

Maria Moreno
Prof. Ordinario di Fisiologia
Università degli Studi del Sannio

ESPERIENZA LAVORATIVA:

Da novembre 2015: Professore Ordinario di Fisiologia (BIO-09) presso il Dipartimento di Scienze e Tecnologie dell'Università degli Studi del Sannio.

2002- novembre 2015: Professore Associato di Fisiologia (BIO-09) presso la Facoltà di Scienze MM.FF.NN. (attualmente Dipartimento di Scienze e Tecnologie) dell'Università degli Studi del Sannio.

1996-2002: Ricercatore Universitario di Fisiologia (BIO-09) presso la Facoltà di Scienze MM.FF.NN. (attualmente Dipartimento di Scienze e Tecnologie) dell'Università degli Studi del Sannio.

CARICHE/ INCARICHI ATENEO

2024-2026- Presidente del Consiglio di Corso di Laurea in Scienze Motorie per lo Sport e la Salute (L-22).

2023-ad oggi Componente del Laboratorio permanente sulla didattica della Fondazione CRUI"

2023 ad oggi Membro del Comitato Scientifico della Fondazione Idis-Città della Scienza

2022-ad oggi- Delegata del Rettore alla Didattica

2022-ad oggi Delegata del Rettore alla Commissione didattica CRUI

Novembre 2019-2022 Direttore del Dipartimento di Scienze e Tecnologie, Università degli Studi del Sannio

Novembre 2016- 2019-Direttore del Dipartimento di Scienze e Tecnologie, Università degli Studi del Sannio

Novembre 2013-2015- Presidente del Corso di Laurea in Biotecnologie, Dipartimento di Scienze e Tecnologie-Università degli Studi del Sannio

Novembre 2015 - 2016- Presidente del corso di Laurea in Scienze e Tecnologie Genetiche, Dipartimento di Scienze e Tecnologie- Università degli Studi del Sannio

Febbraio 2011-settembre 2012: Membro della Commissione di stesura dello Statuto dell'Università degli Studi del Sannio

2013-2016- Responsabile del Piano Lauree Scientifiche (PLS) in Biologia e Biotecnologie per l'Università del Sannio

2010-2013-Presidente Vicario della Facoltà di Scienze MM FF NN, Università degli Studi del Sannio

2005-2010- Presidente del Corso di Laurea in Scienze Biologiche, Facoltà di Scienze MM FF NN, Università degli Studi del Sannio.

2004-2007- Direttore Vicario Dipartimento di Scienze Biologiche ed Ambientali (attualmente Dipartimento di Scienze e Tecnologie), Università degli Studi del Sannio.

FORMAZIONE:

Dicembre 1995: Dottore di Ricerca in Fisiologia, Università degli Studi di Napoli.

Luglio 1989: Laurea in Scienze Biologiche, Università degli Studi di Napoli.

2012 ASN - Avvenuto conseguimento dell'Abilitazione Scientifica Nazionale alle funzioni di professore universitario di Prima Fascia nel Settore. Concorsuale 05/D1 - Fisiologia

2013- ad oggi : Membro della Società Italiana di Fisiologia

2023-ad oggi Componente della Commissione ASN 05/D1- Fisiologia

2003- 2013 Membro del Consiglio dei Docenti del Dottorato in SCIENZE DELLA TERRA E DELLA VITA, Università degli Studi del Sannio

2013- ad oggi Membro del Consiglio dei Docenti del Dottorato in SCIENZE E TECNOLOGIE PER L'AMBIENTE E LA SALUTE, Università degli Studi del Sannio

ULTERIORI INFORMAZIONI

Fellowships presso "Biochemistry and Molecular Biology Laboratory of the Department of Fundamental Biology and Health Sciences", University of Balearic Islands, Palma de Mallorca, Spagna e presso "Department of Internal Medicine III" Erasmus University, Medical School, Rotterdam, Olanda

Attività di revisore per alcune tra le più importanti riviste internazionali della "Endocrine Society" (Endocrinology, Molecular Endocrinology, Journal Clinical Endocrinology and Metabolism, J of Endocrinology), riviste di Fisiologia e Biochimica (Journal of Physiology, Biochem Biophys Acta, FEBS Letters). Ha svolto e svolge attività di reviewer per progetti PRIN, FIRB e per VQR.

