

Curriculum vitae	Current position	
Francesco Enzo Molinari	Full Professor of Chemistry and Biotechnology of Fermentation Department of Food, Environmental and Nutritional Sciences (University of Milan)	

Francesco Molinari held a PhD in Chemistry under the guidance of prof. Cesare Gennari. He stayed as post-doc at the Department of Chemical Engineering (Instituto Superior Tecnico, Lisbon), working on biotransformations in membrane bioreactors under the supervision of Prof. Joaquim Cabral.

He has been visiting professor University of São Paulo (USP) and University Federal of Ceará (UFC).

His scientific interests involve fermentation and biocatalysis for the development of bioprocesses for the preparation of molecules for food and pharma application.

He is author and co-author of 145 peer-reviewed papers, 10 chapters of books and 4 patents.

Bibliometric data (Scopus 30/08/2021): H_{index} 32, citations 3069.

10 Recent significant papers:

Title	Journal	Authors	Year	Vol-	Impact factor
Structural insights into the desymmetrization of bulky 1,2-dicarbonyls through enzymatic monoreduction	<i>Bioorganic Chemistry</i>	Rabuffetti, M., Cannazza P., Contente, M.L., Pinto, A.Romano, D., Hoyos, P., Alcantara, A.R., Eberini, I., Laurenzi, T., Gourlay, L., Di Pisa, F., Molinari, F.	2021	108	5.28
A strategic Ser/Cys exchange in the catalytic triad unlocks an acyltransferase-mediated synthesis of thioesters and tertiary amides	<i>Nature catalysis</i>	Contente, M.L., Roura Padrosa, D., Molinari, F., Paradisi F.	2020	3	21.56
Uncommon overoxidative catalytic activity in a new halo-tolerant alcohol dehydrogenase	<i>ChemCatChem</i>	Contente, M.L., Fiore, N., Cannazza, P., Roura Padrosa, D., Molinari, F., Gourlay, L., Paradisi F.	2020		4.80
Flow-based enzymatic synthesis of melatonin and other high value tryptamine derivatives: A five-minute intensified process	<i>Green Chemistry</i>	Contente M.L., Farris S., Tamborini L., Molinari F., Paradisi F.	2019	21	9.41
Efficient enzymatic preparation of flavor esters in water	<i>Journal of Food and Agricultural Chemistry</i>	Perdomo I.C., Gianolio S., Pinto A., Romano D., Contente M.L., Paradisi F. Molinari F.	2019	67	5.04
Strategic single point mutation yields a solvent- and salt-stable transaminase from <i>Virgibacillus</i> sp. in soluble form	<i>Scientific Reports</i>	Guidi B., Planchestainer M., Contente M.L., Laurenzi T., Eberini I., Gourlay L.J., Romano D., Paradisi F., Molinari F.	2018	8	4.38
Biocatalytic N-Acylation of Amines in Water Using an Acyltransferase from <i>Mycobacterium smegmatis</i>	<i>Advanced Synthesis and Catalysis</i>	Contente M.L., Pinto A., Molinari F., Paradisi F.	2018	360	5.12
A stereospecific carboxyl esterase from <i>Bacillus coagulans</i> hosting nonlipase activity within a lipase-like fold	<i>FEBS Journal</i>	De Vitis V., Nakhnoukh C., Pinto A., Contente M.L., Barbiroli A., Milani M., Bolognesi M., Molinari F., Gourlay L.J., Romano D.	2018	285	4.53

Flow bioreactors as complementary tools for biocatalytic process intensification	<i>Trends in Biotechnology</i>	Tamborini L., Fernandes P., Paradisi F., Molinari F.	2018	36	13.56
Continuous flow biocatalysis: production and in-line purification of amines by immobilised transaminase from <i>Halomonas elongata</i>	<i>Green Chemistry</i>	M. Planchestainer, M.L. Contente, J. Cassidy, F. Molinari, L. Tamborini, F. Paradisi	2017	19	9.12

He has been involved in several projects:

