

PERSONAL INFORMATION

Nico Mitro
Nationality: Italian
Date of birth: May 16, 1976

POSITION

Associate Professor of Biochemistry
Department of Pharmacological and Biomolecular Sciences, Università degli Studi di Milano
Via Balzaretti 9, 20133, Milano, Italy.
Office phone: +390250318253
Mobile phone: +393381986245
E-mail: nico.mitro@unimi.it

Group Leader
Department of Experimental Oncology
European Institute of Oncology
Via Adamello 16, 20139, Milan, Italy.

WORK EXPERIENCE

31/3/2017 National Scientific Qualification for the functions of full professor of the competition sector 05/E1 - General Biochemistry. Validity of the qualification from 31/03/2017 to 31/03/2026 (art. 16, paragraph 1, Law 240/10).

From 09/2011 to 03/2015: Assistant professor of biochemistry.
Università degli Studi di Milano, via Balzaretti 9, 20133, Milano, Italy.
Field of research activity: Mitochondrial function and energy metabolism.

From 07/2008 to 08/2011: Postdoctoral fellow.
Università degli Studi di Milano, via Balzaretti 9, 20133, Milano Italy
Field of research activity: glucose metabolism and diabetes.

From 10/2006 to 07/2008: Research associate.
The Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA 92037, USA.
Field of research activity: glucose metabolism and diabetes metabolism.

From 04/2005 to 09/2006: Post-doc
Genomics Institute of the Novartis Research Foundation, 10675 John Jay Hopkins Drive,
San Diego CA 92121.
Field of research activity: glucose metabolism.

From 11/2004- to 03/2005: Pre-doctoral fellow
Università degli Studi di Milano, via Balzaretti 9, 20133, Milano Italy.
Field of research activity: Lipid metabolism metabolism.

From 09/2001- to 08/2004: Laboratory technician (category level D1)
Università degli Studi di Milano, via Balzaretti 9, 20133, Milano, Italy.
Field of research activity: cholesterol and bile acid metabolism.

EDUCATION AND TRAINING

- January 31, 2006: Ph.D. in Experimental Medicine: Atherosclerosis
Università degli Studi di Siena. Siena, Italy.
Acquisition of laboratory methods and independence in programming and designing the experimental parts.
- February 1, 2001: Degree in Pharmaceutical Biotechnology
Università degli Studi di Milano, via Festa del Perdono 7, 20122, Milano, Italy.
Acquisition of methods and scientific bases applied in the field of pharmaceutical biotechnology.
- July 15, 1995: Diploma of Chemical and Biological Laboratory Technician
Acquisition of practical and theoretical skills for work in chemical and biological laboratories.

PERSONAL SKILLS

Mother tongue: Italian

	UNDERSTANDING		SPEAKING		WRITING
	Reading	Spoken interaction	Spoken production	Reading	Spoken interaction
Other language: English	Excellent	Excellent	Excellent	Excellent	Excellent

Communication skills: ▪ Good communication skills acquired during my teaching and research experience.

Organizational/managerial skills: ▪ Supervisor of a team of 5 people: two post-doctoral fellows, two young fellows, and three students for their master thesis.

Digital skills: ▪ Excellent skills in managing Microsoft Office package (excel, word and power point), data analysis and statistical processing software (Prism GraphPad) and software for the analysis of data originating from “omics” experiments (RNA-Seq, metabolomics and proteomics).

ADDITIONAL INFORMATION

Research activities: Prof. Mitro's research activity is carried out through the conception, practical implementation and analysis and interpretation of the results of the experiments. The experimental work conducted by Prof. Mitro is part of the study of lipid, glucose, amino acids and energy metabolism with the primary aim of understanding the role of metabolic regulators, both in physiological and pathological conditions. Currently Prof. Mitro's research activity is focused on the molecular mechanisms that control the density and functionality of mitochondria. In the development of projects, Prof. Mitro applies cutting-edge technologies in the field of genomics, metabolomics and bioinformatics analysis.

Publications: Prof. Mitro is the author of 115 scientific publications in international journals with an Hirsch index (*h*-index) of 36 and are available at orcid.org or www.scopus.com searching for ORCID ID 0000-0002-5000-3619 and Scopus Author ID 6506384818, respectively.

Detailed list of peer-reviewed original articles.

1. De Fabiani E., Mitro N., Anzulovich A.C., Pinelli A., Galli G., Crestani M. "The negative effects of bile acids and tumor necrosis factor- α on the transcription of cholesterol 7 α -hydroxylase gene (CYP7A1) converge to hepatic nuclear factor-4". *The Journal of Biological Chemistry*, 2001 Aug. 17; 276(33): 30708-30716. Impact Factor: 7,258.
2. Bellosta S., Dell'Agli M., Canavesi M., Mitro N., Monetti M., Crestani M., Verotta L., Fuzzati N., Bernini F., Bosisio E. "Inhibition of metalloproteinase-9 activity and gene expression by polyphenolic compounds isolated from the bark of *Tristaniopsis calobuxus* (Myrtaceae)". *Cellular and Molecular Life Sciences*, 2003 Jul.; 60(7): 1440-1448. Impact Factor: 4,995.
3. De Fabiani E.*, Mitro N.*, Gilardi F, Caruso D, Galli G, Crestani M. "Coordinated control of cholesterol catabolism to bile acids and of gluconeogenesis via a novel mechanism of transcription regulation linked to the fasted-to-fed cycle". *The Journal of Biological Chemistry*, 2003 Oct. 3; 278(40): 39124-39132. Impact Factor: 6,482. *Both first authors.
4. Caruso D., Crestani M., Da Riva L., Mitro N., Giavarini F., MozzI R., Franzini C. "Mass spectrometry and DNA sequencing are complementary techniques for the characterisation of haemoglobin variants: the example of haemoglobin J-Oxford". *Haematologica*, 2004 May; 89: 608-609. Impact Factor: 4,192.
5. Trincavelli M.L., Marroni M., Tuscano D., Ceruti S., Mazzola A., Mitro N., Abbracchio M.P., Martini C. "Regulation of A2b adenosine receptor functioning by tumor necrosis factor alpha in human astroglial cells". *The Journal of Neurochemistry*, 2004 Dec.; 91(5):1180-90. Impact Factor: 4,824.
6. Caruso D., Crestani M., Mitro N., Da Riva L., MozzI R., Sarpa S., Merlotti C., and Franzini C. "High pressure liquid chromatography and electrospray ionization mass spectrometry are advantageously integrated into a two-levels approach to detection and identification of haemoglobin variants". *Clinical and Laboratory Haematology*, 2005 Apr.; 27(2):111-9. Impact Factor: 0,846.
7. Pinelli A., Godio C., Laghezza A., Mitro N., Fracchiolla G., Tortorella V., Lavecchia A., Novellino E., Fruchart J.C., Staels B., Crestani M., and Loiodice F. "Synthesis, biological evaluation, and molecular modeling investigation of new chiral fibrates with PPARalpha and PPARgamma agonist activity". *The Journal of Medicinal Chemistry*, 2005 Aug. 25; 48(17):5509-19. Impact Factor: 4,926.
8. Bertolotti M., Gabbi C., Anzivino C., Mitro N., Godio C., De Fabiani E., Crestani M., Del Pupo M., Ricchi M., Carulli L., Rossi A., Loria P., Carulli N. "Decreased hepatic expression of PPAR- γ coactivator-1 in cholesterol cholelithiasis". *European Journal of Clinical Investigation*, 2006 Mar.; 36(3): 170-175. Impact Factor: 2,847.
9. Dell'Agli M., Fagnani R., Mitro N., Scurati S., Masciadri M., Mussoni L., Galli G.V., Bosisio E., Crestani M., De Fabiani E., Tremoli E., Caruso D. "Minor components of olive oil modulate proatherogenic adhesion molecules involved in endothelial activation". *The Journal of Agricultural and Food Chemistry*, 2006 May; 54(9): 3259-64. Impact Factor: 2,322.
10. Mitro N., Mak P.A., Vargas L., Godio C., Hampton E., Molteni V., Kreusch A., Saez E. "The nuclear receptor LXR is a glucose sensor". *Nature*, 2007 Jan. 11; 445(7124): 219-223. Impact Factor: 28,751.

