

CURRICULUM VITAE

Pier Giorgio Mastroberardino, PhD, MBA

WORK ADDRESS

Phone: Email: Email:

CURRENT POSITION

Principal Investigator, Genome instability and metabolism reprogramming in aging lab, IFOM the FIRC Institute of Molecular Oncology, Milan, Italy

Group leader, Department of Molecular Genetics, Erasmus University Medical Centre, Rotterdam, the Netherlands

Associate Professor, Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy

Academic Director, Rotterdam School of Management-Erasmus MC joint MSc in Medical Business and Innovation

PERSONAL STATEMENT

Pier Giorgio Mastroberardino (PGM) holds a joint group leader position between the Department of Molecular Genetics, Erasmus Medical Center Rotterdam, and the IFOM, the FIRC Institute for Molecular Oncology, Milan. This very special position has been created to generate synergies between these two outstanding research centers. In the past years, PGM laboratory investigated the molecular pathogenesis of neurodegenerative disorders, and particularly in Parkinson's disease. As clearly indicated by PGM publications' track record, substantial attention has been dedicated to the mechanistic effects of environmental toxins exposure on mitochondrial dysfunction, iron metabolism, and redox homeostasis. More recently, PGM laboratory developed a strong interest in the processes associated with aging that might synergize with environmental and/or genetic factors to trigger PD pathogenesis. In this context, PGM laboratory became actively engaged in studying DNA damage and repair given their proven role in aging. In our studies, we take advantage of multiple biological systems including cell cultures, zebrafish, and toxicological and genetic mammalian models to gather knowledge that we typically translate to humans, for instance in patients' derived fibroblasts, iPS, and neurons.

PGM also holds a Global Executive Master degree in Business Administration (MBA) from the Rotterdam School of Management (RSM). He is set up a new joint Master program, between the Erasmus Medical Center and RSM, focused on Medical Business and Innovation, which intends to educate a new class of professionals with academic background to operate in the business sector. Thanks to the MBA degree, PGM is also actively engaged in interactions with the private sector and valorization of scientific discoveries, and therefore technology transfer.

EDUCATION

Global Executive Master in Business Administration OneMBA Rotterdam School of Management, Erasmus University, the Netherlands	June 2016
Italian National Habilitation as Full Professor in the discipline of <i>Biochemistry (05/E1)</i>	2017
Italian National Habilitation as Full Professor in the discipline of <i>Comparative Anatomy and Cytology (05/B2)</i>	2018
Qualification (Idoneità) as Associate Professor in <i>Cytology and Comparative Anatomy</i> (University of Rome "Tor Vergata", Rome, Italy, D.R. n. 2033 del 30.09.2014)	September 2014
Italian National Habilitation as Associate Professor in the disciplines of <i>Biochemistry (05/E1), Molecular Biology (05/E2), and Comparative Anatomy and Cytology (05/B2).</i>	2014
PhD, Cellular and Molecular Biology University of Rome "Tor Vergata", Italy <i>Advisor:</i> Mauro Piacentini <i>Focus:</i> Role of protein cross-linking enzymes in the brain <i>Dissertation:</i> Transglutaminase 2 regulates the mitochondrial respiratory chain assembly and function under physiological conditions	2000-2004
Laurea (Italian M.S.), Biology (110/110 cum Laude) University of Rome "Tor Vergata", Italy <i>Advisor:</i> Mauro Piacentini <i>Focus:</i> Role of protein cross-linking enzymes in Huntington's disease <i>Thesis:</i> Role of tissue transglutaminase in a murine model of Huntington's disease	2000

ACADEMIC EXPERIENCE

Academic co-Director , Rotterdam School of Management-Erasmus MC joint MSc Medical Business and Innovation	2021
Associate Professor , Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy	2021
Principal Investigator , IFOM the FIRC Institute of Molecular Oncology, Milan, Italy	2020-present
Lecturer (RTD-B) , Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy	2018-2021
Group Leader , Department of Molecular Genetics <i>Chair:</i> Roland Kanaar, PhD Erasmus University Medical Center, Rotterdam, The Netherlands	February 1 st , 2010- present
Adjunct Faculty , Department of Neurology, Pittsburgh Institute for Neurodegenerative Diseases <i>Director:</i> J. Timothy Greenamyre, MD, PhD University of Pittsburgh, Pittsburgh, PA, USA	February 1 st , 2010- present
Visiting Professor , Department of Life, Health and Environmental Sciences <i>Chair:</i> Grazia Cifone, MD University of L'Aquila, L'Aquila, Italy	2017

