CURRICULUM VITAE ET STUDIORUM

NAME AND SURNAME	**VIRGINIA CRISTOFORI**
CITY, DATE OF BIRTH	Ferrara, Italy. 16/02/1989
CITIZEN	Italian
ADDRESS	Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS University of Ferrara Via Fossato di Mortara 17, I-44121 Ferrara Tel: +39 0532 455696 Email: virginia.cristofori@unife.it
	CORRENT POSITION **Research fellow** at Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS, University of Ferrara.

EDUCATION

Bachelor's Degree in Chemistry (L-27) at University of Ferrara (Italy).
Title: "Synthesis of novel carbohydrates acrylamides for glycoarrays"
Supervisor prof. Alberto Marra
15th of March 2012 (106/110)

Master Degree (LM-54) in Organic Chemistry at University of Pisa
Title: "Studies toward synthesis of (-)-Nutlin-3"
Supervisor prof. Adriano Carpita;
external supervisor: prof. Claudio Trapella (University of Ferrara)
16th of April 2015 (110/110 cum laude)

Doctorate of Philosophy in Pharmaceutical Sciences and Chemistry
Marie Skłodowska-Curie Actions - Innovative Training Networks - European Joint Doctorate (H2020-MSCA-INT-EJD), di Horizon 2020 Framework Programme in Drug Discovery and Development
Programme Title MSCA-INT-EJD: "*MOGLYNET – Modulation of glycolytic flux as a new approach for treatment of atherosclerosis and plaque stabilization: a multidisciplinary study*".
Coordinator: prof. Maria Luisa Gelmi (University of Milano)
Early Stage Researcher 1 (ESR1). Main Institution: University of Aberdeen;
Host Institution: University of Milano;
Industrial partner for Secondment activity: Bayer HealthCare Manufacturing, Italy.
Thesis Title: "*Computationally aided rational design, synthesis and evaluation of PFKFB3 ligands for atherosclerotic plaque stabilisation*"
Supervisori prof. Matteo Zanda, prof. Alessandro Contini, Dr. Sergio Dall'Angelo
Titolo conseguito il 23 Maggio 2019

DOCUMENTED TRAINING AND RESEARCH ACTIVITIES AT QUALIFIED ITALIAN RESEARCH INSTITUTES

University of Pisa: training and research activity as an undergraduate student (Tutor Prof. Adriano Carpita)

University of Ferrara: training and research activity as an undergraduate student (Tutor Prof. Alberto Marra Bachelor's Degree, and Tutor Prof. Claudio Trapella Master's Degree)

Post-lauream Activity at University of Ferrara:

Coordinated and continuous personal collaboration from 01/09/2019 to 30/11/2019: research activity at Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS. Project aim: synthesis and characterization of new bixin derivatives based of hyaluronic acid for ophthalmic uses. Scale-up and process optimization.

Research scholarship from 01/12/2019 to 29/02/2020 at Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS. Project aim: synthesis and characterization of new bixin derivatives based of hyaluronic acid for ophthalmic uses. Scale-up and process optimization.

Research fellowship from 01/03/2020 to 28/02/2021 at Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS. Project "BUSINESSLAB@UNIFE" Laboratorio in Rete Tecnopolo Terra & Acqua Tech. Project aim: synthesis of chiral ketone bodies both in batch and flow chemistry. Design of Experiment as statistical approach for process optimization.

Research scholarship form 01/04/2021 to 30/06/2021 and **Research fellowship** (current position) from 01/07/2021 to 30/06/2022 at Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS. Project aim: synthesis of chiral ketone bodies both in batch and flow chemistry. Enzymatic catalysis.

University of Milan, training and research activity during Secondment of Moglynet PhD Program:

Early Stage Researcher (ESR) from 01/04/2016 to 31/09/2016, at Department of Pharmaceutical Sciences. Aim: training in computational chemistry and molecular modeling; Use of virtual screening for the identification of novel ligand of a target enzyme involved in atherosclerotic plaque stabilization. Tutor Prof. Alessandro Contini.

DOCUMENTED TRAINING AND RESEARCH ACTIVITIES AT QUALIFIED EUROPEAN RESEARCH INSTITUTES

University of Aberdeen (Scotland, UK): training and research activity during Moglynet PhD Program

Early Stage Researcher (ESR) from 01/03/2016 to 28/02/2019 at Institute of Medical Sciences (IMS Building). Project aim: synthesis and characterization of small molecules as new candidates for atherosclerotic plaque stabilisazion.

Tutor Prof. Matteo Zanda, Dr. Sergio Dall'Angelo

MOGLYNET network:

University of Milan (Pharmaceutical Sciences), Italy; University of Aberdeen (graduate School in Life Sciences and Medicine) United Kingdom; University of Antwerp: (Antwerp Doctoral School), Belgium; University of Barcelona (University of Barcelona Doctoral School, EDUB), Spain; University of Leiden (Graduate School of Leiden University Medical Center, LUMC), The Netherlands.

TEACHING ACTIVITY

- Teaching position for class in Laboratories of Organic Chemistry II (from 08/11/2021 to 03/12/2021) at Department of Chemical, Pharmaceutical and Agricultural Sciences, DOCPAS. Academic year 2020/2021.

