Procedura valutativa per la copertura di n. 1 posto di Professore Universitario di prima fascia per il Settore concorsuale 05/E1 – Settore scientifico disciplinare BIO/10 presso il Dipartimento di Scienze Biochimiche "A. Rossi Fanelli"– Facoltà di Medicina e Farmacia – codice concorso 2021POR002

Decreto Rettore Università di Roma "La Sapienza" n. 2560/2019 del 20.08.2019

Fabio Di Domenico
Curriculum Vitae

Rome,
21st of February 2021

Part I – General Information

ORCID: 0000-0002-2013-209X
Scopus: Author ID: 26323071000

Part II – Education

Type	Year	Institution	Notes
University graduation	2005	Department of Biochemical Sciences, Sapienza University of Rome. Laboratory of Virology, Regina Elena Research Cancer Institute	Doctor in Biological Sciences Tutor: Dr. Maria Carmela Bonaccorsi Dr. Federico De Marco
PhD	2009	Department of Biochemical Sciences, Sapienza University of Rome	Doctorate (Ph.D.) in Biochemistry. Ph.D. Thesis Title: Proteomic analysis to study the effects of oxidative stress on carcinogenesis and neurodegeneration Research Mentor: Prof. Chiara Cini
Licensure 01	2012	Ministero dell'Istruzione dell'Università e della Ricerca (MIUR)	ASN, National Scientific Qualification as associate Professor of General Biochemistry (settore concorsuale 05/E1; SSD BIO/10)
Licensure 01	2016	Ministero dell'Istruzione dell'Università e della Ricerca (MIUR)	ASN, National Scientific Qualification as Full Professor of General Biochemistry (settore concorsuale 05/E1; SSD BIO/10)

Part III – Appointments

IIIA – Academic Appointments

Start	End	Institution	Position
2007	2008	Department of Chemistry of University of Kentucky, Lexington, KY, USA	Ph.D. foreign student in the laboratory of Neurochemistry of Prof. D. Allan Butterfield
2009	2010	Department of Chemistry of University of	Post-doctoral fellowship (funded by Istituto

		Kentucky, Lexington, KY, USA	Pasteur Italia – Fondazione Cenci Bolognetti) at the laboratory of Neurochemistry of Prof. D. Allan Butterfield
2010 Dec.	2015 Nov.	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Assistant Professor of Biochemistry (S.S.D. BIO/10, Ricercatore confermato dal 2014)
2015 Nov.	present	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Associate Professor Biochemistry (S.S.D. BIO/10)

IIIB – Other Academic Appointments

Start	End	Institution	Position
2014	2015	Department of Biochemical Sciences Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of the Teaching Board (Collegio dei docenti) of Doctoral School in Biochemistry
2017	present	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of the department research committee (Commissione Ricerca di dipartimento)
2014 2017	2015 2020	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of Department council (Giunta di Dipartimento)
2014 2017	2015 2020	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of Faculty council (Giunta di Facoltà)
2018	present	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Reference teacher of quality committee for the course "Terapia della neuro e psico motricità dell'età evolutive (TNPEE)"
2019	present	Faculty of Medicine and Pharmacy, Sapienza University of Rome	Member of the faculty research committee (Commissione Ricerca di Facoltà)

Member of Competition or Final Doctoral Examination Commissions

Start	Institution	Position
2016	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of the evaluating commission for Biochemistry Ph.D. enrollment XXXII Cycle
2019	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of the evaluating commission for Biochemistry Ph.D. enrollment, XXXV Cycle
2017	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Member of the evaluating committee for the assignment of a 1-year fellowship Cat. A Type II; N. A/5/2017
2019	University of Perugia	Member of the Evaluation Commission for 1 RTDA position SC 05/E1 - SSD BIO/10 – BIOCHIMICA at the Department of Experimental Medicine

Other "Organizational Tasks" (Compiti Organizzativi)

Year	Institution	Position
2013, 2014, 2015, 2016, 2017	Faculty of Pharmacy and Medicine, Sapienza University of Rome	"Presidente della Commissione d'Aula" for the Admission Competition to Degree Courses in Medicine

Part IV – Teaching experience

Year	Institution	Lecture/Course
2011 - 2014	Faculty of Medicine and Dentistry, Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Molecular and cellular basis of life" Degree Course in Nursing "Y" at San Raffaele La Pisana
2011 - 2014	Faculty of Medicine and Dentistry, Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Molecular and cellular basis of life" Degree Course in Physical therapist "B" at San Raffaele La Pisana
2014 - 2018	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biology and Genetics (3CFU) teaching course of "Molecular and cellular basis of life" Degree Course in Obstetrics at the department of "Scienze Ginecologico-Ostetriche e Scienze Urologiche
2015 - present	Faculty of Pharmacy and Medicine of Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Molecular and cellular basis of life" Degree Course in Nursing "J" at Eastman Hospital
2015 - present	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Morphological and functional basis of the cell" Degree Course in Nursing at Forlanini Hospital
2015 - 2017	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Morphological and functional basis of the cell" Degree Course in Nursing at Spallanzani Hospital
2016 - present	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Molecular basis of life" Degree Course in Terapia della neuro e psicomotricità dell'età evolutiva (TNPEE) at Centro di Neuropsichiatria dell'Infanzia e dell'Adolescenza, Priverno (ASL/LT)
2016 - present	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biochemistry (2CFU) teaching course of "Molecular and cellular basis of life" Degree Course in Physical therapist "C" at San Giovanni Addolorata Hospital
2016 - present	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biochemistry I and Molecular Biology (3CFU) teaching course of "Biochemistry", Degree Course in Medicine "A"
2020 - present	Faculty of Pharmacy and Medicine, Sapienza University of Rome	Lecturer of Biochemistry I (3CFU) teaching course of "Biochemistry", Degree Course Bionformatics (English)

***"Tutoring Activities"* at Sapienza University**

Year	Institution	Position
2012 - present	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Supervisor of master's degree Thesis in Pharmaceutical Chemistry and Technology
2014 - 2020	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Tutor of 2 Ph.D. Thesis in Biochemistry (XXX, XXXIII cycles)
2017 - 2020	Department of Biochemical Sciences, Faculty of Ph Medicine, Sapienza University of Rome	Tutor of students from Higher Education Institutions within the Project "Alternanza Scuola-Lavoro" (80 hours per year)

Part V - Society memberships, Awards and Honors

Professional Membership

Year	Title
2008 - present	Member of the Italian Society of Biochemistry and Molecular Biology (SIB)
2010 - present	Member of Society of Free Radical Research – Europe (SFRRE)
2015 - present	Member of the Trisomy 21 Research Society (T21RS)

Awards and Honors

Year	Title
2012	Selected among the best young "under 40" researcher of faculty of pharmacy and medicine of Sapienza University of Rome
2015	Junior faculty award at 12th International Conference on Alzheimer's Disease and Parkinson's Disease (APDP 2015)

Editorial Activities:

Year	Title
2013	Associate editor of Journal of Alzheimer Disease – IOS press (ISSN 1387-2877)
2019 - present	Editorial board member for the MDPI journal "Biomolecules" (ISSN 2218-273X) section of Molecular Pathology
2020 - present	Editorial board member for the MDPI journal "NeuroSci" (ISSN 2673-4087)
2020 - present	Invited guest editor for a special issue on "Feature paper in section Molecular Pathology" for "Biomolecules" (ISSN 2218-273X)

External Tutor of Foreign Students for Experimental Work/Thesis

Start	End	Institution	Position
2016 Feb.	2016 Aug.	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Tutor for a 6-months internship program with University of Lille for a project entitled "Redox proteomics analysis of HNE-modified proteins in Ts65Dn mice cortex"
2016 Oct.	2017 Apr.	Department of Biochemical Sciences, Faculty of Pharmacy and Medicine, Sapienza University of Rome	Tutor for a 6-months internship period under the BEMUNDUS program with the Pontifical Catholic University of Rio de Janeiro, Brazil (PUC-Rio)