ATTIVITA' DIDATTICA

dal 1999 al 2023: docente del corso di Fisiologia Generale

dal 2016 al 2022: docente del corso di Fisiologia Molecolare

dal 2023 ad oggi: docente del corso di Neurofisiologia Sperimentale
dal 2024: docente del corso di Fisiologia cellulare e molecolare

ATTIVITA' DI RICERCA

Autore di pubblicazioni scientifiche su tematiche di Fisiologia Cellulare e Molecolare, Metabolismo ed Endocrinologia. Le attività di ricerca sono principalmente collocate nel campo della regolazione del metabolismo energetico a livello cellulare/molecolare con particolare riguardo alla identificazione e caratterizzazione delle funzioni mitocondriali in condizioni sia fisiologiche che fisiopatologiche e anche mediante approcci di proteomica funzionale. Le competenze scientifiche della Professoressa Moreno riguardano principalmente l'effetto degli ormoni tiroidei sul metabolismo energetico ed il loro meccanismo d'azione.

I principali argomenti trattati sono:

Effetti dell'esercizio fisico e della nutrizione sull'attività metabolica in modelli animali sottoposti a diversi regimi alimentari.

Effetti biologici della 3,5-diiodotironina.

Effetto degli ormoni tiroidei sul proteoma epatico e muscolare di ratto.

Omeostasi metabolica: meccanismi cellulari-molecolari ed aspetti fisiopatologici correlati al metabolismo lipidico.

Meccanismi e vie molecolari dell'effetto in colture cellulari degli ormoni tiroidei attraverso lo studio della bioenergetica mitocondriale.

Processi molecolari e bioenergetici associati all'invecchiamento nel muscolo di ratto.

Effetto dell'invecchiamento e della senescenza sull'omeostasi sistemica e periferica dell'ormone tiroideo e sull'attività deiodinasica.

Proteine disaccoppianti ed effetto calorigenico degli ormoni tiroidei

Editore associato della rivista *Frontiers in Thyroid Endocrinology*, *Frontiers in Physiology* e della rivista *Immunology, Endocrine & Metabolic Agents in Medicinal Chemistry*. Guest editor di *Frontiers in Physiology*

Responsabile scientifico di progetti nazionali ed internazionali.

PUBBLICAZIONI SCIENTIFICHE

1. GIACCO A, PETITO G, SENESE R, MORENO M, LOMBARDI A, LANNI A, DE LANGE P (2025) The central benefit of physiologically induced ketogenic states. *The Journal of Physiology* DOI: 10.1113/JP287462
2. GIACCO A, IERVOLINO S, CIOFFI F, PELUSO T, MERCURIO G, ROBERTO L, DE ROSA V, CAMMAROTA M, VARRICCHIO S, STAIBANO S, BOSCIA F, CANZONIERO

