

# CURRICULUM VITAE

## *Personal information*

*First name and Surname* Antonino Famulari  
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*Telephone* +39 3393786828  
*E-mail* tonyfamulari@hotmail.it  
*Nationality* Italian  
*Date of birth* 18/02/1993

## *Current position*

*Institute of education* University of Zaragoza and University of Turin  
*Status* 3<sup>rd</sup> Year PhD Student  
*Course* "Physics" and "Chemical and Materials Sciences"  
*Programme* H2020 / European Joint Doctorate / Marie Skłodowska-Curie Actions  
*Reference number* PARACAT - 813209  
*Project* Towards tuning CYP450 reactivity: study of the oxidation cycle of CYP116B5 using H<sub>2</sub>O<sub>2</sub>

## *Education*

*Institute of education* University of Messina  
*Certificate* Master's Degree in Chemistry  
*Thesis title* "Synthesis of glucosidic OPEs for Ln-UCNPs functionalization"  
*Degree mark* 110/110 summa cum laude  
*Main topics* Widening of the knowledge already acquired in the general fields of chemistry, associated to further practical applications in the laboratory, and study of biological interactions through subjects such as Bioinorganic, Molecular Recognition and Organic Chemistry of Biological Processes. Medical and clinical areas were also treated through Forensic Analytical Chemistry and Clinical Analytic Chemistry.  
*Title achievement date* 18/12/2018

*Institute of education* University of Messina  
*Certificate* Bachelor's Degree in Chemistry  
*Thesis title* "Synthesis of glucosidic biocompatible OPEs and internalization in tumoral cells"  
*Degree mark* 110/110

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|-------------------------------|---|
| <i>Main topics</i>            | Study of the general chemistry fields with practical applications in the laboratory.  |
| <i>Title achievement date</i> | 24/10/2016  |
| <i>Institute of education</i> | I. I. S. “Caminiti-Trimarchi”   |
| <i>Certificate</i>            | Classical High School Diploma   |
| <i>Degree mark</i>            | 100/100   |
| <i>Main topics</i>            | Acquisition of a solid linguistic and scientific education through the refinement of communicative skills in different contexts, thanks to the custom of translation and the interpretation of expressive forms.<br>Acquisition of linguistic-conceptual structures suitable to account analytically of historical facts, literary and artistic phenomena, of the philosophical and scientific thought studied.<br>Enhancement of the knowledge of the classical tradition to elaborate a critical approach to the present. |
| <i>Title achievement date</i> | 2011  |

### ***Training***

- VI Edition “Structure and Function of Proteins” Course - University of Zaragoza - Jaca (Spain), 2<sup>nd</sup> to 5<sup>th</sup> July 2019.
- “The basics of Electron Paramagnetic Resonance (EPR) for applications in (bio)catalysis” - PARACAT - Antwerp (Belgium), 14<sup>th</sup> to 21<sup>st</sup> July 2019.
- Summer School “8th EFEPR SCHOOL of the European Federation of EPR groups on Advanced EPR” - CEITEC - Brno (Czech Republic), 18<sup>th</sup> to 25<sup>th</sup> November 2019.
- Web Of Science Courses: “Learn to find the full texts and to analyse a list of publications”, “How to find more relevant publications on a topic”, “Create a personal account”, “Search the scientific production of an author and see the importance of profiles in Publons”, “Search and claim my “Author Record” on the Web of Science”, “Search for journals, analyse their profile and see the calculation of the impact factor” - Fundación Española para la Ciencia y la Tecnología (FECYT), 14<sup>th</sup> to 17<sup>th</sup> April 2020.
- CW EPR Bruker School and Pulse EPR Bruker School - BRUKER BioSpin GmbH - Rheinstetten (Germany), 2<sup>th</sup> November 2020 to 13<sup>th</sup> November 2020.
- English for Scientific Academic Purpose - PhD students” - University of Turin - Turin (Italy), 11<sup>th</sup> January to 11<sup>th</sup> February 2021.
- Scopus Courses: “Introduction and search by subject”, “Author profile”; - Fundación Española para la Ciencia y la Tecnología (FECYT) - 19<sup>th</sup> to 23<sup>rd</sup> April 2021.
- Crystallography School 2021” - Interdepartmental Centre for Crystallography (Crisdi) - Turin (Italy), 3<sup>rd</sup> June to 10<sup>th</sup> June 2021.