11. Mitro N., Vargas L., Romeo R., Koder A. and Saez E. "T0901317 is a potent PXR ligand: Implications for the biology ascribed to LXR". *FEBS Letters*, 2007 May 1; 581(9): 1721-6. Impact Factor: 3,263.
12. Waki H., Park K.W., Mitro N., Pei L., Damoiseaux R., Wilpitz D.C., Reue K., Saez E. and Tontonoz P. "The small molecule harmine is an antidiabetic cell-type-specific regulator of PPARgamma expression". *Cell Metabolism*, 2007 May; 5(5): 357-70. Impact Factor: 17,148.
13. Bertolotti M., Gabbi C., Anzivino C., Crestani M., Mitro N., Del Puppo M., Godio C., De Fabiani E., Macchioni D., Carulli L., Rossi A., Ricchi M., Loria P., Carulli N. "Age-related changes in bile acid synthesis and hepatic nuclear receptor expression". *European Journal of Clinical Investigation*, 2007 Jun.; 37(6): 501-8. Impact Factor: 2,701.
14. Pochetti G., Godio C., Mitro N., Caruso D., Galmozzi A., Scurati S., Loiodice F., Fracchiolla G., Tortorella P., Laghezza A., Lavecchia A., Novellino E., Mazza F., Crestani M. "Insights into the mechanism of partial agonism: crystal structures of the peroxisome proliferator-activated receptor gamma ligand-binding domain in the complex with two enantiomeric ligands". *The Journal of Biological Chemistry*, 2007 Jun. 8; 282(23): 17314-24. Impact Factor: 5,581.
15. Molteni V., Li X., Nabakka J., Liang F., Wityak J., Koder A., Vargas L., Romeo R., Mitro N., Mak P.A., Seidel H.M., Haslam J.A., Chow D., Tuntland T., Spalding T.A., Brock A., Bradley M., Castrillo A., Tontonoz P., Saez E. "N-Acylthiadiazolines, a new class of Liver X Receptor agonists with selectivity for LXR β ". *The Journal of Medicinal Chemistry*, 2007 Aug. 23; 50(17):4255-9. Impact Factor: 4,895.
16. Mitro N.*, Godio C.* , De Fabiani E., Scotti E., Galmozzi A., Gilardi F., Caruso D., Vigil Chacon A.B., Crestani M. "Insights in the regulation of cholesterol 7 α -hydroxylase gene reveal a target for modulating bile acid synthesis". *Hepatology*, 2007 Sep.; 46(3):885-97. Impact Factor: 10,734. *Both first authors.
17. Commerford S.R., Vargas L., Dorfman S.E., Mitro N., Rocheford E.C., Mak P.A., Li X., Kennedy P., Mullarkey T.L., Saez E. "Dissection of the insulin-sensitizing effect of Liver X Receptor ligands". *Molecular Endocrinology*, 2007 Dec.; 21(12):3002-1. Impact Factor: 5,337.
18. Wu C., Delano D.L., Mitro N., Su S.V., Janes J., McClurg P., Batalov S., Welch G.L., Zhang J., Orth A.P., Walker J.R., Glynne R.J., Cooke M.P., Takahashi J.S., Shimomura K., Kohsaka A., Bass J., Saez E., Wiltshire T., Su A.I. "Gene set enrichment in eQTL data identifies novel annotations and pathway regulators". *PLoS Genetics*, 2008 May 9; 4(5):e1000070. Impact Factor: 8,883.
19. Sironi L.* , Mitro N.* , Cimino M., Gelosa P., Guerrini U., Tremoli E. and Saez E. "Treatment with LXR agonists after focal cerebral ischemia prevents brain damage". *FEBS Letters*, 2008 Oct. 15; 582(23-24):3396-400. Impact Factor: 3,264. *Both first authors.
20. Mai A., Valente S., Meade S., Carafa V., Tardugno M., Nebbioso A., Galmozzi A., Mitro N., De Fabiani E., Altucci L. and Kazantsev A. "Study of 1,4-dihydropyridine structural scaffold: discovery of novel sirtuin activators and inhibitors". *The Journal of Medicinal Chemistry*, 2009 Sep 10; 52(17):5496-504. Impact Factor: 4,802.
21. Zhu J., Mounzih K., Chehab E.F., Mitro N., Saez E., Chehab F.F. "Effects of FoxO4 overexpression on cholesterol biosynthesis, triacylglycerol accumulation, and glucose uptake". *The Journal of Lipid Research*, 2010 Jun.; 51(6):1312-24. Impact Factor: 6,115.

22. Pochetti G.*, Mitro N.*, Lavecchia A., Gilardi F., Besker N., Scotti E., Aschi M., Re N., Fracchiolla G., Laghezza A., Tortorella P., Montanari R., Novellino E., Mazza F., Crestani M., Loiodice F. "Structural insight into peroxisome proliferator-activated receptor gamma binding of two ureidofibrate-like enantiomers by molecular dynamics, cofactor interaction analysis, and site-directed mutagenesis". *The Journal of Medicinal Chemistry*, 2010 Jun. 10; 53(11):4354-66. Impact Factor: 5,207. *Both first authors.
23. Cermenati G., Giatti S., Cavaletti G., Bianchi R., Maschi O., Pesaresi M., Abbiati F., Volonterio A., Saez E., Caruso D., Melcangi R.C.*, Mitro N.* "Activation of the Liver X Receptor increases neuroactive steroid levels and protects from diabetes-induced peripheral neuropathy". *The Journal of Neuroscience*, 2010 Sep. 8, 30(36):11896 -11901. Impact Factor: 7,271. *Both corresponding authors.
24. Porcelli L., Gilardi F., Laghezza A., Piemontese L., Mitro N., Azzariti A., Altieri F., Cervoni L., Fracchiolla G., Giudici M., Guerrini U., Lavecchia A., Montanari R., Di Giovanni C., Paradiso A., Pochetti G., Simone G.M., Tortorella P., Crestani M., Loiodice F. "Synthesis, characterization and biological evaluation of ureidofibrate-like derivatives endowed with peroxisome proliferator-activated receptor activity". *The Journal of Medicinal Chemistry*, 2012 Jan 12;55(1):37-54. Impact Factor: 5,614.
25. Cermenati G., Abbiati F., Cermenati S., Brioschi E., Volonterio A., Cavaletti G., Saez E., De Fabiani E., Crestani M., Garcia-Segura L.M., Melcangi R.C., Caruso D.*, Mitro N.* "Diabetes-induced myelin abnormalities are associated with an altered lipid pattern: protective effects of LXR activation". *The Journal of Lipid Research*, 2012 Feb;53(2):300-10. Impact Factor: 4,386. *Both corresponding authors.
26. Mitro N., Cermenati G., Giatti S., Abbiati F., Pesaresi M., Calabrese D., Garcia-Segura L.M., Caruso D., Melcangi R.C. "LXR and TSPO as new therapeutic targets to increase the levels of neuroactive steroids in the central nervous system of diabetic animals". *Neurochemistry International*, 2012 May;60(6):616-21. Impact Factor: 2,659.
27. Campia I., Sala V., Kopecka J., Leo C., Mitro N., Costamagna C., Caruso D., Pescarmona G., Crepaldi T., Ghigo D., Bosia A., Riganti C. "Digoxin and ouabain induce the efflux of cholesterol via liver X receptor signalling and the synthesis of ATP in cardiomyocytes". *Biochemical Journal*, 2012 Oct 15;447(2):301-11. Impact Factor: 4,654.
28. Galmozzi A.*, Mitro N.*, Ferrari A., Gers E., Gilardi F., Godio C., Cermenati G., Gualerzi A., Donetti E., Rotili D., Valente S., Guerrini U., Caruso D., Mai A., Saez E., De Fabiani E., Crestani M. "Inhibition of class I histone deacetylases unveils a mitochondrial signature and enhances oxidative metabolism in skeletal muscle and adipose tissue". *Diabetes*. 2013 Mar;62(3):732-42. Impact Factor: 8,474. *Both first authors.
29. Gilardi F., Giudici M., Mitro N., Maschi O., Guerrini U., Rando G., Maggi A., Cermenati G., Laghezza A., Loiodice F., Pochetti G., Lavecchia A., Caruso D., De Fabiani E., Bamberg K., Crestani M. "LT175 is a novel PPAR α/γ ligand with potent insulin-sensitizing effects and reduced adipogenic properties". *The Journal of Biological Chemistry*, 2014 Mar 7;289(10):6908-20. Impact Factor: 4,573.
30. Di Gregorio E., Borroni B., Giorgio E., Lacerenza D., Ferrero M., Lo Buono N., Ragusa N., Mancini C., Gaussen M., Calcia A., Mitro N., Hoxha E., Mura I., Coviello D.A., Moon Y.A., Tesson C., Vaula G., Couarch P., Orsi L., Duregon E., Papotti M.G., Deleuze J.F., Imbert J., Costanzi C., Padovani A., Giunti P., Maillet-Vioud M., Durr A., Brice A., Tempia F., Funaro A., Boccone L., Caruso D., Stevanin G., Brusco A. "ELOVL5 Mutations Cause Spinocerebellar Ataxia 38". *American Journal of Human Genetics*, 2014 Aug 7;95(2):209-17. Impact Factor: 10,931.

