

PERSONAL INFORMATION

Francesca Alessandra Ambrosio



[Redacted personal information]

WORK EXPERIENCE

02/08/2015–28/03/2016

Pharmacist
Parapharmacy Sascal, International Airport Lamezia Terme
via Aeroporto, 88046 Lamezia Terme (Italy)

EDUCATION AND TRAINING

01/04/2016–31/03/2019

PhD in Life Sciences
University "Magna Graecia" of Catanzaro
viale Europa, 88100 Catanzaro (Italy)
www.unicz.it

08/2018–12/2018

Research activity
Scripps Research Institute
North Torrey Pines Road, 10550 La Jolla, CA (United States)
<https://www.scripps.edu>

- strong improvement of different molecular modeling techniques applied in medicinal chemistry field;
- acquisition of main knowledge for the drug discovery and drug development;
- specialized in the use of AutoDock tool; applied in the identification of new potential inhibitors of viral proteins, with particular emphasis on HIV-1 and in the identification of new potential anticancer drugs;
- good knowledge of AutoSite tool;
- development of the advanced modeling techniques developed in the lab;
- deep knowledge of different software, useful in the drug discovery process and in the deep study of protein and other target.

13/06/2019–15/06/2019

Member of Organizing Committee for Paul Ehrlich Euro-PhD Network & MuTaLig COST Action meeting 2019
Catanzaro (Italy)

04/2018

Title of subject expert SSD CHIM/10 Food Chemistry
University Magna Graecia of Catanzaro, Catanzaro (Italy)

04/2018

Title of subject expert SSD CHIM/08 Pharmaceutical Chemistry
University Magna Graecia of Catanzaro, Catanzaro (Italy)

04/2018

Title of subject expert SSD CHIM/11 Fermentation Chemistry
University Magna Graecia of Catanzaro, Catanzaro (Italy)

21/05/2017–26/05/2017

11th European Workshop in Drug Design and Mu.Ta.Lig. Training School

Certosa di Pontignano, Siena (Italy)

- 08/02/2017–10/02/2017 1st Training School – MuTaLig COST Action
 Universitat Wien, Vienna (Austria)
- 20/07/2015 Enrolment in the pharmacist professional register
 Professional association Pharmacists of Catanzaro
 via Italia, 88100 Catanzaro (Italy)
ordinefarmacisti.cz.it
- 26/06/2015 Qualification to the profession of pharmacist
 University "Magna Græcia" of Catanzaro
 viale Europa, 88100 Catanzaro (Italy)
www.unicz.it
- 31/03/2015 Degree in pharmacy with vote 110/110
 University "Magna Græcia" of Catanzaro
 viale Europa, 88100 Catanzaro (Italy)
www.unicz.it
- 28/07/2014–05/03/2015 Internship at the pharmacy "Lanzo Anna Maria Luisa"
 Pharmacy "Lanzo Anna Maria Luisa"
 via Castello, 88040 Martirano (Italy)
- 09/06/2014–30/03/2015 Experimental thesis at the Computational Chemistry Lab (CCLab)
 University "Magna Græcia" of Catanzaro
 viale Europa, 88100 Catanzaro (Italy)
www.unicz.it
- 14/07/2009 High school leaving qualification in scientific studies
 Liceo Scientifico "Galileo Galilei"
 24, via Leonardo Da Vinci, 88046 Lamezia Terme (Italy)

PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
French	A1	A1	A1	A1	A1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
[Common European Framework of Reference for Languages](http://www.europa.europa.eu/education/languages/framework/index_en.htm)

- Communication skills
- Excellent communicative skills. I work very well in team.
 - I'm a really positive person with a very strong character.
 - I'm very curious and open to new challenges.
 - Excellent contact skills with children due to my experience as volunteer entertainer.

Organisational / managerial skills I have good logistic capabilities. I take part to several projects about the protection of the environment and its effects on human health and the development of various diseases.

Job-related skills Knowledge of computational techniques in the drug discovery process (Molecular Docking, Virtual Screening, Molecular Dynamics, Pharmacophore Modeling, Ligand and Structure Based Approach, Homology Modelling, Quantitative Structure Activity Relationship (QSAR) approach.).

