



# Federica Cernuto

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Date of birth: 27/04/1996 Nationality: Italian

## EDUCATION AND TRAINING

[ 12/2021 – 06/2023 ]

### Second-level Master Degree in "Drug Design and Synthesis"

*Università degli studi di Siena*

- Sustainable production of Active Pharmaceutical Ingredients (API).
- Chemical-analytical aspects related to the development, production and quality control processes of drugs.
- In silico approaches for drug discovery and development.
- Economic and legislative aspects related to the world of drugs.
- Communication and development of personal attitudes.

[ 07/2021 ]

### Master Degree in Pharmacy

*Università degli studi di Catania*

| **Final grade:** 110/110 cum laude | **Thesis:** Design and synthesis of bicyclic and spirocyclic compounds as sigma receptors ligands. Tutor: Prof. E. Amata

[ 12/2018 – 06/2019 ]

### Visiting student

*Erasmus+ study programme*

**Address:** University of Oslo , Oslo, Norway | **Field(s) of study:** Chemistry ; Bioinformatics

Study of biological sequence databases, pairwise and multiple bio-sequence alignments, analysis of genomic DNA sequences, protein modeling, Gene Ontology, RNA sequencing, and use of GROMACS.

## LANGUAGE SKILLS

**Mother tongue(s):** Italian

**Other language(s):**

**English**

**LISTENING B2 READING B2 WRITING B2**

**SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## WORK EXPERIENCE

[ 10/2024 – Current ]

### Ph.D Candidate in Computer Science

*Università degli studi di Catania*

**City:** Catania | **Country:** Italy

In silico medicine: integrated modeling and simulation approaches for drug development and clinical decision support systems.

Tutors: Prof. F. Pappalardo, Prof.ssa G. Russo

[ 11/2023 – 09/2024 ]

### Research Fellow ICB-CNR

**City:** Catania | **Country:** Italy

"Development of stereoselective oxidation reactions catalyzed by plant enzymes."

Tutors: Dott.ssa A.Patti, Dott.ssa C.Sanfilippo

[ 10/2022 – 09/2023 ]

### Research Fellow ICB-CNR

**City:** Catania | **Country:** Italy

"Natural Products Assisted-Organic chemistry"

Tutors: Dott.ssa A.Patti, Dott.ssa C.Sanfilippo

[ 03/2022 – 09/2022 ]

### Pharmacist

**Farmacia British**

**City:** Taormina (ME) | **Country:** Italy

[ 12/2018 – 06/2019 ] **Research Collaborator**

**Erasmus+ study programme**

**City:** Oslo | **Country:** Norway

Department of Chemistry, Computational Chemistry, Universitetet i Oslo.

Report: "Computer Simulation of Cellular Retinaldehyde Binding Protein in Complex with All-Trans Retinal."

Supervisor: Prof. M. Cascella

## **PUBLICATIONS**

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**Sanfilippo Claudia, Federica Cernuto, and Angela Patti. "Expanding the Use of Peroxygenase from Oat Flour in Organic Synthesis: Enantioselective Oxidation of Sulfides." International Journal of Molecular Sciences 24.8 (2023): 7464.**

[ 2023 ]

**Claudia Sanfilippo, Federica Cernuto, Angela Patti, Stereoselective oxidation of bis-sulfides catalyzed by peroxygenase from oat, Molecular Catalysis, Volume 566, 2024, 114440, ISSN 2468-8231, <https://doi.org/10.1016/j.mcat.2024.114440>.**

Catania, 5/10/2024

Federica M. Cernuto