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Decreto Rettore Università di Roma "La Sapienza" n. 813/2018 del 19.03.2018

Marzia Perluigi
Curriculum Vitae

Place: Rome
Date: 11/04/2018

Part I – General Information

Full Name: Marzia Perluigi

ORCID: 0000-0003-4668-5239
Scopus: Author ID: 55893167400

Part II – Education

Type	Year	Institution	Notes (Degree, Experience)
University graduation	1999	Faculty of Pharmacy and Medicine, Sapienza University of Rome (IT)	Doctor in Pharmaceutical Chemistry and Technology (summa cum laude)
Post-graduate studies			
PhD	2003	Department of Biochemical Sciences, Sapienza University of Rome	Ph.D. in Biochemistry
Licensure 01	2002	Faculty of Pharmacy and Medicine, Sapienza University of Rome (IT)	Exam to be legally entitled for practicing the profession of Pharmacist
Licensure 02	2013	MIUR	National Scientific Qualification as Full Professor of Biochemistry (SSD 05/E1 BIO/10)

Part III – Appointments

IIIA – Academic Appointments

December 2012-present	Department of Biochemical Sciences "A. Rossi-Fanelli", Sapienza University of Rome	Associate Professor
November 2006-december 2012	Department of Biochemical Sciences "A. Rossi-Fanelli", Sapienza University of Rome	Assistant Professor

IIIB – Other Appointments

Start	End	Institution	Position
01/2000	01/2002	IFO, Regina Elena Institute for Cancer Research Via delle Messi d'oro, Rome (IT)	Ph.D. visiting student
12/2002	12/2004	Department of Biochemical Sciences, Sapienza	Postdoc

		University of Rome	
02/2004	08/2004	Department of Chemistry, Laboratory of Neurochemistry University of Kentucky, Lexington, Kentucky, USA	Visiting postdoc
02/2005	08/2005	Department of Chemistry, Laboratory of Neurochemistry University of Kentucky, Lexington, Kentucky, USA	Post-doc
09/2005	10/2006	Department of Biochemical Sciences, Sapienza University of Rome	Postdoc

2017	present	Commissione Risorse Department of Biochemical Sciences Sapienza University of Rome	member
2017	present	Ccl Infermieristica D Sapienza University of Rome	Docente di riferimento
2015	present	Presidenza, CcL Infermieristica D	member
2013	present	Collegio Dottorato in Biochimica	member

Part IV – Teaching experience

Year	Institution	Lecture/Course
2007-present	Basi molecolari e cellulari della vita, **coordinator** Infermieristica corso D Sapienza University of Rome	Biochemistry (2 CFU)
2012-present	CcL "F", International Medical School Faculty of Pharmacy and Medicine Sapienza University of Rome	Biochemistry I&II (4 CFU)
2013-present	Biomedical Laboratory Technicians and Radiologist. Faculty of Pharmacy and Medicine Sapienza University of Rome- Sede RIETI, **coordinator**	Chemistry (4 CFU)
2017-present	Radiology Techinicainas (TSRM), **coordinator** Policlinico Sapienza University of Rome	Chemistry (2 CFU)
2008-present	Undergraduate and Graduate students mentorship (10 undergraduate and 6 graduate students)	Biochemistry
2014-16	ADE: La iperomocisteinemia come fattore di rischio di malattie cardiovascolari Faculty of Medicine, Ccl A	0.2 CFU
2007-2012	Practicals (laboratory), Medical School Faculty of Pharmacy and Medicine, Sapienza University	Biochemistry

Part V - Society memberberships, Awards and Honors

<u>Professional Membership</u>

Year	Title
2018	Member of the European Society of Neuroscience (FENS)

2015-present	Member of the Trisomy 21 Research Society (T21RS)
2008-present	Member of the Italian Society of Biochemistry and Molecular Biology (SIB)
2010-present	Member of Society for Free Radical Research (SFRR)
2013-present	Member Accademia Medica di Roma

