MATTEO MARI

Personal data:

Place and date of birth: Reggio Emilia (RE), 22.05.1996

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EDUCATION

PhD Models and Methods for Material and Environmental Sciences

2021-today Project: "Development of new pet radiotracers based on MCTs (Mono

Carboxylate Transporters) inhibitors for cancer theranostics"

University of Modena and Reggio Emilia

Tutor: Prof. Erika Ferrari

Master of 2nd level

2021-2021

Forensic Analytical Methodologies

University of Rome "Sapienza"

Date of achievement: 29.10.2021

Thesis: "Fentanil e deriviati: metodologie di analisi e case reports "

Supervisor: Prof. Stefano Materazzi

Grade: 110/110

Master's Degree 2018-2020

Chemical Sciences (LM-54)

University of Modena and Reggio Emilia

Date of achievement: 11.12.2020

Thesis: "Pyrimidine derivatives of curcumin as potential targeting

vector for theranostic purposes" Supervisor: Prof. Erika Ferrari Grade: 110/110 summa cum laude

Bachelor's Degree

Chemistry (L-27)

2015-2018 University of Modena and Reggio Emilia

Achievement date: 20.07.2018

Thesis: "Mesoporous bioactive glasses doped with zinc for tissue and

bone regeneration"

Supervisors: Prof. Gianluca Malavasi, Prof. Sandra Sánchez Salcedo

(Universitad Complutense de Madrid)

Grade: 110/110

Diploma Scientific Bilingual Highschool (Italian/German)

CV of Matteo Mari updated to 21.11.2021

2010-2015 Liceo Rinaldo Corso, Correggio (RE)

Grade: 96/100

RESEARCH EXPERIENCE

01.2021-06.2021 University Clinic of Ulm

Department of Nuclear Medicine

Radiopharmacy and research laboratories

Postgraduate internship experience carried out within the *Erasmus Traineeship project in Ulm* (Germany).

Experience in radio-pharmacy in quality control of radio-drugs such as:

[Ga-68]PSMA-11, [Ga-68]HA-DOTATATE, [Ga-68]Pentixafor, [C-11]PIB, [C-11]Metionine, [F-18]FDG, [F-18]PSMA, [Tc-99m]PSMA-I+S, [Lu-177]PSMA-I+T, [Lu-177]HA-DOTATATE.

Research experience at the preclinical research laboratory of the department of nuclear medicine of the university clinic of Ulm.

Pharmacokinetic studies on liposomes used as vectors for therapeutic peptides by radiolabeling with ⁸⁹Zr for positron emission tomography (PET) and by incorporating "*perfluoro-15-crown-5-ether*" for magnetic resonance imaging (MRI) on ¹⁹F.

06.2020 - 12.2020 University of Modena and Reggio Emilia

Department of Chemical and Geological Sciences Organic and inorganic synthesis laboratory Internship in the research laboratory

Experience of curricular internship during the Master's degree course at the research group of Prof. Erika Ferrari.

Research project in the field of organic synthesis and coordination chemistry for pharmaceutical purposes, with the production of the thesis entitled:

"Pyrimidine derivatives of curcumin as potential targeting vector for theranostic purposes"

01.2018 - 06.2018 Universitad Complutense de Madrid

Department of Pharmacy

Biochemistry and bio-inorganic chemistry laboratory

Internship in the research laboratory

Experience of curricular internship during the Bachelor's degree course carried out as part of *the Erasmus + project* in Madrid (Spain) at the research group of Prof. Antonio J. Salinas.

