

# Curriculum Vitae

## Xhenti Ferhati

### PERSONAL INFORMATIONS

NAME/SURNAME Xhenti Ferhati  
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NATIONALITY Italian, Albanian  
DATE OF BIRTH 26.08.1990

### RESEARCH EXPERIENCE

APRIL 2016 – PRESENT

**Department of Chemistry, University of La Rioja, Logroño, Spain**

PhD Student, ITN ProteinConjugates Early Stage Researcher

SUPERVISOR: Prof. Francisco Corzana López

PROJECT: Design of novel biosensors for tumours based on site-selective modification of anti-MUC1-antibodies.

DESCRIPTION: Synthesis of DHA derivatives and study of the reactivity with different nucleophiles. Expression and purification of mutants of the SM3 antibody for following conjugation reactions (in collaboration with Prof. Ramon Hurtado Guerrero, Institute for Biocomputation and Physics of Complex Systems, Universidad de Zaragoza).

MAY 2015 – MARCH 2016

**Department of Chemistry, University of Florence, Italy**

Research grant

SUPERVISOR: Prof. Cristina Nativi

PROJECT: Synthesis of multivalent Glycostructures for the modulation of the progression of melanoma.

DESCRIPTION: Synthesis of mimetics of carbohydrate-based tumor antigens, through a inverse electron demand [4+2] Hetero Diels Alder Cycloaddition. The synthetic antigens are conjugated to multivalent scaffolds and small peptides, synthesized through manual SPPS.

JUNE 2014 – APRIL 2015

**Department of Chemistry, University of Florence, Italy**

**Department of Biomedical, Clinical and Experimental Sciences,  
University of Florence, Italy**

Thesis research work

PROJECT: Synthesis of new iminosugars and their evaluation as phosphotyrosine protein phosphatase PTP1B inhibitors

SUPERVISOR: Dr Francesca Cardona

CO-SUPERVISOR: Dr Paolo Paoli

DESCRIPTION: Synthesis of a small library of pyrrolidine type iminosugars derived from D-arabinose. The inhibitor activity of final

products against PTP1B enzyme was evaluated through tests *in vitro* and tests on a cancer cell line.

MAY 2012 – DECEMBER 2012 **Department of Chemistry, University of Florence, Italy**

Thesis research work

PROJECT: Synthesis of dihydroxy aminopiperidines with potential antibacterial activity

SUPERVISOR: Dr Francesca Cardona

CO-SUPERVISOR: Prof Andrea Goti

DESCRIPTION: Synthesis of piperidine type iminosugars through a multi-step synthesis starting from D-mannose.

## **EDUCATION**

APRIL 2016 – PRESENT

**PhD Student in Chemistry**

University of La Rioja, Logroño, Spain

MARCH 2013 – APRIL 2015

**Master's degree in Chemical Sciences (Organic Synthesis)**

University of Florence, Italy

Final mark: 110/110 cum laude

OCTOBER 2009 – DEC 2012

**Bachelor's degree in Chemistry**

University of Florence, Italy

Final mark: 110/110 cum laude

2004 - 2009

**Scientific high school degree**

Scientific high school "A. M. E. Agnoletti", Florence

Final mark: 100/100

## **SKILLS**

TECHNICAL SKILLS: Good expertises in synthesis, purification and characterization of organic compounds (including manual Solid Phase Peptide Synthesis, set up of reactions in inert atmosphere, purifications by flash column chromatography and by automated purification systems).

Good knowledge of spectroscopic techniques (1D and 2D Nuclear Magnetic Resonance, FT-IR, UV-VIS, MS-ESI).

Knowledge of different molecular biology techniques, including expression of proteins in *E.Coli* and *P.Pastoris* and their purification by chromatography techniques.

Good knowledge of enzymatic assays for the IC<sub>50</sub> and K<sub>i</sub> determination, Electrophoresis and Western Blott techniques for protein detection.

IT: Good knowledge of Windows (use of Microsoft Office, Internet) and of the softwares SciFinder, Reaxys and the scientific program ChemDraw.

LANGUAGES: English (good speaking, reading and writing ability)

## **PUBLICATIONS:**

- Matassini C., Mirabella S., Ferhati X., Faggi C., Robina I., Goti A., Moreno-Clavijo E., Moreno-Vargas, A., Cardona F.: 'Polyhydroxyamino-Piperidine-Type Iminosugars and Pipecolic Acid Analogues from a D-Mannose-Derived Aldehyde', *European Journal of Organic Chemistry*, **2014**, 25, 5419-5432.