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Personal Information

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Education and Qualifications

March 2012: Ph.D. in Medical-Surgery, Clinical, and Experimental Sciences achieved with the additional title of "Doctor Europaeus" at the "G. D'Annunzio" University of Chieti. The title of the thesis: "Novel insights into the role of cyclooxygenases in inflammation and cancer" (Tutor: Prof. Paola Patrignani).

December 2007: Master Degree in Medical Biotechnology, Faculty of Medicine, University Alma Mater Studiorum of Bologna (with 110/110 cum laude). The title of the thesis: "Analysis of molecular interactions involved in astroglial cell volume regulation," Laboratory of Cellular and Molecular Physiology, Department of Physiology, University of Bologna (Tutor: Prof. Stefano Ferroni).

October 2005: Bachelor's Degree in Biotechnology, Faculty of Mathematical, Physical, and Natural Sciences, University Alma Mater Studiorum of Bologna (with 110/110 cum laude). The title of the thesis: "Regulation of protein channels involved in astroglial cell volume control" Laboratory of Cellular and Molecular Physiology, Department of Physiology, University of Bologna (Tutor: Prof. Stefano Ferroni).

July 2002: High School diploma, Liceo Scientifico "B. Spaventa ", Montesilvano, Pescara, Italy, achieved with 100/100.

Employment and Academic Ranks

July 2017-to date: Assistant Professor (Ricercatore a Tempo Determinato junior), SSD BIO/14 at the Department of Neuroscience, Imaging and Clinical Sciences, Section of Cardiovascular and Pharmacological Sciences, University "G. d'Annunzio" of Chieti, Italy

2019: Member of the Academic Board of the Doctoral Course in Medical Biotechnology (cycle XXXV), University "G. d'Annunzio", Chieti, Italy.

October 2012-June 2017: Post-doc Research Fellow (Assegno di Ricerca - SSD BIO/14) at the Department of Neuroscience, Imaging and Clinical Sciences, Section of Cardiovascular and Pharmacological Sciences, University "G. d'Annunzio" of Chieti, Italy (Tutor: Prof. Paola Patrignani) to realize the project entitled "Role of platelets in intestinal tumorigenesis."

January 2010-September 2012: Research Fellowship for PhD students granted by Progetto Speciale Multiasse "RETI PER L'ALTA FORMAZIONE"– P.O. F.S.E. (programma operativo fondo sociale europeo-Regione Abruzzo) 2007-2013, to realize the research project "New molecular mechanisms involved in controlling the expression of COX-2 in cancer cells: the role of platelets on the expression of factors that regulate the translation of COX-2". The research was conducted at the "G. d'Annunzio" University of Chieti (Department of Medicine and Aging Sciences), Italy and at the University of Frankfurt, Germany (Institute for Pharmaceutical Chemistry).

September 2009-December 2009: Research Fellowship funded by the German Research Foundation (DFG). The research was conducted at the Institute for Pharmaceutical Chemistry, University of Frankfurt, Frankfurt, Germany.

January 2009-December 2011: I conducted a research activity during the Ph.D. course in Medical-Surgical Sciences, Clinical and Experimental Science at the "G. d'Annunzio" University of Chieti (Tutor: Prof. Paola Patrignani) to realize the research project "Novel insights into the role of cyclooxygenases in inflammation and cancer."

March 2008-December 2008: Research Fellowship from the Sixth Framework Programme of the European Community (EICOSANOX LSMH-CT-2004-00503), held at the CESI (now CAST), University "G. d'Annunzio" of Chieti (Italian scientific coordinator: Prof. Carlo Patrono) to realize the project entitled "Study of the protective role of COX-2 expression of in human vascular endothelium."

June 2007-September 2007: "Thesis Abroad" scholarships, provided by the University of Bologna, Faculty of Medicine to conduct the internship at the University of Oslo, Norway (Norwegian Centre of Excellence), under the supervision of Prof Ole Petter Ottersen and Mahmood Amiry-Moghaddam.

April 2005-January 2008: Thesis internship at the Laboratory of Cellular and Molecular Physiology, Faculty of Human Physiology, University of Bologna; under the supervision of Prof. Stefano Ferroni and Dr. Valentina Benfenati, to realize the scientific project entitled "Analysis of molecular interactions involved in astroglial cell volume regulation."

Honors and Awards

June 2009: Awarded for the best poster presented at the "XIII Seminar of Italian Ph.D. in pharmacology and related sciences", Certosa di Pontignano, Siena, Italy, given by the Italian Society of Pharmacology (SIF).