## *Work experience*

*Dates* From 24/02/2020 to 13/03/2020  
*Occupation* Visiting PhD Student  
*Main activities and responsibilities* Large scale production of proteins  
*Company name and city* AMD Biopolis, Valencia (Spain)

*Dates* From 1/10/2017 to 30/11/2017  
*Occupation* Trainee  
*Main activities and responsibilities* Clinical laboratory analysis  
*Company name and city* A. S. P. N° 5, Taormina (Italy)

## *Oral communications*

### *Poster*

1. "PARACAT: paramagnetic species in catalysis research. A unified approach towards heterogeneous, homogeneous and enzyme catalysis" - M. Bracci, P. Bruzzese, A. Famulari, D. Fioco, A. Guidetti, Y.-K. Liao, L. Podvorica, S. F. Rezayi, I. Serra, K. Thangavel - European Researchers' Night 2019 - Zaragoza (Spain), 27th September 2019.
2. "Towards tuning CYP450 reactivity: study of the oxidation cycle of CYP116B5 using H<sub>2</sub>O<sub>2</sub>" - A. Famulari, M. Chiesa, A. Ciamarella, G. Di Nardo, G. Gilardi, P. Ferreira Neila, I. García Rubio - 8th EFEPR School - Brno (Czech Republic), 21st November 2019.
3. "EPR characterization of the new biocatalyst CYP116B5" - A. Famulari, M. Chiesa, A. Ciamarella, G. Di Nardo, G. Gilardi, I. García Rubio - Winter School - Cardiff Catalysis Workshop - Cardiff (UK), 15th and 16th January 2020.
4. "EPR and chemical studies about a new species of the CYP450 family: the CYP116B5" - A. Famulari, A. Ciamarella, G. Di Nardo, G. Gilardi, P. Ferreira Neila, M. Medina Trullenque, M. Chiesa, I. García Rubio - IX International Conference BIFI 2020 - Zaragoza (Spain), 3rd and 4th February 2020.
5. "Structural insights into the heme domain of, peroxygenase-like cytochrome P450, CYP116B5<sub>hd</sub>" - A. Famulari, D. Corredu, G. Di Nardo, G. Gilardi, M. Chiesa, I. García Rubio - 54th International Meeting of the ESR Spectroscopy Group of the Royal Society of Chemistry - Online, 12th April 2021.

## *Oral talk*

1. “Scientific Integrity at University of Zaragoza” - PARACAT Summer School - Antwerp (Belgium), 15th July 2019.
2. “Towards tuning CYP450 reactivity study of the oxidation cycle of CYP116B5 using  $H_2O_2$ ” - PARACAT Summer School - Antwerp (Belgium), 16th July 2019.
3. Presentation of the article: “Removal of  $H_2O_2$  and generation of superoxide radical: Role of cytochrome c and NADH by M. Velayutham et al.” - PARACAT Summer School - Antwerp (Belgium), 19th July 2019.
4. “Towards tuning CYP450 reactivity study of the oxidation cycle of CYP116B5 using  $H_2O_2$ ” - Group seminar in Departamento de Bioquímica y Biología Molecular y Celular - Zaragoza (Spain), 26th July 2019.
5. “Early EPR and chemical studies upon a new promising species of CYP450 family: the CYP116B5” - Winter School “PARACAT Winter School in Catalysis” - Cardiff (UK), 13th January 2020.
6. “EPR and chemical studies about a new promising species of the CYP450 family: the CYP116B5” - IX International Conference BIFI 2020 - Zaragoza (Spain), 4th February 2020.
7. “First EPR characterization of CYP116B5” - PARACAT Remote Meeting - 22nd July 2020.
8. “Structural insights into the heme domain of peroxygenase-like cytochrome P450, CYP116B5hd” - PARACAT Remote Meeting at the 54th International Meeting of the ESR Spectroscopy Group of the Royal Society of Chemistry - 12th April 2021.
9. “Effects of Science Teachers’ Epistemological Beliefs in Teaching” - PhD course “An insight into epistemological and didactic issues related with science teaching” - Turin (Italy), 27th April 2021.
10. “From Citrus to Plastic Materials - Limonene-based polymers” - PhD course “From biomass to chemicals and biopolymers towards a sustainable future” - Turin (Italy), 10th May 2021.
11. “Resonance Raman studies of *Bacillus megaterium* cytochrome P450 BM3 and biotechnologically important mutants” - 3rd PARACAT Training School (Zaragoza Summer School) on “Spectroscopic and Computational Methods Towards Molecular Structure and Reactivity” - Virtual Meeting, 20th May 2021
12. “Unveiling electronic and structural properties of, peroxygenase-like cytochrome P450, CYP116B5hd” - XXVII Italian Chemical Society National Congress - Virtual Meeting, 21/09/2021

