

## **Domenico Mattoscio, PhD**

### **RESEARCHER IDs**

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### **GENERAL INFORMATION**

**Date** January 20, 1982  
**and place of birth** Lanciano (CH)

**Citizenship** Italian

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**Working address** Laboratory for Experimental and Translational Pharmacology of Resolution  
Department of Medical, Oral, and Biotechnological Science  
Center of Advanced Studies and Technology (CAST)- University of Chieti  
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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**

2022-2025 **Assistant professor (RTDa) in Applied Medical Technical Sciences**  
Department of Medical, Oral and Biotechnology Science

2020-2022 **Research Assistant** 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

- 2022- **Professor in Applied Medical Technical Sciences -MED/50**  
Degree course in Physiotherapy  
University “G. D’ Annunzio”, Chieti – Italy
- 2020- **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

- 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. Journal of Clinical Medicine. 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.

**Grant proposal** Netherlands Organisation for Scientific Research (NWO)

**Editorial roles**

Lead Editor  
Research topic “HPV and Host Interaction” in Frontiers 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: 10<sup>th</sup> anniversary” in Vaccines

### Guest Editor

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

### SCOPUS PARAMETERS

August, 2022

H-index: 15

Total citations: 1284

### FUNDED PROJECTS

Date	Funding agency	Title of the project	Total award	Role
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

### ORIGINAL PEER-REVIEWED PUBLICATIONS

#### Original Articles

#### 1. 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.

#### 2. 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)

#### 3. 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).

- 4. 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.
- 5. 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.
- 6. 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).
- 7. The SUMO conjugating enzyme Ubc9 as a biomarker for cervical HPV infections.** Mattoscio D, Casadio C, Fumagalli M, Sideri M, Chiocca S. *Ecancermedicalsecience*. 2015 Apr 29.9:534.
- 8. 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
- 9. 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)
- 10. 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.
- 11. 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, Davì G, Patrono C. *J Thromb Haemost*. 2012 Jul.10(7):1220-30.
- 12. 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.
- 13. 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.
- 14. 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, Davì G, Romano M. *FASEB J*. 2010 Oct. 24 (10):3970-80.
- 15. 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, Davì G, Patrono C, Rocca B. *Blood*. 2010 Feb. 115(5):1054-61.
- 16. 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, Davì G. *Blood*. 2008 Aug. 112(4):1085-90.

## Reviews and Editorials

- 1. Editorial: HPV and host interaction.** Mattoscio D (corresponding author), Gheit T, Strati K, Venuti A. *Front Cell Infect Microbiol.* 2021 Mar 11.
- 2. 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)
- 3. 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
- 4. 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.
- 5. Human Papilloma Virus and autophagy.** Mattoscio D\*, Medda A, Chiocca S\* (\* corresponding authors). *Int J Mol Sci.*, 2018 Jun 15.19(6).
- 6. SUMO pathway components as possible cancer biomarkers.** Mattoscio D, Chiocca S. *Future Oncology.* 2015 Jun.11(11):1599-610.
- 7. SUMO Ubc9 enzyme as a viral target.** Varadaraj A, Mattoscio D, Chiocca S. *IUBMB Life.* 2014 Jan.66(1):27-33.
- 8. 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).
- 9. 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).

## Conference proceedings

- 1. Resolvins control macrophage inflammatory responses to Sars-Cov-2 in cystic fibrosis** Recchiuti A, Mattoscio D, Isopi E, Patrino S, Pomilio A, Pecce R, Romano M. *Pediatric pulmonology*, 2020 (55), S49-S49
- 2. CFTR ablation by Crispr/Cas9 impairs the production of pro-resolving lipid mediators by human airway epithelial cells.** Plebani R, Colas RA, Mattoscio D, Trerotola M, Gomez EA, Isopi E, Castagnozzi S, Dalli J, Romano M. *Pediatric pulmonology*, 2020 (55).
- 3. Resolvin D1 for targeting lung inflammation, infection, and damage in Cystic Fibrosis.** Mattoscio D, Isopi E, Mari VC, Codagnone M, Cianci E, Lamolinara A, Iezzi M, Romano M, and Recchiuti A. *Pediatric Pulmunology.* 53, pp. 175-176 (2018).
- 4. Harnessing resolution mediators as novel therapeutics for Cystic Fibrosis.** Isopi E, Mattoscio D, Mari VC, Codagnone M, Cianci E, Lamolinara A, Iezzi M, Romano M, and Recchiuti A. *Pediatric Pulmunology.* 53, pp. 186-186 (2018).
- 5. Determinants of the Variability in the Recovery Rate of Platelet Cyclooxygenase Activity during Chronic Therapy with Low-Dose Aspirin in Type 2 Diabetes.** Pitocco D, Rocca B, Santilli F, Mucci L, Petrucci G, Vitacolonna E, Lattanzio S, Mattoscio D, Zaccardi F, Liani R, Vazzana N, Del Ponte A, Ferrante E, Martini F, Rizzo P, Ghirlanda G, Davi G, Patrono C. *Diabetes*, 60, A147-A148.
- 6. Determinants of the variability in the recovery rate of platelet cyclooxygenase activity during chronic therapy with low-dose aspirin in type 2 diabetes.** Zaccardi F, Pitocco D, Rocca

B, Santilli F, Mucci L, Petrucci G, Vitacolonna E, Lattanzio S, Mattoscio D, Liani R, Vazzana N, Martini F, Ghirlanda G, Davi G, Patrono C. *Diabetologia* 233 (2011). p. S36-S37.

**7. Variability in the recovery rate of platelet cyclooxygenase activity during chronic therapy with low-dose aspirin in type 2 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, Ghirlanda G, Davi G, Patrono C. *Circulation*, 122 (2010) A12233

**8. The Contribution of COX-1 and COX-2 to Platelet Activation in Essential Thrombocythemia: A Clinical Paradigm of Aspirin-resistant Thromboxane Biosynthesis.**

Rocca B, Dragani A, Pascale S, Recchiuti A, Mattoscio D, Lattanzio S, Petrucci G, Mucci L, Ferrante E, Habib A, Ranelletti FO, Davi C, Patrono C. *Circulation*, 120 (2009) S1033

**9. A novel case of selective enzymatic defect of cyclooxygenase-1 associated with haemorrhagic diathesis.** Pascale S, Dragani A, Mattoscio D, Ferrante E, Mucci L, Di Marzio I, Davi G, Rocca B. *Journal of Thrombosis and Haemostasis* 7 (2009) 960-961.

**10. Circulating endothelial progenitor cells and residual 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. *Journal of Thrombosis and Haemostasis* 7 (2009) 49.

**11. Aspirin-insensitive thromboxane biosynthesis in polycythemia vera**

Santilli F, Romano M, Recchiuti A, Dragani A, Falco A, Lessiani G, Fioritoni F, Lattanzio S, Mattoscio D, Rocca B, Davi G. *European Journal of Internal Medicine* 19 (2008) S16