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Fosca Errante

Date of birth: 18 Oct 1988 | **Nationality:** Italian | **Phone number:** (+39) 3318411496 (Mobile) | **Email address:** fosca.errante@unifi.it

WORK EXPERIENCE

1 FEB 2023 – CURRENT Sesto Fiorentino (FI), Italy

TECNOLOGIST UNIVERSITÀ DEGLI STUDI DI FIRENZE

Project title: "Immunogenicity study of anti-TNFα drugs. Plasmon surface resonance based monitoring and comparison between originators and bio-similars"
The purpose of this project to evaluate the anti-TNFα different drugs predisposition in generating anti-drug antibodies (ADA) that could be detected taking advantage of the affinity between antibody and antigens measured by surface plasmon resonance. Once the immunogenic regions will be detected, they will be synthetically reproduced as peptide sequences and optimized to be used for diagnostical purposes.

1 FEB 2022 – 31 JAN 2023 Sesto Fiorentino (FI), Italy

POSTDOCTORAL RESEARCH FELLOW UNIVERSITÀ DEGLI STUDI DI FIRENZE

Project title: "Development of peptides for biocompatible scaffolds".
The purposes of this project are the design, development, and synthesis on medium/small scale of peptide sequences for the production of hydrogels, such as biocompatible scaffolds for tissue engineering applications. Nature-inspired synthetic peptide hydrogels in fact are intrinsically biocompatible and their high similarity with the extracellular matrix makes them suitable for use as 3D scaffold materials.

1 NOV 2018 – 30 JAN 2022 Sesto Fiorentino (FI), Italy

PHD STUDENT UNIVERSITÀ DEGLI STUDI DI FIRENZE

PhD thesis title: "Design, synthesis and biological evaluation of bioactive peptides: collagen turnover modulators for cosmeceutical use and Sars-CoV-2 virus antigens for diagnostic and vaccinal uses."
I personally carried out synthesis, purifications, and characterizations by HPLC-MS of all the peptides developed during my PhD. In collaboration with a group of mass spectrometrists from the University of Florence, I have developed a new analytical method for the evaluation of the stability of cosmeceutical peptides to dermal proteases. I actively participated to the design of a new cosmeceutical peptide ingredient, and I am one of the inventors of the related international patent. Moreover, I worked with specific cell cultures and I evaluated peptides activity in increasing collagen concentration and decreasing inflammation-derived cyclooxygenases *in vitro*. During my PhD I participated to national and international scientific events, both in presence and virtual, where I had the opportunity to present (orally) my research to various peptide science audiences, as I am member of both the Italian Peptide Society and the European Peptide Society. In particular, in 2018 I was invited to be a young testimonial of the European Peptide Society and I participated as a staff member to the international symposium in Dublin.

2 MAY 2017 – 31 JAN 2023 Prato (PO), Italy

SCIENTIFIC LABORATORY TECHNICIAN ESPIKEM SRL

The mission of Espkem Srl, ex spin-off of the University of Florence, is the development of new bioactive peptides as cosmeceuticals ingredients. The Company also offers peptide custom synthesis services. I am the only employed person in Espikem and this led me to manage several tasks, including peptide custom design and synthesis for various purposes (e.g., academic research or diagnostics). I personally maintain all the laboratory instruments and I keep the relationship with customers at the technical level. During my experience in Espikem I was also involved in a project in collaboration with the University of Florence and funded by Tuscany Region, which led to the development of new cosmeceutical products, based on a bioactive peptide. Moreover, as part of a collaboration with a Florentine cosmetic company, I personally

followed the marketing procedure to release these products, and I also participate to a national exhibition in order to promote the product.

