

Domenico Mattoscio, PhD

RESEARCHER IDs

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EDUCATION AND QUALIFICATIONS

2007 – 2010	PhD in Biomedical Science. University “G.d’Annunzio” – Chieti
2006	Biologist’s Professional qualification University of Molise, Italy
2006	Biology - Master’s degree Final Mark: Master of Science in Biology with honors University of Molise - Italy

EMPLOYMENTS AND ACADEMIC RANKS

2024-	Assistant professor (RTDb) in Laboratory Medicine (MEDS-26/A) Department of Medical, Oral and Biotechnology Science
2022-2024	Assistant professor (RTDa) in Applied Medical Technical Sciences (MED/50) Department of Medical, Oral and Biotechnology Science
2020-2022	Post-doctoral fellow at Laboratory of Molecular Medicine, Unit of Experimental and Translational Pharmacology of Resolution, CAST University “G. D’ Annunzio”, Chieti – Italy
2020-2029	National Scientific Habilitation as Associate professor Sciences of health professions and applied medical technologies -06/N1
2016-2020	Post-doctoral fellow at Laboratory of Molecular Medicine, Unit of Experimental and Translational Pharmacology of Resolution, CeSI-MeT University “G. D’ Annunzio”, Chieti – Italy
2011-2016	Post-doctoral fellow at Viral control of cellular pathways and biology of tumorigenesis Laboratory European Institute of Oncology (IEO), Milan- Italy
2007-2010	PhD Student at Molecular Medicine Laboratory, CeSI University “G. D’ Annunzio”, Chieti – Italy
2006-2007	Pre-doctoral fellow at Molecular Medicine Laboratory, CeSI University “G. D’ Annunzio” Chieti – Italy

TEACHING ACTIVITY

- 2024- **Professor in Methodology of Research and Professional Ethics-MEDS-26/A**
Degree course in Laboratory techniques
University “G. D’ Annunzio”, Chieti – Italy
- 2023- **Coordinator of the Integrated Course of Special Post-Surgery Physiotherapy**
Degree course in Physiotherapy University “G. D’ Annunzio”, Chieti – Italy
- 2022- **Professor in Applied Medical Technical Sciences -MED/50**
Degree course in Cardiocirculatory and cardiovascular perfusion techniques
University “G. D’ Annunzio”, Chieti – Italy
- 2022-2024 **Professor in Applied Medical Technical Sciences -MED/50**
Degree course in Radiology
University “G. D’ Annunzio”, Chieti – Italy
- 2022- **Professor in Applied Medical Technical Sciences -MED/50**
Degree course in Physiotherapy
University “G. D’ Annunzio”, Chieti – Italy
- 2020-2022 **Professor in Clinical Pathology -MED/05**
Degree course in Cardiocirculatory and cardiovascular perfusion techniques,
University “G. D’ Annunzio”, Chieti – Italy
- 2020-2022 **Teaching Assistant in Technical Sciences of Laboratory Medicine - MED/46**
Degree course in Psychology, University “G. D’ Annunzio”, Chieti – Italy
- 2019- 2022 **Teaching Assistant in Clinical Pathology -MED/05**
Degree course in Nursing Sciences, University “G. D’ Annunzio”, Chieti – Italy

MEMBERSHIP IN SCIENTIFIC SOCIETY

- 2024- Member of the European Association for Cancer Research (EACR)
- 2019-2020 Member of the Italian Society of Pathology and Translational Medicine

EDITORIAL ACTIVITY

- Ad hoc reviewer** International Journal of Molecular Sciences. Frontiers in Medicine. Cancers. Applied Sciences. Journal of Pharmaceutical Research International. Clinical Microbiology and Infectious Diseases. PLOS. OncoTargets and Therapy. Inflammation. Biosensors. Vaccines. Cells. Journal of case reports and images in oncology. ACTA Italica. International Journal of Environmental Research and Public Health. Prostaglandins and Other Lipid Mediators. Antioxidants. Pharmaceuticals. Applied In Vitro Toxicology. Plants. Star Protocols. Frontiers in Pharmacology. Science Progress. Seminars in Cell and Developmental Biology. Digestive Diseases and Sciences. Annals of Infectious Diseases and Therapy. Journal of Personalized Medicine. Cancer Investigation. Clinical Science. Inflammation Research. Biochemical Pharmacology.