Research project in the biomedical field with the production of the thesis entitled:

CHEMICAL EXPERTISE

Material Characterization

- Nitrogen absorption and desorption isothermal analysis with a surface area and porosity analyser (BET)
- Attenuated Total Reflectance Infrared Spectroscopy (ATM FT-IR)
- X-ray powder diffraction analysis (XRD)

Organic Synthesis

- 1D and 2D 1H/13C NMR
- Flash Liquid Chromatography

[&]quot;Mesoporous bioactive glasses doped with zinc for tissue and bone regeneration"

- High Performance Liquid Chromatography coupled with Mass Spectrometry (HPLC-MS)
- Infrared Spectroscopy (FT-IR)

Complexation studies and thermodynamics

- UV-Vis spectroscopy
- 1D and 2D 1H/13C/195Pt NMR

In vitro pre-clinical assays

- In Vitro stability studies through Simulated Plasma
- Cellular Cultures with biomaterials
- Aseptic preparation under Laminar-Flow

TEACHING ACTIVITY

2021 University of Modena and Reggio Emilia, Classroom Tutor

Tutoring in Chemistry for the teaching of *General and Inorganic Chemistry* (30 hours) of the Degree Course in Pharmaceutical Chemistry and Technology

2020 University of Modena and Reggio Emilia, Classroom Tutor

Tutoring in Chemistry for the teaching of *General and Inorganic Chemistry* (20 hours) of the Degree Course in Pharmaceutical Chemistry and Technology

PUBLICATIONS

(*corresponding author; presenting author)

"Applications of radiolabelled curcumin and curcumin derivatives in medicinal chemistry " Matteo Mari, Debora Carrozza, Erika Ferrari, Mattia Asti * International Journal of Molecular Sciences.

2021 "XXVII Congresso Nazionale della Società Chimica Italiana"

"Amino-pyrimidine Curcumin derivative: metal ligand for theranostic applications."

<u>Matteo Mari</u>, Debora Carrozza, Michele Iori, Pier Cesare Capponi, Sara Rubagotti,

Mattia Asti, Erika Ferrari (accepted as Poster Communication)

"International Symposium on Thermodynamics of Metal Complexes ISMEC 2021" "Curcumin derivatives as Platinum (II) coordination system for colon-rectal cancer therapy" Matteo Mari, Debora Carrozza, Michele Iori, Pier Cesare Capponi, Mattia Asti, Erika Ferrari. (accepted as Poster Communication)

2021 "XXVII Congresso Nazionale della Società Chimica Italiana"

"Cerium-containing mesoporous silica systems with enzymatic-like activity for Curcumin delivery"

<u>Debora Carrozza</u>, Matteo Mari, Erika Ferrari, Gigliola Lusvardi, Gianluca Malavasi (accepted as Poster Communication)

"International Symposium on Thermodynamics of Metal Complexes ISMEC 2021"
 "Curcumin-based β-diketo ligands for Ga3+: on the way to develop new antineoplastic agents"
 Debora Carrozza, Matteo Mari, Michele Iori, Pier Cesare Capponi,
 Sara Rubagotti, Mattia Asti, Erika Ferrari (accepted as Poster Communication)

ATTENDANCE OF CONGRESSES AND SCHOOLS

2021 "Formazione dei Formatori della Sicurezza 24 ore"

Online course attended through the platform "*Progetto81: sicurezza sul lavoro*" Test passed on 16.10.2021

2021 EXCEL SKILLS FOR BUSINESS: ESSENTIALS (10.2021)

an online non-credit course authorized by Macquarie University (Sidney) and attended through the online platform Coursera.

2021 "XXVII Congresso Nazionale della Società Chimica Italiana" 14-23 September.

Presentation of Poster with title: "Amino-pyrimidine Curcumin derivative: metal ligand for theranostic applications".

2021 "International Symposium on Thermodynamics of Metal Complexes ISMEC 2021" 16-18 June, online conference.

Participation to conferences, *lectures*, and presentation of a poster entitled: "Curcumin derivatives as Platinum (II) coordination system for colon-rectal cancer therapy".

2020 INTRODUCTION TO FORENSIC SCIENCE (12.2020)

an online non-credit course authorized by Nanyang Technological University, Singapore and attended through the online platform Coursera.