- LMT, DE FELICE M, AMBROSINO C, MORENO M, SILVESTRI E (2024) Brain Abnormalities in Young Single- and Double-Heterozygote Mice for Both Nkx2-1- and Pax8-Null Mutations. *Molecular Neurobiology* <https://doi.org/10.1007/s12035-024-04524-7>
3. GIACCO A, PETITO G, SILVESTRI E, SCOPIGNO N, MERCURIO G, DE LANGE P, LOMBARDI A, MORENO M, GOGLIA F, LANNI A, SENESE R, CIOFFI F (2024) Comparative effects of 3,5-Diiodo-L-Thyronine (3,5-T2) and 3,5,3'-Triiodo-L-Thyronine (T3) on mitochondrial damage and cGAS/STING-driven inflammation in liver of hypothyroid rats. *Frontiers in Endocrinology-Cellular Endocrinology* ID: 1432819
4. IERVOLINO S, SCARANO P., MADERA J R, FRANCO C, TARTAGLIA M, STILO R, SCIARRILLO R, CANZONIERO LMT, MORENO M; GUARINO C (2024) Vitis vinifera L. cv. Falanghina Seed Extracts: Antioxidant Effect of Bioactive Compounds on HepG2 Cells. *Antioxidants* 2024, 13, 834. <https://doi.org/10.3390/antiox13070834>
5. DE LANGE P, LOMBARDI A, SILVESTRI E, CIOFFI F, GIACCO A, IERVOLINO S, PETITO G, SENESE R, LANNI A, MORENO M (2023). Physiological Approaches Targeting Cellular and Mitochondrial Pathways Underlying Adipose Organ Senescence. *International Journal of Molecular Sciences*, VOL. 24, ISSN: 1661-6596, DOI:10.3390/IJMS241411676
6. ZOTTI T, GIACCO A, CUOMO A, CERULO L, PETITO G, IERVOLINO S, SENESE R, CIOFFI F, VITO P, CARDINALE G, SILVESTRI E, LOMBARDI A, MORENO M, LANNI A, DE LANGE P (2023). Exercise Equals the Mobilization of Visceral versus Subcutaneous Adipose Fatty Acid Molecules in Fasted Rats Associated with the Modulation of the AMPK/ATGL/HSL Axis. *Nutrients*, VOL. 15, ISSN: 2072-6643, DOI: 10.3390/NU15143095
7. CIOFFI F, GIACCO A, PETITO G, DE MATTEIS R, SENESE R, LOMBARDI A, DE LANGE P, MORENO M, GOGLIA F, LANNI A, SILVESTRI E (2022) Altered Mitochondrial Quality Control in Rats with Metabolic Dysfunction-Associated Fatty Liver Disease (MAFLD) Induced by High-Fat Feeding. *Genes*, 13(2), 315
8. GIACCO A, CIOFFI F, CUOMO A, SIMIELE R, SENESE R, SILVESTRI E, AMORESANO A, FONTANAROSA C, PETITO G, MORENO M, LANNI A, LOMBARDI A, DE LANGE P (2022) Mild Endurance Exercise during Fasting Increases Gastrocnemius Muscle and Prefrontal Cortex Thyroid Hormone Levels through Differential BHB and BCAA-Mediated BDNF-mTOR Signaling in Rats. *Nutrients* 14(6), 1166
9. GENTILE A, MAGNACCA N, DE MATTEIS R, MORENO M, CIOFFI F, GIACCO A, LANNI A, DE LANGE P, SENESE R, GOGLIA F, SILVESTRI E, LOMBARDI A (2022) Ablation of uncoupling protein 3 affects interrelated factors leading to lipolysis and insulin resistance in visceral white adipose tissue *FASEB Journal*, 36(5), e22325
10. GIACCO A, PELUSO T, CIOFFI F, IERVOLINO S, MERCURIO G, ROBERTO L, REALE C, COLELLA M, DE FELICE M, MORENO M, AMBROSINO C, SILVESTRI E (2022) Pax8 and Nkx2-1 haploinsufficiencies differentially affect liver metabolic pathways. *Journal of Endocrinology*, 253(3), pp. 115–132
11. PETITO G, CIOFFI F, SILVESTRI E, DE MATTEIS R, LATTANZI D, DE LANGE P, LOMBARDI A, MORENO M, GOGLIA F, LANNI A, SENESE R (2021) 3,5-Diiodo-L-Thyronine (T2) Administration Affects Visceral Adipose Tissue Inflammatory State in Rats Receiving Long-Lasting High-Fat Diet. *Front Endocrinol (Lausanne)* 2021 Jul 12;12:703170. doi: 10.3389/fendo.2021.703170. eCollection 2021
12. GIACCO A, SILVESTRI E, SENESE R, CIOFFI F, CUOMO A, LOMBARDI A, MORENO M, LANNI A, DE LANGE P (2021). Exercise with Energy Restriction as a Means of Losing Body Mass while Preserving Muscle Quality and Ameliorating Co-morbidities: Towards a Therapy for Obesity?. *Translational Medicine and Exercise Prescription*, p. 13-24, ISSN: 2653-2220

