

Alice Coletti

Education

Post-Graduate Education

- | | |
|---------------|---|
| 2017 | Post-Doc Position in the framework of European Project ERC DIDO (Grant Agreement n.338954)
Supervisor: Prof. Antonio Macchiarulo
Dept. Pharmaceutical Sciences, University of Perugia, Italy |
| April 2017 | Ph.D. Dissertation in Chemical and Pharmaceutical Sciences
Doctoral Research Thesis: "Small Molecules Targeting IDO ₁ in Cancer Immunology"
Supervisor: Prof. Antonio Macchiarulo
Dept. Pharmaceutical Sciences, University of Perugia, Italy |
| 2013-2017 | Doctoral Research in Chemical and Pharmaceutical Sciences
Research Project: "Investigation of IDO Conformations for Immune Disorders"
Supervisor: Prof. Antonio Macchiarulo
Dept. Pharmaceutical Sciences, University of Perugia, Italy |
| December 2013 | Qualification in Pharmacist Profession
University of Perugia, Italy |

Under-Graduate & Graduate Education

- | | |
|-----------|--|
| 2012-2013 | Graduation Research Thesis
Research Project: Molecular Dynamic Simulations to study Protein-Protein Interactions in the p53, MDM ₂ /MDM ₄ signaling pathway
Supervisor: Prof. Antonio Macchiarulo
Dept. Pharmaceutical Sciences, University of Perugia, Italy |
| 2004-2013 | Academic Degree in Chemistry and Technology of Drugs
Graduated with 110/110 <i>cum laude</i>
University of Perugia, Italy |

Secondary Education

- | | |
|-----------|--|
| 1999-2004 | Liceo Classico "F. Frezzi", Foligno, Italy |
|-----------|--|

Academic Activities

Research Projects

Since 2014	European Project ERC DIDO (Grant Agreement n.338954)
2014-2017	Italian Research Project PRIN2012 (PRIN2012; prot.2012S47X27)
May 2015 – November 2015	Abroad Research Period Supervisor: Prof. U. Helena Danielson Dept. Chemistry - BMC, Uppsala University, Sweden
2012-2013	Collaboration with Dr. F. Moretti's group (Institute of Cell Biology and Neurobiology, National Research Council of Italy)

Congresses & Schools

September 2016	XXIV National Meeting in Medicinal Chemistry 10 th Young Medicinal Chemists' Symposium – NPCF10 Hotel Giò, Perugia, Italy
June-July 2016	European School of Medicinal Chemistry - ESMEC XXXVI Advanced Course of Medicinal Chemistry and "E. Duranti" National Seminar for Ph.D. Students Campus "Collegi del Colle e Tridente", Urbino, Italy
May 2016	2 nd Drug Discovery Forum Affinity. Stability. Conformation. Westin Grand Hotel, München, Germany
February 2015	Computationally Driven Drug Discovery 4 th Meeting Angelini S.p.A, Pomezia, Italy
July 2014	MicroScale Thermophoresis User Training MST Assay Development, MST Assay Optimization, MST Data Evaluation, MST Data Presentation NanoTemper Technologies GmbH, München, Germany
March 2014	MicroScale Thermophoresis User Meeting MST Theory, MST Assay Development, MST Trouble Shooting, MST Data Evaluation
March 2014	Computationally Driven Drug Discovery 3 rd Meeting Aptuit Center, Verona, Italy

Communications & Posters

- 1 A. Coletti, F. A. Greco, M. T. Pallotta, C. Orabona, U. Grohmann, A. Macchiarulo. "Fundamental role of stereochemistry in hIDO1 modulation"
Computationally Driven Drug Discovery 4th Meeting
Pomezia, Italy - February 24-26, 2015
- 2 A. Coletti, F. A. Greco, C. Custodi, A. Iacono, M. T. Pallotta, C. Orabona, F. Cantini, U. Grohmann, A. Macchiarulo "Make Screening Thrilling (MST) for IDO1"
2nd Drug Discovery Forum
München, Germany - May 8-11, 2016
- 3 A. Coletti "A Biophysical Approach to Fragment-based Screening for IDO1 Inhibitors"
European School of Medicinal Chemistry - ESMEC
Urbino, Italy - June 26 - July 1, 2016
- 4 F. A. Greco, A. Iacono, A. Coletti, C. Custodi, F. Ianni, R. Sardella, A. Carotti, C. Orabona, U. Grohmann, A. Macchiarulo "A cup of Virtual Screening, A Spoon of Biophysical Assay: A Great Recipe to Explore IDO1 Binding Site Properties for Novel Ligands"
21st EuroQSAR
Verona, Italy – September 4-8, 2016
- 5 C. Custodi, A. Coletti, F. A. Greco, F. Ianni, D. Dolciami, A. Carotti, A. Macchiarulo "A Comparative Study of PKA and LIPOPHILICITY for IDO1 Inhibitors"
XXIV National Meeting in Medicinal Chemistry
Perugia, Italy - September 11-14, 2016
- 6 A. Macchiarulo, F. A. Greco, A. Coletti, C. Custodi, M. Carloncelli, D. Dolciami, A. Carotti, E. Camaioni, A. Gioiello, M. Marinozzi, F. Cantini, C. Orabona, U. Grohmann "Targeting the Janus-faced nature of IDO1 in immune-oncology"
EFMC International Symposium on Medicinal Chemistry
Manchester, United Kingdom - August 28 - September 1, 2016
- 7 A. Macchiarulo, F. A. Greco, A. Coletti, D. Dolciami, E. Albini, C. Orabona, F. Cantini, U. Grohmann "A New Face to Immune Therapy: Discovery of Effector Ligands of IDO1"
4th NovAliX Conference Biophysics in Drug Discovery 2017
Strasbourg, France - June 6-9, 2017

