



Ernesto Fedele

Full professor

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Education and training

1989

MSc in Pharmacy

Dopaminergic neurotransmission in rat striatal slices following kainic acid lesion - Summa cum laude

University of Genoa - Genoa - IT

1988

MSc in Pharmaceutical Chemistry and Technology

Functional interactions between serotonergic autoreceptors and reuptake mechanisms located onto rat cerebrocortical nerve terminals - Summa cum laude

University of Genoa - Genoa - IT

Academic experience

2025 - ongoing

Coordinator of the Department Research Committee

Department of Pharmacy (DIFAR) - University of Genoa

2024 - ongoing

DIFAR member in the School of Medical and Pharmaceutical Sciences Council

DIFAR - University of Genoa

2021 - ongoing

Member of the Department Executive Committee

DIFAR - University of Genoa

Director of the PhD Programme in Experimental Medicine

Department of Experimental Medicine (DIMES)- University of Genoa

Member of the University Committee for Research

DIFAR - University of Genoa

Scientific Committee Member of the Interdepartmental Center of Excellence for Biomedical Research

DIFAR - University of Genoa

Member of the Interdepartmental Center for Longevity and Active Aging

DIFAR - University of Genoa

2020 - ongoing

Full Professor of Pharmacology

DIFAR - University of Genoa

2019 - ongoing

Department Research Delegate

DIFAR - University of Genoa

2013 - ongoing

Member of the PhD Board, PhD Programme in Experimental Medicine

DIMES - University of Genoa

2019 - 2025

Member of the Department Research Committee

DIFAR - University of Genoa

2017 - 2024

Coordinator of the International Curriculum of Pharmacology and Toxicology – PhD Programme in Experimental Medicine – Joint Program in Pharmacological Neurosciences

University of Genoa and Maastricht University

2017 - 2020

Member of the Academic Committee for Research and Technology Transfer

DIFAR - University of Genoa

2016 - 2024

Coordinator of the Curriculum of Pharmacology and Toxicology – PhD Programme in Experimental Medicine

DIMES - University of Genoa

2015 - 2021

Member of the Academic Senate

University of Genoa - Genoa - IT

2015 - 2020

Coordinator of the Pharmacology and Toxicology Unit

DIFAR - University of Genoa

2012 - 2020

Associate Professor of Pharmacology

DIFAR - University of Genoa

2001 - 2012

Associate Professor of Pharmacology

DIMES - University of Genoa

Member of the PhD Board, PhD School of Experimental, Molecular and Clinical Biology and Medicine, Course of Pharmacology and Toxicology

DIFAR - University of Genoa

2001 - 2020

Member of the Center of Excellence for Biomedical Research - Pharmacology and Toxicology Unit

University of Genoa - Genoa - IT

1995 - 2001

Assistant Professor

Department of Experimental Medicine - University of Genoa - Genoa – IT

1992 - 1994

University Technician

Faculty of Pharmacy - University of Genoa - Genoa – IT

1990 - 1992

Visiting Scientist

Merck Sharp Dohme Neuroscience Center - Harlow Town – GB

Language skills

Italian

Mother tongue

English

Proficient user

Teaching activity

2022-ongoing: Course of Pharmacology and Pharmacotherapy, Master's Degree in Pharmacy, University of Genoa.

2012-ongoing: Module of Pharmacotherapeutic aspects for the course of Therapies of CNS Disorders, Graduate School of Hospital Pharmacy, University of Genoa.

2002-ongoing: Module of Toxicology for the course of Pharmacology and Toxicology, Master's Degree in Medical-Pharmaceutical Biotechnology, University of Genoa.

2021-2022: Course of General Pharmacology, Master's Degree in Pharmacy, University of Genoa.

2012-2021: Module of Chemotherapy and New Antineoplastic Therapies for the course of Oncologic Therapies and module of Pharmacotherapeutic aspects for the course of Pain Therapy, Graduate School of Hospital Pharmacy, University of Genoa.

2011-2021: Course of General Pharmacology and Toxicology, Master's Degree in Pharmacy, University of Genoa.

2001-2010: Course of Toxicology, Specialist Degree in Pharmacy, University of Genoa.

Supervision of PhD students and Postdocs

2004-2020: Supervisor for 8 PhD students and 2 post-docs.

Research interests

Thirty-five years of scientific experience in the study of several aspects of central neurotransmission, including:

- Mechanisms of neurotransmitter release and its modulation by presynaptic receptors
- In vivo physiological control and pharmacological modulation of cGMP and cAMP production in different brain regions
- Neurochemical and pharmacokinetic studies in Parkinson's disease patients
- Development and characterization of new selective PDE4D inhibitors for cognitive deficits
- Physiological role of A β in memory formation
- Preclinical studies of polypharmacotherapies for Alzheimer' disease

Bibliometric indices (updated March 2025)

Author/co-author of 138 publications (peer reviewed articles, proceedings, review, letters, editorials, book chapters) and numerous congress presentations.