13. SILVESTRI E, SENESE R, DE MATTEIS R, CIOFFI F, MORENO M, LANNI A, GENTILE A, BUSIELLO RA, SALZANO AM, SCALONI A, DE LANGE P, GOGLIA F, LOMBARDI A (2020) Absence of uncoupling protein 3 at thermoneutrality influences brown adipose tissue mitochondrial functionality in mice. *FASEB J.* 2020 34(11):15146-15163. doi: 10.1096/fj.202000995R
14. GIACCO A, DELLI PAOLI G, SIMIELE R, CATERINO M, RUOPPOLO M, BLOCH W, KRAAIJ R, UITTERLINDEN AG, SANTILLO A, SENESE R, CIOFFI F, SILVESTRI E, IERVOLINO S, LOMBARDI A, MORENO M, GOGLIA F, LANNI A, DE LANGE P. (2020) Exercise with food withdrawal at thermoneutrality impacts fuel use, the microbiome, AMPK phosphorylation, muscle fibers, and thyroid hormone levels in rats. *Physiol Rep.* 2020 8(3):e14354. doi: 10.14814/phy2.14354
15. LOMBARDI A, BUSIELLO RA, DE MATTEIS R, LIONETTI L, SAVARESE S, MORENO M, GENTILE A, SILVESTRI E, SENESE R, DE LANGE P, CIOFFI F, LANNI A, GOGLIA F (2019) Absence of Uncoupling Protein-3 at Thermoneutrality Impacts Lipid Handling and Energy Homeostasis in Mice. *CELLS* 8(8). pii: E916. doi: 10.3390/cells8080916
16. CIOFFI F, SENESE R, PETITO G, LASALA P, DE LANGE P, SILVESTRI E, LOMBARDI A, MORENO M, GOGLIA F, LANNI A (2019) Both 3,3',5-triiodothyronine and 3,5-diiodo-L-thyronine Are Able to Repair Mitochondrial DNA Damage but by Different Mechanisms. *Front Endocrinol (Lausanne).*;10:216. doi: 10.3389/fendo.2019.00216. eCollection 2019
17. SENESE R, CIOFFI F, DE MATTEIS R, PETITO G, DE LANGE P, SILVESTRI E, LOMBARDI A, MORENO M, GOGLIA F, LANNI A (2019) 3,5 Diiodo-L-Thyronine (T₂) Promotes the Browning of White Adipose Tissue in High-Fat Diet-Induced Overweight Male Rats Housed at Thermoneutrality. *CELLS.* 8(3). pii: E256. doi: 10.3390/cells8030256
18. SILVESTRI E, SENESE R, CIOFFI F, DE MATTEIS R, LATTANZI D, LOMBARDI A, GIACCO A, SALZANO AM, SCALONI A, CECCARELLI M, MORENO M, GOGLIA F, LANNI A, DE LANGE P (2019) 3,5-Diiodo-L-Thyronine Exerts Metabolically Favorable Effects on Visceral Adipose Tissue of Rats Receiving a High-Fat Diet. *Nutrients.* pii: E278. doi: 10.3390/nu11020278
19. GIACCO A, DELLI PAOLI G, SENESE R, CIOFFI F, SILVESTRI E, MORENO M, RUOPPOLO M, CATERINO M, COSTANZO M, LOMBARDI A, GOGLIA F, LANNI A, DE LANGE P (2019) The saturation degree of fatty acids and their derived acylcarnitines determines the direct effect of metabolically active thyroid hormones on insulin sensitivity in skeletal muscle cells. *FASEB J.* 33(2):1811-1823. doi: 10.1096/fj.201800724R
20. SENESE R, DE LANGE P, PETITO G, MORENO M, GOGLIA F, LANNI A (2018) 3,5-Diiodothyronine: A Novel Thyroid Hormone Metabolite and Potent Modulator of Energy Metabolism. *Front Endocrinol (Lausanne).* 9:427. doi: 10.3389/fendo.2018.00427. eCollection 2018. Review
21. SILVESTRI E, LOMBARDI A, COPPOLA M, GENTILE A, CIOFFI F, SENESE R, GOGLIA F, LANNI A, MORENO M, DE LANGE P (2018) Differential Effects of 3,5-Diiodo-L-Thyronine and 3,5,3'-Triiodo-L-Thyronine On Mitochondrial Respiratory Pathways in Liver from Hypothyroid Rats. *Cell Physiol Biochem.* 2018;47(6):2471-2483. doi: 10.1159/000491620
22. SILVESTRI E, CIOFFI F, DE MATTEIS R, SENESE R, DE LANGE P, COPPOLA M, SALZANO AM, SCALONI A, CECCARELLI M, GOGLIA F, LANNI A, MORENO M, LOMBARDI A (2018) 3,5-Diiodo-L-Thyronine Affects Structural and Metabolic Features of Skeletal Muscle Mitochondria in High-Fat-Diet Fed Rats Producing a Co-adaptation to the Glycolytic Fiber Phenotype. *Front Physiol.* 9:194. doi: 10.3389/fphys.2018.00194. eCollection 2018
23. SENESE R, CIOFFI F, DE LANGE P, LEANZA C, IANNUCCI LF, SILVESTRI E, MORENO M, LOMBARDI A, GOGLIA F, LANNI A (2017) Both 3,5-Diiodo-L-Thyronine