31. Mitro N., Cermenati G., Brioschi E., Abbiati F., Audano M., Giatti S., Crestani M., De Fabiani E., Azcoitia I., Garcia-Segura L.M., Caruso D., Melcangi R.C. "Neuroactive steroid treatment modulates myelin lipid profile in diabetic peripheral neuropathy". *The Journal of Steroid Biochemistry and Molecular Biology*, 2014 Sep;143:115-21. Impact Factor: 3,628.
32. Muto E., Dell'Agli M., Sangiovanni E., Mitro N., Fumagalli M., Crestani M., De Fabiani E., Caruso D. "Olive oil phenolic extract regulates interleukin-8 expression by transcriptional and posttranscriptional mechanisms in Caco-2 cells". *Molecular Nutrition and Food Research*, 2015 Jun;59(6):1217-21. Impact Factor: 4,551.
33. Giatti S., Rigolio R., Romano S., Mitro N., Viviani B., Cavaletti G., Caruso D., Garcia-Segura L.M., Melcangi RC. "Dihydrotestosterone as a Protective Agent in Chronic Experimental Autoimmune Encephalomyelitis". *Neuroendocrinology*, 2015;101(4):296-308. Impact Factor: 2,583.
34. Cermenati G., Audano M., Giatti S., Carozzi V., Porretta-Serapiglia C., Pettinato E., Ferri C., D'Antonio M., De Fabiani E., Crestani M., Scurati S., Saez E., Azcoitia I., Cavaletti G., Garcia-Segura L.M., Melcangi R.C., Caruso D.* , Mitro N.* "Lack of sterol regulatory element binding factor-1c imposes glial Fatty Acid utilization leading to peripheral neuropathy". *Cell Metabolism*, 2015 Apr 7;21(4):571-83. Impact Factor: 17,303. *Both corresponding authors.
35. Dinamarca M.C., Guzzetti F., Karpova A., Lim D., Mitro N., Musardo S., Mellone M., Marcello E., Stanic J., Samaddar T., Burguière A., Caldarelli A., Genazzani A.A., Perroy J., Fagni L., Canonico P.L., Kreutz M.R., Gardoni F., Di Luca M. "Ring finger protein 10 is a novel synaptosomal messenger encoding activation of NMDA receptors in hippocampus". *Elife*, 2016 Mar 15;5:e12430. Impact Factor: 7,725.
36. Della Torre S., Mitro N., Fontana R., Gomaraschi M., Favari E., Recordati C., Lolli F., Quagliarini F., Meda C., Ohlsson C., Crestani M., Uhlenhaut N.H., Calabresi L., Maggi A. "An Essential Role for Liver ERα in Coupling Hepatic Metabolism to the Reproductive Cycle". *Cell Reports*, 2016 Apr 12;15(2):360-71. Impact Factor: 8,282.
37. Borroni B., Di Gregorio E., Orsi L., Vaula G., Costanzi C., Tempia F., Mitro N., Caruso D., Manes M., Pinessi L., Padovani A., Brusco A., Boccone L. "Clinical and neuroradiological features of spinocerebellar ataxia 38 (SCA38)". *Parkinsonism and Related Disorders*, 2016 Jul;28:80-6. Impact Factor: 4,484.
38. Pham H.T., Arnhard K., Asad Y.J., Deng L., Felder T.K., St John-Williams L., Kaever V., Leadley M., Mitro N., Muccio S., Prehn C., Rauh M., Rolle-Kampczyk U., Thompson J.W., Uhl O., Ułaszewska M., Vogeser M., Wishart D.S., Koal T. "Inter-Laboratory Robustness of Next-Generation Bile Acid Study in Mice and Humans: International Ring Trial Involving 12 Laboratories". *Journal of Applied Laboratory Medicine*. 2016 Sep 1;1(2):129-142. Impact Factor: Not available.
39. Ferrari A., Fiorino E., Longo R., Barilla S., Mitro N., Cermenati G., Giudici M., Caruso D., Mai A., Guerrini U., De Fabiani E., Crestani M. "Attenuation of diet-induced obesity and induction of white fat browning with a chemical inhibitor of histone deacetylases". *International Journal of Obesity (Lond)*, 2017 Feb;41(2):289-298. Impact Factor: 5,159.
40. Romano S., Mitro N., Diviccaro S., Spezzano R., Audano M., Garcia-Segura L.M., Caruso D., Melcangi R.C. "Short-term effects of diabetes on neurosteroidogenesis in the rat hippocampus". *The Journal of Steroid Biochemistry and Molecular Biology*, 2017 Mar;167:135-143. Impact Factor: 4,095.

41. Cermenati G., Giatti S., Audano M., Pesaresi M., Spezzano R., Caruso D., Mitro N.*, Melcangi R.C*. "Diabetes alters myelin lipid profile in rat cerebral cortex: Protective effects of dihydroprogesterone". *The Journal of Steroid Biochemistry and Molecular Biology*, 2017 Apr;168:60-70. Impact Factor: 4,095. *Both corresponding authors.
42. Mauro C., Smith J., Cucchi D., Coe D., Fu H., Bonacina F., Baragetti A., Cermenati G., Caruso D., Mitro N., Catapano A.L., Ammirati E., Longhi M.P., Okkenhaug K., Norata G.D., Marelli-Berg F.M. "Obesity-Induced Metabolic Stress Leads to Biased Effector Memory CD4+ T Cell Differentiation via PI3K p110δ-Akt-Mediated Signals". *Cell Metabolism*, 2017 Mar 7;25(3):593-609. Impact Factor: 20,565.
43. Benedusi V., Della Torre S., Mitro N., Caruso D., Oberto A., Tronel C., Meda C., Maggi A. "Liver ERα regulates AgRP neuronal activity in the arcuate nucleus of female mice". *Scientific Reports*, 2017 Apr 26;7(1):1194. Impact Factor: 4,122.
44. Mitro N., Cermenati G., Audano M., Giatti S., Pesaresi M., Pedretti S., Spezzano R., Caruso D., Melcangi RC. "Sterol regulatory element binding protein-1C knockout mice show altered neuroactive steroid levels in sciatic nerve". *The Journal of Neurochemistry*, 2017 Aug;142(3):420-428. Impact Factor: 4,609.
45. Castella B., Kopecka J., Sciancalepore P., Mandili G., Foglietta M., Mitro N., Caruso D., Novelli F., Riganti C., Massaia M. "The ATP-binding cassette transporter A1 regulates phosphoantigen release and Vy9Vδ2 T cell activation by dendritic cells". *Nature Communications*, 2017 Jun 5;8:15663. Impact Factor: 12,353.
46. Ferrari A., Longo R., Fiorino E., Silva R., Mitro N., Cermenati G., Gilardi F., Desvergne B., Andolfo A., Magagnotti C., Caruso D., Fabiani E., Hiebert S.W., Crestani M. "HDAC3 is a molecular brake of the metabolic switch supporting white adipose tissue browning". *Nature Communications*, 2017 Jul 21;8(1):93. Impact Factor: 12,353.
47. Manes M., Alberici A., Di Gregorio E., Bocccone L., Premi E., Mitro N., Pasolini M.P., Pani C., Paghera B., Perani D., Orsi L., Costanzi C., Ferrero M., Zoppo A., Tempia F., Caruso D., Grassi M., Padovani A., Brusco A., Borroni B. "Docosahexaenoic acid is a beneficial replacement treatment for spinocerebellar atrophy 38". *Annals of Neurology*, 2017 Oct;82(4):615-621. Impact Factor: 10,252.
48. Hoxha E., Gabriele R.M.C., Balbo I., Ravera F., Masante L., Zambelli V., Albergo C., Mitro N., Caruso D., Di Gregorio E., Brusco A., Borroni B., Tempia F. "Motor Deficits and Cerebellar Atrophy in ElovL5 Knock Out Mice". *Frontiers in Cellular Neuroscience*, 2017 Oct 30;11:343. Impact Factor: 4,300.
49. Buratta S., Urbanelli L., Sagini K., Giovagnoli S., Caponi S., Fioretto D., Mitro N., Caruso D., Emiliani C. "Extracellular vesicles released by fibroblasts undergoing H-Ras induced senescence show changes in lipid profile". *PLoS One*, 2017 Nov 28;12(11):e0188840. Impact Factor: 2,766.
50. Manzine P.R., Pelucchi S., Horst M.A., Vale F.A.C., Pavarini S.C.I., Audano M., Mitro N., Di Luca M., Marcello E., Cominetti M.R. "microRNA 221 Targets ADAM10 mRNA and is Downregulated in Alzheimer's Disease". *The Journal of Alzheimer's Disease*, 2018;61(1):113-123. Impact Factor: 3,476.
51. Gennari C.G., Cilurzo F., Mitro N., Caruso D., Minghetti P., Magnaghi V. "In vitro and in vivo evaluation of silk fibroin functionalized with GABA and allopregnanolone for Schwann cell and neuron survival". *Regenerative Medicine*, 2018 Mar;13(2):141-157. Impact Factor: 2,992.