- Post-doctoral associate**, Department of Neurology
Pittsburgh Institute for Neurodegenerative Diseases
University of Pittsburgh, Pittsburgh, PA, USA
Advisor: J. Timothy Greenamyre, MD, PhD
Focus: Pathological molecular mechanisms in Parkinson's, and Huntington's disease 2005-2010
- Post-doctoral fellow**, Department of Neurology
Center for Neurodegenerative Diseases
Emory University, Atlanta, GA, USA
Advisor: J. Timothy Greenamyre, MD, PhD
Focus: Pathological molecular mechanisms in Parkinson's and Huntington's disease 2003-2005

Other Professional Experience

- Research Management Consultant**, "C. Mondino" National Neurological Institute, Pavia, Italy 2018
- Training in mass spectrometry applied to biological sciences
Universiteit Gent, Belgium 2002
Supervisor: Joseph van Beeumen, PhD
- Training in cellular and developmental biology
University of Rome "Tor Vergata", Italy 1998-2000
Supervisor: Mauro Piacentini, PhD

GRANT SUPPORT

- **European Joint Programme on Rare Diseases (EJP RD)** – "Transcription stress Counteracted by Nutritional interventions of Exceptional importance for rare DNA Repair disorders" (**work-package leader**)
EUR 150,000 to PGM laboratory 2021-2024
- **Eurostars-Eureka Horizon 2020 - E! 114370 PD-IRONSYN** – "Novel Parkinson's Disease therapy targeting iron-related cell death and alpha synuclein aggregation" (**work-package leader**)
EUR 1,020,000 total – EUR 307,150 to PGM laboratory 2020-2023
- **The Michael J. Fox Foundation for Parkinson's Research** – "Orthogonal validation of mitochondrial anomalies in patients' derived multiple cellular systems" – (**PI**)
USD 149,975 2020-2021
- **Italian Medicines Agency (AIFA)** - "Biological markers of frailty in the physiological and pathological aging brain: correlations with pharmacological frailty" (**work-package leader**)
EUR 650.200 total - EUR 125.000 to PGM laboratory 2018-2021

Completed

- **The Michael J. Fox Foundation for Parkinson's Research** – "Transferrin Receptor 2 as a target to halt nigral neurons iron overload in Parkinson's disease" (**PI**);
US\$ 250.000 2015-2016
- **Stichting Alkemade-Keuls** – "Molecular markers of skin fibroblasts of Parkinson's disease" (**co-PI**)

- EUR 80.000** 2015-2016
- **Ri.MED Foundation** – “*Zebrafish as a redox-sensitive vertebrate model to study redox homeostasis and to identify new potential treatments for PD*” (Supervisor);
EUR 195.000 2014-2016
- Erasmus MC Pilot grant MRACE “Cancer Cachexia in Surgical Oncology – Mechanisms and Interventions” (co-project leader);
EUR 56.100 2014-2015
- “*Dorpmans-Wigmans Stichting*” Foundation for Parkinson’s and Alzheimer research Subsidy to purchase a Seahorse Extracellular Flux Analyzer (PI);
EUR 53’105 2011
- **Dutch Center for Cancer Genomics**, Junior Group Leader subsidy (NGI/NWO 05040202) (PI);
EUR 650’000 2010-2014
- FP7-Fission-2011, Proposal N° 295552, “CEREBRAD—Cognitive and Cerebrovascular Effects Induced by Low Dose Ionizing Radiation” (**work-package leader**);
EUR 374’000 2011-2015
- Marie Curie Reintegration Grant (FP7) - Proposal N° 247918 – “The synergistic effect of DNA damage and oxidative stress in the aging brain” (PI)
EUR 25’000/year – 4 years - EUR 100’000 total 2009-2013
- NIH Pathway to Independence Award K99/R00, ES016352, “Oxidative modification of brain proteins in pesticide intoxication” (PI).
 - R00 phase: 2009-2012, **\$249’000/year – 3 years - \$747’000 total**; upon acceptance of a tenure-track faculty position in the United States; funds for the R00 phase were returned to the Agency upon relocation to Europe.
- **Ri.MED Foundation** – “*Zebrafish as a redox sensitive vertebrate model to study oxidative damage in brain*” (Supervisor);
EUR 120’000 2011-2012
- K99 supplement under the American Recovery and Reinvestment Act of 2009 (PI); **\$89’758** 2009-2010
- NIH Pathway to Independence Award K99/R00, ES016352, “Oxidative modification of brain proteins in pesticide intoxication” (PI).
 - K99 phase: **\$90’000/year – 2 years - \$180’000 total** 2007-2009
- Michael J. Fox Foundation Post Doctoral Fellowship 2004-2005
- European Science Foundation Scholarship 2002
- European Science Foundation short-term fellowship 2002
- University of Rome “Tor Vergata”, grant for young researchers 2001

