

PERSONAL INFORMATION

Maria Letizia Trincavelli



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Sex Female | Date of birth 24/08/1969 | Nationality Italian

Enterprise	University	EPR
☐ Management Level	☒ Full professor	☐ Research Director and 1st level Technologist / First Researcher and 2nd level Technologist
☐ Mid-Management Level	☐ Associate Professor	☐ Level III Researcher and Technologist
☐ Employee / worker level	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator	☐ Researcher and Technologist of IV, V, VI and VII level / Technical collaborator

WORK EXPERIENCE

2024-today	Component of the council of the biochemistry full professor board
2020 – 2024	Director of the Department of Pharmacy, University of Pisa
2019-today	Co-director of the Italian node of SAPRK Translational research, University of Pisa
2019 - 2020	Coordinator of PhD Program in Science of Drug and Bioactive substances, University of Pisa, Department of Pharmacy
2016 - today	Full Professor of Biochemistry Department of Pharmacy, University of Pisa, BIO/10 Research and teaching activity in biochemistry and molecular biology
2016 - 2020	Vice-Director of Department of Pharmacy, University of Pisa
2016 - 2018	Vice-CAI (International coordinator) of the Department of Pharmacy, University of Pisa
2014 - 2016	Associate Professor of Molecular Biology Department of Pharmacy, University of Pisa, BIO/11
2001 - 2014	Researcher of Biochemistry Department of Pharmacy, University of Pisa, BIO/10
1998 - 2000	Post Doc fellowship in Biochemistry Department of Psychiatry, Neurobiology, Pharmacology and Biotechnologies, University of Pisa, BIO/10

EDUCATION AND TRAINING

1998	PhD degree in "Disegno, Sviluppo e Biosperimentazione del Farmaco" University of Pisa, Faculty of Pharmacy
1993	Laurea degree "summa cum laude" in Pharmacy with a Thesis in Biochemistry, University of Pisa, Faculty of Pharmacy

WORK ACTIVITIES

Research Field	ML Trincavelli is a biochemist with 20+ year expertise in the biochemistry and biochemical pharmacology of receptor proteins, with particular attention on signal transduction mechanisms of G-protein coupled receptor and the regulation of their functional responses under physiological and pathological conditions. In the last years the research has recently focused on the molecular mechanisms underlying the control of life/death and differentiation processes in different pathologies including cancer, pulmonary fibrosis and neurodegenerative diseases.
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Editorial activity

Guest Editor for two special issue of the International Journal of Molecular Science

Ad hoc reviewer for journals of the ACS, Elsevier, Wiley, Plos, MDPI publishing groups
Grant reviewer for MIUR and MUR (member of REPRISE); FISM Foundation, Italy.

Grants (last 10 years)	- PRIN 2022 Coordinator: "Insight into the molecular mechanisms of pulmonary fibrosis: new targets to control the switch from fibrotic to regenerative fibroblast phenotype - SMILE" (2022NAFK8C) dal 07-10-2023 a oggi -FISM 2022: Unit PI, "Sviluppo di nuovi radiotraccianti del recettore GPR17 per la diagnosi precoce della sclerosi multipla" (2022/R-Multi/018) -PNRR 2022: Partecipant, Missione 4, Componente 2, Investimento 1.5, THE – Tuscany Health Ecosystem Spoke 8 - Sub-project 5: Partecipant, "Neurodegenerative diseases" -Bando Ricerca Salute 2018: Partecipant, "SmarT bioactive perSonalised and Implatable 3d prinTed scaffold for tendOn regeneration", acronimo "TRITONE". -FISM 2018 cod. 2018/R/21: Coordinator, "Struttura cristallografica e caratterizzazione funzionale del recettore GPR17: un bersaglio innovativo per terapie di rimielinizzazione nella Sclerosi Multipla". -PRIN 2015: 2017-2020, Unit PI, Microglia-cell communication in ischemia and glioblastoma (Mechanism). -FISM 2015 cod. 2015/R/11: Local PI, "Characterization of the GPR17 receptor, a novel pharmacological target for remyelination therapy in multiple sclerosis". -UVAR Dipint, University of Pisa 2015: Partecipant, Neurodegenerative diseases: the development of a new diagnostic test detecting α-synuclein complexes with β-amyloid or Tau in human blood. -Ministerial Project PRIN 2012: 2014-2017: Project coordinator, "Il controllo dell'osteoblastogenesi quale nuova strategia terapeutica per le patologie ossee".
Patents	2017 Method for the diagnosis of neurodegenerative diseases. WO2017198554A1 2010 GPR17-modulating compounds, diagnostic and therapeutic uses thereof. WO 2012059869. 2004 GPR17 modulators, method of screening and uses thereof. WO2006045476A3.
Other language(s)	English
Job-related skills	Good organizational, communication and managerial skills acquired through a) the coordination of several national research projects as local and national manager; b) tutoring / supervisor of PhD students and undergraduates; c) institutional positions.
Digital skills	Daily use of software such as Windows Office (Word, Excel, PowerPoint) Excellent command of digital image processing programs (Adobe Photoshop) Excellent command in the use of data analysis and statistical analysis software (ImageJ, Origin and Graph-Pad Prism)

ADDITIONAL INFORMATION

Publications Number of total publications in peer-review journals: **173**
Total number of citations (scopus): **5598**; H index (scopus): **41**

Relevant publications:

- Germelli L, Angeloni E, Da Pozzo E, Tremolanti C, De Felice M, Giacomelli C, Marchetti L, Muscatello B, Barresi E, Taliani S, Da Settimo Passetti F, Trincavelli ML, Martini C, Costa B. 2025 18 kDa TSPO targeting drives polarized human microglia towards a protective and restorative neurosteroidome profile. *Cell Mol Life Sci.* 2025 Jan 6;82(1):34. doi: 10.1007/s00018-024-05544-1

- Marotta C, Cirri D, Kanavos I, Ronga L, Lobinski R, Funaioli T, Giacomelli C, Barresi E, Trincavelli ML, Marzo T, Pratesi A. 2024 Oxaliplatin(IV) Prodrugs Functionalized with Gemcitabine and Capecitabine Induce Blockage of Colorectal Cancer Cell Growth-An Investigation of the Activation Mechanism and Their Nanoformulation. *PHARMACEUTICS.* 16(2):278. doi: 10.3390/pharmaceutics16020278.