Grant proposal Netherlands Organisation for Scientific Research (NWO)

Editorial roles

Topic Editor

Research topic “Exploring Novel In Vitro Models for Cystic Fibrosis Research” in Frontiers in Pharmacology.

Lead Editor

Research topic “HPV and Host Interaction” in Cellular and Infection Microbiology.

Review Editor

Head and Neck Cancers, Frontiers in Oncology
Gene and Cell Therapy, Frontiers in Medicine

Topic Editor

Special Issue “HPV and immunotherapy” in Vaccines

Special Issue “Vaccines: 10th anniversary” in Vaccines

Guest Editor

Studying Resolution of Inflammation: Advances on Investigations on Cell Players, Endogenous Chemical Mediators, and Molecular Pathways in Jove

FUNDED PROJECTS

Date	Funding agency	Title of the project	Total award	Role
2024-2026	North American Cystic Fibrosis Foundation	Dissecting the role of leukocyte in cystic fibrosis cancer: how dysfunctional CFTR affect anti-tumor immunity	\$ 112.000	Principal Investigator
2023-2028	Associazione Italiana Ricerca sul Cancro	Resolvins as Novel Therapeutics to Enhance Anti-Tumor Immunity	€ 499.788,98	Principal Investigator
2022-2024	Fondazione Italiana Fibrosi Cistica	Targeting platelet activation with pro-resolving mediators: an innovative strategy to dampen lung inflammation in cystic fibrosis	€ 130.000	Principal Investigator
2018-2020	Fondazione Umberto Veronesi	Resolvin D1 as novel therapeutic approach to promote inflammation resolution of HPV-derived malignancies	€ 85.500	Principal Investigator
2013	Fondazione Umberto Veronesi	HPV manipulation of the SUMO pathway: implications for host immune system elusion	€ 25.000	Principal Investigator

2013- 2015	Fondazione Italiana per la Ricerca sul Cancro (FIRC)	HPV manipulation of the SUMO pathway: implications for host immune system elusion	€ 75.000	Principal Investigator
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ORIGINAL PEER-REVIEWED PUBLICATIONS

Original Articles

1. Nrf2 Plays a Key Role in Erythropoiesis during Aging.

Mbiandjeu SCT, Siciliano A, Mattè A, Federti E, Perduca M, Melisi D, Andolfo I, Amoresano A, Iolascon A, Valenti MT, Turrini F, Bovi M, Pisani A, Recchiuti A, Mattoscio D, Riccardi V, Dalle Carbonare L, Brugnara C, Mohandas N, De Franceschi L. *Antioxidants* (Basel). 2024 Apr 12;13(4):454.

2. Resolvin D1 improves airway inflammation and exercise capacity in cystic fibrosis lung disease.

Ferri G, Serano M, Isopi E, Mucci M, Mattoscio D, Pecce R, Protasi F, Mall MA, Romano M, Recchiuti A. *FASEB J*. 2023 Nov;37(11):e23233

3. In Humanized Sick Cell Mice, Imatinib Protects Against Sick Cell-Related Injury.

Federti E, Matte A, Recchiuti A, Garello F, Ghigo A, El Nemer W, Terreno E, Amoresano A, Mattoscio D, Turrini F, Lebouef C, Janin A, Pantaleo A, Russo R, Marin M, Iatcencko I, Riccardi V, Siciliano A, Iolascon A, Brugnara C, De Franceschi L. *Hemasphere*. 2023 Feb 28;7(3):e848

4. Gene Expression of the D-Series Resolvin Pathway Predicts Activation of Anti-Tumor Immunity and Clinical Outcomes in Head and Neck Cancer.

Mattoscio D (co-corresponding author), Ferri G, Miccolo C, Chiocca S, Romano M, Recchiuti A. *Int. J. Mol. Sci* 2022 Jun 9;23(12):6473.

