



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 5932

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Scienze Farmacologiche e Biomolecolari (DiSFEB)**

Scientist- in - charge: prof. Laura Calabresi

[Marta Turri]

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Turri
Name	Marta

PRESENT OCCUPATION

Appointment	Structure
Research fellow	Dipartimento di Scienze Farmacologiche e Biomolecolari "Rodolfo Paoletti"

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Degree	Pharmacy	Università degli Studi di Milano	AY 2017-2018
PhD	Pharmacological, Biomolecular, Sperimental and Clinical Sciences	Università degli Studi di Milano	In achievement (thesis defense expected in December 2023) AY 2022-2023
Other	Advanced course in "Benessere dell'animale da laboratorio e animal care"	Università degli Studi di Milano	AY 2021-2022
Other	Scholarship researcher "Borsa Giovani Promettenti"	Centro E. Grossi Paoletti, Department of Pharmacological and Biomolecular	11/2019-09/2020



		Sciences - University of Milan	
Other	Research fellow	Centro E. Grossi Paoletti, Department of Pharmacological and Biomolecular Sciences - University of Milan	01/2019-10/2019
Other	ESN-ISN Neurochemistry School	Faculty of Medicine and Biomedical Sciences (FMCB), University of Algarve	AY 2023
Other	Advanced course in Clinical Lipidology	SISA Lipid Academy	AY 2019
Other	ESN-ISN Advanced School “From Neurodegeneration to Neural Carcinogenesis: Mechanisms and common Biology”	Biomedical Research Foundation of the Academy of Athens	AY 2021
Other	Introductory course on animal experimentation	IRCCS Istituto Mario Negri, Milano	AY 2019
Other	Open day 3Rs	Università degli Studi di Milano	AY 2019

FOREIGN LANGUAGES

Languages	level of knowledge
English	C1
French	B2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2023	Best oral communication XVII Sitecs Congress, Milan
2023	Best poster presentation the International Conference on the Bioscience of Lipids (ICBL), Palma
2023	Fellowship for project abroad, Società Italiana di Farmacologia (SIF)
2022	Best oral communication S.I.S.A. Spring Meeting, Rimini
2021	Best oral communication 20° Congresso Regionale S.I.S.A., Milan
2021	EAS Young Investigator Fellowship 89° European Atherosclerosis Society Congress



TRAINING OR RESEARCH ACTIVITY

The research activity is mainly focused on:

- 1) **CHOLESTEROL HOMEOSTASIS IN THE BRAIN:** Study of the HDL metabolism in cerebrospinal fluid and plasma in physiological and pathological conditions (Alzheimer's disease, dementia, ALS).
- 2) **LCAT DEFICIENCY:** Study of the relation between plasma lipid and lipoprotein profile alterations and phenotypical manifestations in LCAT deficient carriers.
- 3) **HDL ANTI-ATHEROGENIC PROPRIETIES:** Study of the relation between altered HDL structure and HDL atheroprotective proprieties, with special focus on HDL properties not linked to lipid metabolism, such as the anti-oxidant activity.

Expertise in the following techniques aimed to study lipoprotein metabolism, such as:

- Isolation, preparation and characterization of plasma lipoprotein through ultracentrifugation, chromatography, electrophoresis and western blotting, immunoenzymatic assays.
- Characterization of cholesterol esterification process, through the measurement of LCAT activity and cholesterol esterification rate (CER)
- In vitro models: handling of several mammalian cell cultures (primary and immortalized cell lines, astrocytes, cardiac myocytes, podocytes, tubular cell, prostatic and hepatic cells), DNA and mRNA extraction, qPCR, western blot, lipid content quantification, assay for cell viability, apoptosis, ROS production.
- In vivo models: genotyping, IP injection, intracardiac blood collection, transcardiac perfusion, CSF collection, histological analysis, sample preparation and metabolite analysis via GC-FID, microscopy acquisition and analysis (brightfield, fluorescence microscopes and confocal microscope)
- Software and statistical analysis: use of software for bioinformatic analysis of genomic data. Use of ImageLab, ImageJ and ZenBlue for the analysis of gels and blots. Use of SigmaPlot and GraphPad for preparing graphs and for performing statistical analysis. Basic knowledge of R. Use of Biorender for the creation of figures.