Title	Funding body	Period
CIRCLE - Citrus waste recycling for added value products	Economia Circolare – 2020 Fondazione CARIPLO	2021-2023
Integrated platform for the sustainable production of bio-based surfactants from renewable resources (BioSurf)	Economia Circolare – 2020 Fondazione CARIPLO	2021-2023
Sviluppo metodi di fermentazione del prodotto Migalastat (1-deoxygalactonojirimycin)	INDENA	2019-2020
BIOFLOW: an innovative platform for the in-flow biocatalytic preparation of high value chemicals	Ricerca integrata sulle biotecnologie industriali e sulla Bioeconomia Fondazione CARIPLO	2017-2019
INnovative Biocatalytic Oxidations – INBOX	Ricerca integrata sulle biotecnologie industriali Fondazione CARIPLO	2015-2017
Identification of biocatalytic methodology for enantioselective reactions.	Chiesi Farmaceutici S.p.A	2015-2017
Marine Microorganisms: Cultivation Methods for Improving their Biotechnological Applications (MACUMBA)	EU FP 7, call KBBE.2012.3.2-02	2012-2016
Integrated Biotechnological Solutions for Combating Marine Oil Spills (Killspill)	EU FP 7, call KBBE.2012.3.2-02	2012-2016
New bioprocesses for the preparation of steroids	Industriale Chimica (CHEMO)	2009-2015
Studio di processi enzimatici e fermentativi per la produzione di bioetanolo da materiali lignocellulosici provenienti da varietà superiori	Ministero delle politiche agricole, alimentari e forestali (MIPAAF)	2011-2014
Production and characterization of metabolite from microbial bioprocesses (Piattaforma di biotecnologie verdi e di tecniche gestionali per un sistema agricolo ad elevata sostenibilità ambientale)	Regione Lombardia	2010-2013
BIOSEGEN: Filiere innovative per la produzione di BIOcarburanti di Seconda GGenerazione da residui agricoli ed agroindustriali e colture da biomassa	Ministero delle Politiche Agricole, Alimentari e Forestali (MIPAAF)	2009-2011
Biotransformation of sucrose	Zuccherificio Molisano	2009-2010
Production and modification of antibiotics	Farmispania	2008-2009
Production and application of plant and microbial enzymes for the synthesis of biovanillin	PRIN, MIUR	2006-2007
Production of immunosuppressive drugs by fermentation	Euticals SpA	2004-2005

Application of whole microbial cells in organic solvents	PRIN, MIUR	2002-2004
Applied Biocatalysis: Stereoselective and Environmentally-friendly Reactions Catalysed by Enzymes	COST D-25, EEC	2001-2005
Production of vanillin by microbial transformations of agri-food residues	PRIN, MIUR	2001-2002
Microbial transformations of prostaglandins	Industriale Chimica (CHEMO)	2001-2006
Enzymatic modification for the preparation of new glycopeptide antibiotics	Biosearch Italia	1997-2001
Biocatalysis in organic solvents	National Project CNR	1997-1999

Other academic activities:

Role	Year
Coordinator of the bachelor and degree courses of Food Science and Technology (University of Milan)	2020-
Member of the Organizing Committee of the International Biocatalysis in Non-conventional Media	2020
Dean of the Faculty of Agriculture and Food Sciences (University of Milan)	2018-2020
Visiting professor at Universidade de São Paulo (USP) financed by FAPESP	2020
Coordinator of the degree course in Agricultural Biotechnology (University of Milan)	2013-2019
Visiting professor at Universidade Federal do Ceará/UFC, financed by "Brazilian Scientific Mobility Program - Ciências sem Fronteiras" Process n° 303456/2014-0	2014-2019
Secretary, treasurer and member of the board of <i>Italian Association of Biocatalysis and Bioseparation</i>	2013-2018
Member of the Scientific Committee of the International Congress BIOTRANS	2011
Member of the board of <i>SIMGBM – Italian Society of General Microbiology and Microbial Biotechnology</i>	2004-2006