Digital skills**SELF-ASSESSMENT**

Information processing	Communication	Content creation	Safety	Problem-solving
Proficient user	Proficient user	Independent user	Proficient user	Independent user

Digital skills - Self-assessment grid

- good command of Office suite
- good command of Mac suite
- good command of UNIX Operating System

Other skills I play guitar and piano.
I like swimming

Driving licence B

ADDITIONAL INFORMATION

- Publications**
- Esposito F and Ambrosio F.A.; Maluddu R.; Costa G.; Rocca R.; Maccioni E.; Catalano R.; Romeo I.; Eleftheriou P.; Karia D.C.; Tsirides P.; Godvani N.; Pandya H.; Corona A.; Alcaro S.; Artese A.; Geronikaki A.; Tramontano E. Chromenone derivatives as a versatile scaffold with dual mode of inhibition of HIV-1 reverse transcriptase-associated Ribonuclease H function and integrate activity. *European Journal of Medicinal Chemistry*. **2019**, doi.org/10.1016/j.ejmech.2019.111617.
 - Maruca A.; Catalano R.; Bagetta D.; Mesiti F.; Ambrosio F.A.; Romeo I.; Moraca F.; Rocca R.; Ortuso F.; Artese A.; Costa G.; Alcaro S.; Lupia A. The Mediterranean Diet as source of bioactive compounds with multi-targeting anti-cancer profile. *European Journal of Medicinal Chemistry*. **2019**, doi.org/10.1016/j.ejmech.2019.111579.
 - Costa G.; Carta F.; Ambrosio F.A.; Artese A.; Ortuso F.; Moraca F.; Rocca R.; Romeo I.; Lupia A.; Maruca A.; Bagetta D.; Catalano R.; Vullo D.; Alcaro S.; Supuran C.T. A computer-assisted discovery of novel anti-obesity compounds as selective carbonic anhydrase VA inhibitors. *European Journal of Medicinal Chemistry*. **2019**, doi.org/10.1016/j.ejmech.2019.111565.
 - Arcon J.P.; Modenutti C.P.; Avendano D.; Lopez E.D.; Defelipe L.A.; Ambrosio F.A.; Turjanski A.G.; Forli S.; Marti M.A. AutoDock Bias: improving binding mode prediction and virtual screening using known protein-ligand interactions. *Bioinformatics*. **2019**, DOI.org/10.1093/bioinformatics/btz152.
 - Della Volpe S.; Nasti R.; Queirolo M.; Unver M.Y.; Jumde V.K.; Domling A.; Vasile F.; Potenza D.; Ambrosio F.A.; Costa G.; Alcaro S.; Zucca C.; Provenzani A.; Di Giacomo M.; Rossi D.; Hirsch A.K.H.; Collina S. Novel Compounds Targeting the RNA-Binding Protein HuR. Structure-Based Design, Synthesis, and Interaction Studies. *ACS Medicinal Chemistry Letters*. **2019**, DOI:10.1021/acsmchemlett.8b00600.
 - Costa G.; Rocca R.; Corona A.; Grandi N.; Moraca F.; Romeo I.; Talarico C.; Gagliardi M.G.; Ambrosio F.A.; Ortuso F.; Alcaro S.; Distinto S.; Maccioni E.; Tramontano E.; Artese A. Novel natural non-nucleoside inhibitors of HIV-1 reverse transcriptase identified by shape- and structure-based virtual screening techniques. *European Journal of Medicinal Chemistry*. **2019**, 161:1-10.
 - Maruca A.; Ambrosio F.A.; Lupia A.; Romeo I.; Rocca R.; Moraca F.; Talarico C.; Bagetta D.; Catalano R.; Costa G.; Artese A.; Alcaro, S. Computer-based techniques for lead identification and optimization I: Basics. *Physical Science Review*, **2019**, DOI:doi.org/10.1515/psr-2018-0113.
 - Lupia, A.; Moraca, F.; Bagetta, D.; Maruca, A.; Ambrosio, F.A.; Rocca, R.; Catalano, R.; Romeo, I.; Talarico, C.; Ortuso, F.; Artese, A.; Alcaro, S. Computer-based techniques for lead identification and optimization II: Advanced search methods. *Physical Sciences reviews*, **2019**, DOI: 10.1515/psr-

2018-0114.

- Vasile F.; Della Volpe S.; Ambrosio F.A.; Costa G.; Unver M.Y.; Zucai C.; Rossi D.; Martino E.; Provenzani A.; Hirsch A.K.H.; Alcaro S.; Potenza D.; Collina S. Exploration of ligand binding modes toward the identification of compounds targeting HuR: a combined STD-NMR and Molecular Modelling approach. *Scientific Reports*. **2018**, 8:13780.
- Pouga L.; Santoro M.M.; Charpentier C.; Di Carlo D.; Romeo I.; Artese A.; Alcaro S.; Antinori A.; Wirden M.; Pemo C.F.; Ambrosio F.A.; Calvez V.; Descamps D.; Marcelin A.G.; Ceccherini-Silberstein F.; Lambert-Niclot S. New Resistance Mutations to Nucleoside Reverse Transcriptase Inhibitors at Codon 184 of HIV-1 Reverse Transcriptase (M184L and M184T). *Chemical Biology & Drug Design*. **2019**, 93 (1):50-59.
- Malet I. and Ambrosio F.A.; Subra, F.; Herrmann, B.; Leh, H.; Bouger, M.C.; Artese, A.; Katlama, C.; Talarico, C.; Romeo, I.; Alcaro, S.; Costa, G.; Deprez, E.; Calvez, V.; Marcelin, A.G.; Delelis, O. Pathway involving the N155H mutation in HIV-1 integrase leads to dolutegravir resistance. *Journal of Antimicrobial Chemotherapy*. **2018**, 73 (5): 1158-1166.

