

CV - Cinzia Calvio

Assistant Professor in Microbial genetics at the Department of Biology and Biotechnology, University of Pavia (DBB-UNIPV)

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WEB OF SCIENCE: <https://www.webofscience.com/wos/author/rid/E-1353-2011>

Education and training

Cinzia Calvio obtained her first degree cum laude in Biology from the University of Pavia in 1990. In 1993 she got the Specialization degree in Applied Genetics from the University of Pavia with an experimental thesis carried out at the IGM-CNR (formerly IGBE) in Pavia.

Professional experience

From Sept.'93 to Dec.'95 she held a Postdoctoral position at the EMBL, Heidelberg. A second postdoc ('96 – May'97) was carried out at the European Institute of Oncology - IEO, Milan, in the group led by Prof. P.G. Pelicci. From Sept.'93 to Dec.'95 she held a Postdoctoral position at the EMBL, Heidelberg, in the laboratory of Prof. A.I. Lamond. A second postdoc (Feb.'96 - May'97) was carried out at the European Institute of Oncology - IEO, Milan, in the group led by Prof. P.G. Pelicci. From June '97 to Jan. '99 she held a Product Specialist position at BIOSENSE srl, a commercial company based in Milan. She was responsible for scientific training on the Licor automated DNA sequencers and on the BIACORE™ instrumentation for the analysis of macromolecular interactions. From Feb. '99 to Dec. 2002 she held a Research Assistant position at the Dept. of Biology and Biotechnology of the University of Pavia, being responsible for the departmental sequencing facility. In 2003 she joined, as Assistant Professor in Genetics, the lab of Microbial Genetics of the same Department. After a long collaboration with Prof. A. Galizzi, from 2009 she is the PI of the Microbial Genetics Laboratory. C. Calvio main research interest has been the regulation of stationary phase phenotypes in the model organism *Bacillus subtilis*. In particular, she characterized the *swrA* operon necessary for swarming, a specialized form of motility and identified the regulation driving its expression. She demonstrated that the biosynthesis of the polymer poly- γ -glutamate (γ -PGA), with great biotechnological potentiality, is depending on SwrA+DegU and is still optimizing γ -PGA production by genetic engineering. Studies on the enzymatic degradation of γ -PGA led to the identification of several hydrolases among non-characterized *B. subtilis* genes. She analysed the evolutionary pattern of distribution of these genes in microbial genomes and is also exploring their applications as antimicrobial strategic enzymes. Since 2016 she also focusing on the engineering of *B. subtilis* strains for the sustainable production of biotechnological products from agro-industrial by-products. She is also interested in the improvement of bacterial enzyme for industrial catalytic purposes. Besides regularly acting as reviewer for several international journals

Academic experience

After several years of teaching Genetics II and Functional genomics, since 2009 she holds the chair of “**Microbial Genetics**” (in English) for the master program in Molecular Biology and Genetics of Pavia University, and “**Microbial biodiversity in soil**” for the master program in Natural Sciences. She is part of

the Teaching Staff in the PhD program in Genetics, Molecular and Cellular Biology of the Department of Biology and Biotechnology of the University of Pavia.

Over the years, she supervised over 55 experimental theses, both for bachelor, master & PhD students.

C. Calvio was appointed to the **editorial board of Applied Environmental Microbiology** (from the American Society for Microbiology), as academic editors for PLOS One and as editor for Research in Microbiology (Pasteur Institute) and is part of the board of reviewers for Microbiology sgm. She is member of the Microbiology Society and the European Federation of Biotechnology. She regularly acts as reviewer for several international journals.

Scientific Publications

Total number of indexed publications: **30** (including an accepted paper in *Journal of Agricultural and Food Chemistry*)

Total number of citations: **1185**

H-index: 12 (source: Scopus) <https://www.scopus.com/authid/detail.uri?authorId=6507853526>)

Active grants

- 2022-2025 H2020 PRIMA (Partnership for Research and Innovation in the Mediterranean Area) - Multi-Topic 2021, Research & Innovation Activities-RIA. Role : Participant.
- Ministero dell'Istruzione, dell'Università e della Ricerca – Programma Nazionale di Ricerca in Antartide 2018. Title: Exploring the diversity of soil microbes and their biomolecules in Victoria Land. Duration: 2020-2022. GRANT_NUMBER: PNRA18_00015 – E; Role: Participant

Closed grants:

2019-2021 Ministero degli Affari Esteri e della Cooperazione Internazionale & the Polish National Agency for Academic Exchange 2019 # M03333. **Principal Investigator**;
2019-2021 Fondazione CARIPLO # 2018-1011 - Participant;
2016-2021 Fondazione CARIPLO #2016-0741 - **Unit coordinator**;
2016-2019 Fondazione CARIPLO - Participant
2016-2018 Fondazione CARIPLO - **Principal Investigator**
2013/15 INSTM-Regione Lombardia: - Participant
2010-2012 INSTM-Regione Lombardia: - Participant
2010-2012 Fondazione Alma Mater Ticinensis - Participant
2009-2011 MIUR – PRIN - **Principal Investigator** (Coordinator)
2005-2007 MIUR – PRIN - Participant
2003-2005 MIUR – PRIN– Participant