52. Romano S., Mitro N., Giatti S., Diviccaro S., Pesaresi M., Spezzano R., Audano M., Garcia-Segura L.M., Caruso D., Melcangi R.C. "Diabetes induces mitochondrial dysfunction and alters cholesterol homeostasis and neurosteroidogenesis in the rat cerebral cortex". *The Journal of Steroid Biochemistry and Molecular Biology*, 2018 Apr;178:108-116. Impact Factor: 4,095.
53. Castiglioni L., Pignieri A., Fiaschè M., Giudici M., Crestani M., Mitro N., Abbate M., Zoja C., Rottoli D., Foray C., Fiordaliso F., Guerrini U., Tremoli E., Sironi L., Gelosa P. "Fenofibrate attenuates cardiac and renal alterations in young salt-loaded spontaneously hypertensive stroke-prone rats through mitochondrial protection". *The Journal of Hypertension*, 2018 May;36(5):1129-1146. Impact Factor: 4,099.
54. Pesaresi M., Giatti S., Spezzano R., Romano S., Diviccaro S., Borsello T., Mitro N., Caruso D., Garcia-Segura L.M., Melcangi R.C. "Axonal transport in a peripheral diabetic neuropathy model: sex-dimorphic features". *Biology of Sex Differences*, 2018 Jan 19;9(1):6. Impact Factor: 3,543.
55. Tatulli G., Mitro N., Cannata S.M., Audano M., Caruso D., D'Arcangelo G., Lettieri-Barbato D., Aquilano K. "Intermittent Fasting Applied in Combination with Rotenone Treatment Exacerbates Dopamine Neurons Degeneration in Mice". *Frontiers in Cellular Neuroscience*, 2018 Jan 17;12:4. Impact Factor: 4,300.
56. Audano M., Pedretti S., Cermenati G., Brioschi E., Diaferia G.R., Ghisletti S., Cuomo A., Bonaldi T., Salerno F., Mora M., Grigore L., Garlaschelli K., Baragetti A., Bonacina F., Catapano A.L., Norata G.D., Crestani M., Caruso D., Saez E., De Fabiani E.*, Mitro N.* "Zc3h10 is a novel mitochondrial regulator". *EMBO Reports*, 2018 Apr;19(4). pii: e45531. Impact Factor: 8,749. *Both corresponding authors.
57. Collino A., Termanini A., Nicoli P., Diaferia G., Polletti S., Recordati C., Castiglioni V., Caruso D., Mitro N.*, Natoli G.*., Ghisletti S*. "Sustained activation of detoxification pathways promotes liver carcinogenesis in response to chronic bile acid-mediated damage". *PLoS Genetics*, 2018 May 7;14(5):e1007380. Impact Factor: 5,540. *Corresponding authors.
58. Della Torre S., Mitro N., Meda C., Lolli F., Pedretti S., Barcella M., Ottobrini L., Metzger D., Caruso D., Maggi A. "Short-Term Fasting Reveals Amino Acid Metabolism as a Major Sex-Discriminating Factor in the Liver". *Cell Metabolism*, 2018 Aug 7;28(2):256-267. Impact Factor: 20,565.
59. Pacella I., Procaccini C., Focaccetti C., Miacci S., Timperi E., Faicchia D., Severa M., Rizzo F., Coccia E.M., Bonacina F., Mitro N., Norata G.D., Rossetti G., Ranzani V., Pagani M., Giorda E., Wei Y., Matarese G., Barnaba V., Piconese S. "Fatty acid metabolism complements glycolysis in the selective regulatory T cell expansion during tumor growth". *Proceedings of the National Academy of Science of the United States of America*, 2018 Jul 10;115(28):E6546-E6555. Impact Factor: 9,504.
60. Bonacina F., Coe D., Wang G., Longhi M.P., Baragetti A., Moregola A., Garlaschelli K., Ubaldi P., Pellegratta F., Grigore L., Da Dalt L., Annoni A., Gregori S., Xiao Q., Caruso D., Mitro N., Catapano A.L., Marelli-Berg F.M., Norata G.D. "Myeloid apolipoprotein E controls dendritic cell antigen presentation and T cell activation". *Nature Communications*, 2018 Aug 6;9(1):3083. Impact Factor: 12,353.
61. Sagini K.*., Urbanelli L.*., Costanzi E.*., Mitro N.*, Caruso D.*., Emiliani C.*., Buratta S.* "Oncogenic H-Ras Expression Induces Fatty Acid Profile Changes in Human Fibroblasts and Extracellular Vesicles". *International Journal of Molecular Sciences*, 2018 Nov 8;19(11). pii: E3515. ISSN: 1661-6596.*Corresponding authors. Impact Factor: 3,687.