Oral communications

- Ambrosio, F.A. Induced Fit Docking Protocol applied to the *in silico* evaluation of antiviral HIV-1 integrase resistance. 2nd WG meeting – Status of WG activities of the MuTaLig COST Action. 15-16 March **2018**, Instituto Universitario de Bio-Orgánica "Antonio González", Universidad de La Laguna, Tenerife-Spain.
- Ambrosio, F. A. Pathway involving the N155H mutation in HIV-1 integrase leads to dolutegravir resistance. The 7th meeting of the Paul Ehrlich MedChem Euro-PhD Network. 25-27 August **2017** Vienna, University of Technology, Vienna-Austria.

Poster communications

- Ambrosio, F. A.; Costa, G.; Della Volpe, S.; Vasile, F.; Alcaro, S.; Collina, S. Compounds Targeting the RNA-Binding Protein HuR. Structure-Based Design, Synthesis and Interaction Studies. Paul Ehrlich Euro-PhD Network & MuTaLig COST Action meeting 2019, June 13th-15th, **2019**, Catanzaro (Italy).
- Ambrosio, F.A.; Costa, G.; Della Volpe, S.; Vasile, F.; Alcaro, S.; Collina, S. Exploration of ligand binding modes towards the identification of compounds targeting HuR: a combined STD-NMR and Molecular Modelling approach. MuTaLig COST Action, 3rd WG meeting 2019. 23-24 February **2019**, Paris, France.
- Ambrosio, F.A.; Talarico, C.; Costa G.; Romeo, I.; Alcaro, S.; Artese, A. *In silico* approaches for antiviral Multi-target drugs discovery. 2nd WG meeting – Status of WG activities of the MuTaLig COST Action. 15-16 March **2018**, Tenerife, Spain.
- Lupia, A.; Rocca, R.; Moraca, F.; Costa, G.; Talarico, C.; Romeo, I.; Maruca, A.; Ambrosio, F. A.; Bagetta, D.; Mesiti, F.; Artese, A.; Ortuso, F.; Alcaro, S. Dynophores: a Molecular Dynamics Pharmacophore Approach to identify telomerase TEN domain promising binders. International Workshop CAT-ICBCS 2017 Catalysis with Ions, Complexes, Biological Systems, Clusters and Surfaces. 3-4 Novembre **2017**, Cosenza, Italy.
- Romeo, I.; Talarico, C.; Maruca, A.; Costa, G.; Moraca, F.; Rocca, R.; Ambrosio, F. A.; Lupia, A.; Bagetta, D.; Mesiti, F.; Ortuso, F.; Artese, A.; Alcaro, S. *In silico* identification of Chikungunya virus nsP2 protease inhibitors from natural sources. International Workshop CAT-ICBCS 2017 Catalysis with Ions, Complexes, Biological Systems, Clusters and Surfaces. 3-4 Novembre **2017**, Cosenza, Italy.
- Ambrosio, F.A.; Romeo, I.; Malet, I.; Artese, A. Cabotegravir, a new Integrase inhibitor: drug stability evaluation. EpiChemBio (CM1406) and MuTaLig COST (CA15135) actions joint meeting University of Porto. 22-24 September **2017**, Porto, Portugal.
- Ambrosio, F.A.; Artese, A.; Romeo, I.; Costa G.; Talarico, C.; Ortuso, F.; Alcaro, S.; Galilee, M.; Alian, A. Analysis of new allosteric pockets on the HIV-1 Integrase and hit identification of novel selective ligands by Virtual screening techniques. 11th EWDD European Workshop in Drug Design & Mu.Ta.Lig Training School (XI EWDD). 21-26 May **2017**, Siena, Italy.
- Ambrosio, F. A.; Artese, A.; Alcaro, S.; Costa, G.; Romeo, I.; Moraca, F.; Rocca, R.; Talarico, C.; Esposito, F.; Tramontano, E. *In silico* identification of new natural ligands as potential HIV-1 Integrase agents. 3rd Innovative Approaches for novel Antiviral Agents Summer School. September 28th-October 3rd **2016**, Pula (CA), Sardinia, Italy.