Invited Speaker

Year	Title
2008	**Annual meeting of Department of Biochemical Science of Sapienza University of Rome, Abbazia S. Andrea in Flumine, Ponzano (RM), 08 July 2008** Altered Glycoproteins expression In Mild Cognitive Impairment and Alzheimer Disease: A Proteomic Approach"
2008	**53rd National Meeting of Italian Society of Biochemistry and Molecular Biology (SIB), 23-25 September 2008 Riccione, Italy. "**Protein oxidation and cellular stress response in aging brain: a redox proteomics approach"
2015	**12th International Conference on Alzheimer's and Parkinson's Disease (AD/PD), 18-22 March 2015 Nice, France.** Analysis of autoantibodies from CSF and serum of AD and aMCI subjects: potential role in pathology progression and prediction"
2015	**Society for Free Radical Biology and Medicine (SFRBM) 22nd Annual Meeting 2015, 18-22 November 2015 Boston, USA.** Oxidative signature of cerebrospinal fluid from Mild Cognitive Impairment and Alzheimer Disease patients
2016	**Metodi alternativi alla sperimentazione animale" Organi Collegiali del Rettorato della Sapienza Università di Roma. 26/01/2016.** Introduction and moderation of the meeting
2016	**The 2016 Alzheimer Disease Congress, London UK, 7-9 June 2016.** Oxidative signature of cerebrospinal fluid from Mild Cognitive Impairment and Alzheimer Disease patients
2017	**2nd International Conference of the T21RS 7-11 June 2017 Chicago, USA.** The UPR is a major participant in the development of Alzheimer disease-like neuropathology in a mouse model of Down syndrome
2020	**Biomolecules Webinar** 16 October 2020 at 3.00pm on the "Role of Nrf2 in Neurodegeneration: Novel Molecular Mechanisms and Therapeutic Approaches"

Referee Activity

2010 - present	**For scientific publications in international peer-reviewed journal:** Free Radical Biology and Medicine; Frontiers in Pharmacology; Neurobiology of Aging; Neurobiology of Disease; Biochimica et Biophysica Acta; Biochemical Journal, among others
2012 - present	**For Research Projects presented to Foreign Research Institutes:** 2012 Alzheimer Association, 2017 UAE Emirates Research Agency, 2018 Alzheimer UK 2018 French National Foundation on Alzheimer's disease. 2019 National Science Center of Poland 2020 Israel Science foundation
2019	PhD thesis evaluator for the course of PhD course in Biomedical Science and Translational Medicine of the Faculty of Medicine and Surgery of University of Brescia

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

Year	Title	Program	Grant value
2012	Analysis of autoantibody in CSF and serum of AD and MCI subjects: immunoproteomics approach for biomarker discovery	**PI** of "FARI" grant from Sapienza University of Rome #C26I12EKE8	7.000,00 Euro
2012	Ruolo dello stress ossidativo nei meccanismi molecolari della neurodegenerazione per lo studio di nuovi bersagli farmacologici	**PI** of a 1-year fellowship to hire a collaborator as one of the best young "under 40" researcher of Faculty of Pharmacy and Medicine of Sapienza University of Rome	22.800,00 Euro

2013	Biliverdin Reductase-A in brain insulin signaling and oxidative stress-mediated neurodegeneration	**I** European Union's Seventh Framework Programme (FP7/2007-2013) Marie Curie Actions #624341	180.000,00 Euro
2013	Analysis of autoantibodies in CSF and serum of Alzheimer Disease and Mild Cognitive Impairment subjects: Involvement in pathology progression and biomarker discovery.	**PI** of "progetti di Ateneo" from Sapienza University of Rome #C26A13A248	7.500,00 Euro
2014	The Heme oxygenase 1/ Biliverdin reductase A system as novel therapeutic target for simvastatin treatment in Alzheimer disease	**Supervisor** of "Avvio alla ricerca" Grant from Sapienza University of Rome	3.000,00 Euro
2014	Alternative methods to animal testing: legal and social, scientific and technological aspects	**Co-PI** of a Multidisciplinary project from Sapienza University of Rome	15.000,00 Euro
2015	Crosstalk between insulin Signalling and oxidative stress in Alzheimer disease: A new paradigm	**PI** of Programma "SIR" from Ministero dell'Istruzione dell'Università e della Ricerca, Protocollo: #RBSI144MTL	169.938,00 Euro
2015	Aberrant serine/glycine one-carbon metabolism in cancer cells: role of oxidative stress	**PI** of "progetti di Ateneo" from Sapienza University of Rome # C26A154KH7	4.000,00 Euro
2015	Unravelling the impairment of the HO-1/BVR-A system during the progression of Alzheimer disease: new insights for the role of heme	**Supervisor** of "Avvio alla ricerca" grant from Sapienza University of Rome	2.000,00 Euro
2016	Brain insulin resistance in age-related cognitive decline: molecular mechanisms and novel therapeutic approaches	**PI** of "progetti di Ateneo Grandi" from Sapienza University of Rome; #RG116154C9214D1A	34.000,00 Euro
2016	Intranasal rapamycin administration to prevent Alzheimer-like dementia in Down Syndrome	**I** of Jerome Lejeune foundation grant #1484	26.000,00 Euro
2016	Novel therapeutic strategies for the prevention of Alzheimer Disease	**I** of "Banca D'Italia research Grant" #12868/17	50.000,00 Euro
2017	Inhibition of PERK pathway for the early treatment of Alzheimer Disease-like cognitive decline in Down Syndrome	**PI** of ""progetti di Ateneo" from Sapienza University of Rome; #RM11715C773949E3	31.750,00 Euro
2018	The sweet link between aberrant brain metabolism and cognitive decline: A novel role for altered protein O-GlcNAcylation	**PI** of ""progetti di Ateneo Grandi" from Sapienza University of Rome; RG1181642744DF59	32.000,00 Euro
2019	Aberrant protein palmitoylation: a novel biomarker and therapeutic target in Alzheimer's disease	**Co-PI** of Ministry of Health grant under Bando Ricerca Finalizzata 2018 call; #GR-2018-12366381	422.000,00 Euro
2019	The sweet link between brain dys-metabolism and cognitive decline: A novel role for protein O-GlcNAcylation	**PI** of "Two year-research project reserved to under 45 years-old junior scientists" by Pasteur Institute–Cenci Bolognetti Foundation	40.000,00 Euro

2019	Unravelling a novel mechanism favouring brain insulin resistance development	**I** of Alzheimer Association Research Grant #2019-AARG-643091	150.000,00 Dollars
2019	Aberrant insulin signalling contributes to the development of Alzheimer disease in Down syndrome: searching for novel therapeutic strategies	**I** of Jerome Lejeune foundation grant #2019b –#1887	80.000,00 Euro
2019	The link between aberrant brain metabolism and cognitive decline in Down syndrome neuropathology: A novel role for altered protein O-GlcNAcylation	**Supervisor** of "Avvio alla ricerca" Grant from Sapienza University of Rome # AR21916B89434AE5	2.000,00 Euro
2020	Role of PERK in the regulation of Nrf2 related antioxidant response in Down syndrome neuropathology	**Supervisor** of "Avvio alla ricerca" Grant from Sapienza University of Rome # AR220172B7BE9204	2.000,00 Euro

Part VII – Research Activities

Keywords:
Alzheimer disease, Down syndrome, proteomics, oxidative stress, neurodegeneration, protein homeostasis

Personal Statement:
My research is currently focused on understanding the role of defective proteostasis in the development of Alzheimer's-like dementia in order to propose novel effective therapeutic approaches that might ameliorate cognitive decline. Starting in 2005, I dedicated my research on the studies of oxidative stress role in the development of neurodegenerative disease. Thanks to my experience at University of Kentucky in the laboratory of prof. D. Allan Butterfield I have been involved in the setting of proteomics approaches comprising redox proteomics. Through these use of techniques, my following research projects contributed to highlight the role of increased oxidative stress and dysfunctional protein degradation systems in the pathogenesis and progression of Alzheimer Disease-like dementia. Indeed, we demonstrated that the oxidative modification (carbonylation, protein bound HNE and nitration) of proteins, belonging to different degradation systems (proteasome and autophagy) impairs their functionality and contributes to the progression of the neurodegenerative process. Therefore, collected data postulated that aberrant proteostasis, observed in both Alzheimer's and Down syndrome patients, is strictly associated with the increase of oxidative damage as result of compromised antioxidant response and faulty protein degradative systems. Recent studies revealed that chronic induction of the unfolded protein response has a prominent role in the development of AD-like dementia in DS brain. Indeed, the pharmacological rescue of UPR function leads to the reduction in neuropathological hallmarks and to decrease in protein oxidation in a mechanism involving the Nrf2 antioxidant response. The results obtained led to the publication of several articles on peer-reviewed journals and based on these we started to test a number of compounds for the treatment and prevention of cognitive decline in Down syndrome mice.

