TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO **ID CODE: 6113**

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.ssa Laura Castoldi**

Letizia Molteni

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	MOLTENI
Name	LETIZIA

PRESENT OCCUPATION

Appointment	Structure
PhD Student (XXXVI cycle, 01.11.2020 -31.01.2024)	Dipartimento di Scienze Farmaceutiche, Università degli Studi di Milano – Sezione di Chimica Organica Thesis title: Sustainability and innovation of catalytic processes for the synthesis and the transformation of heterocyclic systems of biological interest. Supervisor: Prof. Dr. E.M. Beccalli

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
PhD student	Pharmeceutical Sciences	Università degli Studi di Milano	On goin (ending the 31.01.2024)
Master degree	Chemistry (LM-54)	Università degli Studi dell'Insubria	2020 (110L/110)
Bachelor degree	Chemistry and industrial chemistry (L-27)	Università degli Studi dell'Insubria	2019 (105/110)

FOREIGN LANGUAGES

Languages	level of knowledge
Italian	Mother tongue
English	B2

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2023	Scholarship with the presentation of a short oral communication for the XLVII "A. Corbella" International summer school on organic synthesis (ISOS 2023), Gargano (BS)
2023	Member of the winning team for the Synthetic problem session at ISOS "A. Corbella" International summer school, Gargano (BS)
2021	"Premio di Studio Zampese" - Scholarship awarded by the BCC Bank to deserving students at the end of their master degree studies
2020	Scholarship for the PhD program in Pharmaceutical Sciences at Università degli Studi di Milano (Tutor: Prof. Dr. E.M. Beccalli)

TEACHING ACTIVITY IN THE UNIVERSITY

Year	Description of activity
2020-2024	Teaching assistant at the Laboratory of Organic Chemistry II (C.d.L. CTF) A.Y. 2020-2021 (64 hours – 4 CFU) A.Y. 2021-2022 (64 hours – 4 CFU) A.Y. 2022-2023 (64 hours – 4 CFU) A.Y. 2023-2024 (64 hours – 4 CFU) DiSFARM, Università degli studi di Milano, Italia
2019-2020	Teaching assistant in Physical Chemistry Laboratory (C.d.L. Chemistry and Industrial Chemistry) (36 hours) DiSAT, Università degli Studi dell'Insubria, Italia
2017-2020	Academic tutor - Laboratories assistant for the "National Plan for Science degree projects – (PLS)" - Tutoring activity in Organic Chemistry A.Y. 2017-2018 (200 hours) A.Y. 2018-2019 (200 hours) A.Y. 2019-2020 (200 hours)

	DiSAT, Università degli Studi dell'Insubria, Italia

TRAINING OR RESEARCH ACTIVITY

Description of activity

PhD student 01.11.2020 – on going (31.01.2024)

Dipartimento di Scienze Farmaceutiche, Università degli Studi di Milano – Sezione di Chimica Organica

Supervisor: of Prof. Dr. E.M. Beccalli

Thesis title: Sustainability and innovation of catalytic processes for the synthesis and the transformation of heterocyclic systems of biological interest.

Principal subjects: organic synthesis, development of new synthetic methodologies, multigram scale synthesis, organometallic chemistry, organocatalysis, structure characterization (NMR, HPLC, polarimeter, GC/MS, IR)

PhD Internship 01.06.2022 – 30.11.2022

At Max-Planck-Institut für Kohlenforshung, Mülheim an der Rurh, Germany

Supervisor: Prof. Dr. Dr.h.c. Dr.h.c. Benjamin List.

Research area: catalytic enantioselective [3+2] cycloaddition reaction.

Principal subjects: organocatalysis, structure characterization (NMR, HPLC, GC/MS)

Master's degree in chemistry February 2019 – October 2020

At DiSAT, Università degli Studi dell'Insubria, Como, Italy

Supervisor: Prof. Dr. G. Broggini.

Thesis title: 1,3-dipolar cycloadditions of nitriloxides for the synthesis of disubstituted 5,5-isoxazolines: new building blocks for the preparation of β-aminoacids α,α-disubstituted

Principal subjects: organic synthesis, synthesis of non-natural aminoacids.

Bachelor's degree in chemistry and industrial chemistry September 2015 – February 2019

At DiSAT, Università degli Studi dell'Insubria, Como, Italy

Supervisor: Prof. Dr. G. Broggini.

Thesis title: Palladium-catalyzed cyclization reactions of alkenols for the synthesis of heterocyclic azido derivatives

Principal subjects: acquisition of the classical organic synthesis techniques.

