



Alessandro Giuffrè

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Institute of Molecular Biology and Pathology (IBPM), National Research Council of Italy (CNR), Piazzale Aldo Moro 5, 00185, Rome, Italy

● WORK EXPERIENCE

01/10/1997 – 15/12/1998 – Rome, Italy

FELLOWSHIP (BIOPHYSICS) – CENTRO LINCEO INTERDISCIPLINARE, ACCADEMIA NAZIONALE DEI LINCEI

16/12/1998 – 15/07/2001 – Rome, Italy

RESEARCHER (TEMPORARY CONTRACT) – CNR CENTER OF MOLECULAR BIOLOGY

16/07/2001 – 16/02/2020 – Rome, Italy

SENIOR RESEARCHER - PRIMO RICERCATORE – CNR INSTITUTE OF MOLECULAR BIOLOGY AND PATHOLOGY

16/02/2020 – CURRENT – Rome, Italy

SCIENCE MANAGER - DIRIGENTE DI RICERCA – CNR INSTITUTE OF MOLECULAR BIOLOGY AND PATHOLOGY

01/04/2020 – CURRENT – Rome, Italy

INSTITUTE DIRECTOR – CNR INSTITUTE OF MOLECULAR BIOLOGY AND PATHOLOGY

● EDUCATION AND TRAINING

19/02/1993

DEGREE IN BIOLOGY – Sapienza University of Rome

04/08/1997

PHD IN BIOCHEMISTRY – Sapienza University of Rome

RESEARCH ACTIVITY IN FOREIGN LABORATORIES

- **European Laboratory of Molecular Biology (EMBL)**, Heidelberg, Germany (Lab dr. M. Saraste / 18 Nov – 14 Dec 1991)
- **University of Essex, Colchester, UK** (Lab prof. M.T. Wilson, Dept. of Chemistry and Biological Chemistry / 24-30 Jun 1991; 11–16 Sep 1994)
- **Medical University of Luebeck, Luebeck, Germany** (Lab prof. G. Schaefer, Institute of Biochemistry / 10-23 Oct 1993; 4–11 Mar 1995)
- **University of Groningen, Groningen, The Netherlands** (Lab prof. W.N. Konings, Dept. of Microbiology / 5–10 Dec 1994).
- **NIH, Bethesda, MD, USA** (Lab prof. E. Henry, Dept. of Health and Human Services / 28 Jun – 7 Jul 1995; 12–22 Feb 1996).
- **University of East Anglia, Norwich, UK** (Lab prof. C. Greenwood, School of Biological Sciences / 23–28 Jun 1996).
- **University of Frankfurt, Frankfurt, Germany** (Lab prof. B. Ludwig, Institute of Biochemistry / 5-23 Jul 1999; 9–22 Jul 2000).
- **University of Helsinki, Helsinki, Finland** (Lab prof. M. Wikström, Institute of Biotechnology / 25 Nov – 4 Dec 2002).
- **Universities of Lisbon, Lisbon - Oeiras, Portugal** (Lab prof. M. Teixeira e dr. J.B. Vicente, Instituto de Tecnologia Quimica e Biologica – Faculty of Science, University of Lisbon / 7–17 May 1997; 29 Sep – 7 Oct 2002; 20–27 Jul 2003; 10–17 Apr 2005; 2–9 Juò 2005; 12–19 Feb 2006; 9-22 Sep 2007; 6-19 Jul 2008; 23 Nov - 3 Dec 2011; 12-19 Jul 2012; 18- 29 Nov 2012; 23 Giu - 2 Jul 2013; 1-9 Nov 2013; 20-29 Oct 2014; 7-13 Jun 2015; 1-8 Nov 2015; 14-21 Jun 2016; 2-7 Dec 2016; 13-20 Oct 2019),

ATTENDED COURSES

2009: Management course "CoMe Va...la Ricerca ?", on project management, results valorization and dissemination. Rome (Italy).

2002: Summer School "Bioinformatics". Maynooth (Ireland).

2002: 4th Course of the Portuguese Biophysical Society. Santarem (Portugal)

1998: Summer School "Spectroscopy and Engineering of Metalloproteins". Oeiras (Portugal)

1996: FEBS course "Oxidative Phosphorylation: Molecular Biology, Biochemistry and Physiopathology". Bari (I).

1992: EMBO course "Current Methods in Membrane Protein Research". Le Vesinet (France) and Heidelberg (Germany).