EDUCATION AND TRAINING

1 NOV 2018 – 31 JAN 2022 Sesto Fiorentino (FI), Italy
PHD - DOTTORATO IN AREA DEL FARMACO ETRATTAMENTI INNOVATIVI Università degli Studi di Firenze

Address Via Ugo Schiff 6, Sesto Fiorentino (FI), Italy

Sesto Fiorentino (FI), Italy
MASTER DEGREE - LAUREA IN CHIMICA E TECNOLOGIE FARMACEUTICHE Università degli Studi di Firenze

Address Via Ugo Schiff 6, Sesto Fiorentino (FI), Italy |

Thesis Synthesis and in vitro evaluation of peptides derivated from serpin A1 and its conjugates for cosmeceutical applications

LANGUAGE SKILLS

Mother tongue(s): **ITALIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B1	B1	B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Digital skills

Zotero (scientific literature managing software) - advanced | Microsoft Office (Excel PowerPoint Word) - advanced level | ChemDraw - Utente avanzato | UCSF ChimeraX | Meeting Platforms (Zoom, Teams, Google Meet, ...)

Personal skills

Team Motivation | Social skills (Adaptable and flexible; sociable; team work; work ethic) | Organizational and planning skills

ADDITIONAL INFORMATION

CONFERENCES AND SEMINARS

28 AUG 2022 – 2 SEP 2022 – Hotel Melia Sitges, Barcellona (Spain)
36th European Peptide Symposium **Poster** presentation: "Peptides as collagen turnover modulators for cosmeceutical applications"

15 JUN 2022 – 15 JUN 2022 – Partenope Conference Centre, Napoli, Italy
4th National Congress Italian Peptide Society **Oral** presentation: "New generation of collagen turnover modulators peptides: an opportunity for cosmetic applications"

13 DEC 2021 – 13 DEC 2021 – Centro Congressi "Auditorium al Duomo", Firenze, Italy
MS-Hybrids 2021

12 NOV 2021 – 12 NOV 2021 – Firenze, Italy (virtual event)
Scientific Meeting of the Italian Peptides Society dedicated to Young Researchers - Vittorio Erspamer Scientific Award **Oral** presentation: "Design, synthesis and biological evaluation of collagen turnover modulators for cosmeceutical use"

27 JUN 2021 – 30 JUN 2021 – Firenze, Italy (virtual event)
40th Advanced Course of Medicinal Chemistry and "E. Duranti" National Seminar for PhD student, ESMEC Poster presentation: "Collagen turnover modulators for cosmeceutical uses"

25 APR 2021 – 28 APR 2021 – Firenze, Italy (virtual event)
13th Young Medicinal Chemist's Symposium Oral presentation: "Design and synthesis of SARS-CoV-2 antigens for diagnostics and vaccinology"

11 DEC 2020 – 11 DEC 2020 – Roma, Italy (virtual event)
III Meeting of the Italian Peptide Society Oral presentation: "Design and synthesis of SARS-CoV-2 antigens for diagnostics and vaccinology"

27 AUG 2019 – 29 AUG 2019 – Grand Hotel Salerno, Salerno, Italy
Chemistry meets Industry & Society (CIS2019) Oral presentation: "Anti-ageing peptides derived from serpin A1 for cosmeceutical uses"

22 MAY 2019 – 22 MAY 2019 – Polo Scientifico Sesto Fiorentino (FI), Italy
PhDday10 the day dedicated to PhD students Poster presentation: "Peptides in skin remodeling"

4 MAY 2019 – 7 MAY 2019 – Fiera di Primiero (TN,) Italy
37th Informal Meeting on Mass Spectrometry Member of the STAFF

25 AUG 2018 – 30 AUG 2018 – Dublin City University (Ireland)
35th European Peptide Symposium Poster presentation: "Serpin A1 derivatives as collagen turnover modulators for cosmeceutical uses"
Young testimonial of the European Peptide Society

11 DEC 2017 – 11 DEC 2017 – Aula Magna Rettorato, Piazza San Marco, Firenze, Italy
50 anni in "MS-Tandem": dove siamo arrivati e dove andiamo?