Research Interests:
• Role of oxidative stress in neoplastic progression of HPV transformed cells and normal epithelial cells.
• Study of phenolic compound as anti-tumoral agents.
• Role of oxidative stress and protein oxidation in Alzheimer disease, Parkinson disease and Down syndrome.
• Role of protein Glycosylation (N-Gly and O-Gly) in the development and progression of Alzheimer Disease
• Role of "Heat shock response" during the progression of Mild Cognitive Impairment to Alzheimer disease.
• Study of molecular mechanisms controlled by STAT3 involved in ischemia/reperfusion neurodegenerative process.
• Analysis of the involvement of mutated LRRK2 and tau crosstalk in the development of Parkinson disease.
• Analysis of CSF and plasma from AD and MCI patients in search of diagnostic biomarker.
• Analysis of HO-1/BVR-A pathway functions during MCI and AD progression.

Part VIII – Summary of Scientific Achievements

Product type	Number	Data Base	Start	End
Papers [international]	98	PubMed/Google Scholar	2006	2021
Number of papers published as first, last/corresponding author: 45/98 (46%)				
Books [scientific]	3	Google Scholar	2006	2021
Number of book chapters published as first, last/corresponding author: 2/3 (66%)				

Total Impact factors	418,189 (98 papers)
Average Impact factor	4,26
Total Citations	Scopus: 6887 Google Scholar: 12378
Average Citations per Product	Scopus: 70,2 Google Scholar: 126,3
Hirsch (H) index	Scopus: 39 Google Scholar: 44
Normalized H index*	Scopus: 2,6 (15y; 2006-2021) Google Scholar: 2,9 (15y; 2006-2021)

*****H index divided by the academic seniority.

Part IX– Selected Publications (16 out of 98)

Impact factors total= 89,803
Impact factors average = 5,58
Citations total = 578
Citations average = 36,1
% first, last/corresponding author = 100%

[1] I. Zuliani, C. Lanzillotta, A. Tramutola, A. Francioso, S. Pagnotta, E. Barone, M. Perluigi, **F. Di Domenico**, The Dysregulation of OGT/OGA Cycle Mediates Tau and APP Neuropathology in Down Syndrome. Neurotherapeutics (2020) head for pubblication.
Citations= 1; Impact factor= 6.035

[2] C. Lanzillotta, I. Zuliani, A. Tramutola, E. Barone, C. Blarzino, V. Folgiero, M. Caforio, D. Valentini, A. Villani, F. Locatelli, D.A. Butterfield, E. Head, M. Perluigi, J.F. Abisambra, **F. Di Domenico**. Chronic PERK induction promotes Alzheimer-like neuropathology in Down syndrome: Insights for therapeutic intervention, Progress in Neurobiology (2020) 101892.
Citations= 4; Impact factor= 9.371

[3] **F. Di Domenico**, A. Tramutola, E. Barone, C. Lanzillotta, O. Defever, A. Arena, I. Zuliani, C. Foppoli, F. Iavarone, F. Vincenzoni, M. Castagnola, D.A. Butterfield, M. Perluigi. Restoration of aberrant mTOR signaling by intranasal rapamycin reduces oxidative damage: Focus on HNE-modified proteins in a mouse model of down syndrome, Redox Biol (2019) 101162.
Citations= 17; Impact factor= 9.986

[4] A. Tramutola, C. Lanzillotta, E. Barone, A. Arena, I. Zuliani, L. Mosca, C. Blarzino, D.A. Butterfield, M. Perluigi, **F. Di Domenico**, Intranasal rapamycin ameliorates Alzheimer-like cognitive decline in a mouse model of Down syndrome, Transl Neurodegener 7 (2018) 28.
Citations= 35; Impact factor= 5.534

[5] A. Tramutola, G. Abate, C. Lanzillotta, F. Triani, E. Barone, F. Iavarone, F. Vincenzoni, M. Castagnola, M. Marziano, M. Memo, E. Garrafa, D.A. Butterfield, M. Perluigi, **F. Di Domenico***, D. Uberti, Protein nitration profile of CD3(+) lymphocytes from Alzheimer disease patients: Novel hints on immunosenescence and biomarker detection, Free Radic Biol Med 129 (2018) 430-439.
*** Co-Corresponding author**
Citations= 12; Impact factor= 5.657

[6] A. Tramutola, N. Sharma, E. Barone, C. Lanzillotta, A. Castellani, F. Iavarone, F. Vincenzoni, M. Castagnola, D.A. Butterfield, S. Gaetani, T. Cassano, M. Perluigi, **F. Di Domenico**, Proteomic identification of altered protein O-GlcNAcylation in a triple transgenic mouse model of Alzheimer's disease, Biochim Biophys Acta Mol Basis Dis 1864(10) (2018) 3309-3321.
Citations=15; Impact factor= 4.328

[7] **F. Di Domenico**, G. Pupo, E. Giraldo, A. Lloret, M.C. Badia, M.E. Schinina, A. Giorgi, D.A. Butterfield, J. Vina, M. Perluigi, Autoantibodies Profile in Matching CSF and Serum from AD and aMCI patients: Potential Pathogenic Role and Link to Oxidative Damage, Curr Alzheimer Res 13(2) (2016) 112-22.
Citations= 12; Impact factor= 2.952

[8] **F. Di Domenico**, G. Pupo, E. Giraldo, M.C. Badia, P. Monllor, A. Lloret, M.E. Schinina, A. Giorgi, C. Cini, A. Tramutola, D.A. Butterfield, J. Vina, M. Perluigi, Oxidative signature of cerebrospinal fluid from mild cognitive impairment and Alzheimer disease patients, Free Radic Biol Med 91 (2016) 1-9.
Citations= 46; Impact factor= 5.606

[9] **F. Di Domenico**, G. Pupo, C. Mancuso, E. Barone, F. Paolini, A. Arena, C. Blarzino, F.A. Schmitt, E. Head, D.A. Butterfield, M. Perluigi, Bach1 overexpression in Down syndrome correlates with the alteration of the HO-1/BVR-a system: insights for transition to Alzheimer's disease, J Alzheimers Dis 44(4) (2015) 1107-20.
Citations= 35; Impact factor= 3.920

[10] M. Perluigi, G. Pupo, A. Tramutola, C. Cini, R. Coccia, E. Barone, E. Head, D.A. Butterfield, **F. Di Domenico**, Neuropathological role of PI3K/Akt/mTOR axis in Down syndrome brain, Biochim Biophys Acta 1842(7) (2014) 1144-53.
Citations= 89; Impact factor= 4.882

[11] **F. Di Domenico**, G. Pupo, A. Tramutola, A. Giorgi, M.E. Schinina, R. Coccia, E. Head, D.A. Butterfield, M. Perluigi, Redox proteomics analysis of HNE-modified proteins in Down syndrome brain: clues for understanding the development of Alzheimer disease, Free Radic Biol Med 71 (2014) 270-80.
Citations= 68; Impact factor= 5.736

[12] **F. Di Domenico**, R. Coccia, A. Cocciolo, M.P. Murphy, G. Cenini, E. Head, D.A. Butterfield, A. Giorgi, M.E. Schinina, C. Mancuso, C. Cini, M. Perluigi, Impairment of proteostasis network in Down syndrome prior to the development of Alzheimer's disease neuropathology: redox proteomics analysis of human brain, Biochim Biophys Acta 1832(8) (2013) 1249-59.
Citations= 83; Impact factor= 5.09

[13] **F. Di Domenico**, E. Barone, C. Mancuso, M. Perluigi, A. Cocciolo, P. Mecocci, D.A. Butterfield, R. Coccia, HO-1/BVR-a system analysis in plasma from probable Alzheimer's disease and mild cognitive impairment subjects: a potential biochemical marker for the prediction of the disease, J Alzheimers Dis 32(2) (2012) 277-89.
Citations= 35; Impact factor= 4.174