## *Publications*

1. Bracci, M.; Bruzzese P. C.; **Famulari, A.**; Fioco, D.; Guidetti, A.; Liao Y.- K.; Podvorica, L.; Rezayi, S. F.; Serra, I.; Thangavel, K. Paramagnetic Species in Catalysis Research: A Unified Approach Towards (the role of EPR in) Heterogeneous, Homogeneous and Enzyme Catalysis. In *Electron Paramagnetic Resonance: Volume 27*; Chechik, Victor; Murphy, D. M.; Bode, Bela E., Ed.; Royal Society of Chemistry: London, 2020; pp. 1 - 46.  
DOI: [10.1039/9781839162534-00001](https://doi.org/10.1039/9781839162534-00001)

## *Outreaches Activity*

1. European Researchers' Night 2019 - Zaragoza (Spain), 27th September 2019.
2. European Researchers' Night 2020 - Virtual, 27th November 2020.  
([https://www.youtube.com/watch?v=VStirVt6enE&list=PLjGFwulD6B-DgRmZ9YS88gnXXKAMexYYn&index=8&ab\\_channel=SharperNightOfficial](https://www.youtube.com/watch?v=VStirVt6enE&list=PLjGFwulD6B-DgRmZ9YS88gnXXKAMexYYn&index=8&ab_channel=SharperNightOfficial))
3. "Produciamo dell'idrogeno" - PhD course "Interactive laboratory to stimulate an attitude to outreach activities on basic physico-chemical phenomena".  
([https://www.youtube.com/watch?v=rGerHNnJYfU&ab\\_channel=DipartimentoodiChimica-Universit%C3%A0diTorino](https://www.youtube.com/watch?v=rGerHNnJYfU&ab_channel=DipartimentoodiChimica-Universit%C3%A0diTorino))

**Languages** Italian (Mother tongue)  
English (Upper Intermediate)  
Spanish (Upper Intermediate)

**Social skills and competences** Predisposition to interpersonal relationships and ability to work in groups. Ability to identify people's requests and needs by establishing communication with them.

**Organisational skills and competences** The study activity has allowed me to acquire analysis, synthesis and team working skills. I have often been recognized as being able to effectively teach any subject. To these are added personal characteristics such as determination and work for objectives, being able to organize work independently.

**Technical skills and competences** Good dexterity and familiarity with laboratory equipment. Through my studies I was able to use, among the various techniques treated, spectrophotometer and GC. Moreover, during the period of preparation of my theses, I have made several organic syntheses so I used column chromatographic purification techniques and NMR analysis.

**Computer skills and competences** New ECDL Standard Certificate (achieved in 20/09/2014 by I.D.I., Letojanni)  
New ECDL IT Security - Specialized Level (achieved in 20/09/2014 by I.D.I., Letojanni)  
Computer operator qualification (achieved in 5/02/2013 by I.D.I., Letojanni)

**Driving licence** B