January 2010: Fellowship granted by Regione Abruzzo, P.O. F.S.E. Abruzzo 2007-2013.

June 2010: Travel Award for the participation at the "WorldPharma 2010" conference, Copenhagen, Denmark, given by the Italian Society of Pharmacology (SIF).

September 2011: Fellowship granted by Regione Abruzzo, P.O. F.S.E. Abruzzo 2007-2013.

March 2012: Travel Award obtained during the "14th Winter Eicosanoid conference, Eicosanoid Research Association", Baltimore, USA.

March 2013: Award for the best poster presented at the conference "Novel Drugs and Drug Targets to Treat Inflammation," Finnish Pharmacological Society, Ylläs, Lapland, Finland.

September 2016: Winner of the Research Grant "Gianesini Fund" in Medical Sciences, funded by Unicredit Foundation.

December 2017: Winner of Research Grant "Finanziamento annuale individuale delle attività base di ricerca" funded by MIUR.

March 2020: Travel Award obtained during the "18th Winter Eicosanoid conference, Eicosanoid Research Association", Baltimore, USA.

Memberships in Scientific Societies

2009-present: Member of the Italian Society of Pharmacology (SIF).

Scopus Parameters with date (H-index, citations)

H-index: 18

Total Citations: 1134

Scientific Achievements

(A) My main research topic is the investigation of new platelet functions, beyond hemostasis and thrombosis. In particular, I studied the ability of platelets to release molecules and vesicles, which can induce phenotypic changes in target cells. These studies are relevant for the clarification of the anti-tumor and anti-metastatic effect of anti-platelet drugs, including low-dose aspirin.

(i) First, I focused my studies on the interaction between platelets and cancer cells. In these studies, I have shown that platelets induce the expression of cyclo-oxygenase (COX) -2 and the phenomenon of epithelial-mesenchymal transition (EMT) in cancer cells; these are molecular events that represent an increase in the metastatic and invasive potential of cancer cells (Mol Pharmacol 2013, 84: 25-40).

(ii) I have studied results of various anti-platelet agents, including aspirin in low doses, both in vitro and in vivo, in contrast to the ability of platelets to influence the degree of malignancy of colon cancer cells (Oncotarget 2016; DOI:10.18632/oncotarget. 8655).

(iii) In addition to COX-2, another key element involved in tumor processes is mPGES1 (the synthase responsible for the formation of prostaglandin E2). I recently participated in a project directed by Prof. Dieter Steinhilber (University of Frankfurt, where I carried out research during my doctoral thesis) on the role of miR-574-5p and CUGBP1 on the induction of the enzyme mPGES-1 in human lung adenocarcinoma cells (FASEB J. 2019; 33: 6933-6947).

(B) Another topic of my research activity is related to the development of biomarkers, capable of predicting the anti-tumor efficacy of aspirin at low doses demonstrated in clinical studies. For this purpose I have contributed to the development of a method based on liquid chromatography-mass spectrometry (LC-MS) to evaluate the degree of acetylation of COX-1 in platelets and other tissues; this represents the only direct biomarker of the aspirin mechanism of action (J Thromb Haemost 2014; 12: 1320-30; Clin Pharmacol Ther. 2017; 102: 52-61). The use of this biomarker in clinical studies will clarify how the use of aspirin is associated with an anticancer effect and will be useful for determining the therapeutic regimen of the drug in the chemo-prevention of cancer in humans.

(C) Since chronic administration of low-dose aspirin in humans is associated with a reduction in the incidence and mortality from colorectal cancer, we hypothesized that the drug may influence the early stages of intestinal tumorigenesis by inhibiting platelet function. Therefore, I was involved in a clinical study in patients with familial adenomatous polyposis (FAP) and found that the presence of colorectal adenomas is associated with platelet activation (J Pharmacol Exp Ther. 2012; 341: 242-50). We also conducted a clinical study on individuals screened for colorectal cancer treated with aspirin at low doses, and my research has contributed to the discovery that the drug can modify the degree of phosphorylation of the S6 protein, involved in the synthesis of protein and cell growth (Clin Pharmacol Ther. 2017; 102: 52-61).