● ADDITIONAL INFORMATION

International Identifiers

Orcid ID: [0000-0001-5301-0681](https://orcid.org/0000-0001-5301-0681)

Scopus Author ID: [7003270357](https://orcid.org/7003270357)

WoS Researcher ID: [K-4341-2015](https://orcid.org/K-4341-2015)

Loop: [184580](https://orcid.org/184580)

Research Gate: [Alessandro Giuffre](https://orcid.org/Alessandro_Giuffre)

Google Scholar: [tQwjTEAAAj&h](https://orcid.org/tQwjTEAAAj&h)

ERC sectors

LS - LIFE SCIENCES

LS1 - Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics

LS1_2 - Biochemistry

LS1_8 - Molecular biophysics (e.g. single-molecule approaches, bioenergetics, fluorescence)

Research activity

Structural and functional properties, molecular evolution and regulation of proteins involved in the metabolism of oxygen, nitric oxide and hydrogen sulfide. Defense systems against oxidative and nitrosative stress. Molecular mechanisms of signal transduction. New drug targets in infectious, neurodegenerative and oncological diseases.

Main ongoing International collaborations:

- Joao B. Vicente, Ligia Saraiva, Miguel Teixeira (Instituto de Tecnologia Quimica e Biologica, Oeiras, Portugal)
- Robert K. Poole (University of Sheffield, UK)

Project coordination

- **PRIN project (MIUR - 20158EB2CM_003)** 'Hydrogen sulphide as a new player of Amyotrophic Lateral Sclerosis: focus on mitochondrial homeostasis' (05/02/2017 - 04/02/2020).
- **PNR-CNR ageing project (MIUR)** 'Role of redox mechanisms and protein accumulation in age-related diseases' (2012-2018).
- **Bilateral CNR-FCT project (Portugal)** 'Hydrogen sulfide metabolism in colon-cancer' (2015-2016).
- **Bilateral CNR-FCT project (Portugal)** 'Interaction between gasotransmitters and metalloproteins: physiological relevance' (2013-2014).
- **FIRB project (Futuro in Ricerca 2008, MIUR - RBFR08F41U)** 'Novel mechanisms of the microbial response to oxidative and nitrosative stress' (Dec 2010 – Nov 2013).
- **Bilateral CNR-FCT project (Portugal)** 'Response to oxidative stress in the anaerobic protozoa *Giardia intestinalis* and *Enatamoeba histolytica*' (2011-2012).
- **Research grant 2009 della European Society for Microbiology and Infectious Diseases (ESCMID)**. 'Response of the human parasite *Giardia intestinalis* to oxidative and nitrosative stress' (Mar 2009 – Feb 2011).
- **Bilateral CNR-GRICES project (Portugal)** 'Nitric oxide detoxification in pathogenic microorganisms: structure-function relationships in flavodiiron proteins'. (2005 – 2008).
- **CNR project** 'Mechanisms of nitric oxide detoxification in pathogenic microorganisms: role of flavodiiron proteins' (2005).
- **MIUR project (Giovani Ricercatori - Year 2002)** 'Cytochrome c oxidase: role of proton transfer pathways in the intramolecular electron transfer' (Oct 2002 – Oct 2003).

Management

- 01/04/2020 – to date: **Director of CNR Institute of Molecular Biology and Pathology**
- Executive board member of the Italian Group of Bioenergetics and Biomembranes (GIBB) (2005-2009, 2014-2018)
- Co-organizer of the following meetings:
 - International Workshop on Biochemistry, Physiology and Pharmacology of Oxidative Stress – Rome 2-4/07/2015
 - 38° GIBB annual meeting. Rome 24-27/05/2011
 - 32° GIBB annual meeting. Rome 13-15/06/2005
 - 29° GIBB annual meeting. Rome 2-4/05/2002
 - International meeting on 'Structure and Function of Terminal Oxidases'. Rome/Rieti - May 1994

Awards and honours

- **Visiting Professor of Instituto de Tecnologia Quimica e Biologica, University of Lisbon (Portugal)** (since 23/11/2005 to date).
- **Academician of Accademia Medica di Roma** (since 30/11/2015 to date)
- **Vice-President of the Italian Group of Bioenergetics and Biomembranes GIBB** (2014 - 2018).
- **CNR award ('Incentivazioni al personale - year 2005')** (2009)
- **'Maria Teresa Messori Roncaglia e Eugenio Mari' award 2004** from Accademia Nazionale dei Lincei (May 2004).
- **Mc. Graw-Hill award** awarded from the Italian Society of Biochemistry and Molecular Biology (SIB) (Sep 2002).
- **Fellowship in Biophysics from Centro Interdisciplinare Linceo - Accademia Nazionale dei Lincei.** (Oct 1997 Dec 1998).
- **PhD thesis award** from Cenci-Bolognetti Foundation - Pasteur Institute (Dec 1997).
- **'Luca Barone' award** from Accademia Nazionale dei Lincei (Gen 1991).

