

PERSONAL INFORMATION

Family name, First name: Botta Lorenzo

Researcher unique identifier ORCID: 0000-0002-0856-2986

Date of birth: 20/11/1983 Nationality: Italy

SUMMARY OF SCIENTIFIC ACHIEVEMENTS

Documents: 83

Total Citations: 1621

Hirsch (H) index: 24

EDUCATION

20-10-2010: Ph.D Degree in Pharmaceutical Sciences (XXIII cycle) Department of Pharmacy, University of Siena, via Aldo Moro 2, 53100 Siena – Italy. Thesis title: Synthetic methodologies for biologically relevant “privileged scaffolds. Name of PhD Supervisor: Prof. Silvio Massa

26-09-2007: Master Degree in Medicinal Chemistry (Laurea Specialistica a ciclo unico – classe 14S in Chimica e Tecnologia Farmaceutiche (CTF)), Faculty of Pharmacy, University of Siena, via Aldo Moro 2, 53100 Siena – Italy. Thesis title: Synthesis and SAR studies of agonists with quinolone structure selective toward the cannabinoid CB2 receptors. Name Thesis Supervisor: Prof. Federico Corelli

2009-2010: Visiting PhD student at the Department of Chemistry, The Scripps Research Institute (TSRI), San Diego (USA). Project: Approaches to the total synthesis of the Sporolide B and 9-epi-Sporolide B. Scientific Coordinator: Prof. K. C. Nicolaou

2008 (4 months): Visiting PhD student at the Department of Pharmacy, ETH, Zurich (Switzerland). Project: Synthesis of opportune side chains for the Hypermodified Epothilone analogs. Scientific Coordinator: Prof. K. H. Altmann

CURRENT POSITION

November 2019 – Present: Associate Professor of Organic Chemistry at Department of Ecological and Biological Sciences –Tuscia University of Viterbo, via S.C. De Lellis s.n.c, 01100 Viterbo – Italy.

PREVIOUS POSITIONS

November 2019 – November 2022: Researcher (RTDB) at Department of Ecological and Biological Sciences –Tuscia University of Viterbo, via S.C. De Lellis s.n.c, 01100 Viterbo – Italy.

February 2018 – November 2019: Researcher (RTDA) at Department of Biology, Faculty of Pharmacy, Tor Vergata University of Rome, via della Ricerca Scientifica, 00133

January 2017 – December 2017: Post-doc position at Department of Ecological and Biological Sciences –Tuscia University of Viterbo, via S.C. De Lellis s.n.c, 01100 Viterbo – Italy. Main research line: Synthesis of anticancer and antiviral derivatives by enzymatic and biomimetic oxidative strategies. Scientific Coordinator: Prof. Raffaele Saladino

January 2013 – December 2015: Post-doc position at Department of Pharmacy, Federico II University of Naples Via Domenico Montesano, 49, 80131 Napoli - Italy. Main research line: Synthesis of small molecules with potential anticancer activity; synthesis of a probe for the identification of a Cannabinoid Receptor 1 (CB1) allosteric binding site. Scientific Coordinator: Prof. Ettore Novellino

October 2011 - October 2012: Post-doc position at Columbia University, Department of Chemistry, New York, NY, USA. Main research line: Total syntheses of Rufescenolide, Yunnaneic Acids C and D, and studies toward the synthesis of Yunnaneic Acids A and B. Scientific Coordinator: Prof. S. A. Snyder

January 2011 - September 2011: Research Fellow at Department of Pharmacy, University of Siena, via Aldo Moro 2, 53100 Siena – Italy. Main research line: Synthesis of Taxuspines X and U simplified analogs with potential P-glycoprotein inhibitory activity. Scientific Coordinator: Prof. Silvio Massa

TEACHING ACTIVITIES

2022 – present: Professor – Laboratory of Environmental monitoring (48 hours), degree course in Environmental and Natural Sciences, Department of Ecological and Biological Sciences, University of Tuscia, Viterbo – Italy

2022 – present: Professor – Nutraceutical and Food Chemistry (72 hours), degree course in Food Science and Human Nutrition, Department of Ecological and Biological Sciences, University of Tuscia, Viterbo – Italy

2019 – present: Professor – Chemistry of Bioactive Substances (48 hours), degree course in Industrial Biotechnology, Department of Ecological and Biological Sciences, University of Tuscia, Viterbo – Italy

2020 – present: Instructor – Lesson with title “Commercial drugs with antiviral activity and the possibility to develop a broad-spectrum antiviral agent” at the Master in Drug Design and Synthesis (4 hours), Department of Pharmacy, University of Siena, Siena - Italy

2019 – 2022: Professor – Drug Design (10 hours), degree course in Chemistry, Department of Chemistry, University of Wroclaw, Wroclaw - Poland

2018 – 2019: Professor – Pharmaceutical and Toxicological Chemistry 2 (96 hours), degree course in Pharmacy, Department of Biology, Tor Vergata University of Rome, Rome - Italy

RESEARCH ACTIVITY

The main focus of my research activity is the development of novel and challenging procedures, often based on multicomponent processes, for the synthesis of natural and non-natural pharmaceutically relevant products. My research interests are pointed towards the discovery and development of novel potential antiviral and anticancer agents. In addition, I am actively collaborating with Professor Saladino in the application of novel enzymatic and biomimetic methodologies applied to the modification of natural products with the aimed to increase their biological activities, and on the development of prebiotic model to demonstrate the formation mechanism of nucleobases, nucleosides and nucleotides on the Early Earth.

FUNDING INFORMATION [GRANTS AS PI-PRINCIPAL INVESTIGATOR]

PRIN 2022: NIRNA - Development of a NIR induced selective delivery of hypermodified oligoribonucleotides in cancer therapy. Prot. 2022MNPY8M (2023-2024), PI of the project

FUNDING INFORMATION [GRANTS AS I-INVESTIGATOR, PARTICIPANT]

PRIN 2017: ORIGINALE CHEMIAE in Antiviral Strategy - Origin and Modernization of Multi-Component Chemistry as a Source of Innovative Broad Spectrum Antiviral Strategy. Prot. 2017BMK8JR (2019-2022), Coordinator of the Unit of the University of Rome Tor Vergata

MAJOR COLLABORATIONS

Prof. Raffaele Saladino for the expertise in enzymatic and prebiotic chemistry (Dipartimento di Scienze Ecologiche e Biologiche, Università della Tuscia, Viterbo, Italia).

Prof. Elena Petricci for the expertise in development of microwave assisted protocols (Dipartimento di Biotecnologie, Chimica E Farmacia, Dipartimento di Eccellenza 2018-2022, Università di Siena, Siena, Italia).

Prof. Daniele Castagnolo for the expertise in development of biocatalytic methodology relevant in organic chemistry (Department of Chemistry, University College London, London, England).

Pursuant to Law 679/2016 of the Rules of the European Parliament of 27 April 2016, I consent to the processing and use of my data provided in this CV