2018 INTRODUCTION TO RADIOCHEMISTRY: from basics to clinics (01.10.18-03.10.18)

University of Modena and Reggio Emilia Department of Chemical and Geological Sciences

AWARDS AND HONOURS

2021 Awarded with Conference Grant by the Division on Inorganic Chemistry of the Società Chimica Italiana for the attendance of the XXVII National Congress of the Italian Chemical Society (14-23 September 2021)

LECTURER

Literature Seminar: Leading the discussion about the publication: "Remote Loading of ⁶⁴Cu²⁺ into Liposomes without use of Ion Transport Enhancers", DOI:10.1021/acsami.5b04612 Ulm University Hospital, 25.05.2021.

SEMINARS ATTENDANCE

2021 Essential radiochemistry for society (25.06.2021)

Molecular Imaging and Translational Research: From Molecules to Man

Dr. Antero Abrunhosa (Institute for Nuclear Sciences Applied to Health - University of Coimbra)

Polimi, MOOCs to BRIDGE THE GAPS

2021 LUNCH SEMINARS (Every Friday from Jan to Jun 2021)

Ulm University Hospital Department of Nuclear Medicine

2021 Seminar series: CRC 1279 and beyond (22.02.2021)

"Peptide-based radiotheranostics in oncology" Prof. Melpomeni Fani, University Hospital Basel Ulm University Hospital Department of Nuclear Medicine

2018 Seminars on the preclinical development of drugs by Dr. Gino Villetti (16.11.2018)

University of Modena and Reggio Emilia

Department of Life Sciences

2018 Medicinal Chemistry seminars with Dr. Sheraz Gul (09.11.2018)

Assay development and High Throughput Screening.

Role of early toxicity studies in drug discovery.

The properties of a Lead and Clinical Candidate compound

University of Modena and Reggio Emilia

Department of Life Sciences

HABILITATION

2021 Professional Habilitation in Chemistry obtained at University of Modena and Reggio Emilia with exam on 16.06.2021.

LANGUAGES

Italian: native speaker

English: C1, TOEFL obtained in 2015, score: 96/120

Spanish: B2 DELE certified in 2019

German: B1

SOFTWARE

Microsoft Office: Good knowledge of Word, Excel, PowerPoint, and Outlook packages

Topspin: software for the visualization and analysis of NMR spectra **Matlab:** basic knowledge of "PLS Toolbox" for chemometric analysis

TRANSVERSAL SKILLS

- Able to work in a team and share expertise.
- Great ability to plan and schedule work.
- Gladly available for written or oral communications.
- Good skills in leading bachelor or master students during their traineeships.

MEMBERSHIPS

2021- GICR (Gruppo Interdisciplinare di Chimica dei Radiofarmaci)

2021- SCI (Italian Chemical Society)

EXPERIENCES ABROAD

01.2021 - 06.2021 ERASMUS TRAINEESHIP

Postgraduate internship at "Universitätsklinikum Ulm"

Department of Nuclear Medicine

Ulm, Germania

01.2018 - 06.2018 ERASMUS +

Curricular internship at the Universitad Complutense de Madrid

Department of Pharmacy

Biochemistry and bio-inorganic chemistry laboratory

Madrid, Spain

06.2014 - 07.2014 LEONARDO MOBILITY PROJECT

Training internship at "Vsmpo Tirus GmbH"

Sales

Frankfurt am Main, Germany

06.2013 SUMMER SCHOOL

Period of summer school abroad at "The Bournemouth School of English" Bournemouth, United Kingdom

CONTACTS FOR REFERENCES

Erika Ferrari, PhD

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Gerhard Glatting, PhD

Full Professor of Medical Radiation Physics Department of Nuclear Medicine Ulm University Hospital Albert-Einstein-Allee 23, 89081 Ulm, Germany

Phone: +49 731 500 - 61340 Email address: gerhard.glatting@uni-ulm.de

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Telephone: 059 205 8552

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Correggio, 21.11.2021

Il sottoscritto dichiara che quanto indicato nella presente domanda corrisponde al vero ai sensi dell'art.46 e 47 D.P.R. 445/2000 ed esprime il proprio consenso affinché i dati personali forniti possano essere trattati nel rispetto del D.lgs n.196/03, e del Regolamento UE n. 2016/679, per gli adempimenti connessi alla presente procedura.