-Cirinciani M, Da Pozzo E, Trincavelli ML, Milazzo P, Martini C. *BIOCHEM. PHARMACOL.* 2024 Drug Mechanism: A bioinformatic update. doi: 10.1016/j.bcp.2024.116078. Online ahead of print. PMID: 38402909

-Convertino D, Trincavelli ML, Giacomelli C, Marchetti L, Coletti C. Graphene-based nanomaterials for

peripheral nerve regeneration. FRONT BIOENG BIOTECNOL. 2023 Dec 18;11:1306184. doi: 10.3389/fbioe.2023.1306184.

-Micalizzi S, Russo L, Giacomelli C, Montemurro F, De Maria C, Nencioni M, Marchetti L, Trincavelli ML, Vozzi G (2023). Multimaterial and multiscale scaffold for engineering entheses organ. INTERNATIONAL JOURNAL OF BIOPRINTING, ISSN: 2424- 8002, doi: 10.18063/ijb.

-Daniele S, Saporiti S, Capaldi S, Pietrobono D, Russo L, Guerrini U, Laurenzi T, Ataie Kachoe E, Palazzolo L, Russo V, Abbracchio MP, Eberini I, Trincavelli ML (2023). Functional Heterodimerization between the G Protein-Coupled Receptor GPR17 and the Chemokine Receptors 2 and 4: New Evidence. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol. 24, ISSN: 1422-0067, doi: 10.3390/ijms24010261

-Convertino, D., Nencioni, M., Russo, L., (...), Trincavelli, M.L., Coletti, C. Interaction of graphene and WS2 with neutrophils and mesenchymal stem cells: implications for peripheral nerve regeneration. 2023 NANOSCALE 16(4), pp. 1792-1806 DOI10.1039/d3nr04927b

-Cirri D, Massai L, Giacomelli C, Trincavelli ML, Guerri A, Gabbiani C, Messori L, Pratesi A (2022). Synthesis, chemical characterization, and biological evaluation of a novel auranofin derivative as an anticancer agent. DALTON TRANSACTIONS, vol. 51, p. 13527-13539, ISSN: 1477-9234, doi: 10.1039/d2dt00836j

-Marchetti L, Nifosi R, Martelli PL, Da Pozzo E, Cappello V, Banterle F, Trincavelli ML, Martini C, D'Elia M (2022). Quantum computing algorithms: getting closer to critical problems in computational biology. BRIEFINGS IN BIOINFORMATICS, vol. 23, p. 1-15, ISSN: 1467-5463, doi: 10.1093/bib/bbac437

-Russo L, Giacomelli C, Fortino M, Marzo T, Ferri G, Calvello M, Viegi A, Magrì A, Pratesi A, Pietropaolo A, Cardarelli F, Martini C, Rizzarelli E, Marchetti L, La Mendola D, Trincavelli ML (2022). Neurotrophic Activity and Its Modulation by Zinc Ion of a Dimeric Peptide Mimicking the Brain-Derived Neurotrophic Factor N-Terminal Region. ACS CHEMICAL NEUROSCIENCE, vol. 13, p. 3453-3463, ISSN: 1948-7193, doi:

-La Mendola D, Trincavelli M.L, Martini C. (2022). Angiogenesis in Disease. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol. 23, 10962, ISSN: 1661-6596, doi: 10.3390/ijms231810962

-Iannuzzi AM, Giacomelli C, De Leo M, Russo L, Camangi F, De Tommasi N, Braca A, Martini C, Trincavelli ML (2021). Cornus sanguinea Fruits: a Source of Antioxidant and Antisenescence Compounds Acting on Aged Human Dermal and Gingival Fibroblasts. PLANTA MEDICA, vol. 87, p. 879-891, ISSN: 0032-0943, doi: 10.1055/a-1471-6666

-Barresi E, Martini C, Da Settimo F, Greco G, Taliani S, Giacomelli C, Trincavelli ML. (2021). Allosterism vs. Orthosterism: Recent Findings and Future Perspectives on A2B AR Physio-Pathological Implications. FRONTIERS IN PHARMACOLOGY, vol. 12, 652121, ISSN: 1663-9812, doi: 10.3389/fphar.2021.652121

-Daniele S, Baldacci F, Piccarducci R, Palermo G, Giampietri L, Manca M, Pietrobono D, Frosini D, Nicoletti V, Tognoni G, Giorgi F, Lo Gerfo A, Petrozzi L, Cavallini C, Franzoni F, Ceravolo R, Siciliano G, Trincavelli ML, Martini C, Bonuccelli U (2021). α -Synuclein Heteromers in Red Blood Cells of Alzheimer's Disease and Lewy Body Dementia Patients. JOURNAL OF ALZHEIMER'S DISEASE, vol. 80, p. 885-893, ISSN: 1387-2877, doi: 10.3233/JAD-201038

Complete list of publications: <https://arpi.unipi.it/simple-search?query=trincavelli>

Pisa, May 8, 2025

Maria Letizia Trincavelli