Other awards

- **Certificate of Reviewing Excellence** from Elsevier and the Editors of *Neurobiology of Disease*. 2014
- International Bioiron Society Travel Bursary 2009

PATENTS

- *"Method of labeling biological samples"* – Patent Number(s): WO2009129472-A2 ; WO2009129472-A3 ; US2011039277-A1.

RESEARCH FOCUS

- **Cellular mechanisms activated by exposure to environmental toxins and pesticides and their role in neurodegenerative diseases of aging**
 - Genetic and toxicological modelling of neurodegenerative disorders in cell cultures, organotypic tissue slices, zebrafish, and in rodents
 - Redox systems and their alterations in health and disease
 - Role of DNA damage and genomic instability in neurodegenerative disorders
 - Proteomic techniques to study oxidative modifications
 - Iron homeostasis
 - Development of new biomarkers
 - Development of experimental therapeutics
- **Metabolism, mitochondrial function, and electron transport enzymes**
 - Mechanisms of metabolic redesign following DNA damage and repair
 - Mechanisms of metabolic redesign following aggregation of proteotoxic species in neurodegenerative disorders
 - Mechanisms of metabolic redesign following environmental exposure to toxins associated with neurodegenerative diseases etiology
- **Imaging**
 - Development of new imaging techniques based on confocal microscopy to detect oxidative damage
 - Use of fluorescent resonance energy transfer (FRET) to study protein oxidation and protein-protein interactions
 - Development of redox sensors for *in vivo* studies

EDITORIAL SERVICE**Associate Editor**

Frontiers in Cellular Neuroscience 2015-present
Frontiers in Molecular Neuroscience 2020

Editorial Board

Cell Death and Disease (Nature Publishing Group) 2018-present
Neurobiology of Disease (Elsevier) 2010-2020

Guest Editor

Neurobiology of Disease - Guest Editor for the special issue "**Metals, the Brain, and Neurodegeneration**" (2015)

Frontiers in Cellular Neuroscience – Guest Editor for the Special Issue "**Neuronal self-defense: compensatory mechanisms in neurodegenerative disorders**" (2014)

Antioxidant & Redox Signaling – Guest Editor for the special issue "**Peripheral Neuropathies**" (published in volume 4, issue 2, August 2014)

International Journal of Cell Biology - Guest Editor for the special issue "**Redox Status and Bioenergetics Liaison in Cancer and Neurodegeneration**" (2012)

Ad Hoc Reviewer (selected)

Cell Death and Differentiation	Nature Medicine
The Journal of Neurochemistry	Cell Metabolism
Neurobiology of Disease	The Journal of Cell Biology
Neurochemical Research	Brain
The Journal of Neuroscience	Free Radical Biology and Medicine
Neurobiology of Aging	Antioxidant & Redox Signaling
Nature Neuroscience	EMBO Molecular Medicine
Nature	Experimental Neurology
Biochimie	Neuropharmacology
Movement Disorders	