62. Scapin C., Ferri C., Pettinato E., Zambroni D., Bianchi F., Del Carro U., Belin S., Caruso D., Mitro N., Pellegratta M., Taveggia C., Schwab M.H., Nave K.A., Laura Feltri M., Wrabetz L., D'Antonio M. "Enhanced axonal Neuregulin-1 type-III signaling ameliorates neurophysiology and hypomyelination in a Charcot-Marie-Tooth type 1B mouse model". *Human Molecular Genetics*, 2018 Nov 27. Impact Factor: 4,902.
63. Romani P., Brian I., Santinon G., Pocaterra A., Audano M., Pedretti S., Mathieu S., Forcato M., Bicciato S., Manneville J.B., Mitro N., Dupont S. "Extracellular matrix mechanical cues regulate lipid metabolism through Lipin-1 and SREBP". *Nature Cell Biology*, 2019 Mar;21(3):338-347. Impact Factor: 19,064.
64. Manes M., Alberici A., Di Gregorio E., Boccone L., Premi E., Mitro N., Pasolini M.P., Pani C., Paghera B., Orsi L., Costanzi C., Ferrero M., Tempia F., Caruso D., Padovani A., Brusco A., Borroni B. "Long-term efficacy of docosahexaenoic acid (DHA) for Spinocerebellar Ataxia 38 (SCA38) treatment: An open label extension study". *Parkinsonism Relat Disord*. 2019 Mar 7. pii: S1353-8020(19)30085-9. Impact Factor: 4,721.
65. Sandrini L., Ieraci A., Amadio P., Zarà M., Mitro N., Lee F.S., Tremoli E., Barbieri S.S. "Physical Exercise Affects Adipose Tissue Profile and Prevents Arterial Thrombosis in BDNF Val66Met Mice". *Cells*. 2019 Aug 11;8(8). pii: E875. Impact Factor: 5,656.
66. Audano M., Pedretti S., Crestani M., Caruso D., De Fabiani E.*, Mitro N.* "Mitochondrial dysfunction increases fatty acid β-oxidation and translates into impaired neuroblast maturation". *FEBS Letters*. 2019 Nov;593(22):3173-3189. *Both corresponding authors. Impact factor: 2,999.
67. Milanese C., Bombardieri C.R., Sepe S., Barnhoorn S., Payán-Goméz C., Caruso D., Audano M., Pedretti S., Vermeij W.P., Brandt R.M.C., Gyenis A., Wamelink M.M., de Wit A.S., Janssens R.C., Leen R., van Kuilenburg A.B.P., Mitro N., Hoeijmakers J.H.J., Mastroberardino P.G. "DNA damage and transcription stress cause ATP-mediated redesign of metabolism and potentiation of anti-oxidant buffering". *Nature Communications*. 2019 Oct 25;10(1):4887. Impact factor: 11,880.
68. Ferrari A., Longo R., Peri C., Coppi L., Caruso D., Mai A., Mitro N., De Fabiani E., Crestani M. "Inhibition of class I HDACs imprints adipogenesis toward oxidative and brown-like phenotype". *Biochimica et Biophysica Acta Molecular and Cellular Biology of Lipids*. 2020 Jan 2:158594. Impact factor: 4,698.
69. Meda C., Barone M., Mitro N., Lolli F., Pedretti S., Caruso D., Maggi A., Della Torre S. "Hepatic ERα accounts for sex differences in the ability to cope with an excess of dietary lipids". *Molecular Metabolism*. 2020 Feb 32: 97-108. Impact factor: 7,422.
70. Fazzari M., Audano M., Lunghi G., Di Biase E., Loberto N., Mauri L., Mitro N.*, Sonnino S., Chiricozzi E*. "The oligosaccharide portion of ganglioside GM1 regulates mitochondrial function in neuroblastoma cells." *Glycoconjugate Journal*. 2020 Jun;37(3):293-306. *Both corresponding authors. Impact factor: 2,916.
71. Aquilano K., Sciarretta F., Turchi R., Li B.H., Rosina M., Ceci V., Guidobaldi G., Arena S., D'Ambrosio C., Audano M., Salvatori I., Colella B., Faraonio R., Panebianco C., Pazienza V., Caruso D., Mitro N., Di Bartolomeo S., Scaloni A., Li J.Y., Lettieri-Barbato D. "Low-protein/high-carbohydrate diet induces AMPK-dependent canonical and non-canonical thermogenesis in subcutaneous adipose tissue". *Redox Biology*. 2020 Sep;36:101633. Impact factor: 11,799.

72. Magni G., Pedretti S., Audano M., Caruso D., Mitro N., Ceruti S. "Glial cell activation and altered metabolic profile in the spinal-trigeminal axis in a rat model of multiple sclerosis associated with the development of trigeminal sensitization. *Brain Behaviour and Immunology*. 2020 Oct;89:268-280. Impact factor: 7,212.
73. Fontana F., Raimondi M., Marzagalli M., Audano M., Beretta G., Procacci P., Sartori P., Mitro N., Limonta P. "Mitochondrial functional and structural impairment is involved in the antitumor activity of δ-tocotrienol in prostate cancer cells". *Free Radical Biology and Medicine*. 2020 Nov 20;160:376-390. Impact factor: 7,376.
74. Urbanelli L., Buratta S., Logozzi M., Mitro N., Sagini K., Raimo R.D., Caruso D., Fais S., Emiliani C. "Lipidomic analysis of cancer cells cultivated at acidic pH reveals phospholipid fatty acids remodelling associated with transcriptional reprogramming". *Journal of Enzyme Inhibition and Medicinal Chemistry*. 2020 Dec;35(1):963-973. Impact factor: 5,051.
75. Di Meo I., Cavestro C., Pedretti S., Fu T., Ligorio S., Manocchio A., Lavermicocca L., Santambrogio P., Ripamonti M., Levi S., Aycirix S., Mitro N., Tiranti V. "Neuronal Ablation of CoA Synthase Causes Motor Deficits, Iron Dyshomeostasis, and Mitochondrial Dysfunctions in a CoPAN Mouse Model". *International Journal of Molecular Sciences*. 2020 Dec 19;21(24):9707. Impact factor: 5,923.
76. Betto R.M., Diamante L., Perrera V., Audano M., Rapelli S., Lauria A., Incarnato D., Arboit M., Pedretti S., Rigoni G., Guerineau V., Touboul D., Stirparo G.G., Lohoff T., Boroviak T., Grumati P., Soriano M.E., Nichols J., Mitro N.*, Oliviero S.* , Martello G.* "Metabolic control of DNA methylation in naive pluripotent cells". *Nature Genetics*. 2021 Feb;53(2):215-229. *Corresponding authors. Impact factor: 38,330.
77. Palma C., La Rocca C., Gigantino V., Aquino G., Piccaro G., Di Silvestre D., Brambilla F., Rossi R., Bonacina F., Lepore M.T., Audano M., Mitro N., Botti G., Bruzzaniti S., Fusco C., Procaccini C., De Rosa V., Galgani M., Alviggi C., Puca A., Grassi F., Rezzonico-Jost T., Norata G.D., Mauri P., Netea M.G., de Candia P., Matarese G. "Caloric Restriction Promotes Immunometabolic Reprogramming Leading to Protection from Tuberculosis". *Cell Metabolism*. 2021 Feb 2;33(2):300-318.e12. Impact factor: 27,287.
78. Audano M., Pedretti S., Ligorio S., Gualdrini F., Polletti S., Russo M., Ghisletti S., Bean C., Crestani M., Caruso D., De Fabiani E.* , Mitro N.* "Zc3h10 regulates adipogenesis by controlling translation and F-actin/mitochondria interaction". *Journal of Cell Biology*. 2021 Mar 1;220(3):e202003173. *Both corresponding authors. Impact factor: 10,539.
79. Raimondi M., Fontana F., Marzagalli M., Audano M., Beretta G., Procacci P., Sartori P., Mitro N., Limonta P. "Ca²⁺ overload- and ROS-associated mitochondrial dysfunction contributes to δ-tocotrienol-mediated paraptosis in melanoma cells". *Apoptosis*. 2021 Jun;26(5-6):277-292. Impact factor: 4,677.
80. Colciago A., Audano M., Bonalume V., Melfi V., Mohamed T., Reid A.J., Faroni A., Greer P.A., Mitro N., Magnaghi V. "Transcriptomic Profile Reveals Dereglulation of Hearing-Loss Related Genes in Vestibular Schwannoma Cells Following Electromagnetic Field Exposure". *Cells*. 2021 Jul 20;10(7):1840. Impact factor: 6,600
81. Da Dalt L., Castiglioni L., Baragetti A., Audano M., Svecla M., Bonacina F., Pedretti S., Ubaldi P., Benzoni P., Giannetti F., Barbuti A., Pellegatta F., Indino S., Donetti E., Sironi L., Mitro N., Catapano A.L., Norata G.D. "PCSK9 deficiency rewires heart metabolism and drives heart failure with preserved ejection fraction". *European Heart Journal*. 2021 Aug 21;42(32):3078-3090. Impact factor: 29,983.