Awards and Honors

2012	Top "young researcher" (under 40) Faculty of Medicine, Sapienza University of Rome
2011	Travel award 36th International FEBS Congress Torino (IT)
2009	Travel award Italian Society of Biochemistry and Molecular Biology, Catania (IT)
2007	Travel award Italian Society of Biochemistry and Molecular Biology, Riccione (IT)
2004	Fellowship (Sapienza University) to support travel to University of Kentucky (USA)

Part VI - Funding Information [grants as PI-principal investigator or investigator]

Year	Title	Program	Grant value
2018		PI, FFABR Fondo di finanziamento per attività di base della ricerca (MIUR)	3.000,00 euro
2017-20	Aberrant insulin signalling contributes to development of Alzheimer disease in Down Syndrome: identifying novel drug candidates	PI, Progetti GRANDI Ateneo, Sapienza University	34.500,00 euro
2017-18	Nuove strategie terapeutiche per la prevenzione della malattia di Alzheimer	Co-PI, Banca d'Italia n. 12868/17 del 5.1.2017	50.000,00 euro
2016-18	Intranasal rapamycin administration to prevent Alzheimer-like dementia in Down Syndrome	PI, Fondazione Jerome Lejeune	26.000,00 euro
2016-18	mTOR activation within neural-derived, plasma-resident exosomes can predict cognitive decline in down syndrome",	PI, Progetti MEDI Ateneo, Sapienza University	7.000,00 + 1 yr research fellow
2016-18	Between atom and cell: integrating molecular biophysics approaches for biology and healthcare	Participant COST-Action OC-2015-1-19651	
2016-17	Piattaforma di sistemi cellulari eucarioti per l'espressione di proteine eterologhe e per lo screening tossicologico di interferenti alimentari, micro-ambientali e bioattivi	Participant FILASRU-2014-1020 Regione Lazio	200.000,00 euro
2015-17	mTOR: a therapeutic target to prevent development of Alzheimer-like dementia in Down Syndrome	PI, Progetti GRANDI Ateneo, Sapienza University	30.000,00 Euro

2015	Cross-talk between insulin signalling and oxidative stress in Alzheimer disease: A new paradigm	Participant, SIR Programme (Scientific Independence of young Researchers) funded by MIUR to Fabio Di Domenico (PI)	170.000,00 Euro
2013	Biliverdin Reductase-A in brain insulin signalling and oxidative stress-mediated neurodegeneration	PI, Marie Curie Actions European Union's Seventh Framework Programme (FP7/2007-2013)	180.000,00 Euro
2013	Cognitive decline and neuropsychiatric symptoms in Alzheimer's disease: can endocannabinoids help?"	participant, Progetti MEDI Ateneo Sapienza	8.000,00 + 1year research fellow
2012	Altered proteostasis network in Down Syndrome	PI, Progetti Ateneo Sapienza	5.000,00 + 1year research fellow
2011	Role of oxidative stress in Multiple Sclerosis. A proteomic and red-ox proteomic analysis"	PI, pilot study Associazione Italiana Sclerosi Multipla	25.000,00 euro
2011	A redox proteomics study on Down Syndrome brain: identification of oxidative stress-related pathways in Alzheimer-like dementia"	PI, Progetti Ateneo Sapienza Università di Roma	5.000 + 1 year research fellow
2011		PI, Progetto FARI Sapienza Università di Roma	6.500,00 euro
2011	La citofluorimetria a flusso: una piattaforma tecnologica per lo studio dei meccanismi biochimici in organismi cellulari	Participant, Grandi Attrezzature Sapienza Università di Roma	50.000,00 euro
2009	Danno da radiazioni UV in cellule epiteliali: proteomica, redox proteomica e meccanismi di protezione di composti antiossidanti naturali"	Participant, Ateneo Federato Sapienza Università di Roma	5.000,00 euro
2009	Ruolo dello stress ossidativo nella cancerogenesi indotta da HPV: studio proteomico dei meccanismi biomolecolari della trasformazione neoplastica	PI, Ricerche Universitarie Sapienza Università di Roma	12.000,00 euro
2008	Basi molecolari dell'azione antiossidante di composti naturali nella prevenzione delle malattie neurodegenerative	PI, Progetti EX facoltà Sapienza Università di Roma	2.4000,00 euro
2008	Studio mediante redox proteomica dei meccanismi coinvolti nella patogenesi e nella progressione della malattia di Alzheimer	Co-PI Ateneo Federato Sapienza Università di Roma	10.000,00 euro
2008	Danno da radiazioni UV in cellule	Co-PI, Ateneo Federato	10.000,00 euro