- and 3,5,3'-Triiodo-L-Thyronine Prevent Short-term Hepatic Lipid Accumulation via Distinct Mechanisms in Rats Being Fed a High-Fat Diet. *Front Physiol.* 2017 8:706. doi: 10.3389/fphys.2017.00706. eCollection 2017
24. MORENO M, GIACCO A, DI MUNNO C, GOGLIA F (2017) Direct and rapid effects of 3,5-diiodo-L-thyronine (T2). *Mol Cell Endocrinol.* 458:121-126. doi: 10.1016/j.mce.2017.02.012
 25. MORENO M, SILVESTRI E, COPPOLA M, GOLDBERG IJ, HUANG Li-Shin, SALZANO AM, D'ANGELO F, EHRENKRANZ JR, GOGLIA F (2016) 3,5,3'-Triiodo-L-Thyronine- and 3,5-Diiodo-L-Thyronine- Affected Metabolic Pathways in Liver of LDL Receptor Deficient Mice. *Front. Physiol.*, <http://dx.doi.org/10.3389/fphys.2016.00545>
 26. LANNI A, MORENO M, GOGLIA F (2016) Mitochondrial actions of thyroid hormone. *Compr Physiol.* 6(4):1591-1607. doi: 10.1002/cphy.c150019
 27. MORENO M, LANNI A (2016) Editorial: Hormonal and Neuroendocrine Regulation of Energy Balance. *Front Physiol.* 6:403. doi: 10.3389/fphys.2015.00403. eCollection 2015
 28. COPPOLA M, CIOFFI F, MORENO M, GOGLIA F, SILVESTRI E (2016) 3,5-diiodo-L-thyronine: a possible pharmacological agent? *Curr Drug Deliv.* 2016;13(3):330-8. doi: 10.2174/1567201813666151123124340. PMID: 26593437
 29. LOMBARDI A, MORENO M, DE LANGE P, IOSSA S, BUSIELLO RA, GOGLIA F (2015) Regulation of skeletal muscle mitochondrial activity by thyroid hormones: focus on the "old" triiodothyronine and the "emerging" 3,5-diiodothyronine. *Front Physiol.* 6:237. doi: 10.3389/fphys.2015.00237. eCollection 2015
 30. COPPOLA M, GLINNI D, MORENO M, CIOFFI F, SILVESTRI E, GOGLIA F (2014) Thyroid hormone analogues and derivatives: Actions in fatty liver. *World J Hepatol.* 6(3):114-29. doi: 10.4254/wjh.v6.i3.114
 31. SILVESTRI E, COPPOLA M, ZIELLO A, LASALA P, LEANZA C, MORENO M (2013). Insight on the body fat lowering effect of 3,5-Diiodo-L-Thyronine. *Immunology, Endocrine & Metabolic Agents in Medicinal Chemistry*, vol. 13, p. 159-164, ISSN: 1871-5222
 32. DE LANGE P, CIOFFI F, SILVESTRI E, MORENO M, GOGLIA F, LANNI A (2013) (Healthy) ageing: focus on iodothyronines. *Int J Mol Sci.* 2013 Jul 4;14(7):13873-92. doi: 10.3390/ijms140713873
 33. SILVESTRI E, GLINNI D, CIOFFI F, MORENO M, LOMBARDI A, DE LANGE P, SENESE R, CECCARELLI M, SALZANO AM, SCALONI A, LANNI A, GOGLIA F (2012). Metabolic effects of the iodothyronine functional analogue TRC150094 on the liver and skeletal muscle of high-fat diet fed overweight rats: an integrated proteomic study. *Molecular Biosystems*, vol. 8, p. 1987-2000
 34. DEL VISCOVO A, SECONDO A, ESPOSITO A, GOGLIA F, MORENO M, CANZONIERO LMT (2012). Intracellular and plasma membrane-initiated pathways involved in the [Ca²⁺]_i elevations induced by iodothyronines (T3 and T2) in pituitary GH3 cells. *American Journal of Physiology: Endocrinology and Metabolism*, vol. 302, p. 1419-1430
 35. LOMBARDI A, DE MATTEIS R, MORENO M, NAPOLITANO L, BUSIELLO RA, SENESE R, DE LANGE P, LANNI A, GOGLIA F (2012). Responses of skeletal muscle lipid metabolism in rat gastrocnemius to hypothyroidism and iodothyronine administration: a putative role for FAT/CD36. *American Journal of Physiology: Endocrinology and Metabolism*, vol. 503, p.1222-1233
 36. SILVESTRI E, LOMBARDI A, DE LANGE P, GLINNI D, SENESE R, CIOFFI F, LANNI A, GOGLIA F, MORENO M (2011). *Studies of Complex Biological Systems with Applications to Molecular Medicine: the Need to Integrate Transcriptomic and Proteomic*