[14] **F. Di Domenico**, G. Casalena, J. Jia, R. Sultana, E. Barone, J. Cai, W.M. Pierce, C. Cini, C. Mancuso, M. Perluigi, C.M. Davis, N.J. Alkayed, D.A. Butterfield, Sex differences in brain proteomes of neuron-specific STAT3-null mice after cerebral ischemia/reperfusion, J Neurochem 121(4) (2012) 680-92.
Citations= 20; Impact factor= 3.972

[15] **F. Di Domenico**, R. Sultana, A. Ferree, K. Smith, E. Barone, M. Perluigi, R. Coccia, W. Pierce, J. Cai, C. Mancuso, R. Squillace, M. Wiengele, I. Dalle-Donne, B. Wolozin, D.A. Butterfield, Redox proteomics analyses of the influence of co-expression of wild-type or mutated LRRK2 and Tau on C. elegans protein expression and oxidative modification: relevance to Parkinson disease, Antioxid Redox Signal 17(11) (2012) 1490-506.
Citations= 34; Impact factor= 7.189

[16] **F. Di Domenico**, R. Sultana, E. Barone, M. Perluigi, C. Cini, C. Mancuso, J. Cai, W.M. Pierce, D.A. Butterfield, Quantitative proteomics analysis of phosphorylated proteins in the hippocampus of Alzheimer's disease subjects, J Proteomics 74(7) (2011) 1091-103.
Citations= 72; Impact factor= 4.878

Total Publications

Books Chapters:

[1] V. Calabrese, M. Perluigi, C. Cornelius , R. Coccia, **F. Di Domenico**, et al. (2009) Phenolics in aging and neurodegenerative disorders. Plant phenolics and human health. Wiley-IUBMB Series on Biochemistry and Molecular Biology. 427- 451

[2**] F. Di Domenico**, M. Perluigi. Peripheral Biomarkers of Oxidative Stress in Alzheimer's Disease. Studies on Alzheimer's Disease. Humana Press, Editors: Domenico Praticò, Patrizia Mecocci, pp.185-199, DOI:10.1007/978-1-62703-598-9_13 ISBN: 978-1-62703-598-9

[3] **F. Di Domenico**, M. Perluigi, D.A. Butterfield. Redox proteomics in human biofluids: Sample preparation, separation and immunochemical tagging for analysis of protein oxidation. System Biology of Alzheimer's Disease, pubs. August 02, 2015 pp. 391-403

International peer-reviewed journals:

[1] C. Lanzillotta, **F. Di Domenico**, Stress responses in Down syndrome neurodegeneration: state of the art and therapeutic molecules, Biomolecules 11(2), 266 (2021)
Citations= 0; Impact factor= 4.082

[2] D.J. Klionsky, […], **F. Di Domenico**, et al. Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition), Autophagy (2021) 1-382.
Citations= 0; Impact factor= 9.770

[3] C. Lanzillotta, A. Tramutola, G. Di Giacomo, F. Marini, D.A. Butterfield, **F. Di Domenico**, M. Perluigi, E. Barone, Insulin resistance, oxidative stress and mitochondrial defects in Ts65dn mice brain: A harmful synergistic path in down syndrome, Free Radic Biol Med 165 (2021) 152-170.
Citations= 1; Impact factor= 6.170

[4] S.A. Koren, M.J. Hamm, R. Cloyd, S.N. Fontaine, E. Chishti, C. Lanzillotta, J. Rodriguez-Rivera, A. Ingram, M. Bell, S.M. Galvis-Escobar, N. Zulia, **F. Di Domenico**, D. Duong, N.T. Seyfried, D. Powell, M. Vandsburger, T. Frolinger, A.M.S. Hartz, J. Koren, 3rd, J.M. Axten, N.J. Laping, J.F. Abisambra, Broad Kinase Inhibition Mitigates Early Neuronal Dysfunction in Tauopathy, Int J Mol Sci 22(3) (2021).
Citations= 1; Impact factor= 4.556

[5] C. Lanzillotta, I. Zuliani, A. Tramutola, E. Barone, C. Blarzino, V. Folgiero, M. Caforio, D. Valentini, A. Villani, F. Locatelli, D.A. Butterfield, E. Head, M. Perluigi, J.F. Abisambra, **F. Di Domenico**, Chronic PERK induction promotes Alzheimer-like neuropathology in Down syndrome: Insights for therapeutic intervention, Progr Neurobio (2021) 101892.
Citations= 4; Impact factor= 9.371

[6] I. Zuliani, C. Lanzillotta, A. Tramutola, A. Francioso, S. Pagnotta, E. Barone, M. Perluigi, **F. Di Domenico**, The Dysregulation of OGT/OGA Cycle Mediates Tau and APP Neuropathology in Down Syndrome, Neurotherapeutics (2020) head for pubblication.
Citations= 1; Impact factor= 6.035
[7] C. Lanzillotta, V. Greco, D. Valentini, A. Villani, V. Folgiero, M. Caforio, F. Locatelli, S. Pagnotta, E. Barone, A. Urbani, **F. Di Domenico**, M. Perluigi, Proteomics Study of Peripheral Blood Mononuclear Cells in Down Syndrome Children, Antioxidants (Basel) 9(11) (2020).
Citations= 1; Impact factor= 4.610
[8] C. Lanzillotta, I. Zuliani, C. Vasavda, S.H. Snyder, B.D. Paul, M. Perluigi, **F. Di Domenico***, E. Barone, BVR-A Deficiency Leads to Autophagy Impairment through the Dysregulation of AMPK/mTOR Axis in the Brain-Implications for Neurodegeneration, Antioxidants (Basel) 9(8) (2020).
***Co-Corresponding author**
Citations= 2; Impact factor= 4.610
[9] V. Protto, A. Tramutola, M. Fabiani, M.E. Marcocci, G. Napoletani, F. Iavarone, F. Vincenzoni, M. Castagnola, M. Perluigi, **F. Di Domenico**, G. De Chiara, A.T. Palamara, Multiple Herpes Simplex Virus-1 (HSV-1) Reactivations Induce Protein Oxidative Damage in Mouse Brain: Novel Mechanisms for Alzheimer's Disease Progression, Microorganisms 8(7) (2020).
Citations= 2; Impact factor= 4.167
[10] I. Zuliani, C. Urbinati, D. Valenti, M.C. Quattrini, V. Medici, L. Cosentino, D. Pietraforte, **F. Di Domenico**, M. Perluigi, R.A. Vacca, B. De Filippis, The Anti-Diabetic Drug Metformin Rescues Aberrant Mitochondrial Activity and Restrains Oxidative Stress in a Female Mouse Model of Rett Syndrome, J Clin Med 9(6) (2020).
Citations= 0; Impact factor= 5.583
[11] A. Tramutola, C. Lanzillotta, **F. Di Domenico**, E. Head, D.A. Butterfield, M. Perluigi, E. Barone, Brain insulin resistance triggers early onset Alzheimer disease in Down syndrome, Neurobiol Dis 137 (2020) 104772.
Citations= 16; Impact factor= 5.332
[12] A. Tramutola, S. Falcucci, U. Brocco, F. Triani, C. Lanzillotta, M. Donati, C. Panetta, F. Luzi, F. Iavarone, F. Vincenzoni, M. Castagnola, M. Perluigi, **F. Di Domenico***, F. Marco, Protein Oxidative Damage in UV-Related Skin Cancer and Dysplastic Lesions Contributes to Neoplastic Promotion and Progression, Cancers (Basel) 12(1) (2020).
***Co-Corresponding author**
Citations= 0; Impact factor= 5.326
[13] **F. Di Domenico**, I. Zuliani, A. Tramutola, Shining a light on defective autophagy by proteomics approaches: implications for neurodegenerative illnesses, Expert Rev Proteomics 16(11-12) (2019) 951-964.
Citations= 2; Impact factor= 3.614
[14] C. Lanzillotta, **F. Di Domenico**, M. Perluigi, D.A. Butterfield, Targeting Mitochondria in Alzheimer Disease: Rationale and Perspectives, CNS Drugs (2019).
Citations= 10; Impact factor= 4.192
[15] **F. Di Domenico**, A. Tramutola, E. Barone, C. Lanzillotta, O. Defever, A. Arena, I. Zuliani, C. Foppoli, F. Iavarone, F. Vincenzoni, M. Castagnola, D.A. Butterfield, M. Perluigi, Restoration of aberrant mTOR signaling by intranasal rapamycin reduces oxidative damage: Focus on HNE-modified proteins in a mouse model of down syndrome, Redox Biol (2019) 101162.
Citations= 17; Impact factor= 9.986
[16] F.A. Cimini, A. Arena, I. Barchetta, A. Tramutola, V. Ceccarelli, C. Lanzillotta, M. Fontana, L. Bertoccini, F. Leonetti, D. Capoccia, G. Silecchia, C. Di Cristofano, C. Chiappetta, **F. Di Domenico**, M.G. Baroni, M. Perluigi, M.G. Cavallo, E. Barone, Reduced biliverdin reductase-A levels are associated with early alterations of insulin signaling in obesity, Biochim Biophys Acta Mol Basis Dis 1865(6) (2019) 1490-1501.
Citations= 14; Impact factor= 4.328
[17] N. Sharma, A. Tramutola, C. Lanzillotta, A. Arena, C. Blarzino, T. Cassano, D.A. Butterfield, **F. Di Domenico**, M. Perluigi, E. Barone, Loss of biliverdin reductase-A favors Tau hyper-phosphorylation in Alzheimer's disease, Neurobiol Dis 125 (2019) 176-189.
Citations= 22; Impact factor=5.227
[18] A. Tramutola, C. Lanzillotta, E. Barone, A. Arena, I. Zuliani, L. Mosca, C. Blarzino, D.A. Butterfield, M. Perluigi, **F. Di Domenico**, Intranasal rapamycin ameliorates Alzheimer-like cognitive decline in a mouse model of Down syndrome, Transl Neurodegener 7 (2018) 28.
Citations= 35; Impact factor= 5.534