PROJECT ACTIVITY

Year	Project
2020-current	Role of lecithin:cholesterol acyltransferase (LCAT) in brain cholesterol metabolism and involvement in Alzheimer's disease
2019-2020	Study of the relation between plasma lipid and lipoprotein profile alterations and phenotypical manifestations in LCAT deficient carriers.

CONGRESSES AND SEMINARS

Date	Title	Place
12-14/10/2023	Plasma and Cerebrospinal Fluid cholesterol esterification is hampered in Alzheimer's disease	XVII Congresso Nazionale SiTecs, Milano
4-7/09/2022	Lipoproteins and Central Nervous System: HDL metabolism in Alzheimer's disease	62nd I.C.B.L. Congress, Montréal
17/06/2022	Link tra sistema nervoso e lipoproteine: il metabolismo delle HDL nella malattia d'Alzheimer	V Giornata della Ricerca del Centro Enrica Grossi Paoletti, "Il colesterolo oltre il cuore, oltre i farmaci"
5-7/06/2022	Lipoproteins and Central Nervous System: HDL metabolism in Alzheimer's disease	S.I.S.A. Spring Meeting 2022, Rimini



28-30/11/2021	Plasma and cerebrospinal fluid lipid profile and lipoproteins characterization in Alzheimer's disease	35° Congresso Nazionale S.I.S.A.
26/11/2021	Caratterizzazione delle lipoproteine plasmatiche e del liquor nella malattia d'Alzheimer	IV Giornata della Ricerca del Centro Enrica Grossi Paoletti, "La prevenzione cardiovascolare nell'era post-COVID"
11-14/10/2021	Plasma and CSF lipoproteins characterization in Alzheimer's disease	Annual PhD Student School 2021, Gargnano (Brescia)
7-9/10/2021	CER-001 migliora il profilo lipoproteico nel deficit familiare di LCAT	20° Congresso Regionale S.I.S.A. Milano
6-9/09/2021	The HDL mimetic CER-001 ameliorates lipoprotein profile in familial LCAT deficiency	44° Meeting of the European Lipoprotein Club (ELC), Tutzing
21-22/05/2021	Characterization of plasma and cerebrospinal fluid lipoproteins in Alzheimer's disease	Spring Meeting dei Giovani S.I.I.A., S.I.M.I. e S.I.S.A., Virtual Meeting
24-26/10/2019	Lecithin:cholesterol acyltransferase deficiency in Italy	18° Congresso Regionale S.I.S.A. Milano
18/09/2019	Three new Italian cases of LCAT deficiency	Department of Pharmacological and Biomolecular Science (Disfeb), Milano "Next Step"
2-5/10/2023	Poster: Plasma and Cerebrospinal Fluid cholesterol esterification is hampered in Alzheimer's disease	63 rd I.C.B.L. Congress, Palma
27-29/11/2023	Poster: Plasma exchange reduces lipoprotein X in familial LCAT deficiency	36° Congresso Nazionale S.I.S.A.
22-25/05/2022	Poster: Lipoprotein metabolism in Alzheimer's disease: CSF and plasma HDL characterization in an Italian cohort	90° EAS Congress Milan
19-26/09/2021	Poster: Characterization of plasma and cerebrospinal fluid lipoproteins in Alzheimer's disease	ESN-ISN Advanced School
30/05/2021-2/06/2021	Poster: Activation of naturally occurring LCAT mutants by a novel activator compound	89° EAS Congress- Virtual Meeting
24-26/11/2019	Poster: Three new Italian cases of LCAT deficiency	33° Congresso Nazionale S.I.S.A. Roma