82. Ceciliani F., Audano M., Addis M.F., Lecchi C., Ghaffari M.H., Albertini M., Tangorra F., Piccinini R., Caruso D., Mitro N., Bronzo V. "The untargeted lipidomic profile of quarter milk from dairy cows with subclinical intramammary infection by non-aureus staphylococci". *Journal of Dairy Science*. 2021 Sep;104(9):10268-10281. Impact factor: 4,034.
83. Hoxha E., Balbo I., Parolisi R., Audano M., Montarolo F., Ravera F., Guglielmotto M., Muratori L., Raimondo S., DiGregorio E., Buffo A., Brusco A., Borroni B., Mitro N., Caruso D., Tempia F. "ElovL5 is required for proper action potential conduction along peripheral myelinated fibers". *Glia*. 2021 Oct;69(10):2419-2428. Impact factor: 7,452.
84. Cricì D., Coppi L., Pedretti S., Mitro N., Caruso D., De Fabiani E., Crestani M. "Histone Deacetylase 3 Regulates Adipocyte Phenotype at Early Stages of Differentiation" *International Journal of Molecular Sciences*. 2021 Aug, 22(17), 9300. Impact factor: 5,923.
85. Bean C., Audano M., Varanita T., Favaretto F., Medaglia M., Gerdol M., Pernas L., Stasi F., Giacomello M., Herkenne S., Muniandy M., Heinonen S., Cazaly E., Ollikainen M., Milan G., Pallavicini A., Pietiläinen K.H., Vettor R., Mitro N., Scorrano L. "The mitochondrial protein Opa1 promotes adipocyte browning that is dependent on urea cycle metabolites". *Nature Metabolism*. 2021 Dec; 3(12):1633-1647. Impact factor: 13,511.
86. Facchinello N., Astone M., Audano M., Oberkersch R.E., Spizzottin M., Calura E., Marques M., Crisan M., Mitro N., Santoro M. "Oxidative pentose phosphate pathway controls vascular mural cell coverage by regulating extracellular matrix composition". *Nature Metabolism*. 2022 Jan; 4 (13): 123-140. Impact factor: 13,511.
87. Brivio P., Audano M., Gallo M.T., Gruca P., Lason M., Litwa E., Fumagalli F., Papp M., Mitro N., Calabrese F. "Metabolomic signature and mitochondrial dynamics outline the difference between vulnerability and resilience to chronic stress". *Translational Psychiatry*. 2022 Feb 28;12(1):87. Impact factor: 6,222.
88. Rosina M., Ceci V., Turchi R., Chuan L., Borcherding N., Sciarretta F., Sánchez-Díaz M., Tortolici F., Karlinsey K., Chiurchiù V., Fuoco C., Giwa R., Field R.L., Audano M., Arena S., Palma A., Riccio F., Shamsi F., Renzone G., Verri M., Crescenzi A., Rizza S., Faienza F., Filomeni G., Kooijman S., Rufini S., de Vries A.A.F., Scaloni A., Mitro N., Tseng Y.H., Hidalgo A., Zhou B., Brestoff J.R., Aquilano K., Lettieri-Barbato D. "Ejection of damaged mitochondria and their removal by macrophages ensure efficient thermogenesis in brown adipose tissue". *Cell Metabolism*. 2022 Mar 15:S1550-4131(22)00088-2. Impact factor: 27,287.

Detailed list of peer-reviewed review articles.

89. Crestani M., De Fabiani E., Caruso D., Mitro N., Gilardi F., Vigil Chacon A.B., Patelli R., Godio C., Galli G. "LXR and HNF-4: key regulators in reverse cholesterol transport". *Biochemical Society Transactions*, 2004 Feb., 32 (Pt 1): 92-96. Impact Factor: 2,267.
90. Crestani M., Mitro N., De Fabiani E. "Lipid-activated nuclear receptors: from gene transcription to the control of cellular metabolism". *European Journal of Lipid Science and Technology*, 2004 Jul., 106:432-450. Impact Factor: 1,232.
91. De Fabiani E., Mitro N., Godio C., Gilardi F., Caruso D., Crestani M. "Bile acid signaling to the nucleus: finding new connections in the transcriptional regulation of metabolic pathways". *Biochimie*, 2004 Nov.; 86(11): 771-8. Impact Factor: 3,814.

92. Scotti E., Gilardi F., Godio C., Gers E., Krneta J., Mitro N., De Fabiani E., Caruso D., Crestani M. "Bile acids and their signaling pathways: eclectic regulators of diverse cellular functions". *Cellular and Molecular Life Sciences*, 2007 Oct., 64(19-20):2477-91. Impact Factor: 5,239.
93. Gilardi F., Mitro N., Godio C., Scotti E., Caruso D., Crestani M., De Fabiani E. "The pharmacological exploitation of cholesterol 7 α -hydroxylase, the key enzyme in bile acid synthesis: from binding resins to chromatin remodelling to reduce plasma cholesterol". *Pharmacology and Therapeutics*, 2007 Dec., 116(3): 449-72. Impact Factor: 7,968.
94. Mitro N., Gilardi F., Godio C., Scotti E., De Fabiani E., Caruso D. and Crestani M. "Bile acids and gene regulation: from nuclear receptors to chromatin". *Frontiers in Bioscience*, 2008 May 1;13:6276-88. Impact Factor: 3,308.
95. De Fabiani E., Mitro N., Gilardi F., Galmozzi A., Caruso D., Crestani M. "When food meets man: the contribution of epigenetics to health". *Nutrients*, 2010 May;2(5):551-71. Impact Factor: not available.
96. Melcangi R.C., Giatti S., Pesaresi M., Calabrese D., Mitro N., Caruso D., Garcia-Segura L.M. "Role of neuroactive steroids in the peripheral nervous system". *Frontiers in Endocrinology (Lausanne)*, 2011 Dec 27;2:104. Impact Factor: not available.
97. Ferrari A., Fiorino E., Giudici M., Gilardi F., Galmozzi A., Mitro N., Cermenati G., Godio C., Caruso D., De Fabiani E., Crestani M. "Linking epigenetics to lipid metabolism: focus on histone deacetylases". *Molecular Membrane Biology*, 2012 Nov;29(7):257-66. Impact Factor: 3,130.
98. Cermenati G., Brioschi E., Abbiati F., Melcangi R.C., Caruso D., Mitro N. "Liver X receptors, nervous system, and lipid metabolism". *The Journal of Endocrinological Investigation*, 2013 Jun;36(6):435-43. Impact Factor: 1,552.
99. Melcangi R.C., Giatti S., Calabrese D., Pesaresi M., Cermenati G., Mitro N., Viviani B., Garcia-Segura L.M., Caruso D. "Levels and actions of progesterone and its metabolites in the nervous system during physiological and pathological conditions". *Progress in Neurobiology*, 2014 Feb;113:56-69. Impact Factor: 9,992.
100. Fiorino E., Giudici M., Ferrari A., Mitro N., Caruso D., De Fabiani E., Crestani M. "The sirtuin class of histone deacetylases: regulation and roles in lipid metabolism". *IUBMB Life*, 2014 Feb;66(2):89-99. Impact Factor: 3,143.
101. Audano M., Ferrari A., Fiorino E., Kuenzl M., Caruso D., Mitro N., Crestani M., De Fabiani E. "Energizing Genetics and Epi-genetics: Role in the Regulation of Mitochondrial Function". *Current Genomics*, 2014 Dec;15(6):436-56. Impact Factor: 2,342.
102. Cermenati G., Mitro N., Audano M., Melcangi R.C., Crestani M., De Fabiani E., Caruso D. "Lipids in the nervous system: from biochemistry and molecular biology to pathophysiology". *Biochimica et Biophysica Acta (BBA) - Molecular and Cell Biology of Lipids*, 2015 Jan;1851(1):51-60. Impact Factor: 4,779.
103. Giatti S., Romano S., Pesaresi M., Cermenati G., Mitro N., Caruso D., Tetel M.J., Garcia-Segura L.M., Melcangi R.C. "Neuroactive steroids and the peripheral nervous system: An update". *Steroids*, 2015 Nov;103:23-30. Impact Factor: 2,513.