[19] **F. Di Domenico**, C. Lanzillotta, A. Tramutola, Therapeutic potential of rescuing protein O-GlcNAcylation in tau-related pathologies, Expert Rev Neurother 19(1) (2019) 1-3.
Citations= 5; Impact factor= 3.453
[20] A. Tramutola, G. Abate, C. Lanzillotta, F. Triani, E. Barone, F. Iavarone, F. Vincenzoni, M. Castagnola, M. Marziano, M. Memo, E. Garrafa, D.A. Butterfield, M. Perluigi, **F. Di Domenico***, D. Uberti, Protein nitration profile of CD3(+) lymphocytes from Alzheimer disease patients: Novel hints on immunosenescence and biomarker detection, Free Radic Biol Med 129 (2018) 430-439.
*** Co-Corresponding author**
Citations= 12; Impact factor= 5.657
[21] E. Barone, A. Tramutola, F. Triani, S. Calcagnini, **F. Di Domenico**, C. Ripoli, S. Gaetani, C. Grassi, D.A. Butterfield, T. Cassano, M. Perluigi, Biliverdin Reductase-A Mediates the Beneficial Effects of Intranasal Insulin in Alzheimer Disease, Mol Neurobiol 56(4) (2019) 2922-2943.
Citations= 34; Impact factor= 5.076
[22] A. Tramutola, N. Sharma, E. Barone, C. Lanzillotta, A. Castellani, F. Iavarone, F. Vincenzoni, M. Castagnola, D.A. Butterfield, S. Gaetani, T. Cassano, M. Perluigi, **F. Di Domenico**, Proteomic identification of altered protein O-GlcNAcylation in a triple transgenic mouse model of Alzheimer's disease, Biochim Biophys Acta Mol Basis Dis 1864(10) (2018) 3309-3321.
Citations=15; Impact factor= 4.328
[23] A. Tramutola, F. Triani, **F. Di Domenico**, E. Barone, J. Cai, J.B. Klein, M. Perluigi, D.A. Butterfield, Poly-ubiquitin profile in Alzheimer disease brain, Neurobiol Dis 118 (2018) 129-141.
Citations= 14; Impact factor= 6.337
[24] F. Triani, A. Tramutola, **F. Di Domenico**, N. Sharma, D.A. Butterfield, E. Head, M. Perluigi, E. Barone, Biliverdin reductase-A impairment links brain insulin resistance with increased Abeta production in an animal model of aging: Implications for Alzheimer disease, Biochim Biophys Acta Mol Basis Dis 1864(10) (2018) 3181-3194.
Citations= 15; Impact factor= 4.328
[25] C. Lanzillotta, A. Tramutola, S. Meier, F. Schmitt, E. Barone, M. Perluigi, **F. Di Domenico**, J.F. Abisambra, Early and Selective Activation and Subsequent Alterations to the Unfolded Protein Response in Down Syndrome Mouse Models, J Alzheimers Dis 62(1) (2018) 347-359.
Citations= 11; Impact factor= 3.731
[26] **F. Di Domenico**, A. Tramutola, C. Foppoli, E. Head, M. Perluigi, D.A. Butterfield, mTOR in Down syndrome: Role in Abeta and tau neuropathology and transition to Alzheimer disease-like dementia, Free Radic Biol Med 114 (2018) 94-101.
Citations= 45; Impact factor= 5.606
[27] S.N. Fontaine, A. Ingram, R.A. Cloyd, S.E. Meier, E. Miller, D. Lyons, G.K. Nation, E. Mechas, B. Weiss, C. Lanzillotta, **F. Di Domenico,** F. Schmitt, D.K. Powell, M. Vandsburger, J.F. Abisambra, Identification of changes in neuronal function as a consequence of aging and tauopathic neurodegeneration using a novel and sensitive magnetic resonance imaging approach, Neurobiol Aging 56 (2017) 78-86.
Citations= 10; Impact factor= 5.117
[28] C. Spadaccio, F. Nappi, N. Al-Attar, R. Coccia, M. Perluigi, **F. Di Domenico**, CURRENT DEVELOPMENTS IN DRUG ELUTING DEVICES: Introductory Editorial: Drug-Eluting Stents or Drug-Eluting Grafts? Insights from Proteomic Analysis, Drug Target Insights 10(Suppl 1) (2016) 15-19.
Citations= 4; Impact factor= 3.920
[29] **F. Di Domenico**, A. Tramutola, M. Perluigi, Cathepsin D as a therapeutic target in Alzheimer's disease, Expert Opin Ther Targets 20(12) (2016) 1393-1395.
Citations= 19; Impact factor= 4.872
[30] **F. Di Domenico**, A. Tramutola, D.A. Butterfield, Role of 4-hydroxy-2-nonenal (HNE) in the pathogenesis of alzheimer disease and other selected age-related neurodegenerative disorders, Free Radic Biol Med 111 (2017) 253-261.
Citations= 96; Impact factor= 5.606
[31] **F. Di Domenico**, E. Barone, M. Perluigi, D.A. Butterfield, 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, Antioxid Redox Signal 26(8) (2017) 364-387.
Citations= 50; Impact factor= 6.337
[32] A. Tramutola, C. Lanzillotta, **F. Di Domenico**, Targeting mTOR to reduce Alzheimer-related cognitive decline: from current hits to future therapies, Expert Rev Neurother 17(1) (2017) 33-45.

Citations= 34; Impact factor= 3.149

[33] A. Tramutola, **F. Di Domenico**, E. Barone, A. Arena, A. Giorgi, L. di Francesco, M.E. Schinina, R. Coccia, E. Head, D.A. Butterfield, M. Perluigi, Polyubiquitinylation Profile in Down Syndrome Brain Before and After the Development of Alzheimer Neuropathology, Antioxid Redox Signal 26(7) (2017) 280-298.

Citations= 22; Impact factor= 6.337

[34] M. Perluigi, E. Barone, **F. Di Domenico**, D.A. Butterfield, Aberrant protein phosphorylation in Alzheimer disease brain disturbs pro-survival and cell death pathways, Biochim Biophys Acta 1862(10) (2016) 1871-82.

Citations= 36; Impact factor= 5.474

[35] C. Spadaccio, R. Coccia, M. Perluigi, G. Pupo, M.E. Schinina, A. Giorgi, C. Blarzino, F. Nappi, F.W. Sutherland, M. Chello, **F. Di Domenico**, Redox proteomic analysis of serum from aortic anerurysm patients: insights on oxidation of specific protein target, Mol Biosyst 12(7) (2016) 2168-77.

