

CLIZIA BERNARDI
Curriculum vitae et studiorum

RESEARCH EXPERIENCE

- From February 2025, *University of Siena*
Postdoctoral Researcher
Laboratory of Cellular and Macromolecular Biochemistry, (Prof. Lorenza Trabalzini).
- December 2021 – November 2024, *University of Siena*
Ph.D. in Biochemistry and Molecular Biology BiBiM 2.0
“Enhancement of the agro-food chain 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 Cellular and Macromolecular Biochemistry, (Prof. Lorenza Trabalzini). Thesis defense at the end of April.
- November 2020 - June 2021, *University of Siena*
Thesis internship
Preparation of research thesis: “Identification of natural origin anti-inflammatories 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 And Industrial Pharmacy

THESIS SUPERVISION

- October 2024
Co-supervisor for Master's thesis: “*Biological Properties of Phaseolus vulgaris var. Venanzio Extracts on Cellular Models of Colon Cancer*”
Guided student in designing experiments, analyzing data, and preparing their final dissertations.

TEACHING EXPERIENCES

- April-June 2024
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 lesson - *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. Provided guidance on 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.

PUBLICATIONS (IF 2024)

Bernardi C., Cappellucci G., Bainsi 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* (IF 4.8). 2024; 16(15):2534.

Bernardi C.; Macrì 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* (IF 4.7). 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* (IF 5.2). 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.

POSTER AND ABSTRACT

Clizia Bernardi, Federica Finetti, Lorenza Trabalzini. "Potential Human Health Benefits of *Phaseolus vulgaris* L. var Venanzio: Effects on Cancer Cell Growth and Inflammation". Poster, submitted at PhD Student Day, Doctoral Programme in Biochemistry and Molecular Biology – BiBiM 2.0, 13th September 2024, Florence, Italy.

Clizia Bernardi, Federica Finetti, Lorenza Trabalzini. “*Phaseolus vulgaris* L. Var Venanzio extracts protect colon cancer cells from oxidative stress and inflammation”. Poster, submitted at 19th Emory @ Unisi Summer School, DBCF Research Day, 29st May 2024, Siena Italy.

Clizia Bernardi, Federica Finetti, Lorenza Trabalzini. “In vitro digested fractions of *Phaseolus vulgaris* protect colon cells from inflammation and oxidative stress”. Poster, submitted at PhD Student Day, Doctoral Programme in Biochemistry and Molecular Biology – BiBiM 2.0, 6th October 2023, Pisa, Italy.

Clizia Bernardi., Federica Finetti, Lorenza Trabalzini . “In vitro digested fractions of *Phaseolus vulgaris* protect colon cells from inflammation and oxidative stress”. Poster, submitted at 62° SIB Congress, 7-9th September 2023, Florence, Italy.

Clizia Bernardi, Federica Finetti, Lorenza Trabalzini. “Biological activity of *Phaseolus vulgaris*”. Poster, submitted at 18th Emory @ Unisi Summer School, DBCF Research Day, 30st May 2023, Siena Italy.

Clizia Bernardi, Federica Finetti, Giulia Macri, Marco Biagi and Lorenza Trabalzini. “Biological activity of *Phaseolus vulgaris*”. Poster, submitted at PhD Student Day, Doctoral Programme in Biochemistry and Molecular Biology – BiBiM 2.0, 28th September 2022, Siena, Italy.

Clizia Bernardi, Federica Finetti, Lorenza Trabalzini. “Biological activity of *Phaseolus vulgaris* digestive solution”. Poster, submitted at 17th Emory @ Unisi Summer School, DBCF Research Day, 31st May 2022, Siena Italy.