(D) Overall, these studies have highlighted the important role of platelets in tumorigenesis and metastasis. Since obesity is associated with platelet activation and an increased risk of cancer, I hypothesized that platelet-derived microparticles (MPs) could explain the association between obesity and neoplasia. Thus, in a clinical study, I characterized MPs isolated from obese women compared to non-obese, finding that those of obese individuals have a higher heterogeneity in size and contain proteins that promote thrombosis and tumorigenesis. The MPs of obese subjects have a greater ability to induce changes in the expression of genes characteristic of EMT and of the endothelial-mesenchymal transition (EndMT) and to induce COX-2, in tumor and endothelial cells. These effects could contribute to the increased risk of developing thrombosis and malignancies in obesity (Front Pharmacol 2019 22, 10: 7).

(E) Platelets also seem to play a role in inflammation. To investigate this aspect, I contributed to the generation of a mouse with a specific COX-1 deletion in platelets (which mimics the effect of aspirin at low doses), and these mice were used in an experimental model of colitis. The results show that inhibition of platelet function is sufficient for improve colitis induced by the administration of dextran sodium phosphate (DSS) and, above all, to mitigate intestinal fibrosis (J Pharmacol Exp Ther. 2019 Jun 27. pii: jpet.119.259382).

Original Peer-Reviewed Publications (total)

1. Di Francesco L*, Totani L*, **Dovizio M**, Piccoli A, Di Francesco A, Salvatore T, Pandolfi A, Evangelista V, Dercho RA, Seta F, Patrignani P. Induction of prostacyclin by steady laminar shear stress suppresses tumor necrosis factor-alpha biosynthesis via heme oxygenase-1 in human endothelial cells. Circ Res. 2009; 104:106-13. *contributed equally (*Research paper*)
2. Benfenati V, Caprini M, Nicchia GP, Rossi A, **Dovizio M**, Cervetto C, Nobile M, Ferroni S. Carbenoxolone inhibits volume-regulated anion conductance in cultured rat cortical astroglia. Channels (Austin). 2009; 3: 323-36. (*Research paper*)
3. Bruno A*, Di Francesco L*, Coletta I, Mangano G, Alisi MA, Polenzani L, Milanese C, Anzellotti P, Ricciotti E, **Dovizio M**, Di Francesco A, Tacconelli S, Capone ML, Patrignani P.

