

Gianni Francesco Guidetti- *Curriculum vitae*

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Training and position:

- 2020-today: Associate Professor; Department of Biology and Biotechnology "L. Spallanzani", University of Pavia
- 2009- 2020: Assistant Professor; Department of Biochemistry, University of Pavia
- 2008: Post-doc fellowship; Department of Biochemistry, University of Pavia
- 2007: Research fellowship (Progetto Globale Ingenio), Regione Lombardia
- 2004-2006: Post-doc fellowship; Department of Biochemistry, University of Pavia
- 2002- 2003: Visiting Scientist; Department of Physiological Chemistry, University Medical Centre (UMC) Utrecht, The Netherlands
- 2000-2004: PhD in Biochemistry and Molecular Physiology of Cellular Membrane (PhD graduation: 01 March 2004) University of Pavia
- 2000-2004: SAFI (Scuola Avanzata di Formazione Integrata) Institute for Advanced Study (IUSS) Pavia
- 1995-2000: Degree in Biological Sciences (110/110 cum laude) University of Pavia

Scientific activities and research interests:

Biochemical mechanism of signal transduction downstream of integrins and GPCRs. Roles and regulation of Ras-family GTP-binding proteins. C-type lectin receptors in platelet activation. Effects of nanomaterials and nanoparticles on platelet function. Development and characterization of boron-containing compounds and nanoparticles for Boron Neutron Capture Therapy (BNCT). Platelet-tumor cell interaction and role of platelets and platelet-derived extracellular vesicles (PEVs) in tumor growth and metastasis.

Publications: 51 papers published on international peer-reviewed journals:

<https://www.scopus.com/authid/detail.uri?authorId=7005766039>

Technical skills:

Purification and manipulation of blood platelets and platelet-derived extracellular vesicles, cell fractioning, electrophoresis, immunoblotting, chromatography, analysis of platelet adhesion under static conditions and under flow, bright field microscopy, confocal microscopy, flow-cytometry, cell culture and transfection. Molecular biology techniques, PCR, cloning, protein expression and purification, mRNA extraction and analysis. Manipulation of nanomaterials and characterization of nanoparticle hemocompatibility. Studies on animal models.

Services:

- Ad hoc reviewer for several peer-reviewed journals, including: Hematologica, Journal of Thrombosis and Haemostasis, Journal of Extracellular Vesicles, Scientific Reports, Nanomedicine (Nanotechnology, Biology, and Medicine), Thrombosis and Haemostasis, RPTH, International Journal of Pharmaceutics, Chemical Biology and Drug Design, Environmental pollution, Molecular Pharmaceutics, Current Medicinal Chemistry, Journal of Molecular Medicine.
- Guest editor for Frontiers in Molecular Biosciences. Special issue: Platelets and their Multi-faceted Roles in Health and Disease (2023)
- Guest editor for the International Journal of Molecular Sciences. Special issue: Thromboinflammation: An Evolving Concept (2022-23)
- Evaluation and review of grant proposals for the French Research Agency (L'Agence nationale de la recherche - ANR, France) and the Croatian Science Foundation (HRZZ, Croatia).
- Evaluation and review of PhD thesis (University of Perugia).
- Member of the technical-scientific board of the 'Centro Interdipartimentale di Studi e Ricerche sui Sistemi di Istruzione Superiore' (CIRSSIS)-University of Pavia (2013-today)
- Member of the Editorial Board of the Journal of Unexplored Medical Data (JUMD, ISSN 2572-8180) (2018- 2020)
- Member of the evaluation committee for PhD final exam -PhD in Biochemistry and Molecular Biology (XXX Cycle) (25-9-2018, University of Siena)
- Member of the evaluation committee for PhD course final exam - PhD in Biomedical Sciences (XXXI Cycle) (19-2-2019, University of Pavia)
- Member of the editorial board of the Science communication journal 'Scienze e Ricerche' (2015-2016)
- Member of the jury panel for the 'Premio Nazionale di Divulgazione Scientifica' and 'Premio Nazionale di Editoria Universitaria' (Associazione Italiana Libro) (2014-2016)