5. Resolvin D1 reduces cancer growth stimulating a protective neutrophil-dependent recruitment of anti-tumor monocytes.

Mattoscio D (co-corresponding author), Isopi E, Lamolinara A, Patruno S, Medda A, De Cecco F, Chiocca S, Iezzi M, Romano M, Recchiuti A. *J Exp Clin Cancer Res*. 2021 Apr 12.40(1)

6. Resolvin D1 and D2 reduces SARS-Cov-2-induced inflammation in cystic fibrosis macrophages.

Recchiuti A, Patruno S, Mattoscio D, Isopi E, Pomilio A, Lamolinara A, Iezzi M, Pecce R, Romano M. *FASEB J*. 2021 Apr.35(4).

7. Resolvin D1 reduces lung infection and inflammation activating resolution in cystic fibrosis.

Isopi E, Mattoscio D (co-first and co-corresponding author), Codagnone M, Mari VC, Lamolinara A, D'Aurora M, Cianci E, Nespoli A, Franchi S, Gatta V, Dubourdeau M, Moretti P, Di Sabatino M, Iezzi M, Romano M, Recchiuti A. *Front Immunol*, 2020 Apr 28.11:581.

8. Resolvin D1 enhances the resolution of lung inflammation caused by long-term Pseudomonas aeruginosa infection.

Codagnone M, Cianci E, Lamolinara A, Mari VC, Nespoli A, Isopi E, Mattoscio D, Arita M, Bragonzi A, Iezzi M, Romano M, Recchiuti A. *Mucosal Immunol*. 2017 Apr 19.

9. Autophagy regulates UBC9 levels during viral-mediated tumorigenesis.

Mattoscio D, Miccolo C, Casadio C, Maffini F, Raimondi A, Tacchetti C, Gheit T, Tagliabue M, Galimberti V, Pawlita M, Ansarin M, Tommasino M, Chiocca S. *PLoS Pathog*. 2017 Mar 2.13(3).

10. The SUMO conjugating enzyme Ubc9 as a biomarker for cervical HPV infections.

Mattoscio D, Casadio C, Fumagalli M, Sideri M, Chiocca S. *Ecancermedicalscience*. 2015 Apr 29.9:534.

11. Dynamic phosphorylation of Histone Deacetylase 1 by Aurora kinases during mitosis regulates zebrafish embryos development.

Loponte S, Segré CV, Senese S, Miccolo C, Santaguida S, Deflorian G, Citro S, Mattoscio D, Pisati F, Moser M, Visintin R, Seiser C, Chiocca S. *Scientific Reports*. 2016 Jul. 26(6):30213

12. **A BC-box domain-related mechanism for VHL protein degradation** Pozzebon MA, Varadaraj A, Mattoscio D, Jaffray E, Miccolo C, Galimberti V, Tommasino M, Hay RT, Chiocca S. *PNAS*, 2013 Nov 5.110(45)
13. **Cyanidin Reduces Preadipocytes Differentiation and relative ChREBP Expression.** Pompei A, Toniato E, Innocenti P, D'Alimonte I, Cellini C, Mattoscio D, Cotellese R, Bosco D, Ciccarelli R, Dadorante V, D'Orazio N, Martinotti S, Robuffo I. *J Biol Regul Homeost Agents*, 2012 Apr-Jun.26(2):253- 64.
14. **The recovery of platelet cyclooxygenase activity explains interindividual variability in responsiveness to low-dose aspirin in patients with and without diabetes.** Rocca B, Santilli F, Pitocco D, Mucci L, Petrucci G, Vitacolonna E, Lattanzio S, Mattoscio D, Zaccardi F, Liani R, Vazzana N, Del Ponte A, Ferrante E, Martini F, Cardillo C, Morosetti R, Mirabella M, Ghirlanda G, Davi G, Patrono C. *J Thromb Haemost*. 2012 Jul.10(7):1220-30.
15. **Transcriptional regulation of the human FPR2/ALX gene: evidence of a heritable genetic variant that impairs promoter activity.** Simiele F, Recchiuti A, Mattoscio D, De Luca A, Cianci E, Franchi S, Gatta V, Parolari A, Werba JP, Camera M, Favalaro B, Romano M. *FASEB J*. 2012 Mar. 26(3):1323-33.
16. **Proteomics investigation of human platelets in healthy donors and cystic fibrosis patient by shotgun nUPLC-MSE and 2DE: a comparative study.** Pieroni L, Finamore F, Ronci M, Mattoscio D, Marzano V, Levi Mortera S, Quattrucci S, Federici G, Romano M, Urbani A. *Mol Biosyst*, 2011 Mar.7(3):630-9.
17. **Cystic fibrosis transmembrane conductance regulator (CFTR) expression in human platelets: impact on mediators and mechanisms of the inflammatory response.** Mattoscio D, Evangelista V, De Cristofaro R, Recchiuti A, Pandolfi A, Di Silvestre S, Manarini S, Martelli N, Rocca B, Petrucci G, Angelini DF, Battistini L, Robuffo I, Pensabene T, Pieroni L, Furnari ML, Pardo F, Quattrucci S, Lancellotti S, Davi G, Romano M. *FASEB J*. 2010 Oct. 24 (10):3970-80.
18. **The contribution of cyclooxygenase-1 and -2 to persistent thromboxane biosynthesis in aspirin-treated essential thrombocythemia: implications for antiplatelet therapy.** Dragani A, Pascale S, Recchiuti A, Mattoscio D, Lattanzio S, Petrucci G, Mucci L, Ferrante E, Habib A, Ranelletti FO, Ciabattini G, Davi G, Patrono C, Rocca B. *Blood*. 2010 Feb. 115(5):1054-61.
19. **Circulating endothelial progenitor cells and residual in vivo thromboxane biosynthesis in low-dose aspirin-treated polycythemia vera patients.** Santilli F, Romano M, Recchiuti A, Dragani A, Falco A, Lessiani G, Fioritoni F, Lattanzio S, Mattoscio D, De Cristofaro R, Rocca B, Davi G. *Blood*. 2008 Aug. 112(4):1085-90.