Citations= 3; Impact factor= 2.781

[36] A. Tramutola, G. Pupo, **F. Di Domenico**, E. Barone, A. Arena, C. Lanzillotta, D. Brokeaart, C. Blarzino, E. Head, D.A. Butterfield, M. Perluigi, Activation of p53 in Down Syndrome and in the Ts65Dn Mouse Brain is Associated with a Pro-Apoptotic Phenotype, J Alzheimers Dis 52(1) (2016) 359-371.

Citations= 20; Impact factor=3.731

[37] A. Tramutola, **F. Di Domenico**, E. Barone, M. Perluigi, D.A. Butterfield, It Is All about (U)biquitin: Role of Altered Ubiquitin-Proteasome System and UCHL1 in Alzheimer Disease, Oxid Med Cell Longev 2016 (2016) 2756068.

Citations= 49; Impact factor= 4.593

[38] D.J. Klionsky,[…], **F. Di Domenic** et al., Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition), Autophagy 12(1) (2016) 1-222.

Citations= 3044; Impact factor= 8.593

[39] E. Barone, **F. Di Domenico**, T. Cassano, A. Arena, A. Tramutola, M.A. Lavecchia, R. Coccia, D.A. Butterfield, M. Perluigi, Impairment of biliverdin reductase-A promotes brain insulin resistance in Alzheimer disease: A new paradigm, Free Radic Biol Med 91 (2016) 127-42.

Citations= 56; Impact factor= 5.606

[40] **F. Di Domenico**, G. Pupo, E. Giraldo, A. Lloret, M.C. Badia, M.E. Schinina, A. Giorgi, D.A. Butterfield, J. Vina, M. Perluigi, Autoantibodies Profile in Matching CSF and Serum from AD and aMCI patients: Potential Pathogenic Role and Link to Oxidative Damage, Curr Alzheimer Res 13(2) (2016) 112-22.

Citations= 12; Impact factor= 2.952

[41] **F. Di Domenico**, G. Pupo, E. Giraldo, M.C. Badia, P. Monllor, A. Lloret, M.E. Schinina, A. Giorgi, C. Cini, A. Tramutola, D.A. Butterfield, J. Vina, M. Perluigi, Oxidative signature of cerebrospinal fluid from mild cognitive impairment and Alzheimer disease patients, Free Radic Biol Med 91 (2016) 1-9.

Citations= 46; Impact factor= 5.606

[42] A. Tramutola, C. Lanzillotta, A. Arena, E. Barone, M. Perluigi, **F. Di Domenico**, Increased Mammalian Target of Rapamycin Signaling Contributes to the Accumulation of Protein Oxidative Damage in a Mouse Model of Down's Syndrome, Neurodegener Dis 16(1-2) (2016) 62-8.

Citations=25; Impact factor= 2.842

[43] A. Nenna, F. Nappi, S.S. Avtaar Singh, F.W. Sutherland, **F. Di Domenico**, M. Chello, C. Spadaccio, Pharmacologic Approaches Against Advanced Glycation End Products (AGEs) in Diabetic Cardiovascular Disease, Res Cardiovasc Med 4(2) (2015) e26949.

Citations=18; Impact factor= N/A

[44] E. Barone, G. Cenini, **F. Di Domenico**, T. Noel, C. Wang, M. Perluigi, D.K. St Clair, D.A. Butterfield, Basal brain oxidative and nitrative stress levels are finely regulated by the interplay between superoxide dismutase 2 and p53, J Neurosci Res 93(11) (2015) 1728-39.

Citations= 14; Impact factor= 2.689

[45] **F. Di Domenico**, M. Perluigi, D.A. Butterfield, Redox Proteomics in Human Biofluids: Sample Preparation, Separation and Immunochemical Tagging for Analysis of Protein Oxidation, Methods Mol Biol 1303 (2016) 391-403.

Citations= 6; Impact factor= N/A

[46] G. Bedse, **F. Di Domenico**, G. Serviddio, T. Cassano, Aberrant insulin signaling in Alzheimer's disease: current knowledge, Front Neurosci 9 (2015) 204.

Citations= 148; Impact factor= 3.566

[47] M. Perluigi, **F. Di Domenico**, D.A. Butterfield, mTOR signaling in aging and neurodegeneration: At the crossroad between metabolism dysfunction and impairment of autophagy, Neurobiol Dis 84 (2015) 39-49.

Citations= 147; Impact factor= 4.856

[48] A. Tramutola, J.C. Triplett, **F. Di Domenico**, D.M. Niedowicz, M.P. Murphy, R. Coccia, M. Perluigi, D.A. Butterfield, Alteration of mTOR signaling occurs early in the progression of Alzheimer disease (AD): analysis of brain from subjects with pre-clinical AD, amnestic mild cognitive impairment and late-stage AD, J Neurochem 133(5) (2015) 739-49.

Citations= 153; Impact factor= 3.842

[49] **F. Di Domenico**, G. Pupo, C. Mancuso, E. Barone, F. Paolini, A. Arena, C. Blarzino, F.A. Schmitt, E. Head, D.A. Butterfield, M. Perluigi, Bach1 overexpression in Down syndrome correlates with the alteration of the HO-1/BVR-a system: insights for transition to Alzheimer's disease, J Alzheimers Dis 44(4) (2015) 1107-20.

Citations= 35; Impact factor= 3.920

[50] **F. Di Domenico**, E. Barone, M. Perluigi, D.A. Butterfield, Strategy to reduce free radical species in Alzheimer's disease: an update of selected antioxidants, Expert Rev Neurother 15(1) (2015) 19-40.

Citations= 65; Impact factor= 2.783

[51] D.A. Butterfield, **F. Di Domenico**, A.M. Swomley, E. Head, M. Perluigi, Redox proteomics analysis to decipher the neurobiology of Alzheimer-like neurodegeneration: overlaps in Down's syndrome and Alzheimer's disease brain, Biochem J 463(2) (2014) 177-89.

Citations= 64; Impact factor=4.396

[52] D.A. Butterfield, **F. Di Domenico**, E. Barone, Elevated risk of type 2 diabetes for development of Alzheimer disease: a key role for oxidative stress in brain, Biochim Biophys Acta 1842(9) (2014) 1693-706.

Citations= 191; Impact factor= 4.381

[53] D.A. Butterfield, L. Gu, **F. Di Domenico**, R.A. Robinson, Mass spectrometry and redox proteomics: applications in disease, Mass Spectrom Rev 33(4) (2014) 277-301.

Citations= 75; Impact factor= 7.707

[54] M. Perluigi, G. Pupo, A. Tramutola, C. Cini, R. Coccia, E. Barone, E. Head, D.A. Butterfield, **F. Di Domenico**, Neuropathological role of PI3K/Akt/mTOR axis in Down syndrome brain, Biochim Biophys Acta 1842(7) (2014) 1144-53.

Citations= 79; Impact factor= 4.882

[55] **F. Di Domenico**, G. Pupo, A. Tramutola, A. Giorgi, M.E. Schinina, R. Coccia, E. Head, D.A. Butterfield, M. Perluigi, Redox proteomics analysis of HNE-modified proteins in Down syndrome brain: clues for understanding the development of Alzheimer disease, Free Radic Biol Med 71 (2014) 270-80.

Citations= 68; Impact factor= 5.736

[56] C. Spadaccio, F. De Marco, **F. Di Domenico**, R. Coccia, M. Lusini, R. Barbato, E. Covino, M. Chello, Simvastatin attenuates the endothelial pro-thrombotic shift in saphenous vein grafts induced by Advanced glycation endproducts, Thromb Res 133(3) (2014) 418-25.

Citations= 4; Impact factor= 2.447

[57] M. Perluigi, **F. Di Domenico**, D.A. Buttterfield, Unraveling the complexity of neurodegeneration in brains of subjects with Down syndrome: insights from proteomics, Proteomics Clin Appl 8(1-2) (2014) 73-85.

Citations= 34; Impact factor= 2.956

[58] E. Barone, **F. Di Domenico**, D.A. Butterfield, Statins more than cholesterol lowering agents in Alzheimer disease: their pleiotropic functions as potential therapeutic targets, Biochem Pharmacol 88(4) (2014) 605-16.