OTHER SERVICE

Vice Chair European Commission Research Executive Agency (REA) – Marie Skłodowska-Curie Action – Postdoctoral Fellowships	Oct 2021
Ad hoc grant review the Michael J. Fox Foundation for Parkinson's research	Aug 2021
Ad hoc grant reviewer Italian Ministry of University and Research (MIUR), FISR 2020 scheme	Dec 2020
Member of the review study section for the evaluation of research grants by the Italian Ministry of Health	Sept 2020
Ad hoc grant reviewer European Science Foundation – University of Antwerp Centres of Excellence scheme	2019
Ad hoc grant reviewer European Science Foundation – Research Foundation Flanders' (FWO) postdoctoral fellowship scheme	2019
Member of the review study section for the evaluation of Industry-Academia partnership project grants by the Italian Ministry of Health	Nov 2017
External member of the selection committee for an Assistant Professor position in General Pathology (S.S.D. MED/04), Department of Life, Health and Environmental Sciences, University of L'Aquila, L'Aquila, Italy	Aug 2017
Scientific Expert Reviewer for the Italian Medicines Agency (AIFA) grants	May 2017

Ad hoc grant reviewer European Commission Research Executive Agency (REA) – Marie Skłodowska-Curie Action – Individual Fellowship	2018-2020
Ad hoc grant reviewer European Commission Research Executive Agency (REA) – Marie Skłodowska-Curie Action – Research and Innovation Staff Exchange (RISE)	2017-2019
Ad hoc grant reviewer for the Association of British Neurologists	Jan 2016
Ad hoc grant reviewer and member of the Review Committee for the Michael J. Fox Foundation <i>Target Advancement Fall 2015</i> program	Sept 2015
Chair of the study section for the evaluation of the project grants “ <i>Senior Researchers</i> ” by the Italian Ministry of Health	June 2015
Contributed to formulate the Italian Ministry of Health grant reviewers’ guidelines to be followed in the evaluation of the projects in the “ <i>Ricerca Finalizzata</i> ” and “ <i>Giovani Ricercatori</i> ” Calls.	May 2013
Representative for the Netherlands in the Management Committee of the European intergovernmental framework COST CM1001 “ <i>Chemistry of non-enzymatic protein modification - modulation of protein structure and function</i> ”	2012 - 2015
Ad hoc grant reviewer for the Michael J. Fox Foundation for Parkinson’s Research	Aug 2011
Ad hoc grant reviewer for the Italian Telethon Foundation	Spring 2011
Ad hoc grant reviewer for the Italian Ministry of Health projects “ <i>Ricerca Finalizzata</i> ” and “ <i>Giovani Ricercatori</i> ”	2009 - 2012
Member of the review study section for the evaluation of the project grants “ <i>Giovani Ricercatori</i> ” by the Italian Ministry of Health	2009 and 2011
Participated to the <i>WhyWeAge</i> workshop and final summit conference to define research priorities in the aging field. The topics were reported in the document “ <i>A European road map for molecular biogerontology</i> ”, which constituted a reference for the European Commission to plan future funding strategies, in particular in Eight Framework Program (Horizon 2020).	Mar-May 2010
Abstract Reviewer for the 17th Annual Meeting of the <i>Society for Free Radical Biology and Medicine</i> (SFRBM), a joint meeting with the <i>Society for Free Radical Research International</i> .	Oct 2010

MANAGERIAL AND ENTREPRENEURIAL ACTIVITIES

Immediately after being awarded the MBA degree, PGM became actively engaged in managerial and entrepreneurial activities.

- PGM is in the process of establishing a start-up company that will valorise findings obtained in his laboratory and will commercialize food supplements ameliorating aging and contrasting the progression of Parkinson’s disease.
- PGM is working to launch a dual degree Master program between the Erasmus Medical Center and the Rotterdam School of Management focused on innovation and entrepreneurship in medicine. The program will involve several companies in the biomedical field and will therefore operate at the

interface between academia and industry.
Anticipated starting date: September 2022.

- PGM prepared - in collaboration with the Case Development Centre of the Rotterdam School of Management - the *Strategy and Entrepreneurship* section of the Erasmus Research Institute of Management Self-Assessment for its international peer-review committee.

