



## 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*

2021 - ONGOING

#### **Member of the Academic Committee for Research**

University of Genoa - Genoa - IT

2020 - ONGOING

#### **Professor of Pharmacology**

Department of Pharmacy - University of Genoa - Genoa - IT

2019 - ONGOING

#### **Department Research Delegate**

Department of Pharmacy - University of Genoa - Genoa - IT

2019 - ONGOING

#### **Member of the Department Research Committee**

Department of Pharmacy - University of Genoa - Genoa - IT

2017 - 2020

#### **Member of the Academic Committee for Research and Technology Transfer**

University of Genoa - Genoa - IT

2015 - ONGOING

### **Member of the Academic Senate**

University of Genoa - Genoa - IT

2015 - 2020

### **Coordinator of the Pharmacology and Toxicology Unit**

Department of Pharmacy - University of Genoa - Genoa - IT

2012 - 2020

### **Associate Professor of Pharmacology**

Department of Pharmacy - University of Genoa - Genoa - IT

2001 - 2012

### **Associate Professor of Pharmacology**

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

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

## ***Teaching activity***

2012-present. Module of Chemotherapy and New Antineoplastic Therapies for the course of Oncologic Therapies, module of Pharmacological aspects for the course of Pain Therapy, module of Pharmacotherapeutic aspects for the course of Therapies of CNS Disorders, Graduate School of Hospital Pharmacy, Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa.

2011-present. Course of General Pharmacology and Toxicology, Master Degree in Pharmacy, Department of Pharmacy, School of Medical and Pharmaceutical Sciences, University of Genoa.

2002-present. Course of Toxicology, Master Degree in Biotechnology, Department of Experimental Medicine, School of Medical and Pharmaceutical Sciences, University of Genoa.

2001-2011. Course of Toxicology, Master Degree in Pharmacy, Faculty of Pharmacy, University of Genoa.

1991-2001. Lecturer for the courses of Toxicology, Cellular Toxicology, Pharmacology and Pharmacotherapy, Molecular Pharmacology, Experimental Pharmacology, Pharmacology and Pharmacognosy - Master Degree in Pharmaceutical Chemistry and Technology and Master Degree in Pharmacy, Faculty of Pharmacy, University of Genoa.

## ***Postgraduate research and teaching activity***

### **PhD committees membership**

2017 - present: Coordinator of the International Curriculum of Pharmacology and Toxicology - PhD Program in Experimental Medicine - Joint Program in Pharmacological Neurosciences, University of Genoa and University of Maastricht

2016 - present: Coordinator of the Curriculum of Pharmacology and Toxicology - PhD Program in Experimental Medicine - University of Genoa

2013 - present: Member of the Teaching Board of the Curriculum of Pharmacology and Toxicology - PhD Program in Experimental Medicine - University of Genoa

2001 - 2012: Member of the Teaching Board of the PhD Program in Pharmacology and Toxicology - PhD School of Experimental, Molecular and Clinical Biology and Medicine - University of Genoa

### ***Research interests***

Thirty 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 of new selective PDE4D inhibitors for cognitive deficits
- Control of A $\beta$  production by cyclic nucleotides and its physiological role in memory formation

### **Bibliometric indices** (updated March 2021)

Author/co-author of 129 publications (peer reviewed articles, proceedings, review, letters, editorials, book chapters) and numerous congress presentations.

Total impact factor: 428.6 (JCR 2019)  
Average impact factor: 4.609  
Average impact factor last 5 years: 5,104  
Total citations: 3497 (Google Scholar); 2809 (WOS e SCOPUS)  
H index: 36 (Google Scholar); 33 (WOS e SCOPUS)  
Top Italian Scientist  
([http://www.topitalianscientists.org/top\\_italian\\_scientists.aspx](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>

## **Grants**

2014 - 2016

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

University of Genoa - IT  
Principal investigator

2013 - 2015

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

CARIGE Foundation - IT  
Participant

2011 - 2014

### **PDE4D selective inhibitors for the treatment of memory impairment**

Alzheimer's Association - US  
Participant

2011 - 2014

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

European Union - IT  
Participant

2011 - 2013

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

PRIN MIUR - IT  
Participant

Unit research leader

2009 - 2010

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

FISM - IT

Principal investigator

2008 - 2009

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

FISM - IT

Participant

2008 - 2009

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

Boeringher Ingelheim Pharma - DE

Principal investigator

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

Principal investigator

2006 - 2008

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

FISM - IT

Participant

2006 - 2007

**Pathogenesis immunological and virological studies of HIV/AIDS**

Italian Ministry of Health - IT

Participant

2004 - 2006

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

PRIN MIUR - IT

Principal investigator

2002 - 2004

## **Trafficking of neuronal and glial membrane transporters for amino acid neurotransmitters**

PRIN MIUR - IT

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

Principal investigator

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

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

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

Participant

1998 - 1999

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

Telethon - IT

Participant

## ***Editorial activity***

- Member of the Editorial Board of Scientific Reports, 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.

### ***Assignments abroad***

1991: Scientific consultant for Merck Sharp & Dohme Neuroscience Center (Harlow Town,UK) on the project 'Role of glycine in cerebral ischemia'