Reviews and Editorials

1. **Specialized Pro-resolving Lipid Mediators and Resolution of Viral Diseases.** Ferri G, Mucci M, Mattoscio D (corresponding author), Recchiuti A. *Prostaglandins Other Lipid Mediat*. 2023 Jun 22:106762
2. **Editorial: HPV and host interaction.** Mattoscio D (corresponding author), Gheit T, Strati K, Venuti A. *Front Cell Infect Microbiol*. 2021 Mar 11.
3. **Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition).** Klionsky D et al, among which Mattoscio D. *Autophagy* 2021 Jan.17(1)
4. **Roles of Specialized Pro-Resolving Lipid Mediators in Autophagy and Inflammation.** Recchiuti A, Isopi E, Romano M, Mattoscio D (corresponding author). *Int. J. Mol. Sci*. 2020, 21, 6637
5. **Roles, Actions, and Therapeutic Potential of Specialized Pro-resolving Lipid Mediators for the Treatment of Inflammation in Cystic Fibrosis.** Recchiuti A, Mattoscio D, Isopi E. *Front Pharmacol*. 2019 Apr 2.10:252.
6. **Human Papilloma Virus and autophagy.** Mattoscio D (corresponding author), Medda A, Chiocca S. *Int J Mol Sci.*, 2018 Jun 15.19(6).

7. **SUMO pathway components as possible cancer biomarkers.** Mattoscio D, Chiocca S. *Future Oncology*. 2015 Jun.11(11):1599-610.
8. **SUMO Ubc9 enzyme as a viral target.** Varadaraj A, Mattoscio D, Chiocca S. *IUBMB Life*. 2014 Jan.66(1):27-33.
9. **Viral manipulation of cellular protein conjugation pathway: the SUMO lesson.** Mattoscio D, Segrè CV, Chiocca S. *World Journal of Virology*, 2013 May 12. 2(2).
10. **Clinical and laboratory phenotype associated with the aspirin-like defect.** Dragani A, Brancati F, Pascale S, Mattoscio D, Rocca B. *Br J Haematol*. 2010 Feb. 148(4):661-3.

Book Chapters

1. **Recent Highlights: Onco Viral Exploitation of the SUMO System.** Mattoscio D*, Medda A, Chiocca S* (*corresponding authors). *Curr Issues Mol Biol*. 2020.35:1-16

Protocols

1. **Immunogold Electron Microscopy of the Autophagosome Marker LC3.** Mattoscio D*, Raimondi A, Tacchetti C, Chiocca S* (*: co-corresponding authors). *Bioprotocol*, 2017 Dec. 7(24).