Citations= 65; Impact factor= 5.009

[59] **F. Di Domenico**, F. De Marco, M. Perluigi, Proteomics strategies to analyze HPV-transformed cells: relevance to cervical cancer, Expert Rev Proteomics 10(5) (2013) 461-72.

Citations= 12; Impact factor= 3.542

[60] E. Barone, **F. Di Domenico**, C. Mancuso, D.A. Butterfield, The Janus face of the heme oxygenase/biliverdin reductase system in Alzheimer disease: it's time for reconciliation, Neurobiol Dis 62 (2014) 144-59.

Citations= 77; Impact factor= 5.078

[61] **F. Di Domenico**, M. Perluigi, E. Barone, Biliverdin Reductase-A correlates with inducible nitric oxide synthasein atorvastatin treated aged canine brain, Neural Regen Res 8(21) (2013) 1925-37.

Citations=11; Impact factor= 0.234

[62] A. Fiorini, T. Koudriavtseva, E. Bucaj, R. Coccia, C. Foppoli, A. Giorgi, M.E. Schinina, **F. Di Domenico**, F. De Marco, M. Perluigi, 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, PLoS One 8(6) (2013) e65184.

Citations= 53; Impact factor= 3.534

[63] **F. Di Domenico**, R. Coccia, A. Cocciolo, M.P. Murphy, G. Cenini, E. Head, D.A. Butterfield, A. Giorgi, M.E. Schinina, C. Mancuso, C. Cini, M. Perluigi, Impairment of proteostasis network in Down syndrome prior to the development of Alzheimer's disease neuropathology: redox proteomics analysis of human brain, Biochim Biophys Acta 1832(8) (2013) 1249-59.
Citations= 83; Impact factor= 5.09
[64] C. Spadaccio, G. Patti, F. De Marco, R. Coccia, **F. Di Domenico**, F. Pollari, R. Zanzonico, M. Pettinari, M. Lusini, G. Di Sciascio, E. Covino, M. Chello, Usefulness of preprocedural levels of advanced glycation end products to predict restenosis in patients with controlled diabetes mellitus undergoing drug-eluting stent implantation for stable angina pectoris (from the Prospective ARMYDA-AGEs Study), Am J Cardiol 112(1) (2013) 21-6.
Citations= 13; Impact factor= 3.425
[65] A. Cocciolo, **F. Di Domenico**, R. Coccia, A. Fiorini, J. Cai, W.M. Pierce, P. Mecocci, D.A. Butterfield, M. Perluigi, Decreased expression and increased oxidation of plasma haptoglobin in Alzheimer disease: Insights from redox proteomics, Free Radic Biol Med 53(10) (2012) 1868-76.
Citations= 56; Impact factor= 5.271
[66] **F. Di Domenico**, E. Barone, C. Mancuso, M. Perluigi, A. Cocciolo, P. Mecocci, D.A. Butterfield, R. Coccia, HO-1/BVR-a system analysis in plasma from probable Alzheimer's disease and mild cognitive impairment subjects: a potential biochemical marker for the prediction of the disease, J Alzheimers Dis 32(2) (2012) 277-89.
Citations= 35; Impact factor= 4.174
[67] C. Mancuso, E. Barone, P. Guido, F. Miceli, **F. Di Domenico**, M. Perluigi, R. Santangelo, P. Preziosi, Inhibition of lipid peroxidation and protein oxidation by endogenous and exogenous antioxidants in rat brain microsomes in vitro, Neurosci Lett 518(2) (2012) 101-5.
Citations= 57; Impact factor= 2.026
[68] E. Barone, **F. Di Domenico***, R. Sultana, R. Coccia, C. Mancuso, M. Perluigi, D.A. Butterfield, Heme oxygenase-1 posttranslational modifications in the brain of subjects with Alzheimer disease and mild cognitive impairment, Free Radic Biol Med 52(11-12) (2012) 2292-301.
***Co-first author**
Citations= 89; Impact factor= 5.271
[69] F. De Marco, E. Bucaj, C. Foppoli, A. Fiorini, C. Blarzino, K. Filipi, A. Giorgi, M.E. Schinina, **F. Di Domenico**, R. Coccia, D.A. Butterfield, M. Perluigi, Oxidative stress in HPV-driven viral carcinogenesis: redox proteomics analysis of HPV-16 dysplastic and neoplastic tissues, PLoS One 7(3) (2012) e34366.
Citations= 52; Impact factor= 3.730
[70] **F. Di Domenico**, G. Casalena, J. Jia, R. Sultana, E. Barone, J. Cai, W.M. Pierce, C. Cini, C. Mancuso, M. Perluigi, C.M. Davis, N.J. Alkayed, D.A. Butterfield, Sex differences in brain proteomes of neuron-specific STAT3-null mice after cerebral ischemia/reperfusion, J Neurochem 121(4) (2012) 680-92.
Citations= 20; Impact factor= 3.972
[71] **F. Di Domenico**, R. Sultana, A. Ferree, K. Smith, E. Barone, M. Perluigi, R. Coccia, W. Pierce, J. Cai, C. Mancuso, R. Squillace, M. Wiengele, I. Dalle-Donne, B. Wolozin, D.A. Butterfield, Redox proteomics analyses of the influence of co-expression of wild-type or mutated LRRK2 and Tau on C. elegans protein expression and oxidative modification: relevance to Parkinson disease, Antioxid Redox Signal 17(11) (2012) 1490-506.
Citations= 34; Impact factor= 7.189
[72] E. Barone, G. Cenini, R. Sultana, **F. Di Domenico**, A. Fiorini, M. Perluigi, T. Noel, C. Wang, C. Mancuso, D.K. St Clair, D.A. Butterfield, 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, Antioxid Redox Signal 16(12) (2012) 1407-20.
Citations= 18; Impact factor= 3.730
[73] C. Spadaccio, **F. Di Domenico**, M. Perluigi, M. Lusini, A. Giorgi, M.E. Schinina, C. Blarzino, E. Covino, M. Chello, R. Coccia, Serum proteomics in patients with diagnosis of abdominal aortic aneurysm, Cardiovasc Pathol 21(4) (2012) 283-90. **Citations= 13; Impact factor= 2.352**
[74] **F. Di Domenico**, C. Foppoli, R. Coccia, M. Perluigi, Antioxidants in cervical cancer: chemopreventive and chemotherapeutic effects of polyphenols, Biochim Biophys Acta 1822(5) (2012) 737-47.
Citations=88; Impact factor= 4.910
[75] **F. Di Domenico**, R. Coccia, D.A. Butterfield, M. Perluigi, Circulating biomarkers of protein oxidation for Alzheimer disease: expectations within limits, Biochim Biophys Acta 1814(12) (2011) 1785-95.
Citations= 47; Impact factor= 3.635

[76] E. Barone, C. Mancuso, **F. Di Domenico**, R. Sultana, M.P. Murphy, E. Head, D.A. Butterfield, Biliverdin reductase-A: a novel drug target for atorvastatin in a dog pre-clinical model of Alzheimer disease, J Neurochem 120(1) (2012) 135-46

Citations= 51; Impact factor= 5.271

[77] D.A. Butterfield, E. Barone, **F. Di Domenico**, G. Cenini, R. Sultana, M.P. Murphy, C. Mancuso, E. Head, Atorvastatin treatment in a dog preclinical model of Alzheimer's disease leads to up-regulation of haem oxygenase-1 and is associated with reduced oxidative stress in brain, Int J Neuropsychopharmacol 15(7) (2012) 981-7.

Citations= 55; Impact factor= 5.641

[78] R. Sultana, R.A. Robinson, **F. Di Domenico**, H.M. Abdul, D.K. St Clair, W.R. Markesbery, J. Cai, W.M. Pierce, D.A. Butterfield, Proteomic identification of specifically carbonylated brain proteins in APP(NLh)/APP(NLh) x PS-1(P264L)/PS-1(P264L) human double mutant knock-in mice model of Alzheimer disease as a function of age, J Proteomics 74(11) (2011) 2430-40.

Citations= 30; Impact factor= 4.878

[79] **F. Di Domenico**, R. Sultana, E. Barone, M. Perluigi, C. Cini, C. Mancuso, J. Cai, W.M. Pierce, D.A. Butterfield, Quantitative proteomics analysis of phosphorylated proteins in the hippocampus of Alzheimer's disease subjects, J Proteomics 74(7) (2011) 1091-103.