TEACHING EXPERIENCE

Research supervisor

2002-
present

- *University of Rome*: one undergraduate (Valentina Spina) and one graduate student (Irene Viti)
- *Emory University*: one graduate student (Adam Orr)
- *University of Pittsburgh*: one graduate student (Maxx Horowitz), two technicians (Hye Mee Na, Xiaoping Hu), and two junior post-doctoral fellows (Roberto Di Maio, Chiara Milanese)
- *Erasmus Medical Centre*: three visiting graduate student (Sara Sepe and Luana Barone, from Università Roma Tre, Italy, Giulia Ambrosi, from Università di Pavia, Italy), two technicians (Humaira Yousaf, Sylvia Gabriels), five postdoctoral fellows (Sara Sepe, Chiara Milanese, Cintia Bombardieri, Marshall Huston, Manuela D'Eletto), six undergraduate students (Casper Ouwerkerk, Marco Nigro, Robin de Jong, Leander Vermeer, Kawita Dihalu, Ronnie de Bor). **Co-tutor** in the European PhD of Luana Barone (Università Roma Tre, Italy,)
- *University of L'Aquila*: one PhD student (Martina Sette), two MSc undergraduate students (Sarah Pellegrino, Sione Pigliacelli)

Teaching

Visiting Professor

2018, 2020

University of Pavia, Scuola Universitaria Superiore Pavia (IUSS)
Master in Psychology, Neuroscience, and Human Sciences
Held lectures (24 hours total) to graduate and undergraduate on:

- *Presentation skills and scientific communication*
- *Grant writing*
- *Navigating the scientific peer review process*

Lecturer

2018-present

University of L'Aquila, Italy
Department of Life, Health and Environmental Sciences

- *Histology (40 hours/year, approx. 50 Bachelor students)*
- *Cell biology (30 hours/year, approx. 20 Bachelor students)*
- *Biotechnology of the nervous system (45 hours/year, approx. 20 Master students)*
- *Soft Skills in Biomedical Science (20 hours/year, approx. 50 students)*

Visiting Professor	2017
University of L'Aquila, Italy Department of Life, Health and Environmental Sciences	
Held lectures to graduate and undergraduate students on the topics of:	
<ul style="list-style-type: none"> - <i>Neurobiology of disease</i> - <i>Bioenergetics and redox biochemistry</i> - <i>DNA damage and repair</i> - <i>In vitro models of neurodegenerative diseases</i> 	
Held the " Survival skills " course for graduate students focused on:	
<ul style="list-style-type: none"> - <i>Presentation skills and scientific communication</i> - <i>Grant writing</i> - <i>Navigating the scientific peer review process</i> 	
Teaching Assistant, Genetics	2011-2019
Erasmus University Medical Center Lectured twice/week to 50 undergraduate students in Medicine Taught for 7 semesters	
Invited Panelist, "K99/R00 Career Development Award Workshop"	2007-2009
University of Pittsburgh Office of Academic Career Development	
Oral Examiner and member of exam board in Histology	2001-2003
University of Rome Examined three times/year 50 undergraduate students in biology	
Teaching Assistant, Histology	2001-2003
University of Rome Lectured twice/week to 30 undergraduate students in biology Taught for 3 semesters	

Participation in Doctoral Dissertation Committees

President of the defence committee for the PhD in "*Cellular and Molecular Biotechnologies – XXXII cycle*" University of Teramo, Teramo, Italy 18 September 2020

President of the defence committee for the PhD in "*Cellular and Molecular Biotechnologies – XXIX cycle*" University of Teramo, Teramo, Italy 12 June 2017

At present, tutor of the PhD candidate Martina Sette (PhD program in Cellular and Molecular Biotechnologies, University of Teramo/University of L'Aquila) – **Research topic:** Iron metabolism in Parkinson's disease.

Co-tutor in the following PhD thesis:

Candidate	Institution	Title of the thesis	Date
Luana Barone	University "Roma Tre", Rome, Italy	Alterations in peroxisomal function induced by genomic instability and their relevance for aging	17 Feb 2016
Sara Sepe	University "Roma Tre", Rome, Italy	Role of AMBRA1 in nervous tissue homeostasis and in neurodegeneration	19 Dec 2011

Referee and member of the commission in the following PhD dissertations:

Candidate	Institution	Title of the thesis	Date
Kornvalee Meesilpavikkai	Erasmus University Medical Center	The State of STATs in Primary Immunodeficiencies: Molecular Diversity and Implications for Therapy	9 October 2019
Gloria Panella	University of L'Aquila, L'Aquila, Italy	Design and characterization of biocompatible scaffolds for tissue regeneration	March 2018
Monique Corbin	Vrije Univesiteit Medical Center Amsterdam (VUmc)	Mechanisms in the cellular defense against oxidative stress	9 Nov 2017
Alessia Buso	University of Udine, Udine, Italy	Mitochondrial oxidative phosphorylation plasticity/adaptation triggered by disturbances and stresses and targeted by therapies	30 May 2017
Nada Samari	Vrije Univestiteit Brussel and Studiumcentrum voor Kernenergie, Belgium	Molecular and morphological changes induced by ionizing radiation on maturing neurons	21 Feb 2013

Other

PhD Mini-Viva internal examiner – Open University	July 2021
Member of the Admissions Committee in the European School of Molecular Medicine (SEMM)	Jun-Sept 2021

COURSES (selected)

Biological Basis of Neuropsychiatric Disorders University of Pittsburgh	2008
Course in Scientific Management and Leadership University of Pittsburgh	2008
"IV course on proteomics" University of Siena, Italy and Amersham Pharmacia	2001

SOCIETY MEMBERSHIPS

- Society for Neuroscience (2003-present)
- Nitric Oxide Society (2014)
- The New York Academy of Science (2007)
- Society of Toxicology (2008)
- Society for Free Radical Biology and Medicine (2004)

INVITED SEMINARS (selected)

- June 2021 – Dutch Neurosciences Meeting – online - **Invited Speaker**
- June 2019 – Gordon Research Conference on Parkinson's disease, Grand Summit Hotel at Sunday River, Newry, ME, **Invited Speaker**

- Apr 2018 – Norwegian “NeuroMito” symposium on “Interconnected networks between DNA damage and mitochondrial dysfunction in neurodegeneration” – Bergen, Norway – **Keynote Lecture**
- Apr 2018 – Dutch Society for Clinical Pharmacology and Biopharmacy Scientific Spring Meeting – Utrecht, the Netherlands, **Invited speaker**
- Sept 2017- 6th EU-US Conference on Repair of endogenous DNA damage, Udine, Italy, **invited speaker**
- Aug 2016 – Benzon Symposium no.62 – Genome Instability and Neurodegeneration, Copenhagen, Denmark
- May 2016 - Istituto Superiore di Sanità, Rome, Italy
- Dec 2015 – University of Cologne, Cologne, Germany
- June 2015 – Seahorse Biosciences User Group Meeting 2015, Amsterdam, the Netherlands, June 2-4 2015, **invited speaker**
- Sept 2014 - Society for Free Radical Research-Europe, 2014 Meeting, Paris, France, **invited speaker**
- June 2014 – Nitric Oxide - Nitrite/Nitrate Conference, Cleveland, OH, USA, **invited speaker**
- June 2014 – University of Pittsburgh, Pittsburgh, PA, USA
- May 2014 – Università degli Studi di Chieti “G.D’Annunzio”, Italy
- May 2014 - 4th Dutch Huntington’s Disease Research Network (DHDRN) Symposium, Amsterdam, the Netherlands, **Keynote Lecture**
- Jan 2014 - University of Rome, Tor Vergata, Department of Biology, Rome, Italy
- May 2013 – Helmholtz Zentrum München, Institute for Radiation Biology, in the “*TIETO: Non-cancer effects of low dose ionizing radiation Course*”, München, Germany, **invited speaker**
- Apr 2013 – Gordon Research Conference “Oxidative Stress And Disease”, **invited speaker**
- Sept 2012- Neurological Institute “C.Mondino”, Pavia, Italy, in the “XXIII OTTORINO ROSSI AWARD”, **invited speaker**
- Jun 2012 - A. I. Virtanen Institute for Molecular Sciences- University of Eastern Finland, in the “*Mitochondria and oxidative stress in the nervous system Course*”, **invited speaker**
- Dec 2012 – University of Rome “Roma Tre”, Rome, Italy
- Jan 2011 - Institute for Ageing and Health, Newcastle University, UK, in the “*Academic Ageing Seminar Programme*”
- Nov 2010 – Institut Curie à Orsay, Centre Universitaire Paris-Sud 11, France
- May 2010 – A. I. Virtanen Institute, University of Eastern Finland Kuopio, Finland
- March 2009 – Dept. of Physiology, University of Texas San Antonio Health Science Center, San Antonio, TX, USA
- October 2008 – Hillman Cancer Center, University of Pittsburgh, PA, USA
- October 2008 – Erasmus Medical Center, Rotterdam, The Netherlands
- October 2007 – Buck Institute for Age Research, Novato, CA, USA
- March 2007 – Institute L. Spallanzani, Rome, Italy
- February 2007 – University of Rome, Tor Vergata, Italy