Total impact factor: 502.51 (JCR 2023)

Average impact factor: 4.786

Total citations: 5131 (Google Scholar); 3878 (WOS e SCOPUS)

H index: 41 (Google Scholar); 36 (WOS e SCOPUS)

Top Italian Scientist (http://www.topitalianscientists.org/top_italian_scientists.aspx)

List of publications

<https://www.scopus.com/authid/detail.uri?authorId=7003743702>

<https://iris.unige.it/simple-search?query=ernesto+fedele#.Ws714y-PHGI>

<https://orcid.org/0000-0002-0386-0925>

Membership

Italian Society of Pharmacology (SIF); National Board of University Pharmacologists (CNFU); British Pharmacological Society (BPS); Italian Society for Neurosciences (SINS); Federation of European Neuroscience Societies (FENS).

Editorial and reviewing activity

- Member of the Editorial Board of Scientific Reports, International Journal of Molecular Sciences, Biomolecular Research and Therapeutics, SciTz Neurology and Neurosciences.
- Reviewer for Journal of Neurochemistry, Neuroscience, British Journal of Pharmacology, Neurochemistry International, Brain Research, Neurobiology of Disease, Nitric Oxide: Biology and Chemistry, Neuroscience Letters, European Journal of Neuroscience, European Neuropsychopharmacology, Stress, Experimental Neurology, Journal of Neuroscience Methods, NeuroMolecular Medicine, ACS Chemical Neuroscience, Expert Opinion on Therapeutic Patents, Cellular and Molecular Neurobiology, Neurobiology of Learning and Memory, Scientific Reports.

- Registered in the MIUR REPRISE (Register of Expert Peer-Reviewers for Italian Scientific Evaluation).
- Reviewer for Projects of Relevant National Interest (PRIN) and for the Research Quality Evaluation (VQR).
- Reviewer for the Alzheimer's Association Research Grant Programme.

Grants

2024 - 2027

H2UB – COMETA

University of Genoa - IT
DIFAR Unit PI

2022 - 2025

PNRR MNESYS Neuroscience and Neuropharmacology

University of Genoa - IT
Spoke 6 Participant

2014 – 2016

Alterations of excitatory and inhibitory neurotransmission in a murine model of X fragile syndrome

University of Genoa - IT
PI

2013 - 2015

Role of cAMP and amyloid beta in memory formation and in the pathogenesis of Alzheimer's disease

CARIGE Foundation - IT
Research Unit Participant

2011 – 2014

PDE4D selective inhibitors for the treatment of memory impairment

Alzheimer's Association - US
Co-PI

2011 – 2014

BAMMBO Sustainable production of Biologically Active Molecules of Marine Based Origin (7th Framework Programme)

European Union – IT
Research Unit Participant

2011 – 2013

Cellular and molecular effects of stress and of antidepressant treatment on glutamate release in the central nervous system

PRIN MIUR - IT
Research Unit PI

2009 - 2010

Functional role of RANTES on glutamatergic neurotransmission in human brain and in EAE mice

FISM - IT
PI

2008 – 2009

Functional role of RANTES on glutamatergic neurotransmission in human brain and in EAE mice

FISM - IT
Research Unit Participant

2008 – 2009

In vivo microdialysis investigation of BI Pharmas PDE inhibitor effects on extracellular cGMP levels in the rat prefrontal cortex

Boehringer Ingelheim Pharma - DE
PI

2006 - 2008

In vitro and in vivo studies of aspartate and glutamate exocytotic release in the central nervous system and its modifications in pathophysiological models.

PRIN MIUR - IT
Research Unit PI

2006 - 2008

Functional alterations of glutamatergic neurotransmission in the spinal cord of EAE mice

FISM - IT
Research Unit Participant

2006 - 2007

Pathogenesis immunological and virological studies of HIV/AIDS

Italian Ministry of Health - IT
Research Unit Participant

2004 - 2006

Exocytotic mechanisms supporting neurotransmitter release induced by presynaptic heterotransporters and heterotransporter membrane expression.

PRIN MIUR - IT
Research Unit PI

2002 - 2004

Trafficking of neuronal and glial membrane transporters for amino acid neurotransmitters

PRIN MIUR - IT
Research Unit Participant

2000 - 2002

Effects of dopaminergic agonists on excitatory and inhibitory neurotransmission in the basal ganglia of Parkinson's disease patients an intracerebral microdialysis study

PRIN MIUR - IT
Research Unit PI

1999 - 2001

In vitro and in vivo studies of the pre- and postsynaptic inhibitory mechanisms controlling glutamate-mediated excitation in spinal cord motor neurons: role of GABA and glycine

Telethon - IT
Research Unit Participant

1999 - 2001

Monitoring neurotransmitter release and cell firing changes produced by electrical and pharmacological stimulation of human basal ganglia in Parkinsons disease

Telethon - IT
Research Unit Participant

1998 - 2000

Release of excitatory amino acids and activation of the postsynaptic NO system in in-vitro and in-vivo ischemic conditions

PRIN MIUR - IT
Research Unit Participant

1998 - 1999

Monitoring of neurotransmitter release from human basal ganglia during stereotaxic surgery in Parkinsons disease

Telethon - IT
Research Unit Participant