	epiteliali: proteomica, redox proteomica e meccanismi di protezione di composti antiossidanti naturali"	Sapienza Università di Roma	
2007	Approcci olistici allo studio dei meccanismi biochimici di regolazione delle attività cellualri	Co-PI Ateneo Federato Grandi Attrezzature	75.000,00 euro
2007	Ruolo della perossidazione lipidica nell'insorgenza e nella progressione della malattia di Alzheimer"	PI, Ateneo Federato Sapienza Università di Roma	2.400,00 euro
2007	Studio mediante redox proteomica dei meccanismi coinvolti nella patogenesi e nella progressione della malattia di Alzheimer	Co-PI, Ricerche Universitarie, Sapienza Università di Roma	10.000,00 euro

Invited Speaker (last five years)

Year Title

2017	**SIB 59° Congresso**, Caserta 20-22 settembre Crosstalk between insulin and mTOR signaling in Alzheimer disease
2017	**Sindrome di down dalla diagnosi alla terapia** Scuola di Medicina e Chirurgia, Università di Napoli Federico II, 20 Ottobre "La correlazione tra la Sindrome di Down e la malattia di Alzheimer"
2017	**Alzheimer Association International Conference**, London july 16-20 Altered protein O-Glycosylation profile revealed by proteomics in AD: Novel insights on protein signaling mechanisms
2017	**Aging Brain: In Search for Better Neurotherapeutics,** Cosenza, 4-5 maggio Disturbance of polyubiquitination profile in Down Syndrome and Alzheimer Disease brain
2017	**Gordon Research Conference** on Oxidative Stress & Disease, 19-24 march Renaissance Tuscany Il Ciocco in Lucca Italy Decoding Alzheimer-like neurodegeneration from mitochondrial defects
2016	**Sindrome di Down: 150 anni di cammino**, Ospedale Bambino Gesù, 15 ottobre I meccanismi molecolari alla base dello sviluppo della malattia di Alzheimer
2016	**52° European Congress of the European Societies of toxicology** EUROTOX Siviglia 04-07 september Redox proteomics analysis to decipher the neurobiology of Alzheimer-like neurodegeneration
2016	**FISV Meeting** Rome, 20-23 Crosstalk between insulin and mTOR signaling in Alzheimer disease and Down syndrome
2016	**Redox signaling in the retina and central nervous system, Workshop** College De France, Paris 15-16 march Redox proteomics studies in the brain of Down Syndrome and Alzheimer disease
2015	**TS21 1st International Meeting**, Paris 4-7 june 2015 Redox proteomics to decipher the neurobiology of alzheimer disease: lessons from down syndrome

2015	**Biochemistry, Phisiology and Pharmacology of Oxidative Stress, Workshop** july 4-5 Rome Oxidative stress and proteostasis network: culprit and casualty in Alzheimer-like neurodegeneration
2014	**Alzheimer's Disease in Down Syndrome: From molecules to cognition** Wellcome Trust Genome Campus, 27-29 march, Cambridge (UK) Neuropathological role of PI3K/Akt/mTOR axis in Down Syndrome brain
2013	**COST Action, 15 march Valencia** Does body fluid reflect CNS pathology? Insights from plasma, serum and CSF of MCI and AD patients
2012	**Society for Free Radical Reaserch International**, 16th SFRRI Biennial Meeting: 6-9 September, London, UK Decreased expression and increased carbonylation of Haptoglobin in plasma from MCI and AD subjects: role of extracellular chaperones in AD