Teaching activity:

- Coordinator of the master's program in Advanced Biotechnology (2022-today) <https://biotecnologieavanzate.cdl.unipv.it/en> .
- National Scientific Habilitation (Full Professor) in Biochemistry (BIO/10)
- Member of teaching board of the PhD program in Biomedical Sciences (University of Pavia) (2017-today)
- Past Academic courses: Laboratory of molecular techniques (Biological Sciences); Laboratory of biochemistry (Biological Sciences); General and applied enzymology (Biotechnology); Biochemistry of macromolecules (Molecular Biology and Genetics);
- Current Academic courses: Industrial Biochemistry (Biotechnology); Methods in Biochemistry (Molecular Biology and Genetics; Chemistry); Basic Biochemistry (Molecular Biology and Genetics).
- Laboratory training and supervision for the preparation of experimental thesis for several undergraduate and PhD students.
- Teaching activity for students and teachers of High Schools within the ministerial project PNLS (Piano Nazionale Lauree Scientifiche) 2017-2022

Main research support

- MIUR-PRIN 2001: Project title “Modulazione della adesione cellulare: meccanismi molecolari di trasduzione del segnale” (24 months). Role: Co-Investigator
- MIUR-PRIN 2002: Project title “Ruolo e regolazione delle proteine Rap nell’adesione e migrazione cellulare mediate da integrine” (24 months). Role: Co-Investigator
- PRIN 2003: Project title “Regolazione delle vie di segnalazione mediate da recettori di adesione” (24 months). Role: Co-Investigator
- MIUR-PRIN 2006: Project title “Regolazione delle vie di segnalazione mediate da recettori di adesione in cellule ematiche e vascolari” (24 months). Role: Co-Investigator
- Research fellowship from Regione Lombardia 2006-7 (Progetto Globale Ingenio)
- MIUR-PRIN 2008: Project title “Regolazione delle vie di segnalazione mediate da recettori di adesione in cellule ematiche e vascolari” (24 months). Role: Unit Coordinator
- Fondazione Cariplo 2009: Project title “Development and safety assessment of nanostructured compounds applicable to boron neutron capture therapy” (24 months). Role: Co-Investigator
- Fondazione Cariplo 2011: Project title “Tyrosine kinases in cardiovascular diseases: unravelling the role of the focal adhesion Pyk2 in platelet function, arterial thrombosis, and abdominal aortic aneurysm” (36 months). Role: Co-Investigator
- Fondazione Cariplo 2011: Project title “Toxicology of engineered nanoparticles: analysis of their potential thrombotic, inflammatory and haemolytic effects” (24 months). Role: Co-Investigator
- Fondo per il Finanziamento delle Attività Base di Ricerca (FFABR) 2018. Role: Principal investigator
- Programma Nazionale di Ricerca in Antartide 2018: - Bando PNRA n. 1314 - Titolo del progetto “Exploring the diversity of soil microbes and their biomolecules in Victoria Land”. Role: Co-Investigator
- Fondazione Cariplo 2018: Project Title “Inflammation in the pathophysiology of ageing-related frailty: unraveling the contribution of blood platelets”. Role: Co-Investigator. Role: Co-Investigator
- Italian Ministry of Health National Development and Cohesion Fund 2023: Project title: Immunohub: treatment of infectious and tumoral diseases, Objective 4: new targets for drug-resistant GBM. Role: Co-Investigator
- Università Italo-Francese: Bando Vinci for Shared PhD positions 2023. Project title “Studio di nuovi meccanismi molecolari implicati nella biogenesi e nel rilascio di vescicole extracellulari in megacariociti e piastrine: ruolo delle fosfoinositide 3-chinasi”. Role: Proponent.