

## DAVIDE CIRILLO, MSc

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### EDUCATION

10/11- 10/16 **Master degree in Pharmaceutical Chemistry and Technology. 110/110 cum laude.**  
University of Milan, Italy

Title of the thesis: *“Hybrid ortho/allosteric ligands for the M<sub>1</sub> muscarinic acetylcholine receptors and acetylcholinesterases: design, synthesis and preliminary pharmacological evaluation”*. (Supervisor: Dr. Clelia Dallanoce. Assistant supervisor: Prof. Marco De Amici)

Part of this project was carried out in Würzburg (Prof. Ulrike Holzgrabe) thanks to an Erasmus studentship granted by University of Milan.

2006 – 2011 **Scientific high school: “Liceo Agnesi” in Merate, Italy.**  
Top of my class in Mathematics, Physics and Science.

### WORKING EXPERIENCE

03/16 – 10/16 **Master degree internship, Erasmus project.**

Institute of Pharmacy and Food Chemistry, Julius-Maximilians-Universität Würzburg, Germany. (Prof. Holzgrabe).

My work focused on the design and synthesis of ortho/allosteric hybrids containing Xanomeline, as orthosteric fragment, and Tacrine, as allosteric modulator and AChE inhibitors, with the aim of finding selective ligands for M<sub>1</sub> muscarinic receptors and selective enzymatic inhibitors towards AChE. I have personally took care of the pharmacological assays of the obtained molecules employing Ellman’s test.

09/15 – 02/16 **Master degree internship**

University of Milan, DISFARM (Prof. De Amici and Dr. Dallanoce).

My work focused on the design and synthesis of ortho/allosteric hybrids containing Xanomeline, as orthosteric fragment, and 77-LH-28-1 as allosteric modulator, with the aim of finding selective ligands for M<sub>1</sub> muscarinic receptors.

03/15 – 09/15 **Internship in “Carlo Erba” drugstore.**

Milan, Italy. Supervisor: Gianni Valdati.

Thanks to this experience, I have deepened my knowledge about the pharmacist work, not only for what concerns the pharmacological and toxicological aspects, the sale, the professional ethics, and the relationship with the patient; but also regarding features on an organizational point of view, relative to the goods from the moment of the arrival in the drugstore until the set-up in the shop.

07/10 – 08/10 **Internship in “Azur Presse” shop.**

Cannes, France. Supervisor: Fabrice Cazin

I had access, after selection, to the project “European Project Leonard F.O.U.R.”, organized by the EU. I attended French language, elements of Economy and Law classes. Thanks to this experience, I improved my French and I acquired key social and working skills, like welcoming

the clients, purchase advices, inventory management and the products displaying in the shop and in the showcase.

## PERSONAL SKILLS:

### Technical skills

During my yearlong internship, I got closer to the medicinal chemistry world. I understood how to work in total independency and how to apply the theoretical knowledge that I have learned during all my studies to everyday laboratory practice.

Particularly I have developed my organic and medicinal chemistry skills concerning:

- Preparation of chemical reactions in different conditions, for example inert and anhydrous conditions and with the employment of the microwave.
- Most important purification protocols, such as crystallisation, extraction (traditional and with Soxhlet extractor), silica gel chromatography (also reverse phase), etc.
- Most typical instruments of chemical analysis as NMR, MS, HPLC, IR and UV.
- Pharmacological assays, as Ellman's test to investigate Tac/Xano hybrids as AChE inhibitors.

### Language skills

<b>Italian</b>	mother tongue	
<b>English</b>	C1	
<b>German</b>	B2	Certificated by University of Würzburg
<b>French</b>	B2	DELFL Certification

### Computer skills

- Proficient user of most relevant chemical computer programs as: Chemdraw, Merstrenova, Scifinder and Pubmed.
- ECDL (European Computer Driving License) achieved in 2011.

### Social and additional skills

- I have played volleyball for ten years and, for most of them, I was the team captain.
- Class representative during high school.

## AWARDS:

- Erasmus scholarship
- Twice first ranked in my high school in "Math Olympiad"