impact factor "peer-reviewed" journals.