Abstracts (selected)

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| <p>Sepe S, Milanese C, Gabriels S, Derks K, Payan-Gomez C, van IJcken W, Battaglia G, van Cappellen G, Niggs A, Blandini F, Hoeijmakers JH, and Mastroberardino PG
 Inefficient DNA repair is an aging-related modifier of Parkinson disease
 Gordon Research Conference “Parkinson disease”, Colby-Sawyer College, NH, USA</p> | Jul 2015 |
| <p>Sepe S, Milanese C, Gabriels S, Derks K, Payan-Gomez C, van IJcken W, Battaglia G, van Cappellen G, Niggs A, Blandini F, Hoeijmakers JH, and Mastroberardino PG
 Aging-related mild genomic instability perturbs the dopaminergic system and elicits salient pathogenic features of Parkinson’s disease pathology
 XX World Congress on Parkinson’s Disease and Related Disorders, Geneva, Switzerland, 8-11 December 2013 – selected for oral presentation</p> | Dec 2013 |

- Sepe S, Milanese C, Gabriels S, Derks K, Payan-Gomez C, van IJcken W, Battaglia G, van Cappellen G, Niggs A, Blandini F, Hoeijmakers JH, and **Mastroberardino PG** Sept 2013
Aging-related mild genomic instability perturbs the dopaminergic system and elicits salient pathogenic features of Parkinson's disease
 The 5th EMBO meeting, Amsterdam, the Netherlands
 ➤ Sara Sepe received an EMBO travel fellowship and the abstract has been selected for an oral presentation
- Milanese C, Sepe S, Shiva S, Gladwin MT, and **Mastroberardino PG** Sept 2013
Nitrite administration ameliorates mitochondrial bioenergetics and is neuroprotective in cellular and vertebrate models of Parkinson's disease
 The 5th EMBO meeting, Amsterdam, the Netherlands
 ➤ Chiara Milanese received an EMBO travel fellowship and the abstract has been selected for a flash talk
- Bombardieri C, Sepe S, Payan Gomez C, Wamelink M, de Wit A, Leen R, van Kuilenburg ABP, Hoeijmakers JH, and **Mastroberardino PG** Aug 2013
DNA damage-induced transcription arrest elicits allosteric redesign of metabolism and activation of longevity pathways
 Gordon Research Conference "Biology of Aging", Il Ciocco, Italy
- Bombardieri C, Sepe S, Hoeijmakers J, and **Mastroberardino PG** Aug 2012
The nucleotide pool integrates genomic stability, metabolism, and redox homeostasis
 Gordon Research Conference "Thiol-based redox regulation & signaling", Bates College, ME, USA
- Horowitz M, Milanese C, Di Maio R, Hu X, Montero LM, Tapias V, Burton EA, Greenamyre, JT, and **Mastroberardino PG** Sept 2010
Single-cell Redox Imaging Demonstrates a Peculiar Response of Dopaminergic Neurons to Oxidative Insults
 2nd World Parkinson Congress, Glasgow, Scotland
- Horowitz M, Milanese C, Di Maio R, Hu X, Montero LM, Tapias V, Burton EA, Greenamyre, JT, and **Mastroberardino PG** Aug 2010
Single-cell redox imaging to determine variations in oxidative tolerance of dopaminergic neurons during aging
 Gordon Research Conference "Biology of Aging" Les Diablerets, Switzerland
- Horowitz M, Milanese C, Di Maio R, Hu X, Montero LM, Tapias V, Burton EA, Greenamyre, JT, and **Mastroberardino PG** May 2010
Single-cell redox imaging demonstrates a distinctive response of dopaminergic neurons to oxidative insults
 Gordon Research Conference "Thiol-based redox regulation & signaling", Il Ciocco, Italy
- Mastroberardino PG**, Horowitz MP, Betarbet R, Gutekunst CA, Gearing M, Trojanowski JQ, Anderson M, Chu CT, Peng J and Greenamyre JT Jun 2009
A novel transferrin/TfR2-mediated mitochondrial iron transport system is disrupted in Parkinson's disease
 International Biolron Society 2009 Annual Meeting
- Mastroberardino PG**, Hoffman EH, Horowitz MP, Na HM, Chu CT, Gearing M, Greenamyre JT Nov 2008
A novel transferrin/TfR2-mediated mitochondrial iron transport system is disrupted in Parkinson's disease
 38th annual meeting of the Society for Neuroscience, Washington, DC.
- Mastroberardino PG**, Betarbet R, Uechi G, Chu CT, Gearing M, Greenamyre JT May 2008
A novel transferrin/TfR2-mediated mitochondrial iron transport system is sensitive to thiol oxidation and is disrupted in Parkinson's disease
 Gordon Research Conference "Thiol-based redox regulation & signaling", Il Ciocco, Italy
- Mastroberardino PG**, McComrack AL, Di Monte DA, Miller GW, Greenamyre JT Mar 2008
Characterization of the differences in the oxidative events in two different pesticide models of Parkinson's disease