CULTORE DELLA MATERIA in Scientific Disciplinary Sector CHIM/06, 03/C1 – Organic Chemistry (from 5/12/2019)

CONGRESS WORKSHOPS AND SUMMER SCHOOL PARTECIPATION

Poster presentation: - eCheminfo workshop in Drug Design, 18-22 Luglio 2016, Università di Milano. Titolo: "Virtual screening approach in drug discovery targeting the PFKFB3 kinase binding site" doi : 10.5281/zenodo.826382;

Oral presentation -Graduate School Winter Symposium 2017, 16-17 Febbrario 2017, University of Aberdeen (UK). Titolo: "Structure based-design and synthesis of new PFKFB3 kinase inhibitors as candidate therapeutics for treating atherosclerosis". doi : 10.5281/zenodo.827178;

Poster presentation: - Medical Chemistry Residential School, 11-16 Giugno 2017, University of Loughborough (UK). Titolo: "Structure-based design and synthesis of new PFKFB3 kinase inhibitors as candidate therapeutics for treating atherosclerosis". doi: 10.5281/zenodo.826380;

Oral presentation -PechaKucha Night, vol. 20, 29 Settembre 2017, The Belmont Filmhouse, Aberdeen (UK). Titolo: "Computational biology and how this field supports new drug discovery". doi :10.5281/zenodo.1486103

Oral presentation-PGR Conference Winter 2018, Aberdeen School of Medicine, Medical Sciences and Nutrition, 28- 30 Novembre 2018, University of Aberdeen (UK). Titolo: "Design and synthesis of new PFKFB3 kinase inhibitors as candidate therapeutics for treating atherosclerosis". doi: 10.5281/zenodo.826376.

SCIENTIFIC PROFILE

Orcid ID: *https://orcid.org/0000-0002-6837-6042*

SCIENTIFIC PUBLICATIONS

-Fantinati A., Bianco S., **Cristofori V**., Cavazzini A, Catani M., Zanirato V., Pacifico S., Rimondi E., Milani D., Voltan R., Secchiero P., Trapella C. Expeditious Synthesis and Biological Characterization of Enantio-Enriched (-)-Nutlin-3, *Chemistry Selec*t **2017**, 2, 8504-0508. doi:10.1002/slct.201701059.

[**IF:1.811**]

-Bilel S., Tirri M., Arfè R., Sturaro C., Fanitinati A., **Cristofori V**., Bernardi T., Boccuto F., Cavallo M., Cavalli A., De-Giorgio F., Calò., Marti M. In Vitro and In Vivo Pharmaco-Toxicological Characterization of 1-Cyclohexyl-x-methoxybenzene Derivatives in Mice: Comparison with Tramadol and PCP, *Int. J. Mol. Sci.* **2021** 22(14), 7659; doi: 10.3390/ijms22147659. [**IF:5.923**]

-Zappaterra F., Costa s., Summa D., Semeraro B., **Cristofori V.**, Trapella C., Tamburini E., Glyceric Prodrug of Ursodeoxycholic Acid (UDCA): Novozym 435-catalyzed Synthesis of UDCA-monoglyceride, *Molecules* **2021**, 26, 5966. https:// doi.org/10.3390/molecules26195966 [**IF:4.587**]

-Gentili V., Turrin G., Marchetti P., Rizzo S., Schiuma G., Beltrami S., **Cristofori V**., Illuminati D., Compagnin G., Trapella C., Rizzo R., Bortolotti D., Fanitinati A., Synthesis and biological evaluation of novel rhodanine-based structures with antiviral activity towards HHV-6 virus. *Bioorganic Chemistry* **2022**, 19, 105518. https://doi.org/10.1016/j.bioorg.2021.105518 [**IF:5.275]**

-Presini F., Di Carmine G., Giovannini P. P., **Cristofori V**., Lerin L. A., Bortolini O., Trapella C., Fantinati A., Chemoenzymatic Stereodivergent Synthesis of all the Possible Stereoisomers of the 2,3-Dimethylglyceric Acid Ethyl Ester, *Catalysts.* **2021,** *11*, 1440. https:// doi.org/10.3390/catal11121440. [**IF:3.934]**

-Mencucci R., Strazzabosco G., **Cristofori V**., Alogna A., Bortolotti D., Gafà R., Cennamo M., Favuzza E., Trapella C., Gentili V., Rizzo R., GlicoPro, novel standardized and sterile snail mucus exctract for multi-modulative ocular formulations. New perspective in dry eye disease Management. *Pharmaceutics* **2021**, *13*, 2139. https://doi.org/10.3390/ pharmaceutics13122139 [**IF:6.07]**

Accepted work:

-Illuminati D.; Fantinati A.; De Ventura T.; **Cristofori, V**.; Oble J.; Poli G.; Trapella C. Synthesis of 2,6-dimethyltyrosine-like aminoacids through pinacolinamide-enabled C–H dimethylation of 4-dibenzylamino phenylalanine. Rivista scientifica: The Journal of Organic Chemistry. [**IF:4.805]**

Ferrara, 08th February 2022

Virginia Cristofori