

EDUCATION

1988: Degree in Pharmaceutical Chemistry and Technology (110/110 cum laude), Faculty of Pharmacy University of Bologna, Italy.

February 1989 – July 1990: Fellowship from EniChem-Anic, hosted by the Department of Pharmaceutical Sciences, University of Bologna, to work on “Microbial desulphurization of solid and liquid fuels”.

1994: PhD in Applied Biocatalysis and Industrial Fermentation, University of Bologna, Italy. Thesis: “Isolation and characterization of aerobic and anaerobic microorganisms involved in the desulfurization of heavy oils”. Research was carried out in part at the Department of Pharmaceutical Sciences, University of Bologna, and in part (13 months) at the Department of Biological Sciences, University of Calgary, Calgary, Canada.

PROFESSIONAL ACTIVITY

1994-2004: Researcher of Chemistry and Biotechnology of Fermentation (CHIM11), Faculty of Pharmacy, University of Bologna.

2003: Researcher of Chemistry and Biotechnology of Fermentation (CHIM11), Faculty of Medicine and Surgery, University of Modena and Reggio Emilia.

2004: Researcher of Chemistry and Biotechnology of Fermentation (CHIM11), Faculty of Bioscience and Biotechnology, University of Modena and Reggio Emilia.

2005- present: Associate Professor of Chemistry and Biotechnology of Fermentation, Department of Life Sciences, University of Modena and Reggio Emilia.

2003 - present: chairman of the laboratory of Industrial Microbiology and Microbial Biotechnology of the Department of Life Sciences (University of Modena and Reggio Emilia) and coordinator of the educational and research programs of the group.

2014: National scientific qualification to function as full professor 03/D1 (Medicinal, Toxicological And Nutritional Chemistry and Applied Technologies) - CHIM/11 - Chemistry and Biotechnology of Fermentation.

2016: National scientific qualification to function as full professor 05/I (Genetics and Microbiology) – BIO/19 – Microbiology.

2019: National scientific qualification to function as full professor 03/D1 (Medicinal, Toxicological And Nutritional Chemistry and Applied Technologies) - CHIM/11 - Chemistry and Biotechnology of Fermentation.

2021- present: Full Professor of Chemistry and Biotechnology of Fermentation, Department of Life Sciences, University of Modena and Reggio Emilia.

MAJOR INSTITUTIONAL RESPONSIBILITIES

2005: Coordinator of the Research Doctorate “Tecnologico applicativo”

2006-today: Member of the board of the Research Doctorate in “Food and agricultural science, technology and biotechnology”

2014-2017: Dean of Bachelor's degree in Biotechnology

2017 – present: Representative of the UNIMORE Dean for Biogest-Siteia in Clust-ER, Industrie della Salute e del Benessere

2022 – present: Leader of the Research Committee of the Department of Life Sciences, UNIMORE.

As a whole, supervision of 15 PhD thesis (2 in progress).

SCIENTIFIC ACTIVITY

Research is almost entirely devoted to Microbial Biotechnology. In the last years, the main fields that have been explored are:

- ecology of gut microbiota and modulation through probiotics and prebiotics
- ecology of food matrices and development of starters for biopreservation
- biotechnological exploitation of non-conventional yeasts

Research activity is mostly reported in 113 publications (among which more than half as corresponding author) in indexed journals, 39 H-index, 5601 citations.

CURRENT GRANTS AND PARTICIPATION IN RECENT COMPETITIVE PROJECTS

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- 2019. Programma Operativo Nazionale “Ricerca e Innovazione” 2014-2020 (PON “R&I” 2014-2020). Project ARS01_00668 dal titolo “Utilizzo di biomassa da canapa industriale per la produzione di energia e nuovi biochemicals”. Role: member of the Research Unit of Modena e Reggio Emilia (leader of the project). Funds: 563.121,65 € (only for UNIMORE).
- 2019: POR FESR 2014-2020 ASSE 1 AZIONE 1.2.2 Research project PG/2018/631984 “FLIES4VALUE - Insetti per la bioconversione di sottoprodotti agroalimentari in mangimi e sostanze ad alto valore aggiunto”. Role: responsible of microbiological safety and metagenome analysis for the package “valutazioni di sicurezza microbiologica mediante tecniche coltura-dipendenti e non, e approcci metagenomici sul mangime ottenuto a partire dalla larve di mosca soldato allevate su sottoprodotti di filiere agro-industriali”. Total funds: 1.111.422,75 €; for Biogest-Siteia: 464.355,75 €.
- 2020: Ministero delle politiche agricole alimentari e forestali. Progetto “Shelf Life Secondaria”. Role: member of the research staff. Funds: 50.000 €.
- POR FESR 2014/2020 dal titolo: “SSUDPI - Sistema di Sanificazione Universale dei Dispositivi di Protezione Individuale” PG/2020/317779 nell’ambito del Bando approvato con DGR n.342/2020

“Progetti di ricerca e innovazione industriale per soluzioni di contrasto alla diffusione del COVID19. contributi a imprese e centri di ricerca. Beneficiario del finanziamento: RGN. Biogest-Siteia as subcontractor of: SSUDPI - Sistema di Sanificazione Universale dei Dispositivi di Protezione Individuale. Role: Principal Investigator for Biogest-Siteia. Funds: 65.000 €.

- 2022-2025: Project “Health Extended Alliance for Innovative Therapies, Advanced Lab-research, and Integrated Approaches of Precision Medicine - HEAL ITALIA” tematica 6 “Innovative diagnostics and therapies in precision medicine” cod. Progetto PE0000019 – CUP E93C22001860006 - PIANO NAZIONALE DI RIPRESA E RESILIENZA (PNRR) – MISSIONE 4 “Istruzione Ricerca” COMPONENTE 2, “Dalla ricerca all’impresa”, Investimento 1.3, Creazione di “Partenariati estesi alle università, ai centri di ricerca, alle aziende per il finanziamento di progetti di ricerca di base” finanziato dall’Unione europea – NextGenerationEU- rif. Avviso MUR 341/2022. SPOKE 5: UNIMORE Principal Investigator for the activities 1) Providing a disease-specific microbial profile of patients; 2) Developing microbiota-targeted interventions, also aimed to modulate beta-glucuronidase activity.
- PRIN 2022. Leader of the project "Gut microbiota, milk peptides and AGEs: interplay in healthy subjects". € 228.775.

September 2024