47th annual meeting of the Society of Toxicology meeting, Seattle, WA.

Mastroberardino PG, Hoffman EH, Horowitz MP, Na HM, Chu CT, Gearing M, Greenamyre JT Nov 2007

A novel transferrin/TfR2-mediated mitochondrial iron transport system is disrupted in Parkinson's disease

37th annual meeting of the Society for Neuroscience, Washington, DC.

Mastroberardino PG, Hoffman EH, Na HM, Gearing M, Chu CT, Greenamyre JT Sep 2007

Transferrin(Tf) Transferrin Receptor 2 (TfR2) mediate a redox sensitive pathway for iron delivery to mitochondria

Academy conference on Mitochondria and Oxidative Stress in Neurodegenerative Disorders; The New York Academy of Science, New York

Mastroberardino PG, Orr AL, Li XJ, Panov A, Shalbuyeva N, Greenamyre JT Aug 2006

Mitochondrial aspartate aminotransferase interacts with huntingtin in HD

Hereditary Disease Foundation (CAG)_n meeting, Boston, MA.

PUBLICATIONS

Peer Reviewed Book Chapters

Chiara Milanese and **Mastroberardino PG**

Genes, Aging, and Parkinson's Disease in Oxidative Stress and Redox Signalling in Parkinson's Disease

Oxidative Stress and Redox Signalling in Parkinson's Disease published by *The Royal Society of Chemistry*, doi.org/10.1039/9781782622888-00389

Peer Reviewed Articles

P.G. Mastroberardino has published 57 articles in international peer-reviewed scientific journals and 1 book chapter. His work has been cited more than 3200 times in total. His h-index is 30 based on Scopus.

- 57 D'Errico M, Parlanti E, Pascucci B, Filomeni G, **Mastroberardino PG**, Dogliotti E
The interplay between mitochondrial functionality and genome integrity in the prevention of human neurologic diseases
Arch Biochem Biophys. 2021 Jun 24;710:108977. doi: 10.1016/j.abb.2021.108977.
- 56 Olofsen PA, Bosch DA, Roovers O, van Strien PMH, de Looper HWJ, Hoogenboezem RM, Barnhoorn S, **Mastroberardino PG**, Ghazvini M, van der Velden VHJ, Bindels EMJ, de Pater EM, Touw IP
PML-controlled responses in severe congenital neutropenia with ELANE-misfolding mutations
Blood Adv. 2021 Feb 9;5(3):775-786. doi: 10.1182/bloodadvances.2020003214
- 55 Milanese C, Gabriels S, Barnhoorn S, Cerri S, Ulusoy A, Gornati SV, Wallace DF⁵, Blandini F, Di Monte DA, Subramaniam VN, and **Mastroberardino PG**
Gender biased neuroprotective effect of Transferrin Receptor 2 deletion in multiple models of Parkinson's disease
Cell Death Differ. 2020 Dec 16. doi: 10.1038/s41418-020-00698-4
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