Review and editorial work

- **Reviewer of grant proposals and academic positions** for the following Institutions:

MIUR - FIRB/SIR/Giovani Montalcini/VQR 2011-2014 (since 2013 to date);
National Science Foundation - USA (2019);
Swiss National Foundation - Switzerland (2019, 2021);
MRC - UK (2014);
NWO - The Netherlands (2010);
Trent University - Canada (2017);
University of Padova (2016);
University of Bordeaux - France (2015).

- PLoS ONE Academic Editor (since 2013 to date).

- Guest Editor for Antioxidants (2020 to date)

- Reviewer for the following journals:

Nature Communications, Nature Chemical Biology, Science Advances, The Journal of Biological Chemistry, Biochemistry, Antioxidants & Redox Signaling, Free Radical in Biology & Medicine, Scientific Reports, Biochimica et Biophysica Acta - Bioenergetics, FEBS Letters, Molecular Microbiology, Antimicrobial Agents and Chemotherapy, PLoS Pathogens, Microbiology, Journal of Bacteriology, Journal of Parasitology, Experimental Parasitology, Tropical Biomedicine, International Journal of Molecular Sciences, Parasitology Open, Biochimie, International Journal of Parasitology, Applied Microbiology and Biotechnology, Journal of Biological Inorganic Chemistry, Nitric Oxide, Current Opinion in Chemical Biology, Molecular Pharmacology, Trends in Parasitology, Antioxidants, Archives of Microbiology, Frontiers in Cellular and Infection Microbiology, Oxidative Medicine and Cellular Longevity, Biophysical Chemistry, FEBS Journal, Neuroscience Letter

Academic duties

- Teaching Board member of the Sapienza University PhD in Biochemistry (since 2012 to date).

- Visiting Professor at Instituto de Tecnologia Quimica e Biologica, New University of Lisbon (Portugal) (since 23/11/2005 to date).

- Lecturer in charge at the Faculty of Pharmacy and Medicine, Sapienza University of Rome – Degree course in 'Pharmacy' (since 2018 to date)

- Evaluator in PhD thesis defences (6 sessions): University of Stockholm, Sweden (2017 and 2021) - New University of Lisbon, Portugal (2012, 2008 and 2007)

- Evaluator in mid-term PhD exam: University of Aarhus, Denmark (2018)

- Lecturer in charge at the Faculty of Medicine, Sapienza University of Rome – Degree course in 'Biomedical Laboratory Techniques' (2001-2017)

Invited or selected oral communications

2018: XV Congress of the Italian Federation of Life Sciences , Rome (I)

2018: Bacterial Electron Transfer Processes and their Regulation, Saint-Tropez (F)

2016: XIX International Conference on Oxygen Binding and Sensing Proteins, Hamburg (D)

2016: XIV Congress of the Italian Federation of Life Sciences , Rome (I)

2016: 19th European Bioenergetics Conference, Riva del Garda (I)

2016: 4th International Conference on the Biology of Hydrogen Sulfide, Napoli (I)

2015: Bacterial Electron Transfer Processes and their Regulation, Vimeiro (P)

2015: Conference of the European Network on Gasotransmitters, Athens, (GRE)

2014: 13th International Conference of Parasitology, Mexico City (MEX)

2014: 18th European Bioenergetics Conference, Lisbon (P)

2014: 18th International Conference on Oxygen-Binding and Sensing Proteins, Sheffield (UK)

2012: IV International Giardia and Cryptosporidium Conference, Wellington (NZ)

2011: 9th Indo-Italian Workshop on Chemistry and Biology of Antioxidants, New Delhi (IND)

2008: 19th Annual Molecular Parasitology Meeting, Woods Hole (USA)

2007: 1st Summer School on Mitochondrial Respiratory Physiology, Schroecken (A)

2006: Young Researchers Forum, 8th European Biological Inorganic Chemistry, Aveiro (P)

2005: International Conference on Mitochondria, Bari (I)

2004: 13th European Bioenergetics Conference, Pisa (I)

2002: 4th Course of the Portuguese Biophysical Society, Santarem (P)

2000: Villa Vigoni Conference, Lovenno di Menaggio (I)

2000: 18th Sigrid Juselius International Symposium, Helsinki (FIN)

Publications and metrics

Full list of publications available on [PubMed](#) e [ResearchGate](#)

Metrics (30 June 2021):

- Scopus (N. publications: 95; Citations: 3.555; H-index = 35)
- WoS (N. publications: 94; Citations: 3.287; H-index = 34)
- Google Scholar (N. publications: 160; Citations: 4.662; H-index = 39)