

CLIZIA BERNARDI
Curriculum vitae et studiorum

RESEARCH EXPERIENCE

- February 2025-February 2026, *University of Siena*
Postdoctoral Fellow
Research project: Biochemical approaches for the production of bio-based molecules with pharmaceutical value obtained from biowaste (16/2/2025-15/2/2026).
Laboratory of Biochemistry and Pharmacology (Prof. Lorenza Trabalzini).
- December 2021 – November 2024, *University of Siena*
Ph.D. in Biochemistry and Molecular Biology BiBiM 2.0
PhD project: Enhancement of the agro-foodchain of *Phaseolus vulgaris* L.: production and biological and nutraceutical activities of native variants and recovery of industrial processing waste– Department of Biotechnology, Chemistry and Pharmacy, University of Siena, Laboratory of Biochemistry and Pharmacology (Prof. Lorenza Trabalzini).
- November 2020 - June 2021, *University of Siena*
Thesis internship
Preparation of the master's final thesis "Identification of natural origin anti-inflammatory inhibitors such as inhibitors of Spike-ACE2 binding"

EDUCATION

- November 2021 - *University of Siena*
License to practice Pharmacy
- June 2021 - *University of Siena*
Master degree in Pharmacy

THESIS SUPERVISION

- December 2025
Co-supervisor for Master's thesis: "Antitumor activity of *Salvia haematodes* extracts"
- July 2025
Co-supervisor for Master's thesis: "Evaluation of the biological activity of *Caigua Camuna* extracts in endothelial cell models"
- April 2025
Co-supervisor for Master's thesis: "Modulation of miRNAs involved in inflammatory processes by *Phaseolus vulgaris* extracts".
- April 2025
Co-supervisor for Master's thesis: "Evaluation of the effects of *Phaseolus coccineus* var. *Copafam* extracts on colorectal cancer cell models"
- October 2024
Co-supervisor for Master's thesis: "Biological Properties of *Phaseolus vulgaris* var. *Venanzio* Extracts on Cellular Models of Colon Cancer"

Guided students in designing experiments, analyzing data, and preparing their final

dissertations.

TEACHING EXPERIENCES

- April-June 2024/ March-May 2025
Biology Instructor for international students-Foundation Year Program -
University for Foreigners of Siena
Delivered preparatory biology lessons to international students aiming to pass entrance exams for science-related degree programs.
Designed and implemented tailored lesson plans focusing on key biological concepts, terminology, and test-taking strategies.
Supported students in building foundational knowledge required for scientific academic programs.
- March 2024
Laboratory classes- University of Siena
Supervised laboratory sessions for final-year students of the Istituto Tito Sarrocchi, focusing on molecular biology.
- March-May 2021
Laboratory Assistant - University of Siena, Department of Biotechnology, Chemistry and Pharmacy
Assisted third-year students in Applied Biochemistry teaching laboratory sessions.
Guided experimental procedures and lab safety protocols.
Ensured compliance with laboratory regulations and proper handling of materials.
- **Master's Thesis Tutor - University of Siena, Department of Biotechnology, Chemistry and Pharmacy**
Provided guidance and mentorship to Master's degree students during their thesis projects. Assisted in developing research methodologies, analyzing data, and refining thesis writing.

RESEARCH PROJECTS

Re-Evaluating Waste to INcrease Development: Catalytic upgrading of bio-based building blocks for a new chemical circular economy (REWIND)

PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022

Prot. 20223ARWAY (Participant).

PUBLICATIONS

Siciliano S., Bernardi C., Finetti F., Guerrini A., Monti M. C., Morretta E., Petricci E., Poggialini F., Romagnoli G., Taddei M., Trabalzini L., Vinciarelli G., Zambardino D., Cini E. “ProTide-enabled antibody-drug conjugates: A novel platform for the targeted delivery of phosphorylated drugs”. *Bioorganic chemistry*. 2025; 167, 109260.

Bernardi C., Gaslonde T., Finetti F., Benmaouche S., Macri G., Dugay A., Cuyamendous C., Bouzidi C., Loizzo M.R., Belmont P., Tundis R., Trabalzini L., Deguin B. “A Study of the Fruits of *Catalpa bignonioides* Walt.: Evaluation of the Antioxidant, Anti-Inflammatory, and Anti-Cancer Activities in Colorectal Adenocarcinoma Cells in Relation to Phytochemical Profile”. *Antioxidants*. 2025; 14, 1116.

Bernardi C., Cappellucci G., Bains G., Aloisi AM, Finetti F., Trabalzini L. “Potential Human Health Benefits of *Phaseolus vulgaris* L. var *Venanzio*: Effects on Cancer Cell Growth and

Inflammation”. *Nutrients*. 2024;16(15):2534.

Bernardi C.; Macri G.; Biagi M.; Miraldi E.; Finetti F.; Trabalzini L. “In vitro Digestion of Phaseolus vulgaris L. Cooked Beans Induces Autophagy in Colon Cancer Cells”. *Foods*. 2023; 12, 839.

Finetti F., Paradisi L., Bernardi C., Pannini M., Trabalzini L. “Cooperation between Prostaglandin E2 and Epidermal Growth Factor Receptor in Cancer Progression: A Dual Target for Cancer Therapy”. *Cancers*. 2023; 15(8):2374.

ORAL PRESENTATIONS

Clizia Bernardi. Title of oral presentation: “Biological activity of Caigua extracts”.
Project: PSR FEASR 2014-2020 Lombardy Region "Characterization of Caigua cultivars from Lombardy for the conservation and promotion of innovative agro-food and medicinal resources." *University of Milan, POLO UNIMONT (Edolo, BS)*; 19th December 2024.

I authorize the processing of my personal data in accordance with Legislative Decree 101/2018 and Art. 13 GDPR (EU Regulation 2016/679) for the purposes of personnel search and selection.