- Effects of AF3442 [N-(9-ethyl-9H-carbazol-3-yl)-2-(trifluoromethyl)benzamide], a novel inhibitor of human microsomal prostaglandin E synthase-1, on prostanoid biosynthesis in human monocytes in vitro. *Biochem Pharmacol.* 2010; 79:974-81. *contributed equally (*Research paper*)
4. Ricciotti E*, **Dovizio M***, Di Francesco L, Anzellotti P, Salvatore T, Di Francesco A, Sciulli MG, Pistritto G, Monopoli A, Patrignani P. NCX 4040, a nitric oxide-donating aspirin, exerts anti-inflammatory effects through inhibition of I kappa B-alpha degradation in human monocytes. *J Immunol.* 2010; 184:2140-7. *contributed equally (*Research paper*)
 5. Benfenati V*, Caprini M*, **Dovizio M**, Mylonakou MN, Ferroni S, Ottersen OP, Amiry-Moghaddam M. An aquaporin-4/transient receptor potential vanilloid 4 (AQP4/TRPV4) complex is essential for cell-volume control in astrocytes. *Proc Natl Acad Sci.* 2011; 108:2563-8. *contributed equally (*Research paper*)
 6. **Dovizio M***, Tacconelli S*, Ricciotti E*, Bruno A, Maier TJ, Anzellotti P, Di Francesco L, Sala P, Signoroni S, Bertario L, Dixon DA, Lawson JA, Steinhilber D, FitzGerald GA, Patrignani P. Effects of celecoxib on prostanoid biosynthesis and circulating angiogenesis proteins in familial adenomatous polyposis. *J Pharmacol Exp Ther.* 2012;341:242-50. *contributed equally (*Research paper*)
 7. Patrignani P, **Dovizio M**. Inside platelet-leukocyte cross-talk. *Blood.* 2012;119:3649-50. (*Invited Commentary*)
 8. Marcantoni E, Di Francesco L, **Dovizio M**, Bruno A, Patrignani P. Novel insights into the vasoprotective role of heme oxygenase-1. *Int J Hypertens.* 2012; 2012:127910. (Review)
 9. Antonilli L, De Carolis L, Brusadin V, Rita Togna A, **Dovizio M**, Togna G, Patrignani P, Nencini P. Repeated exposure to codeine alters morphine glucuronidation by affecting UGT gene expression in the rat. *Eur J Pharmacol.* 2012;15:693:7-14. (Research paper)
 10. Bruno A, **Dovizio M**, Tacconelli S, Patrignani P. Mechanisms of the antitumoral effects of aspirin in the gastrointestinal tract. *Best Pract Res Clin Gastroenterol.* 2012;26:e1-e13 (*Review*)
 11. **Dovizio M**, Tacconelli S, Sostres C, Ricciotti E, Patrignani P. Mechanistic and Pharmacological Issues of Aspirin as an Anticancer Agent. *Pharmaceuticals* 2012, 5, 1346-1371. (Review)
 12. Anzini M, Di Capua A, Valenti S, Brogi S, Rovini M, Giuliani G, Cappelli A, Vomero S, Chiasserini L, Sega A, Poce G, Giorgi G, Calderone V, Martelli A, Testai L, Sautebin L, Rossi A, Pace S, Ghelardini C, Di Cesare Mannelli L, Benetti V, Giordani A, Anzellotti P, **Dovizio M**, Patrignani P, Biava M. Novel analgesic/anti-inflammatory agents: 1,5-diarylpyrrole nitrooxyalkyl ethers and related compounds as cyclooxygenase-2 inhibiting nitric oxide donors. *J Med Chem.* 2013;56(8):3191-206 (*Research paper*)
 13. **Dovizio M**, Maier TJ, Alberti S, Di Francesco L, Marcantoni E, Munch G, John CM, Suess B, Sgambato A, Steinhilber D, Patrignani P. Pharmacological Inhibition of Platelet-tumor Cell Cross-talk Prevents Platelet-induced Overexpression of Cyclooxygenase-2 in HT29 Human Colon Carcinoma Cells. *Mol Pharmacol.* 2013; 84:25-40. (*Research paper*)
 14. Vitale P*, Tacconelli S*, Perrone MG*, Malerba P, Simone L, Scilimati A, Lavecchia A, **Dovizio M**, Marcantoni E, Bruno A, Patrignani P. Synthesis, Pharmacological Characterization, and Docking Analysis of a Novel Family of Diarylisoxazoles as Highly Selective Cyclooxygenase-1 (COX-1) Inhibitors. *J Med Chem.* 2013. 2013;56:4277-99 *contributed equally (*Research paper*)
 15. Togna AR, Antonilli L, **Dovizio M**, Salemme A, De Carolis L, Togna GI, Patrignani P, Nencini P. In vitro morphine metabolism by rat microglia. *Neuropharmacology.* 2013;75C:391-398 (*Research paper*)
 16. **Dovizio M**, Bruno A, Tacconelli S, Patrignani P. Mode of action of aspirin as a chemopreventive agent. In *Prospects for Chemoprevention of Colorectal Neoplasia Volume 191 of the series Recent Results in Cancer Research pp 39-65 (2013);* Editors: Andrew T. Chan, Elmar Detering. (*Book chapter*)
 17. **Dovizio M***, Alberti S*, Guillem-Llobat P, Patrignani P. Role of Platelets in Inflammation and Cancer: Novel Therapeutic Strategies. *Basic Clin Pharmacol Toxicol.* 2014;114:118-27 *contributed equally (*Review*)