104. Prinetti A.*, Mitro N.* “FABP1 in wonderland”. *The Journal of Neurochemistry*, 2016 Aug;138(3):371-3. Impact Factor: 4,083. *Both corresponding authors.
103. Ruscica M., Baldessin L., Boccia D., Racagni G., Mitro N. “Non-insulin anti-diabetic drugs: An update on pharmacological interactions”. *Pharmacological Research*, 2017 Jan;115:14-24. Impact Factor: 4,897.
105. Giatti S., Mastrangelo R., D'Antonio M., Pesaresi M., Romano S., Diviccaro S., Caruso D., Mitro N., Melcangi R.C. “Neuroactive steroids and diabetic complications in the nervous system”. *Frontiers in Neuroendocrinology*, 2018 Jan;48:58-69. Impact Factor: 6,875.
106. Audano M.*, Maldini M., De Fabiani E., Mitro N.*, Caruso D. “Gender-related metabolomics and lipidomics: From experimental animal models to clinical evidence”. *The Journal of Proteomics*, 2018 Apr 30;178:82-91. *Both corresponding authors. Impact Factor: 3,722.
107. Botta M., Audano M., Sahebkar A., Sirtori C.R., Mitro N.*, Ruscica M*. “PPAR Agonists and Metabolic Syndrome: An Established Role?” *International Journal of Molecular Sciences*, 2018 Apr 14;19(4). pii: E1197. Impact Factor: 3,687. *Both corresponding authors.
108. Audano M., Schneider A.* , Mitro N.* “Mitochondria, lysosomes, and dysfunction: their meaning in neurodegeneration”. *The Journal of Neurochemistry*, 2018 Nov;147(3):291-309. Impact Factor: 4,609. *Both corresponding authors.
109. Ferrari A., Longo R., Silva R., Mitro N., Caruso D., De Fabiani E., Crestani M. “Epigenome modifiers and metabolic rewiring: New frontiers in therapeutics”. *Pharmacology and Therapeutics*, 2019 Jan;193:178-193. Impact Factor: 10,376.
110. Longo R., Peri C., Cricì D., Coppi L., Caruso D., Mitro N., De Fabiani E., Crestani M. “Ketogenic Diet: A New Light Shining on Old but Gold Biochemistry”. *Nutrients*. 2019 Oct 17;11(10). pii: E2497. Impact Factor: 4,171.
112. Audano M, Pedretti S, Ligorio S, Crestani M, Caruso D, De Fabiani E, Mitro N.*. “The Loss of Golden Touch: Mitochondria-Organelle Interactions, Metabolism, and Cancer”. *Cells*. 2020 Nov 21;9(11):2519. *Corresponding author. Impact Factor: 6,600.
113. Audano M, Pedretti S, Ligorio S, Giavarini F, Caruso D, Mitro N.. “Investigating metabolism by mass spectrometry: From steady state to dynamic view”. *Journal of Mass Spectrometry*. 2021 Jan;56(1):e4658. Impact Factor: 1,982.
114. Coppi L, Ligorio S, Mitro N., Caruso D, De Fabiani E, Crestani M. “PGC1s and Beyond: Disentangling the Complex Regulation of Mitochondrial and Cellular Metabolism”. *International Journal of Molecular Sciences*. 2021 Jun 27;22(13):6913. Impact Factor: 5,923.
115. Audano M., Pedretti S., Caruso D., Crestani M., De Fabiani E.* , Mitro N.* Regulatory mechanisms of the early phase of white adipocyte differentiation: an overview. *Cellular and Molecular Life Sciences*. 2022 Feb 20;79(3):139. *Both corresponding authors. Impact Factor: 9,261.

Presentations and Seminars:

Seminars at Universities and National and International Institutes, over 20 invitations to International and National Conferences.

Memberships:

Prof. Mitro is a member of the following scientific societies:

From 2017	Società Chimica Italiana (SCI) - divisione Spettrometria di Massa
From 2016	European Atherosclerosis Society (EAS)
From 2015	International Society for Neurochemistry (ISN)
From 2015	European Society for Neurochemistry (ESN)
From 2013	Federation of European Neuroscience Societies (FENS)
From 2012	European Association for the Study of Diabetes (EASD)
From 2004	Federation of European Biochemical Societies (FEBS)
From 2004	Società Italiana di Biochimica e Biologia Molecolare (SIB)
From 2001	Società Italiana per lo Studio dell'Aterosclerosi (SISA)

Since 2017 Prof. Mitro has been a member of the board of the European Society for Neurochemistry (ESN).

Since 2015 Prof. Mitro is a member of the board of the Italian Society for the Study of Atherosclerosis (SISA) Lombardy section.

Scientific Collaborations:

Prof. Mitro actively collaborates with different groups both at national and international level: Prof. M. Di Luca, Prof. F. Gardoni, Prof. G.D. Norata, Prof. A.L. Catapano, Prof. A. Maggi, Prof. R.C. Melcangi, Prof. M.P. Abbracchio, Dr. S. Ceruti, Dr. M. Ruscica, Dr. I. Eberini at the Department of Pharmacological and Biomolecular Sciences and with Prof. P. Ciana of the Department of Health Sciences within the University of Milan. Also collaborate with Dr. G. Natoli, B. Amati and V. Costanzo from IFOM-IEO Campus in Milan; Dr. V. Tiranti from the Neurological Institute "C. Besta", Milan, Prof. G. Martello, Prof. S. Dupont and Prof. L. Scorrano from the University of Padua, Prof. G. Del Sal from the University of Trieste, Prof. S. Buratta and Prof. C. Emiliani from the University of Perugia, Prof. B. Borroni of the University of Brescia, Prof. F. Tempia and Prof. A. Brusco of the University of Turin, Prof. C. Taveggia of IRCCS San Raffaele Hospital, Prof. E. Saez, The Scripps Research Institute, La Jolla, CA, USA, and Prof. Luis Miquel Garcia-Segura, Instituto Cajal, C.S.I.C., Madrid, Spain.

Grants:

Prof. Mitro has contributed to obtaining various funding for scientific research through the elaboration and drafting of research projects coordinated by himself.

2020-2026: Italian Association for Cancer Research (AIRC) Individual Grant 2019-call. "An integrative approach for the systematic characterization of mitochondrial regulators in hepatocellular carcinoma". Amount funded: 1.076.000 Euro.

2020-2023: European Foundation for the Study of Diabetes (EFSD). "Dissecting the role of Zc3h10 in adipose tissues: a new player in type 2 diabetes onset/progression" Amount funded: 100.000 Euro.

2020 -2023: Regional Foundation for Biomedical Research. "An integrated omics approach for patients with rare neurological disorders: towards personalized clinical care and trial readiness". Amount founded: 433.300 Euro.

2015-2019: European Foundation for the Study of Diabetes (EFSD). "Unravelling the role of the novel mitochondrial regulator/RNA binding protein Zc3h10 in diabetes. Amount funded: 100.000 Euro.

2015-2019 Cariplo Foundation - Call for biomedical research conducted by young researchers. "Impact of blunted fatty acid synthesis on the development of diabetic peripheral neuropathy: deciphering the role of the lipogenic factor SREBP-1c". Amount funded: 249.246 Euro.

2014-2017 Ministry of Health - Call for Young Researchers 2011. "Dissecting the role of Peroxisome Proliferator Activated Receptor range coactivator-1alpha (PGC-1 α) and adipose triglyceride lipase (ATGL) in Parkinson's disease". Amount funded: 50.000 Euro.

2014-2017 Ministry of Health - Call for Young Researchers 2011. "Investigating the adaptive/maladaptive balance in ER-stress response: insights from a CMT1B neuropathy mouse model". Amount funded: 30.000 Euro.

2011-2013 Giovanni Armenise-Harvard Foundation Career Development Award. "Role of LXR on sciatic nerve myelin lipid composition in diabetes." Coordinator: Prof. Nico Mitro. Amount funded: \$400,000 (305.000 Euro).

2008-2011 Giovanni Armenise-Harvard Foundation Career Development Award. "Transcriptional link between diabetes and atherosclerosis." Amount financed: \$600,000 (457.000 Euro).

2007-2008 American Heart Association post-doctoral fellowship. "The oxysterol receptor LXR as a link between atherosclerosis and hyperglycemia." Amount financed: \$81,000 (62.000 Euro).

Prof. Mitro has also participated and is participating in the following research projects:
2019-2023 Italian Association for Cancer Research. "The impact of mutant p53 dependent cellular metabolism in cancer".

2019-2023 Italian Association for Cancer Research. "Characterization of a metabolic tumor-suppressor pathway regulated by mechanical tissue tension".

2018-2021 Italian Multiple Sclerosis Foundation. "Innovative re-myelinating strategies for multiple sclerosis via the exploitation of the new oligodendrocyte receptor GPR17".

2017-2020 Cariplo Foundation - Call for biomedical research on age-related diseases. "Proprotein convertase subtilisin/kexin type 9 (PCSK9): a link between lipotoxicity, mitochondrial dysfunction and frailty-associated heart failure".

2017-2019 Pfizer Aspire call for projects "Unveiling the role of PCSK9 in heart physiology: focus on fatty acid metabolism, mitochondrial function and lipotoxicity".

2013-2018 VII Framework Programme. "Health and the Understanding of Metabolism, Aging and Nutrition".

2012-2015 Cariplo Foundation - Biomedical research call. "Diabetic peripheral neuropathy: relationships between neuroactive steroids and myelin lipid synthesis".

2008-2012 Cariplo Foundation - Call for biomedical research. "Histone deacetylase in the pathophysiology of lipid metabolism: multidisciplinary approaches in genetically modified cellular and animal models".

2006-2010 VI Framework Programme. "Application-oriented studies on regulatory networks involved in lipid homeostasis and atherosclerosis." SOUTH LSHM-CT 2006-037498.

2005-2007 MIUR - PRIN ANNOUNCEMENT 2005-2007. "Chlamydia and spirochaetes infection: effect on hepatic lipid metabolism and evaluation of macrophagic response".