Part VII – Research Activities

Keywords: Alzheimer disease, oxidative stress, proteomics, ageing, neurodegeneration, proteostasis, cancer

Brief Description

In the last decade, I focused the attention on the analysis of oxidative modifications of proteins and how dysfunction of selected proteins translate into pathological features of a disease state. By following this approach I contributed to shed light on critical molecular determinants underlying aging, cognitive dysfunction and cancerogenesis process. Particularly, my team focuses on:

i) redox mechanisms of neurodegeneration in Down Syndrome (DS) and Alzheimer Disease (AD). Results obtained by the analysis of human specimens and studies from mouse and cellular models of the disease reveal a molecular link between protein oxidation/aggregation, the integrity of the protein quality control system (proteasome, UPS and autophagy), dysfunction of energy metabolism and neurodegeneration. Many common pathological hallmarks exist between DS and AD, including deposition of amyloid plaques, NFTs, increased oxidative damage and impaired mitochondrial function, among others. Intriguingly, we propose that all of these processes seem to be joined by a 'leitmotif' – oxidative stress – since they are all the cause and/or the consequence of increased free-radical burden. In addition, other than proteostasis and glucose metabolism, redox proteomics studies allowed the identification of oxidized proteins belonging to several dysfunctional pathways among which, detoxification systems, excitotoxicity or synapse function that highly correlates with DS and AD pathological features supporting the role of protein oxidative damage in neurondegeneration and cognitive decline.

Further, we recently demonstrated the disturbance of PI3K/Akt/mTOR axis in DS brain, prior and after development of AD. Aberrant mTOR signalling in the brain affects multiple pathways including glucose metabolism, energy production, mitochondrial function and autophagy. All these events are key players in age-related cognitive decline and contribute to the development of Alzheimer-like dementia in DS.

ii) role of insulin-resistance in aging and AD. One of the major goals in Alzheimer research is to understand the mechanisms related to the earlier phases before the symptoms onset. Insulin resistance is associated with a higher risk to develop AD. Post-mortem analysis of brains from AD subjects revealed a markedly down regulated expression of the insulin receptor (IR) and its downstream targets, which progresses with severity of neurodegeneration. Biliverdin reductase-A (BVR-A) is a pleiotropic enzyme that not only catalyzes the synthesis of the powerful antioxidant

bilirubin but through its Ser/Thr/Tyr kinase activity modulates cell signaling networks including the two main arms of insulin signaling: MAPK and PI3K. Further, BVR-A is directly activated, via Tyr phosphorylation, by IR. Thus, being BVR-A an up-stream effector in the IR-mediated signaling cascade, we are investigating if the impairment of BVR-A contribute to the progression of insulin resistance observed in AD, likely due to the oxidative damage as reported by our previous studies in the brain of aMCI and AD subject.

iii) role of oxidative stress in cervical cancer. Cervical cancer is the second most common neoplastic disease among women worldwide. The initiating event is the infection with certain types of human papillomavirus (HPV), a very common condition in the general population. However, the majority of HPV infections is subclinical and transitory and is resolved spontaneously. Intriguingly, viral oncogene expression, although necessary, is not per se sufficient to promote cervical cancer and other factors are involved in the progression of infected cells to the full neoplastic phenotype. In this perspective we have investigated the interplay between the viral mechanisms modulating cell homeostasis and redox sensitive mechanisms. Results obtained either from cell culture models and human tissues led us to hypothesize the mechanisms by which HPV exploits host cell survival mechanisms, through modulation of redox homeostasis. We suggest that tumor cells adapt their metabolism in order to support their growth and survival, likely creating a paradox of high ROS production in the presence of high antioxidant levels, to fit well with stress conditions.