Approaches. *Journal of Biomedicine and Biotechnology*, 2011:810242. doi: 10.1155/2011/810242

37. SENESE R, VALLI V, MORENO M, LOMBARDI A, BUSIELLO RA, CIOFFI F, SILVESTRI E, GOGLIA F, LANNI A, DE LANGE P (2011). Uncoupling protein 3 expression levels influence insulin sensitivity, fatty acid oxidation, and related signaling pathways. *Pflugers Archiv*, vol. 461, p. 153-164
38. DE LANGE P, CIOFFI F, SENESE R, MORENO M, LOMBARDI A, SILVESTRI E, DE MATTEIS R, LIONETTI L, MOLLIKA MP, GOGLIA F, LANNI A (2011). Nonthyrototoxic prevention of diet-induced insulin resistance by 3,5-diiodo-L-thyronine in rats. *Diabetes*, vol. 60, p. 2730-2739
39. MORENO M, SILVESTRI E, DE MATTEIS R, DE LANGE P, LOMBARDI A, GLINNI D, SENESE R, CIOFFI F, SALZANO AM, SCALONI A, LANNI A, GOGLIA F (2011). 3,5-Diiodo-L-thyronine prevents high-fat-diet-induced insulin resistance in rat skeletal muscle through metabolic and structural adaptations. *FASEB Journal*, vol. 25, p. 3312-3324
40. ANTONELLI A, FALLAHI P, FERRARI SM, DI DOMENICANTONIO A, MORENO M, LANNI A, GOGLIA F (2011). 3,5-diiodo-L-thyronine increases resting metabolic rate and reduces body weight without undesirable side effects. *Journal of Biological Regulators & Homeostatic Agents*, vol. 60, p. 2730-2739
41. SILVESTRI E, LOMBARDI A, GLINNI D, SENESE R, CIOFFI F, LANNI A, GOGLIA F, MORENO M, DE LANGE P (2011). Mammalian mitochondrial proteome and its functions: current investigative techniques and future perspectives on ageing and diabetes. *Journal of Integrated Omics*, ISSN: 2182-0287. DOI: 10.5584/jiomics.v1i1.51 Review
42. MORENO M, LOMBARDI A, SILVESTRI E, SENESE R, CIOFFI F, GOGLIA F, LANNI A, DE LANGE P (2010). PPARs: nuclear receptors controlled by, and controlling, nutrient handling through nuclear and cytosolic signaling. *PPAR Research*, 2010:435689. doi: 10.1155/2010/435689. Review
43. SILVESTRI E, CIOFFI F, GLINNI D, CECCARELLI M, LOMBARDI A, DE LANGE P, CHAMBERY A, SEVERINO V, LANNI A, GOGLIA F, MORENO M (2010). Pathways affected by 3,5-diiodo-L-thyronine in liver of high fat-fed rats: evidence from two-dimensional electrophoresis, Blue-Native PAGE, and mass spectrometry. *Molecular Biosystems*, vol. 6, p. 2256-2271
44. CIOFFI F, ZAMBAD SP, CHHIPA L, SENESE R, BUSIELLO RA, TULI D, MUNSHI S, MORENO M, LOMBARDI A, GUPTA RC, CHAUTHAIWALE V, DUTT C, DE LANGE P, SILVESTRI E, LANNI A, GOGLIA F (2010). TRC150094, a novel functional analogue of iodothyronines, reduces adiposity by increasing energy expenditure and fatty acid oxidation in rats receiving a high-fat diet. *FASEB Journal*, vol. 24, p. 3451-3461
45. LOMBARDI A, BUSIELLO R.A, NAPOLITANO L, CIOFFI F, MORENO M, DE LANGE P, SILVESTRI E, LANNI A, GOGLIA F (2010). Uncoupling protein-3 (UCP3) translocates lipid hydroperoxide and mediates lipid hydroperoxide-dependent mitochondrial uncoupling. *The Journal of Biological Chemistry*, vol.285, p. 16599-16605
46. CIAVARDELLI D, SILVESTRI E, VISCOVO A, BOMBA M, GREGORIO DD, MORENO M, DI ILIO C, GOGLIA F, CANZONIERO LM, SENSI SL (2010). Alterations of brain and cerebellar proteomes linked to A β and tau pathology in a female triple-transgenic murine model of Alzheimer's disease. *Cell Death & Disease*, vol. 1:e90
47. LOMBARDI A, SILVESTRI E, GLINNI D, GOGLIA F, MORENO M (2010). Insights into sarcopenia: interrelation between protein profiles and mitochondrial functionality in rat

