



PERSONAL INFORMATION

Dufrusine Beatrice

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Sex Female | Date of birth 22/06/1986 | Nationality Italian

EDUCATION AND WORK EXPERIENCE

16/07/2018– at present

Postdoctoral Research for AIRC research project *“Role of IFITM family members in pancreatic carcinoma development”* - CAST University ‘G. D’Annunzio’ of Chieti- Pescara Tutor Prof. Vincenzo De Laurenzi

22/12/2017–21/06/2018

Research Scholarship for *“Targeting endogenous plant biochemical pathways using new enzymes acting as bio-stimulants for plant growth and herbicide resistance”*- University of Teramo- Valagro group Tutor Prof. Enrico Dainese

01/12/2014–23/04/2018

Ph.D. three years programme in cellular and molecular biotechnology - University of Teramo. Title of thesis *‘Trafficking of bioactive lipids as modulator of their biological activity’* Tutors Prof. Enrico Dainese, Prof. Mauro Maccarrone

26/03/2013–14/10/2014

Master Degree in REPRODUCTIVE BIOTECHNOLOGIES - University of Teramo. Title of thesis: *‘Localization of the elements of the endocannabinoid system: functional role during sperm capacitation’*. Graduation mark 110/110 cum Laude

11/02/2013

Bachelor's degree in Biotechnology University of Teramo, Teramo (Italy) Title of thesis: *‘5-lipoxygenase nuclear translocation in human THP-1 macrophages induced by iron and hemin’*. Graduation mark 110/110 cum Laude

Main scientific interests and methods:

- biochemical and molecular study of bioactive lipids, lipid transporters, G-protein coupled receptor in primary cells and immortalized cell lines.
- biochemical and functional role of bioactive lipids and their trafficking in the modulation of inflammatory diseases and cancer.
- modulation of enzymatic activities by membrane lipids and bioactive compounds.

Primary and cancer cell lines culture for biochemical and molecular characterization, cellular transfection, enzymatic activity and enzyme kinetics by ENSIPRE® alfa-lisa technology, molecular cloning, expression, purification, and functional characterization of recombinant proteins, Baculovirus expression vector system.

PUBLICATIONS:

1. Dainese E, Oddi S, Simonetti M, Sabatucci A, Angelucci CB, Ballone A, Dufrusine B, Fezza F, De Fabritiis G, Maccarrone M, (2020) *The endocannabinoid hydrolase FAAH is an allosteric enzyme* Scientific Reports 10(1), 5903
2. Oddi S, Scipioni L, Totaro A, Angelucci C, Dufrusine B, Sabatucci A, Tortolani D, Coletta I, Alisi MA, Polenzani L, Assfalg M, Caltagirone C, Dainese E, Maccarrone M, (2019) *The anti-inflammatory agent bindarit acts as a modulator of fatty acid-binding protein 4 in human monocytic cells* Scientific Reports 9(1), 15155
3. Dufrusine B, Di Francesco A, Oddi S, Scipioni L, Angelucci CB, D'Addario C, Serafini M, Häfner AK, Steinhilber D, Maccarrone M, Dainese E, (2019) *Iron-Dependent Trafficking of 5-Lipoxygenase and Impact on Human Macrophage Activation* Front. Immunol., 10, 1347
4. Oddi S, Totaro A, Scipioni L, Dufrusine B, Stepniewski MS, Selent J, Maccarrone M, Dainese E, (2017) *Role of palmitoylation of cysteine 415 in functional coupling CB1 receptor to Gai2 protein* Biotechnology and Applied Biochemistry, 65(1),16-20
5. Oddi S, Stepniewski TM, Totaro A, Selent J, Scipioni L, Dufrusine B, Fezza F, Dainese E, Maccarrone M, (2017) *Palmitoylation of cysteine 415 of CB1 receptor affects ligand-stimulated internalization and selective interaction with membrane cholesterol and caveolin 1* Biochimica et Biophysica Acta - Molecular and Cell Biology of Lipids, 1862(5) 523-532

POSTER PRESENTATION:

- Dufrusine B, Di Francesco A, Oddi S, Scipioni L, Angelucci CB, D'Addario C, Serafini M, Häfner A-K, Steinhilber D, Maccarrone M, Dainese E, Iron-dependent 5-lipoxygenase Nuclear Translocation: Implications on Macrophage Activation, 60 National Meeting of the Italian Society of Biochemistry and Molecular Biology, 2019
- Dufrusine B, Lattanzio R, D'Agostino D, Buglioni S, Maccarrone M, De Laurenzi V and Dainese E, Expression of 5-lipoxygenase correlates with local relapse and predicts survival in early breast cancer patients, 60 National Meeting of the Italian Society of Biochemistry and Molecular Biology, 2019
- Dufrusine B., et al., Iron modulates the membrane-binding and the intracellular trafficking of 5-lipoxygenase: functional implications in neurodegeneration, 58 National Meeting of the Italian Society of Biochemistry and Molecular Biology, 2015;
- Di Guardo G; Giacominielli-Stuffler R; Baffoni M; Pietroluongo G; Di Francesco Ce; Dufrusine B. et al., 2016, ESPV-ECVP Annual Meeting, ESPV ECVP Annual Meeting 2016, JOURNAL OF COMPARATIVE PATHOLOGY, 2017, 54-141;