Product type	Number	Data Base	Start	End
Papers [international]	101	Pubmed/Google Scholar	2001	2018
Papers [national]				
Books [scientific]	6	Scopus/Google Scholar	2001	2018

Total IF	405,278
Average IF per product	4,012
Total Citations	Scopus: 4104 Google Scholar: 5876
Average Citations per Product	Scopus: 40,63 Google Scholar: 57,60
Hirsch (H) index	Scopus: 40 Google Scholar: 48
Normalized H index*	Scopus: 2,66 (2003-2017) Google Scholar: 3,2 (2003-2017)

*H index divided by the academic seniority.

Reviewer for several scientific journals (Antioxidant&Redox Signaling; Free Radic. Biol. Med.; Frontiers in Neuroscience; Oxid. Med. Cell. Longev.; Sci. Reports; Neurobi Dis; BBA; Biochem J; among others).

Guest Editor:
1) Antioxidant&Redox Signaling: 2016, published in 2017
Special Issue: "Redox Proteomics: A Key Tool for New Insights into Protein Modification with Relevance to Disease" by M Perlugii and D Allan Butterfield

2) Free Radical Biology and Medicine: 2017, published in 2018
Special Issue: Down Syndrome: From Development to Adult Life to Alzheimer Disease
Guest Editors: Allan Butterfield and Mariza Perluigi

Reviewer of Grant proposals from:
Alzheimer Association, Parkinson UK Foundation, UAE (Emirates Research Agency)

Conference Organization:
26 gennaio 2016: Metodi Alternativi alla sperimentazione animale
Aula Organi Collegiali, Rettorato
Sapienza, Università di Roma

Part IX– Selected Publications (16 out of 101)
List of the publications selected for the evaluation.

IF total= 80,187
IF average = 5,011

Citations total = 593
Citation average = 37.06

% first, last/corresponding author = 81.25%

1. Tramutola, A., Di Domenico, F., Barone, E., Arena, A., Giorgi, A., Di Francesco, L., Schininà, M.E., Coccia, R., Head, E., Butterfield, D.A., **Perluigi, M.**
Polyubiquitinylation profile in down syndrome brain before and after the development of Alzheimer neuropathology
(2017) Antioxidants and Redox Signaling, 26 (7), pp. 280-298.
Cited 4 times. IF=6.337

2. Tramutola, A., Pupo, G., Di Domenico, F., Barone, E., Arena, A., Lanzillotta, C., Broekaart, D., Blarzino, C., Head, E., Butterfield, D.A., **Perluigi, M.**
Activation of p53 in Down Syndrome and in the Ts65Dn Mouse Brain is Associated with a Pro-Apoptotic Phenotype
(2016) Journal of Alzheimer's Disease, 52 (1), pp. 359-371.
Cited 6 times. IF=3.731

3. Barone, E., Di Domenico, F., Cassano, T., Arena, A., Tramutola, A., Lavecchia, M.A., Coccia, R., Butterfield, D.A., **Perluigi, M**.
Impairment of biliverdin reductase-A promotes brain insulin resistance in Alzheimer disease: A new paradigm
(2016) Free Radical Biology and Medicine, 91, pp. 127-142.
Cited 14 times. IF=5.606

4. Di Domenico, F., Pupo, G., Giraldo, E., Badìa, M.-C., Monllor, P., Lloret, A., Eugenia Schininà, M., Giorgi, A., Cini, C., Tramutola, A., Butterfield, D.A., Viña, J., **Perluigi, M.**
Oxidative signature of cerebrospinal fluid from mild cognitive impairment and Alzheimer disease patients
(2016) Free Radical Biology and Medicine, 91, pp. 1-9.
Cited 12 times. IF=5.606

