



I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at Dipartimento di Scienze Farmaceutiche, Scientist- in - charge Prof. Giancarlo Aldini

Marco Mol

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Mol
Name	Marco
Date of birth	4 February 1989

PRESENT OCCUPATION

Appointment	Structure
-	-

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
PhD	Pharmaceutical Sciences	University of Milan	2019
Master	Biomedical Sciences	VU University Amsterdam	2012

FOREIGN LANGUAGES

Languages	level of knowledge
Dutch	Mother tongue
English	Excellent
Spanish	Basic

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2017	Poster Prize at the International HNE Club in Graz, Austria

TRAINING OR RESEARCH ACTIVITY



My PhD project was focused on the identification and characterization of post-translational modifications, specifically coming from oxidative pathways. An affinity chromatography technique using a receptor was validated using a mass spectrometry approach, and new binders of the receptor were identified. Furthermore, a cellular activity assay was set-up for determining the effect of ligands on cellular level.

Two secondments were performed during this project, in which the relation between the receptor and lipids was investigated.

The following techniques were acquired during this project

- Proteomic techniques like SDS-PAGE, Western blotting, protein precipitation, affinity chromatography, protein digestion.
- Lipidomic techniques like lipid extraction and liposome preparation.
- Mass spectrometry and HPLC instruments; Ultimate 3000, TSQ Quantum, LTQ Orbitrap XL, ABSciex5600 Triple TOF.
- Tissue culture techniques - Maintaining mammalian cell line
- Molecular biology; cloning and DNA work, RNA purification and quantitative RT-PCR.
- Recombinant protein expression, purification and analysis.
- Bioinformatics and data analysis software such as GraphPad Prism, Icy, ImageJ and Leica software (bioimaging), FlowJo (flow cytometry), Geneious (genomics), Proteome Discoverer, XCalibur, PeakView.

PROJECT ACTIVITY

Year	Project
2016-2019	PhD Project - “Analytical Strategies for the Identification and Characterization of RAGE Binders of Proinflammatory Mediators, AGEs and ALEs”

CONGRESSES AND SEMINARS

Date	Title	Place
13-15/09/2017	International HNE Club meeting	Graz, Austria
4-7/06/2018	19th Biennial meeting SFRR-I	Lisbon, Portugal
3-7/07/2018	Summerschool in MS techniques	Aveiro, Portugal
17-23/09/2018	Summerschool in Redox-omic Technologies	Spetses, Greece
13-15/03/2019	Advances in the Study of Lipid and Protein Oxidation: From Methods to Targets	Ghent, Belgium

PUBLICATIONS

Mol, M., Degani, G., Coppa, C., Baron, G., Popolo, L., Carini, M., ... & Altomare, A. (2018). Advanced lipoxidation end products (ALEs) as RAGE binders: Mass spectrometric and computational studies to explain the reasons why. *Redox biology*, 101083.



Mol, M., Regazzoni, L., Altomare, A., Degani, G., Carini, M., Vistoli, G., & Aldini, G. (2017). Enzymatic and non-enzymatic detoxification of 4-hydroxynonenal: Methodological aspects and biological consequences. *Free Radical Biology and Medicine*, 111, 328-344.

White, R. R., Ponsford, A. H., Weekes, M. P., Rodrigues, R. B., Ascher, D. B., Mol, M., ... & Artavanis-Tsakonas, K. (2016). Ubiquitin-dependent modification of skeletal muscle by the parasitic nematode, *Trichinella spiralis*. *PLoS pathogens*, 12(11), e1005977.

Van der Bij AK, Mol M, van Westreenen M, Goessens WHF and Pitout JDD. The laboratory diagnosis of *Pseudomonas aeruginosa* that produce metallo- β -lactamases in a Dutch tertiary care centre. *Scand J Infect Dis*, 2011, 43(8): 596 - 602

OTHER INFORMATION

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Cernusco s/N, 09/09/2019

SIGNATURE

Marco Mol