2005-2007 MIUR - PRIN ANNOUNCEMENT 2005-2007. "Design, synthesis and pharmacological evaluation of anti-atherosclerotic and hypolipidemic drugs."

2004-2006 TELETHON Foundation Project. "Inhibition of histone deacetylase as a novel approach for the therapy of monogenic familial hypercholesterolemia and the prevention of the associated premature coronary artery disease."

2004-2006 MIUR - CALL PRIN 2004-2006. "Global genomic approach for the study of bile acid regulation of genes relevant to the metabolic syndrome."

2004 FIRST. "Regulation of transcription in the hepatic metabolism and in the vascular part by physiological stimuli and dietary components".

2002-2004 MIUR - PRIN ANNOUNCEMENT 2002-2004. "Regulation of the gene encoding the enzyme cholesterol 7alpha-hydroxylase (CYP7A1) by bile acids: role of coadjutor of transcription and chromatin in different experimental models".

2002 FIRST. "Oxidized cholesterol products: modulation of their synthesis by physiological stimuli and natural antioxidants and effect on gene expression".

2001-2004 CEE Project, V Framework Programme. "Studies on the role of orphan nuclear receptors on cholesterol catabolism as new pharmacological targets for cardiovascular diseases and search for ligands modulating their activity NORTh QLG1-CT 2001-01513."

National and international prizes and awards for research activities:

Career Awards:

10/2009 Galeno Prize as best young researcher.

10/2008 Young researcher award "Giovanni Galli" for the study of atherosclerosis. Italian Society for the study of atherosclerosis (SISA).

05/2006 Best researcher of the Genomics Institute of the Novartis Research Foundation.

10/2003 Young researcher award for the study of atherosclerosis. Italian Society for the Study of Atherosclerosis (SISA).

Abstract awarded at congresses:

09/2010 Best poster award at the 55th National Congress of the Italian Society of Biochemistry and Molecular Biology Milan, 14-17 September 2010.

11/2009 Astrazeneca Award as best presentation at the XXIII National Congress of the Italian Society for the Study of Atherosclerosis (SISA). Rome 25-28 November 2009.

10/2004 "Young Researcher Award" at the 15th International Symposium on Drugs Affecting Lipid Metabolism (DALM), Venice, 24-27 October 2004.

9/2004 Best poster award at the 49th National Congress of the Italian Society of Biochemistry (SIB), Riccione, 28 September - 1 October 2004.

Scholarships:

11/2010 Travel fellowship for participation in the annual congress of the Italian Society for the Study of Atherosclerosis (SISA).

04/2010 Postdoctoral travel fellowship for the participation to the annual congress of the American Society Molecular Biology (ASMB).

02/2010 Winner of a scholarship from the Italian Society of Biochemistry for research abroad at The Scripps Research Institute, La Jolla, CA, USA.

Patent holders:

Prof. Mitro holds the following patents:

1. "New synthetic ligands of PPARalpha and gamma for the therapy of diabetes and atherosclerosis" (2004). Patent number: MI2004A000405.
2. "A new hypocholesterolemic approach mediated by the upregulation of cholesterol 7-alpha hydroxylase gene transcription" (2005). Patent number: WO2005105066.

Review of manuscripts for indexed international scientific journals:

Prof. Mitro is a reviewer for international scientific journals including Nature Communications, Cell Metabolism, Diabetes, British Journal of Nutrition, Cell Biochemistry & Function, Oncotarget, Journal of Neuroendocrinology, Pharmacological Research, PLOS One, Neurobiology of Disease, FEBS Letters, Molecular and Cellular Biology, Journal of Lipid Research, Biochimica et Biophysica Acta (BBA) - Molecular and Cell Biology of Lipids, Journal of Neurochemistry.

Evaluation activities in the context of national and international competitive selection procedures:

Prof. Mitro is evaluator of research projects of both national and international bodies including the Ministry of Education, University and Research (MIUR) in particular for the SIR 2014, Future in Research 2013, Diabetes UK, the French National Research Agency and Dutch Research Council.

Teaching activities:

From March 1st, 2020.

- Holder of the Biochemistry course line M-Z for Degree Course in Chemistry and Pharmaceutical Technology 8 CFU (64 hours total)

From October 1st, 2011 to date.

- Holder of the Applied Biochemistry course line M-Z for Degree Course in Chemistry and Pharmaceutical Technology 7 CFU + 1 CFU laboratory (72 hours total).

October 1st, 2015 to September 30th, 2019.

- Holder of the Biochemistry module of the Biochemistry and Human Nutrition course for Degree Course in Herbal Science and Technology 7 CFU (56 hours total).

In the academic year 2014/2015.

- Holder of the Molecular Mechanisms and Biotransformation Adjustments course (4 CFU, 32 hours) for the Degree Course in Chemical-Toxicological Sciences and Safety of the Environment.

Integrative teaching activities:

From 2001 to 2005 and from 2008 to August 31st, 2011:

Laboratory exercises, seminars and participation in exam boards of the Faculty of Pharmaceutical Sciences, as an expert in the subject for the following courses:

- Integrated course of Biochemistry for the Degree Course in Pharmaceutical Biotechnology, Prof. Maurizio Crestani.
- Biochemistry course for the Degree Course in Pharmaceutical Chemistry and Technology, Prof. Donatella Caruso.
- Applied Biochemistry Course for the Degree Course in Pharmaceutical Chemistry and Technology, Prof. Donatella Caruso and Dr. Emma De Fabiani.

From 2011 to 2014:

Laboratory Exercises

- Integrated course of Biochemistry for the Degree Course in Pharmaceutical Biotechnology, Prof. Maurizio Crestani.

From 2013 to 2014.

Laboratory exercises

- Molecular Biology Module for the Degree Course in Pharmaceutical Biotechnology, Dr. Emma De Fabiani.

From 2009 to date Prof. Mitro has also been supervisor of more than 20 and co-rapporteur of 8 experimental theses for the bachelor's degree courses in Pharmaceutical Biotechnology (Bachelor's degree), Pharmaceutical Biotechnology (Master's degree) and Pharmaceutical Chemistry and Technology (single cycle degree).

Prof. Mitro has carried out tutoring of PhD students in Biochemical Sciences (2 Ph.D. students) and in Experimental and Clinical Pharmacological Sciences of the University of Milan (1 Ph.D. student).

Student service activities:

Since 2016, Prof. Mitro has also been tutoring students on the degree course in Chemistry and Pharmaceutical Technology for internships in pharmacy. To date, Prof. Mitro has supervised more than 40 students.

Finally, Prof. Mitro has been and is a member of the Supervisory Committee for the State examinations for the qualification to the profession of pharmacist (from 2011 to 2015) and for the entry tests for the degree courses in Pharmacy and in Pharmaceutical Chemistry and Technology for the Faculty of Pharmaceutical Sciences.

Institutional, organizational and service activities:

Since 2013 Prof. Mitro has been a member of the board of professors of the PhD in Biochemical Sciences and since 2018 of the PhD in Biomolecular, Experimental and Clinical Pharmacological Sciences of the University of Milan.

From 2016 to 2019, Prof. Mitro has been a member of the review committee (commissione del riesame) for the Degree Course in Herbal Sciences and Technologies.

Since 2017, Prof. Mitro is H2020 delegate for the Department of Pharmacological and Biomolecular Sciences.

2019 President and organizer of the European Society for Neurochemistry Biennial Conference "Molecular Mechanisms of Regulation of the Nervous System". Milan, September 1-4.

2017 Organizer of the symposium "Regulatory pathways of organelles affecting CNS and PNS pathophysiology" at the ISN-ESN International meeting. Paris, August 20-24.

2013 Member of the Scientific Committee of the 54th International Conference on the Bioscience of Lipids (ICBL), Bari, 17-21 September.

2005 Member of the local organizing committee of the 3rd International Symposium on Ppars Efficacy and Safety: from basic science to clinical applications, Monte Carlo, 19-23 March.

From 2012 to date member of the local organizing committee of Neurosteroids and Nervous System International meeting.

Personal data processing

I authorize the processing of my personal data in accordance with Legislative Decree no. 196 of 30 June 2003 (Personal Data Protection Code) and its subsequent amendments and additions, as well as EU Regulation 679/2016 (General Regulation on Data Protection or, more briefly, RGPD).