5. Di Domenico, F., Pupo, G., Tramutola, A., Giorgi, A., Schininà, M.E., Coccia, R., Head, E., Butterfield, D.A., **Perluigi, M.**
Redox proteomics analysis of HNE-modified proteins in Down syndrome brain: Clues for understanding the development of Alzheimer disease
(2014) Free Radical Biology and Medicine, 71, pp. 270-280.
Cited 40 times. IF=5.736

6. **Perluigi, M**., Pupo, G., Tramutola, A., Cini, C., Coccia, R., Barone, E., Head, E., Butterfield, D.A., Di Domenico, F.
Neuropathological role of PI3K/Akt/mTOR axis in Down syndrome brain

(2014) Biochimica et Biophysica Acta - Molecular Basis of Disease, 1842 (7), pp. 1144-1153.
Cited 45 times. IF=4.882

7. Di Domenico, F., Coccia, R., Cocciolo, A., Murphy, M.P., Cenini, G., Head, E., Butterfield, D.A., Giorgi, A., Schinina, M.E., Mancuso, C., Cini, C., **Perluigi, M.**
Impairment of proteostasis network in Down syndrome prior to the development of Alzheimer's disease neuropathology: Redox proteomics analysis of human brain
(2013) Biochimica et Biophysica Acta - Molecular Basis of Disease, 1832 (8), pp. 1249-1259.
Cited 46 times. IF=5.089

8. Fiorini, A., Koudriavtseva, T., Bucaj, E., Coccia, R., Foppoli, C., Giorgi, A., Schininà, M.E., Di Domenico, F., de Marco, F., **Perluigi, M.**
Involvement of Oxidative Stress in Occurrence of Relapses in Multiple Sclerosis: The Spectrum of Oxidatively Modified Serum Proteins Detected by Proteomics and Redox Proteomics Analysis
(2013) PLoS ONE, 8 (6),
Cited 30 times. IF= 3.5

9. Cocciolo, A., Di Domenico, F., Coccia, R., Fiorini, A., Cai, J., Pierce, W.M., Mecocci, P., Butterfield, D.A., **Perluigi, M.**
Decreased expression and increased oxidation of plasma haptoglobin in Alzheimer disease: Insights from redox proteomics
(2012) Free Radical Biology and Medicine, 53 (10), pp. 1868-1876.
Cited 37 times. IF=5.271

10. Barone, E., Cenini, G., Sultana, R., Di Domenico, F., Fiorini, A., **Perluigi, M.,** Noel, T., Wang, C., Mancuso, C., St. Clair, D.K., Butterfield, D.A.
Lack of p53 decreases basal oxidative stress levels in the brain through upregulation of thioredoxin-1, biliverdin reductase-A, manganese superoxide dismutase, and nuclear factor kappa-B
(2012) Antioxidants and Redox Signaling, 16 (12), pp. 1407-1420.
Cited 14 times. IF=7.2

11. Barone, E., Di Domenico, F., Sultana, R., Coccia, R., Mancuso, C., **Perluigi, M.,** Butterfield, D.A.
Heme oxygenase-1 posttranslational modifications in the brain of subjects with Alzheimer disease and mild cognitive impairment
(2012) Free Radical Biology and Medicine, 52 (11-12), pp. 2292-2301.
Cited 60 times. IF=5.271

12. De Marco, F., Bucaj, E., Foppoli, C., Fiorini, A., Blarzino, C., Filipi, K., Giorgi, A., Schininà, M.E., Di Domenico, F., Coccia, R., Butterfield, D.A., **Perluigi, M.**
Oxidative stress in HPV-driven viral carcinogenesis: Redox proteomics analysis of HPV-16 dysplastic and neoplastic tissues
(2012) PLoS ONE, 7 (3),
Cited 39 times. IF=3.7

13. **Perluigi, M.,** Di Domenico, F., Giorgi, A., Schininà, M.E., Coccia, R., Cini, C., Bellia, F., Cambria, M.T., Cornelius, C., Butterfield, D.A., Calabrese, V.