18. Biava M, Battilocchio C, Poce G, Alfonso S, Consalvi S, Di Capua A, Calderone V, Martelli A, Testai L, Sautebin L, Rossi A, Ghelardini C, Di Cesare Mannelli L, Giordani A, Persiani S, Colovic M, **Dovizio M**, Patrignani P, Anzini M. Enhancing the pharmacodynamic profile of a class of selective COX-2 inhibiting nitric oxide donors. *Bioorg Med Chem*. 2014; 15;22:772-86. (*Research paper*)
19. Guillem-Llobat P.*, **Dovizio M**.*, Alberti S., Bruno A., Patrignani P. Platelets, cyclooxygenases and colon cancer. *Semin Oncol*. 2014;41:385-96). *contributed equally (*Review*)
20. Patrignani P, Tacconelli S, Piazzuelo E, Di Francesco L, **Dovizio M**, Sostres C, Marcantoni E, Guillem-Llobat P, Del Boccio P, Zucchelli M, Patrono C, Lanas A. Reappraisal of the clinical pharmacology of low-dose aspirin by comparing novel direct and traditional indirect biomarkers of drug action. *J Thromb Haemost*. 2014;12:1320-30. (*Research paper*)
21. Emanuela Marcantoni,* **Melania Dovizio**,* Peadar O' Gaora, Luigia Di Francesco, Imen Bendaya, Simone Schiavone, Annalisa Trenti, Paloma Guillem-Llobat, Alessandra Zambon, Giovanni Battista Nardelli, Lucia Trevisi, Paola Patrignani and Orina Belton. Dysregulation of gene expression in human fetal endothelial cells from gestational diabetes in response to TGF- β 1. *Prostaglandins Other Lipid Mediators*, 2015; 120:103-14. *contributed equally (*Research paper*)
22. Xiao B, Gu SM, Li MJ, Li J, Tao B, Wang Y, Wang Y, Zuo S, Shen Y, Yu Y, Chen D, Chen G, Kong D, Tang J, Liu Q, Chen DR, Liu Y, Alberti S, **Dovizio M**, Landolfi R, Mucci L, Miao PZ, Gao P, Zhu DL, Wang J, Li B, Patrignani P, Yu Y. Rare SNP rs12731181 in the miR-590-3p Target Site of the Prostaglandin F $_{2\alpha}$ Receptor Gene Confers Risk for Essential Hypertension in the Han Chinese Population. *Arterioscler Thromb Vasc Biol*. 2015;35:1687-95. (*Research paper*)
23. Patrignani P, **Dovizio M**. COX-2 and EGFR: Partners in Crime Split by Aspirin. *EBioMedicine*. 2015;2:372-3. (*Invited Commentary*)
24. Di Francesco L*, **Dovizio M***, Trenti A*, Marcantoni E, Moore A, O'Gaora P, McCarthy C, Tacconelli S, Bruno A, Alberti S, Gizzo S, Nardelli GB, Orso G, Belton O, Trevisi L, Dixon DA, Patrignani P. Dysregulated post-transcriptional control of COX-2 gene expression in gestational diabetic endothelial cells. *Br J Pharmacol*. 2015 [Epub ahead of print] *contributed equally (*Research paper*) (
25. **Dovizio M**, Alberti S, Sacco A, Guillem-Llobat P, Schiavone S, Maier TJ, Steinhilber D, Patrignani P. Novel insights into the regulation of cyclooxygenase-2 expression by platelet-cancer cell cross-talk. *Biochem Soc Trans*. 2015;43:707-14. (*Review*)
26. Patrignani P and **Dovizio M**. Time for integrating clinical, lifestyle and molecular data to predict drug responses. *EBioMedicine*, 2016;7:9-10. (*Invited Commentary*)
27. Guillem-Llobat P,* **Dovizio M***, Bruno A,* Ricciotti E, Cufino V, Sacco A, Grande R, Alberti S, Arena V, Cirillo M, Patrono C, FitzGerald GA, Steinhilber D, Sgambato A and Patrignani P. Aspirin prevents colorectal cancer metastasis in mice by splitting the crosstalk between platelets and tumor cells. *Oncotarget* 2016 (DOI: 10.18632/oncotarget.8655).*contributed equally. (*Research paper*)
28. Bruno A, **Dovizio M**, Patrignani, P. Molecular and experimental basis for COX inhibition in cancer. In *NSAIDs and aspirin: Recent advances and implications for clinical management*. 1 January 2016, Pages 175-201. (*Book chapter*).
29. **Dovizio M**, Sacco A, Patrignani P. Curbing tumorigenesis and malignant progression through the pharmacological control of the wound healing process. *Vascul Pharmacol*. 2017; 89:1-11. doi: 10.1016/j.vph.2017.01.003. (*Review*)
30. Patrignani P, Sacco A, Sostres C, Bruno A, **Dovizio M**, Piazzuelo E, Di Francesco L, Contursi A, Zucchelli M, Schiavone S, Tacconelli S, Patrono C, Lanas A. Low-Dose Aspirin Acetylates Cyclooxygenase-1 in Human Colorectal Mucosa: Implications for the Chemoprevention of Colorectal Cancer. *Clin Pharmacol Ther*. 2017 Jan 31. doi: 10.1002/cpt.639. (*Research paper*)
31. Contursi A, Sacco A, Grande R, **Dovizio M**, Patrignani P. Platelets as crucial partners for tumor metastasis: from mechanistic aspects to pharmacological targeting. *Cell Mol Life Sci*. 2017;74:3491-3507. (*Review*)