- ageing skeletal muscle. In: EAAP Scientific Series. EAAP PUBLICATION Scientific Series. vol. 127, p. 47-57
48. MOLLICA MP, LIONETTI L, MORENO M, LOMBARDI A, DE LANGE P, LANNI A, BARLETTA A, GOGLIA F (2009) 3,5-diiodo-L-thyronine, by modulating mitochondrial functions, reverses hepatic fat accumulation in rats fed a high-fat diet. *Journal of Hepatology* 51: 363-370
 49. LOMBARDI A, DE LANGE P, SILVESTRI E, BUSIELLO RA, LANNI A, GOGLIA F, MORENO M (2009) 3,5-diiodo-L-thyronine rapidly enhances mitochondrial fatty acid oxidation rate and thermogenesis in rat skeletal muscle: AMP-activated protein kinase involvement. *American Journal of Physiology: Endocrinology and Metabolism*. 296: E497-E502
 50. TALEUX N, GUIGAS B, DUBOCHAUD H, MORENO M, WEITEL J, HUE L, GOGLIA F, FAVIER R, LEVERVE XM (2009) High expression of thyroid hormone receptors and mitochondrial glycerol-3-phosphate dehydrogenase in the liver is linked to enhanced fatty acid oxidation in Lou/C rat strain resistant to obesity. *The Journal of Biological Chemistry*. 284: 4308-431
 51. LOMBARDI A, SILVESTRI E, MAINIERI D, LANNI A, GOGLIA F, DE LANGE P, MORENO M (2009) Defining the transcriptomic profile of rat ageing skeletal muscle using cDNA array, 2D- and Blue Native-PAGE. *Journal of Proteomics*. 72:708-721
 52. VALLE A, SILVESTRI E, MORENO M, CHAMBERY A, OLIVER J, ROCA P, GOGLIA F (2008) Combined effect of gender and caloric restriction on liver proteomic expression profile. *Journal of Proteome Research*. 7: 2872-2881
 53. MORENO M, DE LANGE P, LOMBARDI A, SILVESTRI E, LANNI A, GOGLIA F (2008) Metabolic effects of thyroid hormone derivatives. *Thyroid*. 18: 239-253
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