Redox proteomics in aging rat brain: Involvement of mitochondrial reduced glutathione status and mitochondrial protein oxidation in the aging process
(2010) Journal of Neuroscience Research, 88 (16), pp. 3498-3507.
Cited 62 times. IF=2.9

14. Sultana, R., **Perluigi, M.**, Newman, S.F., Pierce, W.M., Cini, C., Coccia, R., Butterfield, D.A.
Redox proteomic analysis of carbonylated brain proteins in Mild cognitive impairment and early alzheimer's disease
(2010) Antioxidants and Redox Signaling, 12 (3), pp. 327-336.
Cited 63 times. IF=8.2

15. **Perluigi, M.,** Sultana, R., Cenini, G., Di Domenico, F., Memo, M., Pierce, W.M., Coccia, R., Butterfield, D.A.
Redox proteomics identification of 4-hydroxynonenalmodified brain proteins in Alzheimer's disease: Role of lipid peroxidation in Alzheimer's disease pathogenesis
(2009) Proteomics - Clinical Applications, 3 (6), pp. 682-693.
Cited 101 times. IF=2

16. **Perluigi, M.,** Giorgi, A., Blarzino, C., De Marco, F., Foppoli, C., Di Domenico, F., Butterfield, D.A., Schininà, M.E., Cini, C., Coccia, R.
Proteomics analysis of protein expression and specific protein oxidation in human papillomavirus transformed keratinocytes upon UVB irradiation
(2009) Journal of Cellular and Molecular Medicine, 13 (8 B), pp. 1809-1822.
Cited 20 times. IF=5.158

LIST OF TOTAL PUBLICATIONS (PubMed/Scopus, 101 papers)

1. Lanzillotta C, Tramutola A, Meier S, Schmitt F, Barone E, **Perluigi M**, Di Domenico F, Abisambra JF.
Early and Selective Activation and Subsequent Alterations to the Unfolded Protein Response in Down Syndrome Mouse Models.
(2018) J Alzheimers Dis.;62(1):347-359. doi: 10.3233/JAD-170617.
Citations 0; IF=3.731

2. Barone, E., Arena, A., Head, E., Butterfield, D.A., **Perluigi, M**.
Disturbance of redox homeostasis in Down Syndrome: Role of iron dysmetabolism
(2018) Free Radical Biology and Medicine, 114, pp. 84-93.
Citations 0; IF=5.606

3. Di Domenico, F., Tramutola, A., Foppoli, C., Head, E., **Perluigi, M.,** Butterfield,D.A.
mTOR in Down syndrome: Role in Aß and tau neuropathology and transition to Alzheimer disease-like dementia
(2018) Free Radical Biology and Medicine, 114, pp. 94-101.
Citations O; IF=5.606

4. Barone, E., Head, E., Butterfield, D.A., Perluigi, M.
HNE-modified proteins in Down syndrome: Involvement in development of Alzheimer disease neuropathology
(2017) Free Radical Biology and Medicine, 111, pp. 262-269.
Citations 1; IF=5.606

5. Tramutola, A., Lanzillotta, C., **Perluigi, M**., Butterfield, D.A.
Oxidative stress, protein modification and Alzheimer disease
(2017) Brain Research Bulletin, 133, pp. 88-96.
Citations 6; IF=3.033

6. Di Domenico, F., Barone, E., **Perluigi,** M., Butterfield, D.A.
The Triangle of Death in Alzheimer's Disease Brain: The Aberrant Cross-Talk among Energy Metabolism, Mammalian Target of Rapamycin Signaling, and Protein Homeostasis Revealed by Redox Proteomics
(2017) Antioxidants and Redox Signaling, 26 (8), pp. 364-387.
Citations 6; IF=6.337

