

Francesco Peri

Full Professor in Organic Chemistry, Department of Biotechnology and Biosciences of the University of Milano-Bicocca.

Academic positions

2017-present Full professor, Organic Chemistry, Department of Biotechnology and Biosciences, University of Milano-Bicocca

2009- present professorship at the Ecole Normale Supérieure (ENS), Lyon, France

2012 Visiting Professor, UC Davis, graduate course "Advanced Organic Synthesis" Chem231B

2012 Professorship at Paris 5 University, Chemistry at the interface with biology.

2012 National habilitation to Full professor in Organic Chemistry

2007-2017 Associate Professor, Department of Biotechnology and Biosciences, University of Milano-Bicocca

2002-2007 Assistant Professor, Department of Biotechnology and Biosciences, University of Milano-Bicocca

1999-2001 Post-doctoral fellowship, University of Milano-Bicocca in collaboration with GlaxoWellcome (Verona, Italy)

1996-1998 Post-doctoral fellowship, PhD University of Lausanne (Switzerland)

Official positions

Member of TeCSBi doctorate board

IEIIS councilor for chemistry (2016-2020)

Coordinator of international mobility (2011-2019)

Coordinator of technology transfer board of the Department of Biotechnology (2017-present)

Delegate of the Rector to the foundation University for Innovation (u4i) website: www.u4i.it

Bibliometrics

101 papers in international journals

Google Scholar:

	All	Since 2013
Citations	2980	1794
h-index	32	21
i10-index	69	43

Research

The research activity of F. Peri group (<http://www.theperilaboratory.btbs.unimib.it>) spans the fields of organic chemistry, medicinal chemistry and chemical biology. Development of new drug leads: synthetic molecules and natural compounds.

1. Synthesis and biological characterization of small molecules (mainly cationic and anionic glycolipids) able to modulate the activity of the Toll Like Receptor 4 (TLR4) in the perspective to develop new generations of TLR4-directed therapeutics. Synthesis and biological characterization of new molecules active on TLR4 signaling. New anti-inflammatory

compounds targeting TLRs, including compounds targeting IBDs, neuro-inflammations, Amyotrophic Lateral Sclerosis (ALS) and Rheumatoid Arthritis. New vaccine adjuvants based on TLR4 agonists.

Coordination of the H2020-funded MSCA-ETN project TOLLerant ("Toll-Like Receptor 4 activation and function in diseases: an integrated chemical-biology approach", GA number 642157).

2. Synthesis of new steroid derivatives active against heart failure. Development of drug leads targeting the protein Serca 2a. This project is based on international patents, in collaboration with the company Windtree (USA).

3. Characterization of anti-inflammatory properties of natural compounds from extracts (coffee, argan oil, etc...)

Funding and grants

2010-2011: Unit coordinator of PRIN grant from Italian Ministry of University and Research (MIUR), title of the project: New multivalent ligands for human galectins as diagnostic and therapeutic agents (3 years grant, 130.000 E for the research unit)

2009-2014: Unit coordinator in the NIH grant AI 59372 "Regulation of MD-2 function and expression", in collaboration with J. Weiss and T. Gioannini (University of Iowa) (5 years, 50.000 E/year)

2010-2013: Unit coordinator in NEDD grant, design on novel pharmaceutically active compounds (80.000E, 2 years).

2013-2016: Unit coordinator of PRIN grant from Italian Ministry of University and Research (MIUR), title of the project: "Italian network for the development of multivalent nanosystems (MULTINANOITA)" (3 years grant, 53.000 E for the research unit)

2015-2018: Coordinator of Horizon 2020-funded MSCA-ETN project TOLLerant "Toll like Receptor 4 activation and function in diseases: an integrated chemical biology approach", Grant Agreement number 642157, consortium of 8 academic and 2 industrial groups, 13 ESR recruited in 2015.

2016-2018: PI in the bilateral project with South Korea (prof. Sung You Hung, Ulsan) founded by Italian Ministry of Foreign Affairs (MAECI)

2019-2023: beneficiary of the MSCA-ETN project BactiVax

Invited lectures

1. Invited as plenary speaker to the Royal Australian Chemical Institute (RACI) Medicinal Chemistry & Chemical Biology Division conference Brisbane, Queensland, Australia 18th- 21st November 2018
2. Invited as plenary speaker to the Congress of the Organic Chemistry Division, Australian Chemical Society, QACS, Brisbane, Australia, 23 November 2018.
3. Invited plenary speaker to 14th Bratislava Symposium on Saccharides "Glycochemistry for biology and medicine", June 25-30, 2017 (<http://www.saccharides.sk>).
4. Invited lecture to the Workshop for Glycoscience "Biological Function of Glycans and Lipids" February 2 2017, School of Science, Osaka University, Japan
5. Lecture to the 14th Biennial Meeting IEIIS, 22-24 September 2017, Hamburg, Germany.
6. Plenary lecture to the First Ireland Medicinal Chemistry Meeting, 1 July 2016, Dublin, Ireland