Citations= 72; Impact factor= 4.878

[80] E. Barone, **F. Di Domenico***, G. Cenini, R. Sultana, R. Coccia, P. Preziosi, M. Perluigi, C. Mancuso, D.A. Butterfield, Oxidative and nitrosative modifications of biliverdin reductase-A in the brain of subjects with Alzheimer's disease and amnestic mild cognitive impairment, J Alzheimers Dis 25(4) (2011) 623-33.

*** Co-first author**

Citations= 68; Impact factor= 3.745

[81] M. Perluigi, F. di Domenico, A. Fiorini, A. Cocciolo, A. Giorgi, C. Foppoli, D.A. Butterfield, M. Giorlandino, C. Giorlandino, M.E. Schinina, R. Coccia, Oxidative stress occurs early in Down syndrome pregnancy: A redox proteomics analysis of amniotic fluid, Proteomics Clin Appl 5(3-4) (2011) 167-78.

Citations= 76; Impact factor= 1.970

[82] E. Barone, **F. Di Domenico**, G. Cenini, R. Sultana, C. Cini, P. Preziosi, M. Perluigi, C. Mancuso, D.A. Butterfield, Biliverdin reductase--a protein levels and activity in the brains of subjects with Alzheimer disease and mild cognitive impairment, Biochim Biophys Acta 1812(4) (2011) 480-7.

*** Co-first author**

Citations= 66; Impact factor= 5.387

[83] E. Barone, G. Cenini, **F. Di Domenico**, S. Martin, R. Sultana, C. Mancuso, M.P. Murphy, E. Head, D.A. Butterfield, Long-term high-dose atorvastatin decreases brain oxidative and nitrosative stress in a preclinical model of Alzheimer disease: a novel mechanism of action, Pharmacol Res 63(3) (2011) 172-80.

Citations= 73; Impact factor= 4.436

[84] **F. Di Domenico**, M. Perluigi, D.A. Butterfield, C. Cornelius, V. Calabrese, Oxidative damage in rat brain during aging: interplay between energy and metabolic key target proteins, Neurochem Res 35(12) (2010) 2184-92.

Citations= 30; Impact factor= 2.680

[85] R. Sultana, **F. Di Domenico**, M. Tseng, J. Cai, T. Noel, R.L. Chelvarajan, W.D. Pierce, C. Cini, S. Bondada, D.K. St Clair, D.A. Butterfield, Doxorubicin-induced thymus senescence, J Proteome Res 9(12) (2010) 6232-41.

Citations= 15; Impact factor= 5.46

[86] **F. Di Domenico**, J.B. Owen, R. Sultana, R.A. Sowell, M. Perluigi, C. Cini, J. Cai, W.M. Pierce, D.A. Butterfield, The wheat germ agglutinin-fractionated proteome of subjects with Alzheimer's disease and mild cognitive impairment hippocampus and inferior parietal lobule: Implications for disease pathogenesis and progression, J Neurosci Res 88(16) (2010) 3566-77.

Citations= 30; Impact factor= 2.958

[87] M. Perluigi, **F. Di Domenico**, A. Giorgi, M.E. Schinina, R. Coccia, C. Cini, F. Bellia, M.T. Cambria, C. Cornelius, D.A. Butterfield, V. Calabrese, Redox proteomics in aging rat brain: involvement of mitochondrial reduced glutathione status and mitochondrial protein oxidation in the aging process, J Neurosci Res 88(16) (2010) 3498-507.

Citations= 73; Impact factor= 2.958

[88] **F. Di Domenico**, G. Casalena, R. Sultana, J. Cai, W.M. Pierce, M. Perluigi, C. Cini, A. Baracca, G. Solaini, G. Lenaz, J. Jia, S. Dziennis, S.J. Murphy, N.J. Alkayed, D.A. Butterfield, Involvement of Stat3 in mouse brain development and sexual dimorphism: a proteomics approach, Brain Res 1362 (2010) 1-12.

Citations= 15; Impact factor= 2.623

[89] **F. Di Domenico**, R. Sultana, G.F. Tiu, N.N. Scheff, M. Perluigi, C. Cini, D.A. Butterfield, Protein levels of heat shock proteins 27, 32, 60, 70, 90 and thioredoxin-1 in amnestic mild cognitive impairment: an investigation on the role of cellular stress response in the progression of Alzheimer disease, Brain Res 1333 (2010) 72-81.

Citations= 81; Impact factor= 2.623

[90] M. Perluigi, R. Sultana, G. Cenini, **F. Di Domenico**, M. Memo, W.M. Pierce, R. Coccia, D.A. Butterfield, Redox proteomics identification of 4-hydroxynonenal-modified brain proteins in Alzheimer's disease: Role of lipid peroxidation in Alzheimer's disease pathogenesis, Proteomics Clin Appl 3(6) (2009) 682-693.

Citations= 140; Impact factor= 1.875

[91] M. Perluigi, **F. Di Domenico**, C. Blarzino, C. Foppoli, C. Cini, A. Giorgi, C. Grillo, F. De Marco, D.A. Butterfield, M.E. Schinina, R. Coccia, Effects of UVB-induced oxidative stress on protein expression and specific protein oxidation in normal human epithelial keratinocytes: a proteomic approach, Proteome Sci 8 (2010) 13.

Citations= 51; Impact factor= 2.488

[92] M. Perluigi, **F. Di Domenico**, C. Cini, R. Coccia, F.R. Giorlandino, M. Giorlandino, P. Cignini, A. Mesoraca, C. Giorlandino, Proteomic analysis for the study of amniotic fluid protein composition, J Prenat Med 3(3) (2009) 39-41.

Citations= 0; Impact factor= N/A

[93] M. Chello, C. Spadaccio, M. Lusini, E. Covino, C. Blarzino, F. De Marco, **F. Di Domenico**, R. Coccia, Advanced glycation end products in diabetic patients with optimized glycaemic control and their effects on endothelial reactivity: possible implications in venous graft failure, Diabetes Metab Res Rev 25(5) (2009) 420-6.

Citations= 13; Impact factor= 2.762

[94] **F. Di Domenico**, M. Perluigi, C. Foppoli, C. Blarzino, R. Coccia, F. De Marco, D.A. Butterfield, C. Cini, Protective effect of ferulic acid ethyl ester against oxidative stress mediated by UVB irradiation in human epidermal melanocytes, Free Radic Res 43(4) (2009) 365-75.

Citations= 34; Impact factor= 2.215

[95] M. Perluigi, A. Giorgi, C. Blarzino, F. De Marco, C. Foppoli, **F. Di Domenico**, D.A. Butterfield, M.E. Schinina, C. Cini, R. Coccia, Proteomics analysis of protein expression and specific protein oxidation in human papillomavirus transformed keratinocytes upon UVB irradiation, J Cell Mol Med 13(8B) (2009) 1809-22.

Citations= 21; Impact factor= 5.228

[96] **F. Di Domenico**, G. Cenini, R. Sultana, M. Perluigi, D. Uberti, M. Memo, D.A. Butterfield, Glutathionylation of the pro-apoptotic protein p53 in Alzheimer's disease brain: implications for AD pathogenesis, Neurochem Res 34(4) (2009) 727-33.

Citations= 58; Impact factor= 2.722

[97] **F. Di Domenico**, C. Foppoli, C. Blarzino, M. Perluigi, F. Paolini, S. Morici, R. Coccia, C. Cini, F. De Marco, Expression of human papilloma virus type 16 E5 protein in amelanotic melanoma cells regulates endo-cellular pH and restores tyrosinase activity, J Exp Clin Cancer Res 28 (2009) 4.

Citations= 10; Impact factor= 1.274

[98] J.B. Owen, **F. Di Domenico***, R. Sultana, M. Perluigi, C. Cini, W.M. Pierce, D.A. Butterfield, Proteomics-determined differences in the concanavalin-A-fractionated proteome of hippocampus and inferior parietal lobule in subjects with Alzheimer's disease and mild cognitive impairment: implications for progression of AD, J Proteome Res 8(2) (2009) 471-82.

***Co-first author**

Citations= 79; Impact factor= 5.1

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