32. Ballerini P, **Dovizio M**, Bruno A, Tacconelli S, Patrignani P. P2Y12 Receptors in Tumorigenesis and Metastasis. *Front Pharmacol.* 2018;9:66. (*Review*)
33. Tacconelli S*, **Dovizio M***, Di Francesco L, Meneguzzi A, D'Agostino I, Evangelista V, Manarini S, Capone ML, Grossi L, Porreca E, Di Febbo C, Bruno A, Ballerini P, Levantesi G, Fava C, Minuz P, Patrignani P. Reduced Variability to Aspirin Antiplatelet Effect by the Coadministration of Statins in High-Risk Patients for Cardiovascular Disease. *Clin Pharmacol Ther.* 2018. doi: 10.1002/cpt.1075. [Epub ahead of print] *contributed equally. (*Research paper*)
34. **Dovizio M**, Bruno A, Contursi A, Grande R, Patrignani P. Platelets and extracellular vesicles in cancer: diagnostic and therapeutic implications. *Cancer Metastasis Rev.* 2018; 37:455-467. (*Review*)
35. Bruno A*, **Dovizio M***, Tacconelli S, Contursi A, Ballerini P, Patrignani P. Antithrombotic Agents and Cancer. *Cancers (Basel).* 2018 ;10(8). pii: E253. *contributed equally. (*Review*)
36. Contursi A, Grande R, **Dovizio M**, Bruno A, Fullone R, Patrignani P. Platelets in cancer development and diagnosis. *Biochem Soc Trans.* 2018; 46:1517-1527. (*Review*)
37. Rosalia Grande*, **Melania Dovizio***, Simone Marcone, Paulina Szklanna, Annalisa Bruno, H. Alexander Ehardt, Hilary Cassidy, Fionnuala N. Áinle, Anna Caprodossi, Paola Lanuti, Marco Marchisio, Geltrude Mingrone, Patricia B. Maguire and Paola Patrignani. Platelet-derived microparticles from obese individuals: characterization of number, size, proteomics and crosstalk with cancer and endothelial cells. *Front. Pharmacol.* 2019. doi: 10.3389/fphar.2019.00007. *contributed equally. (*Research paper*)
38. Saul MJ, Baumann I, Bruno A, Emmerich AC, Wellstein J, Ottinger SM, Contursi A, **Dovizio M**, Donnini S, Tacconelli S, Raouf J, Idborg H, Stein S, Korotkova M, Savai R, Terzuoli E, Sala G, Seeger W, Jakobsson PJ, Patrignani P, Suess B, Steinhilber D. miR-574-5p as RNA decoy for CUGBP1 stimulates human lung tumor growth by mPGES-1 induction. *FASEB J.* 2019;33:6933-6947. doi: 10.1096/fj.201802547R. (*Research paper*)
39. Sacco A, Bruno A, Contursi A, **Dovizio M**, Tacconelli S, Ricciotti E, Guillem-Llobat P, Salvatore T, Di Francesco L, Fullone R, Ballerini P, Arena V, Alberti S, Liu G, Gong Y, Sgambato A, Patrono C, FitzGerald G, Yu Y, Patrignani P. Platelet-specific deletion of cyclooxygenase-1 ameliorates dextran sulfate sodium-induced colitis in mice. *J Pharmacol Exp Ther.* 2019 Jun 27. pii: jpet.119.259382. doi:10.1124/jpet.119.259382. [Epub ahead of print] (*Research paper*)
40. Di Francesco L*, Bruno A*, Ricciotti E*, Tacconelli S, **Dovizio M**, Guillem-Llobat P, Alisi MA, Garrone B, Coletta I, Mangano G, Milanese C, FitzGerald GA, Patrignani P. Pharmacological characterization of the microsomal prostaglandin E2 synthase-1 inhibitor AF3485 in vitro and in vivo. *Frontiers in Pharmacology* 2020 in press. *equal contribution (*Research paper*)
41. Tacconelli S, Contursi A, Falcone L, Mucci M, D'Agostino I, Fullone R, Sacco A, Zucchelli M, Bruno A, Ballerini P, **Dovizio M**, Patrignani P. Characterization of cyclooxygenase-2 acetylation and prostanoid inhibition by aspirin in cellular systems. *Biochem Pharmacol.* 2020;178:114094. (*Research paper*)
42. Tacconelli S*, Fullone R*, **Dovizio M***, Pizzicoli G, Marschler S, Bruno A, Zucchelli M, Contursi A, Ballerini P, Patrignani P. Pharmacological characterization of the biosynthesis of prostanoids and hydroxyeicosatetraenoic acids in human whole blood and platelets by targeted chiral lipidomics analysis. *Biochim Biophys Acta Mol Cell Biol Lipids.* 2020 Dec;1865:158804. *equal contribution (*Research paper*)

Chieti, 10/11/2020

Melania Dovizio