7. Butterfield, D.A., **Perluigi, M**.
Redox proteomics: A key tool for new insights into protein modification with relevance to disease
(2017) Antioxidants and Redox Signaling, 26 (7), pp. 277-279.
Citations 0; IF=6.337

8. Tramutola, A., Di Domenico, F., Barone, E., Arena, A., Giorgi, A., Di Francesco, L., Schininà, M.E., Coccia, R., Head, E., Butterfield, D.A., **Perluigi, M**.
Polyubiquitinylation profile in down syndrome brain before and after the development of Alzheimer neuropathology
(2017) Antioxidants and Redox Signaling, 26 (7), pp. 280-298.
Citations 4; IF=6.337

9. Di Domenico, F., Tramutola, A., **Perluigi, M**.
Cathepsin D as a therapeutic target in Alzheimer's disease
(2016) Expert Opinion on Therapeutic Targets, 20 (12), pp. 1393-1395.
Citations 5, IF=4.872

10. **Perluigi, M.**, Barone, E., Di Domenico, F., Butterfield, D.A.
Aberrant protein phosphorylation in Alzheimer disease brain disturbs pro-survival and cell death pathways
(2016) Biochimica et Biophysica Acta - Molecular Basis of Disease, 1862 (10), pp. 1871-1882.
Citations 7; IF=5.476

11. Tramutola, A., Pupo, G., Di Domenico, F., Barone, E., Arena, A., Lanzillotta, C., Broekaart, D., Blarzino, C., Head, E., Butterfield, D.A., **Perluigi, M.**
Activation of p53 in Down Syndrome and in the Ts65Dn Mouse Brain is Associated with a Pro-Apoptotic Phenotype
(2016) Journal of Alzheimer's Disease, 52 (1), pp. 359-371.
Citations 6 ; IF=3.731

12. Tramutola, A, Lanzillotta, C, Arena, A, Barone, E, **Perluigi, M**, Di Domenico, F.

Increased mammalian target of rapamycin signaling contributes to the accumulation of protein oxidative damage in a mouse model of down's syndrome
(2016) Neurodegenerative Diseases, 16 (1-2), pp. 62-68.
Citations 11; IF=2.842

13. Barone, E., Di Domenico, F., Cassano, T., Arena, A., Tramutola, A., Lavecchia, M.A., Coccia, R., Butterfield, D.A., **Perluigi, M.**
Impairment of biliverdin reductase-A promotes brain insulin resistance in Alzheimer disease: A new paradigm
(2016) Free Radical Biology and Medicine, 91, pp. 127-142.
Citations 14; IF=5.606

14. Di Domenico, F., Pupo, G., Giraldo, E., Lloret, A., Badia, M.-C., Schinina, M.E., Giorgi, A., Allan Butterfield, D., Vina, J., **Perluigi, M**.
Autoantibodies profile in matching CSF and serum from AD and AMCI patients: Potential pathogenic role and link to oxidative damage
(2016) Current Alzheimer Research, 13 (2), pp. 112-122.
Citations 7 ; IF=2.952

15. Di Domenico, F., Pupo, G., Giraldo, E., Badìa, M.-C., Monllor, P., Lloret, A., Eugenia Schininà, M., Giorgi, A., Cini, C., Tramutola, A., Butterfield, D.A., Viña, J., **Perluigi, M**.
Oxidative signature of cerebrospinal fluid from mild cognitive impairment and Alzheimer disease patients
(2016) Free Radical Biology and Medicine, 91, pp. 1-9.
Citations 12 ; IF=5.606

16. Di Domenico, F., **Perluigi, M**., Allan Butterfield, D.
Redox proteomics in human biofluids: Sample preparation, separation and immunochemical tagging for analysis of protein oxidation
(2016) Methods in Molecular Biology, 1303, pp. 391-403.
Citations 5; IF= NA

17. Tramutola, A., Di Domenico, F., Barone, E., **Perluigi, M**., Butterfield, D.A.
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