7. Invited seminar to IBS, Grenoble, April 2016
8. Invited lecture to the Innate Immunity Summit, EuroSciCon, London, 17-19 November 2015
9. Invited lecture to ENS Lyon, "Modern methods in drug discovery" 14 October 2015
10. Keynote lecture to the Spanish-Italian Meeting in Medicinal Chemistry, SIMMC 2015, Barcelona, 12-15 July 2015
11. Oral communication to the 25° National Congress of Italian Chemical Society, Arcavacata di Rende, 7-12 September 2014
12. Invited lecture to Horizon 2014, University of Milano Bicocca, 24 January 2014
13. Lecture to the ICI Satellite meeting "Endotoxin, TLR4 signaling and beyond", Milano, 21 August 2013
14. Oral communication to the Carbohydrate Bioengineering Meeting, Prague, 21-24 April 2013
15. Invited seminar at the Center for Pharmaceutical Research and Innovation University of Kentucky College of Pharmacy, Lexington, Kentucky (USA), 30 March 2012.
17. Invited seminar at the Department of Chemistry and Biochemistry University of Missouri – St. Louis (USA), 2 April 2012
19. Invited seminar at the Chemistry Department, Southern Illinois University Edwardsville, IL (USA), 3 April 2012.
20. Keynote lecture at the 5th Baltic Meeting on Microbial Carbohydrates, Suzdal, Russia, September 2-6, 2012
21. Invited Seminar at the Chemistry Department, Institut Pasteur, Paris, January 2011
22. Invited seminar to the Institut Pasteur, Paris, January 2011
23. Keynote lecture to the 16th European Carbohydrate Symposium, Sorrento, Italy, 3-7 July 2011.
24. Invited seminar to the School of Medicine, University of Wisconsin at Madison, September 2011

Referee activity

Referee for Swiss National Science Foundation (SNSF) in 2017.

Referee for Agence Nationale de la Recherche (ANR), France 2009, 2010, 2011 (4 projects blanc revised)

Referee for AERES, France, member of evaluation committee for:

1) Institut de Chimie Moléculaire de Reims (ICMR – UMR 6229), February 2011.

2) Institut des Biomolécules Max Mousseron, IBMM, January 2014.

- Referee for the National Scientific Agency of Holland (1 project revised)

Referee for QNRF (Qatar national Research Fund, 3 projects revised)

Organizing activity

Organizer of the international Meeting MicrobiotaMi 2018, 5-7 November 2018

(www.microbiotami.com)

Organizer of the workshop "Glycoscience: at the interface between Chemistry and Biology" Milano 12 July 2017

Organizer of the International Meeting "Molecular Aspects in the Host-Microbe dialogue", Napoli 5-7 June 2017

Organizer of Horizon Chemistry 2014, 24 Jan 2014

Organizer of the Satellite Meeting to the 15th International Congress of Immunology (Milano, 2013), entitled "Endotoxin, TLR4 signalling and beyond", Cinisello Balsamo (MI), 21 Aug 2013.

- Organizer of the SCI-sponsored congress: "Science and Art", Milano, 4-6 May 2011.

- Organizer of the one-day congress HorizonChem 2014, 24 January 2014, University of Milano Bicocca.

-Organizer of the one-day congress "La Chimica in Bicocca incontra l'Industria", 16 June 2016, Aula Magna University of Milano Bicocca.

-- Organizer of the European PhD Summer School, Milano 22-24 September 2015, "CHEMISTRY AND BIOLOGY OF HUMAN IMMUNITY: FOCUS ON TOLL - LIKE RECEPTORS"

- Organizer of the EU Dissemination event "The wonderful journey of a molecule in our body: from drugs to functional food" 24 September 2015, EXPO Milano -Conference Room – MEDIA CENTER (in front of Pavilion Zero, TRIULZA entrance)

International collaborations

Jerrold Weiss, (Univ. of Iowa), Francesca Granucci (UNIMIB) Ivan Zanoni (Univ. Harvard), Laure Perrin Cocon and Vincent Lotteau (INSERM, Lyon), Stefanie Vogel (Univ. of Maryland), A. Casnati e F. Sansone (Univ. di Parma), R. Beyaert (VIB, Univ. Ghent, Belgium), A. Molinaro and A. Silipo (Univ. of Naples), S. Martin-Santamaria (CSIC, Madrid), D. Andreu (PFU, Barcelona), J. Jimenez-Barbero (CIC bioGUNE, Bilbao), R. Jerala (KI Lubljana, Slovenia), T. Huser (Univ. of Bielefeld, Germany), J. Mareque (CIC biomaGUNE, San Sebastian, Spain),

Referee activity

Referee of the principal journals in the fields of Organic and Medicinal Chemistry and Immunology: Angew. Chemie ; Chem. Commun.; Chem. Eur. J.; Tet. Lett.; Tetrahedron; J. Med. Chem.; JACS, ACS nano; ACS chemical biology; ChemBioChem; ChemMedChem; Innate Immunity; Mol. Immunol.; Eur. J. Med. Chem.

Editorial activity

Member of Editorial Board of Innate Immunity; Scientific Reports; Current Drug Delivery; Antibiotics.

Technology transfer, industrial grants

Collaboration with Windtree (2018-)

Collaboration with Rottapharm Biotech (2017)

Collaboration with CVie Therapeutics (Taiwan) (2016-2018)

Collaboration with Windtree (USA), 2019

Collaboration with LFM (2014-2016)

Collaboration with Diasorin S.p.A. (Saluggia, VC), afforded 2 patents, the process of production of aminobutylisoluminol for protein labeling currently used in Diasorin has been developed in collaboration with F. Peri group.

5 molecules developed in F. Peri labs as TLR4 antagonists are in the Adipogen catalogue and are commercially available.

F. Peri is currently collaborating with Laboratorio Farmacologico Milanese (Varese) and with Lofarma S.r.L. (Milano) to the development of new immunomodulating agents.