9 FEB 2016 – 11 FEB 2016 – Via San Gallo 25, Firenze, Italy
1st Mass Spectrometry Peptide Day

PUBLICATIONS

Biomaterial Inks from Peptide-Functionalized Silk Fibers for 3D Printing of FuturisticWound-Healing and Sensing Materials

– 2023
Authors: Ceccarini M.R., Palazzi V., Salvati R., Chiesa I., De Maria C., Bonafoni S., Mezzanotte P., Codini M., Pacini L., **Errante F.**, Rovero P., Morabito A., Beccari T., Roselli L. and Valentini L.
Published in: Int. J. Mol. Sci.Write here the description...

doi: .10.3390/ijms24020947

Peptide-Functionalized Silk Fibers as a Platform to Stabilize Gelatin for Use in Ingestible Devices – 2022
Authors: Valentini L., Pacini L., **Errante F.**, Morchio C., Sanna B., Rovero P., Morabito A.
Published in: Molecules

doi: 10.3390/molecules27144605

A SARS-CoV-2 Spike Receptor Binding Motif peptide induces anti-spike antibodies in mice and is recognized by COVID-19 patients

– 2022
Authors: Pratesi F.*, **Errante F.***, Pacini L.*, Pena-Moreno I. C., Quiceno S., Carotenuto A., Balam S., Konaté D., Diakite M., Arevalo-Herrera M., Kajava A. V., Rovero P., Corradin G., Migliorini P., Papini A. M., Herrera S.
*equally contributed
Published in: Front. Immunol.

doi: 10.3389/fimmu.2022.879946

Seroreactivity of the Severe Acute Respiratory Syndrome Coronavirus 2 Recombinant S Protein, Receptor-Binding Domain, and Its Receptor-Binding Motif in COVID-19 Patients and Their Cross-Reactivity with Pre-COVID-19 Samples From Malaria-Endemic Areas

– 2022
Authors: Traoré A., Guindo M. A., Konaté D., Traoré B., Diakité S. A., Kanté S., Dembélé A., Cissé A., Incandela N. C., Kodio M., Coulibaly Y. I., Faye O., Kajava A. V., Pratesi F., Migliorini P., Papini A. M., Pacini L., Rovero P., **Errante F.**, Diakité M., Arevalo-Herrera M., Herrera S., Corradin G., Balam S.
Published in: Front. Immunol.

doi: 10.3389/fimmu.2022.856033

Peptides as Active Ingredients: A Challenge for Cosmeceutical Industry – 2021
Authors: Ledwoń P., **Errante F.**, Papini A.M., Rovero P. and Latajka R.
Published in: Chem. Biodiversity

doi: 10.1002/cbdv.202000833

Susceptibility of cosmeceutical peptides to proteases activity: Development of dermal stability test by LC-MS/MS analysis

– 2021
Authors: **Errante F.**, Menicatti M., Pallecchi M., Giovannelli L., Papini A.M., Rovero P., Bartolucci G.
Published in: J. Pharm. Biomed. Anal.

doi: 10.1016/j.jpba.2020.113775

Cosmeceutical Peptides in the Framework of Sustainable Wellness Economy – 2020
Authors: **Errante F.**, Ledwoń P., Latajka R., Rovero P., Papini A.M.
Published in: Frontiers Chem.

doi: 10.3389/fchem.2020.57292

Bioactive peptides and compositions comprising them / Peptidi bioattivi e composizioni che li contengono

– 2019
Inventors: **Errante F.**, Giovannelli L., Papini A.M., Rovero P.
Applicants: Espikem Srl, Università degli Studi di Firenze.

International patent application WO 2020/245772 A1 (PCT/IB2020/055291)

Serpin A1 and the modulation of type I collagen turnover: effect of the C-terminal peptide 409-418 (SA1-III) in human dermal fibroblasts.

– 2018
Authors: Cipriani C., Pascarella S., **Errante F.**, Menicacci B., Magnelli L., Mocali A., Rovero P., Giovannelli L.
Published in: Cell Biol. Int.

doi: 10.1002/cbin.11018