

# CURRICULUM VITAE

## FORMATO EUROPEO PER IL CURRICULUM VITAE



### INFORMAZIONI PERSONALI

Nome e Cognome

Michele D'Ambrosio

Data di nascita

[REDACTED]

Telefono

[REDACTED]

Telefono cellulare

[REDACTED]

Indirizzo posta elettronica

[REDACTED]

Incarico attuale

PhD Candidate – Sapienza University of Rome

### ISTRUZIONE E FORMAZIONE

• Date (da – a)

2014-2021

• Nome e tipo di istituto  
di istruzione o formazione

Sapienza University of Rome. Master's Degree in Pharmaceutical Chemistry  
and Technology

• Qualifica conseguita

Master's Degree

• Date (da – a)

February – June 2018

• Nome e tipo di istituto  
di istruzione o formazione

Visiting Erasmus+ Student, University of Surrey, Guildford, England

• Date (da – a)

November 2021 – October 2024

• Nome e tipo di istituto  
di istruzione o formazione

Sapienza University of Rome, Department of Chemistry and Technology of  
Drugs. Doctoral course in Pharmaceutical Sciences, XXXVII Cycle

• Date (da – a)

September 2023 – May 2024

• Nome e tipo di istituto  
di istruzione o formazione

Visiting Scholar, University of Pennsylvania, Philadelphia, USA

**MADRELINGUA**

**ITALIAN**

## ALTRE LINGUE

- Capacità di lettura
- Capacità di scrittura
- Capacità di espressione orale

## CAPACITÀ E COMPETENZE TECNICHE

Con computer, attrezzature  
specifiche, macchinari, ecc.

## ALTRO (PARTECIPAZIONE A

CONVEGNI, SEMINARI,  
PUBBLICAZIONI,  
COLLABORAZIONI A RIVISTE, ECC.  
ED OGNI ALTRA INFORMAZIONE  
CHE IL COMPILANTE RITIENE  
DI DOVER PUBBLICARE)

## ENGLISH

EXCELLENT  
EXCELLENT  
EXCELLENT

As a researcher in the field of pharmaceutical sciences, my work is focused on drug design and the discovery of novel anticancer agents.

One area of my research is focused on the development of tubulin polymerization inhibitors. These compounds have shown promising anticancer activity in preclinical studies and are being investigated as potential therapeutics. Amongst these, ferroptosis inducers stand out as a distinct class, representing a promising strategy for the treatment of cancer. My work has involved the design and synthesis of tubulin polymerization inhibitors that can induce ferroptosis in cancer cells, and the characterization of these compounds using various analytical techniques.

Another area of my research is focused on the development of allosteric modulators of the Wnt/ $\beta$ -Catenin pathway, a new challenging target for cancer therapy, due to its double-sided aspect. The aim is to design and synthesize new modulators in order to downregulate the aberrant activity of the pathway, while preserving its basal activity in healthy tissues.

During my tenure as a visiting scholar at the University of Pennsylvania, my primary research centered on natural products. Specifically, I dedicated my efforts to the total synthesis of Discodermolide and its analogues, compounds exhibiting significant potential in combating cancer through their promising biological activity.

Overall, my experience in drug design, drug discovery, medicinal chemistry, and the analysis of compounds using techniques such as NMR provides me with a strong foundation for a career in pharmaceutical research.

## Articles

1. Puxeddu, M.; Wu, J.; Bai, R.; D'Ambrosio, M.; Nalli, M.; Coluccia, A.; Manetto, S.; Ciogli, A.; Masci, D.; Urbani, A.; Fionda, C.; Coni, S.; Bordone, R.; Canettieri, G.; Bigogno, C.; Dondio, G.; Hamel, E.; Liu, T.; Silvestri, R.; La Regina, G. Induction of Ferroptosis in Glioblastoma and Ovarian Cancers by a New Pyrrole Tubulin Assembly Inhibitor. *Journal of Medicinal Chemistry* **2022**, *65* (23), 15805–15818.
2. Nalli, M.; Di Magno, L.; Wen, Y.; Liu, X.; D'Ambrosio, M.; Puxeddu, M.; Parisi, A.; Sebastiani, J.; Sorato, A.; Coluccia, A.; Ripa, S.; Di Pastena, F.; Capelli, D.; Montanari, R.; Masci, D.; Urbani, A.; Naro, C.; Sette, C.; Orlando, V.; D'Angelo, S.; Biagioni, S.; Bigogno, C.; Dondio, G.; Pastore, A.; Stornaiuolo, M.; Canettieri, G.; Liu, T.; Silvestri, R.; La Regina, G. Novel N-(Heterocyclyphenyl)Benzensulfonamide Sharing an Unreported Binding Site with T-Cell Factor 4 at the  $\beta$ -Catenin Armadillo Repeats Domain as an Anticancer Agent. *ACS Pharmacology & Translational Science* **2023**, *6* (7), 1087–1103.
3. Masci, D.; Puxeddu, M.; Di Magno, L.; D'Ambrosio, M.; Parisi, A.; Nalli, M.; Bai, R.; Coluccia, A.; Sciò, P.; Orlando, V.; D'Angelo, S.; Biagioni, S.; Urbani, A.; Hamel, E.; Nocentini, A.; Filiberti, S.; Turati, M.; Ronca, R.; Kopecka, J.; Riganti, C.; Fionda, C.; Bordone, R.; Della Rocca, G.; Canettieri, G.; Supuran, C. T.; Silvestri, R.; La Regina, G. 4-

- (3-Phenyl-4-(3,4,5-Trimethoxybenzoyl)-1H-Pyrrol-1-Yl)Benzenesulfonamide, a Novel Carbonic Anhydrase and Wnt/ $\beta$ -Catenin Signaling Pathway Dual-Targeting Inhibitor with Potent Activity against Multidrug Resistant Cancer Cells. *Journal of Medicinal Chemistry* **2023**, *66* (21), 14824–14842.
4. Puxeddu, M.; Ling, L.; Ripa, S.; D'Ambrosio, M.; Nalli, M.; Parisi, A.; Sciò, P.; Coluccia, A.; Granese, A.; Santelli, M.; Masci, D.; Cuřínová, P.; Naro, C.; Sette, C.; Pastore, A.; Stornaiuolo, M.; Bigogno, C.; Dondio, G.; Di Magno, L.; Canettieri, G.; Liu, T.; Silvestri, R.; La Regina, G. Development of N-(4-(1H-Imidazol-1-yl)phenyl)-4-chlorobenzenesulfonamide, a Novel Potent Inhibitor of  $\beta$ -Catenin with Enhanced Antitumor Activity and Metabolic Stability. *Journal of Medicinal Chemistry* **2024**.

*Poster communications*

M. D'Ambrosio. Discovery of a novel pyrrole derivative as a tubulin polymerization inhibitor agent capable of inducing ferroptosis in glioblastoma and ovarian cancers. European School of Medicinal Chemistry 2022, July 3<sup>rd</sup> – 7<sup>th</sup>, **2022**, Urbino, Italy.

*Oral communications*

M. D'Ambrosio. New tubulin polymerization inhibitors as ferroptosis inducers to treat cancer. XI EDITION BeMM Symposium, September 30<sup>th</sup>, **2024**, Rome, Italy.