Articles in reviews
Apolipoprotein E isoforms differentially affect LCAT-dependent cholesterol esterification Vitali C*, Pavanello C*, <u>Turri M</u> , Lund-Katz S, C. Phillips M, Catapano AL, Baragetti A, Norata G D, Veglia F, Calabresi L Atherosclerosis, 2023 Oct;382:117266. doi: 10.1016/j.atherosclerosis.2023.117266. PMID: 37725860
Abnormal lipoproteins trigger oxidative stress-mediated apoptosis of renal cells in LCAT deficiency. Gomasaschi M, <u>Turri M</u> , Strazzella A, Lhomme M, Pavanello C, Le Goff W, Kontush A, Calabresi L, Ossoli A Antioxidant. 2023 July 27; 12, 1498. doi.org/10.3390/antiox12081498



<p>Plasma and cerebrospinal fluid cholesterol esterification is hampered in Alzheimer's disease. <u>Turri M</u>, Conti E, Pavanello C, Gastoldi F, Palumbo M, Bernini F, Aprea V, Re F, Barbiroli A, Emide D, Galimberti D, Tremolizzo L, Zimetti F, Calabresi L; AGAINST-AD Group Alzheimers Res Ther. 2023 May 20;15(1):95. doi: 10.1186/s13195-023-01241-6 PMID 37210544</p>
<p>Genetically determined deficiency of ANGPTL3 does not alter HDL ability to preserve endothelial homeostasis. Ossoli A*, Minicocci I*, <u>Turri M</u>, Di Costanzo A, D'Erasmo L, Bini S, Montavoci L, Veglia F, Calabresi L, Arca M BBA - Molecular and Cell Biology of Lipids. 2023 Mar;1868(3):159263. doi: 10.1016/j.bbalip.2022.159263. PMID 36521735</p>
<p>HDL metabolism and functions impacting on cell cholesterol homeostasis are specifically altered in patients with abdominal aortic aneurysm. Adorni MP, Palumbo M, Marchi C, Zimetti F, Ossoli A, <u>Turri M</u>, Bernini F, Hollan I, Moláček J, Treska V, Ronda N Front. Immunol. 2022 Sept 12 Sec. Inflammation. doi: 10.3389/fimmu.2022.935241 PMID 36172376</p>
<p>Case report: Unusual and extremely severe lipoprotein X-mediated hypercholesterolemia in extrahepatic pediatric cholestasis. Colantuono R, Pavanello C, Pietrobattista A, <u>Turri M</u>, Francalanci P, Spada M, Vajro P, Calabresi L, Mandato C. Front Pediatr. 2022 Aug 4;10:969081. doi: 10.3389/fped.2022.969081. eCollection 2022. PMID: 35989999</p>
<p>Emerging role of HDL in brain cholesterol metabolism and neurodegenerative disorders. <u>Turri M</u>, Marchi C, Adorni MP, Calabresi L, Zimetti F. Biochim Biophys Acta Mol Cell Biol Lipids. 2022 May;1867(5):159123. doi: 10.1016/j.bbalip.2022.159123. Epub 2022 Feb 11. PMID: 35151900</p>
<p>The HDL mimetic CER-001 remodels plasma lipoproteins and reduces kidney lipid deposits in inherited lecithin:cholesterol acyltransferase deficiency. Pavanello C, <u>Turri M</u>, Strazzella A, Tulissi P, Pizzolitto S, De Maglio G, Nappi R, Calabresi L, Boscutti G. J Intern Med. 2022 Mar;291(3):364-370. doi: 10.1111/joim.13404. Epub 2021 Nov 11. PMID: 34761839</p>
<p>Vasculoprotective properties of plasma lipoproteins from brown bears (<i>Ursus arctos</i>). Pedrelli M, Parini P, Kindberg J, Arnemo JM, Bjorkhem I, Aasa U, Westerståhl M, Walentinsson A, Pavanello C, <u>Turri M</u>, Calabresi L, Öörni K, Camejo G, Fröbert O, Hurt-Camejo E. J Lipid Res. 2021;62:100065. doi: 10.1016/j.jlr.2021.100065. Epub 2021 Mar 11. PMID: 33713671</p>
<p>HDL-Mediated Cholesterol Efflux and Plasma Loading Capacities Are Altered in Subjects with Metabolically-but Not Genetically Driven Non-Alcoholic Fatty Liver Disease (NAFLD). Di Costanzo A, Ronca A, D'Erasmo L, Manfredini M, Baratta F, Pastori D, Di Martino M, Ceci F, Angelico F, Del Ben M, Pavanello C, <u>Turri M</u>, Calabresi L, Favari E, Arca M. Biomedicines. 2020 Dec 18;8(12):625. doi: 10.3390/biomedicines8120625. PMID: 33352841</p>
<p>Activation of Naturally Occurring Lecithin:Cholesterol Acyltransferase Mutants by a Novel Activator Compound. Pavanello C*, Ossoli A*, <u>Turri M</u>, Strazzella A, Simonelli S, Laurenzi T, Kono K, Yamada K, Kiyosawa N, Eberini I, Calabresi L. J Pharmacol Exp Ther. 2020 Dec;375(3):463-468. doi: 10.1124/jpet.120.000159. Epub 2020 Sep 26. PMID: 32980814</p>
<p>The PPAR pan-agonist tetradecylthioacetic acid promotes redistribution of plasma cholesterol towards large HDL. Lundåsen T, Pedrelli M, Bjørndal B, Rozell B, Kuiper RV, Burri L, Pavanello C, Turri M, Skorve J, Berge RK, Alexson SEH, Tillander V. PLoS One. 2020 Mar 16;15(3):e0229322. doi: 10.1371/journal.pone.0229322. eCollection 2020. PMID: 32176696</p>