Publications

- 1 A. Lazzarini, A. Macchiarulo, A. Floridi, A. Coletti, S. Cataldi, M. Codini, R. Lazzarini, E. Bartoccini, G. Cascianelli, F. S. Ambesi-Impombato, T. Beccari, F. Curcio, E. Albi "Very-long-chain fatty acid sphingomyelin in nuclear lipid microdomains of hepatocytes and hepatoma cells: can the exchange from C24:0 to C16:0 affect signal proteins and vitamin D receptor?" *Mol Biol Cell* **2015**, *26*; 2418-25.
- 2 M. Pellegrino, F. Mancini, R. Lucà, A. Coletti, N. Giacchè, I. Manni, I. Arrisi, F. Florenzano, E. Teveroni, M. Buttarelli, L. Fici, R. Brandi, T. Bruno, M. Fanciulli, M. D'Onofrio, G. Piaggio, R. Pellicciari, A. Pontecorvi, J.C. Marine, A. Macchiarulo, F. Moretti "Targeting the MDM2/MDM4 Interaction Interface as a promising approach for p53 Reactivation Therapy." *Cancer Res* **2015**, *75*; 4560-72.
- 3 F. A. Greco, A. Coletti, E. Camaioni, A. Carotti, M. Marinozzi, A. Gioiello, A. Macchiarulo "The Janus-faced nature of IDO1 in infectious diseases: challenges and therapeutic opportunities." *Future Med Chem* **2016**, *8*; 39-54.
- 4 F. A. Greco, A. Bournique, A. Coletti, C. Custodi, D. Dolciami, A. Carotti, A. Macchiarulo "Docking studies and molecular dynamic simulations reveal different features of IDO1 structure." *Mol Inform* **2016**; *35*: 449-59.
- 5 A. Coletti, F. A. Greco, D. Dolciami, E. Camaioni, R. Sardella, M. T. Pallotta, C. Volpi, C. Orabona, U. Grohmann, A. Macchiarulo "Advances in indoleamine 2,3-dioxygenase 1 medicinal chemistry: structure-function and structure-activity relationships of the enzyme and its inhibitors." *MedChemComm* **2017**; *8*: 1378-92.
- 6 F. A. Greco, A. Coletti, C. Custodi, D. Dolciami, A. Di Michele, A. Carotti, M. Marinozzi, N. Schlinck, A. Macchiarulo "Binding Properties of Different Categories of IDO1 Inhibitors: A Microscale Thermophoresis Study." *Future Med Chem* **2017**, *9*: 1327-38.
- 7 A. Coletti, F. Camponeschi, E. Albinì, F. A. Greco, V. Maione, C. Custodi, F. Ianni, U. Grohmann, C. Orabona, F. Cantini, A. Macchiarulo "Fragment-Based Approach to Identify IDO1 Inhibitor Building Blocks." *Eur J Med Chem* **2017**; *in press*.

Awards

- Best Poster A. Macchiarulo, F. A. Greco, A. Coletti, D. Dolciami, E. Albinì, C. Orabona, F. Cantini, U. Grohmann "A New Face to Immune Therapy: Discovery of Effector Ligands of IDO1"
4th NovAliX Conference Biophysics in Drug Discovery 2017
Strasbourg, France - June 6-9, 2017

Competences

Languages

Italian	Native
English	B2 level

Skills

Computational Techniques	Molecular Modeling, Docking, MD Simulations, Data Analysis
Experimental Methods	MicroScale Thermophoresis, Circular Dichroism, Absorption Spectroscopy, Thermal Shift, Differential Scanning Fluorimetry, Surface Plasmon Resonance, BCA assay, SDS-PAGE & BN Electrophoresis, Enzymatic Activity Assays, Kinetic and Inhibition Assays, Physicochemical Properties (pKa, logP, logD, Solubility) determination by Potentiometric Titration
Software	Maestro, VMD, Pymol, Gromacs, Software NT.115, GraphPad PRISM 5.01, CDNN 2.1, Sirius T3 Software version 1.1
Management	Setting up, technical and administrative management of Biomolecular Screening Laboratory of Pharmaceutical Sciences Dept. of University of Perugia
Teaching	Theoretical and practical lessons about MicroScale Thermophoresis and other biophysical techniques

Interests

Sport Volleyball, Hiking, Running

Intellectual Cinema, Reading, Photography, Traveling

References

Prof. Antonio Macchiarulo
Department of Pharmaceutical Sciences
University of Perugia
Via del Liceo, 1
06123 Perugia, Italy
+39 0755855160
antonio.macchiarulo@unipg.it

***Prof. Ursula
Grohmann***

Department of Experimental Medicine
University of Perugia
Via Gambuli, 1
06123 Perugia, Italy
+39 0755858240
+39 0755858241
ursula.grohmann@unipg.it

***Prof. Helena
Danielson***

Department of Chemistry, BMC
Uppsala University
Husargatan, 3
752 37 Uppsala
+4618-471 4545
helena.danielson@kemi.uu.se

Perugia, 18/12/2017

Signature

A handwritten signature in black ink, appearing to read "Arico Catti". The signature is written in a cursive style with a large initial 'A'.