Published articles (without I.F.) IL SISTEMA HDL NELLA COMPLESSA FISIOPATOLOGIA DELL'ATEROSCLEROSI Marta Turri, Bianca Papotti, Laura Calabresi, Franco Bernini Giornale Italiano dell'Aterosclerosi, volume monografico 2021
PAPERS ON JOURNAL WITH IMPACT FACTOR: 12 (2019-2023) Works with 1°, 2°, last name or corresponding: 7 (58%) Citations (Scopus): 65 H-index: 4

Congress proceedings
Selected Abstract: Plasma and Cerebrospinal Fluid cholesterol esterification is hampered in Alzheimer's disease XVII Congresso Nazionale SiTecs, Milano (2023)
Lipoprotein metabolism in Alzheimer's disease: CSF and plasma HDL characterization in an Italian cohort 90° EAS Congress Milan (2022)
Activation of naturally occurring LCAT mutants by a novel activator compound 89° EAS Congress- Virtual Meeting (2020)

OTHER INFORMATION

Exam for professional Pharmacist Board (2018)
Scientific organization and membership: Member of the International Society of Neurochemistry-ISON (2023) and member of the European Society of Neurochemistry-ESN (2021-2023). Selected participant in the ESN Neurochemistry School (2023) and ISON-ESN Neurochemistry Advanced School (2021). Member of the International Conference on the Bioscience of Lipids (ICBL) and part of the Student Committee. Member of the Canadian Association for Neuroscience (2023). Member of the European Atherosclerosis Society-EAS (2021-2023) and member of the European Lipoprotein Club-ELC (2021-2023). Member of the Società Italiana di Farmacologia (SIF) (2020-2023) and the Società Italiana per lo Studio dell'Aterosclerosi-SISA, member of SISA Lombardia (2019-2023).
Digital skills Microsoft Office: Microsoft Word Microsoft Excel Microsoft Powerpoint Microsoft Outlook Video conferencing: Microsoft Teams Zoom Skype Google Meet Social media: Facebook Instagram Graph & Statistical analysis: SigmaPlot, GraphPad Prism, basic knowledge of R Figures: Biorender
Tutor for internships and co-supervisor of students enrolled in the master's and bachelor's degree in Biotechnology and the master's degree in Pharmacy, Pharmaceutical Chemistry and Technology and Pharmaceutical Biotechnology (2019 - Current)

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Milan, 08/11/2023