High school graduation in Chemistry and Industrial Chemistry

Technical High School, I.S.I.S. Paolo Carcano, Como, Italy

CO-TUTOR MASTER'S DEGREES

"Transition metals catalyzed reactivity of aromatic/heteroaromatic oximes".
C.d.L: Chimica e Tecnologia Farmaceutiche
Tutor: Prof.ssa Dr. E.M. Beccalli
Candidate: Zoe Laface
A.Y. 2022-2023

"Riarrangiamenti di 4-alchilden-isossazol-5-oni catalizzati da complessi di Rutenio"
C.d.L: Chimica e Tecnologia Farmaceutiche
Tutor: Prof. Dr. E.M. Beccalli
Candidate: Nicholas Bozzetti
A.Y. 2020-2021

CONGRESSES AND SEMINARS

Date	Title	Place
10-14 September 2023	"One-pot difunctionalization of terminal alkynes under Pt-Catalysis" – poster communication	Università della Sapienza di Roma, Italia - XLI Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana
18-22 June 2023	"Sustainable process for the preparation of 1,3-polyheterocyclic rings" – oral communication	Gargnano (BS), Italia - XLVII "A. Corbella" International summer school on organic synthesis (ISOS 2023)
11-15 September 2022	"Methanol as a source of CH_2 unit in the synthesis of 1,3-polyheterocyclic systems" – poster communication	Palermo, Italia - XL Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana
28-29 October 2021	"Rearrangement of Isoxazol-5-ones to different heterocycles through Ruthenium-catalysis" – oral communication	Università degli Studi di Firenze, Italia - XVIII Symposium on Pericyclic Reactions and Synthesis of Carbo- and Heterocyclic System
14-23 September 2021	"An efficient rearrangement of Isoxazolones to Pyrazole- and Isoxazole-4-carboxylic acids through Ruthenium-catalysis" – poster communication	Webinar, XXVII Congresso Nazionale della Società Chimica Italiana

25 November 2019	Partecipation in the XXXIV Symposium "New Trends in Organic Synthesis"	Università degli Studi di Milano, Milano

PUBLICATIONS

Articles

1) L. Molteni, E.M. Beccalli, L. Castoldi, G. Broggini, C. Loro "Methanol as a C1 source for the synthesis of 1,3-polyheterocyclic systems" *Eur .J. Org. Chem.* **2023,** *26,* e202301106. (DOI: 10.1002/ejoc.202301106)

2) S. Giofrè, L. Molteni, E.M. Beccalli "Asymmetric Pd(II)-catalyzed C-O, C-N, C-C bond formation using alkenes as substrates: insight into recent enantioselective developments" *Eur. J. Org. Chem.* **2023**, *26,* e202200976. (DOI: 10.1002/ejoc.202200976)

3) L. Molteni, C. Loro, M. Christodoulou, M. Papis, F. Foschi, E.M. Beccalli, G. Broggini "Ruthenium-catalyzed decarboxylative rearrangement of 4-alkenyl-isoxazol-5-ones to Pyrrole derivatives" *Eur. J. Org. Chem.* **2022**, *25,* e202200496. (DOI: 10.1002/ejoc.202200496)

4) C. Loro, L. Molteni, M. Papis, L. Lo Presti, F. Foschi, E.M. Beccalli, G. Broggini "Non-decarboxylative ruthenium-catalyzed rearrangement of 4-alkylidene-isoxazol-5-ones to Pyrazol- and Isoxazole-4-carboxylic acids" *Org. Lett.* **2022**, *24*, 3092-3096. (DOI: 10.1021/acs.orglett.2c01135)

5) C. Loro, L. Molteni, M. Papis, E.M. Beccalli, D. Nava, L. Lo Presti, S. Brenna, G. Colombo, F. Foschi, G. Broggini "Direct synthesis of fluorescent oxazolo-phenoxazines by copper-catalyzed/hypervalent iodine (III)-mediated dimerization/cyclization of 2-benzylamino-phenols" *J.Org.Chem.* **2022**, *87*, 1032-1042. (DOI: 10.1021/acs.joc.1c02329)

6) S. Giofrè, L. Molteni, D. Nava, L. Lo Presti, E.M. Beccalli "Enantio- and Regioselective palladium (II)-catalyzed dioxygenation of (aza-)alkenols" *Angew. Chem. Int. Ed.* **2021**, *60*, 21723-21727. (DOI: 10.1002/anie.202109312)

7) S. Giofrè. M. Keller, L. Lo Presti, E.M. Beccalli, L. Molteni "Switchable oxidative reactions of *N*-allyl-2-aminophenols: palladium-catalyzed alkoxyacetoxylation vs an intramolecular Diels-Alder Reaction" *Org. Lett.* **2021**, *23*, 7689-7702. (DOI: 10.1021/acs.orglett.1c02539)

8) S. Giofrè, C.Loro, L. Molteni, C. Castellano, A. Contini, D. Nava, G. Broggini, E.M. Beccalli "Copper(II)-catalyzed aminohalogenation of alkynyl carbamates" *Eur. J. Org. Chem.* **2021**, *11*, 1750-1757. (DOI: 10.1002/ejoc.202100202)

OTHER INFORMATION

- Member of SCI (Società Chimica Italiana) – Divisione Chimica Organica
- Activities related to soft skills organized by the Università degli Studi di Milano for PhD student of XXXVI cycle (72 hours in 3 years)
- 21 CFU accumulated during the PhD in Pharmaceutical Science with the following exams:
    1. The drug discovery process: from lead optimization to the clinical candidate (4 CFU)
    2. Advanced nmr techniques (2 CFU)
    3. Green chemistry and pharmaceutical industry: a winning combination? (2 CFU)

4. Organic chemistry applied to biological systems and smart materials (2 CFU)
5. The drug discovery process: development of a clinical candidate (4 CFU)
6. Hybrid inorganic-organic nanomaterials for biomedical applications (3 CFU)
7. The drug discovery process: from target to lead identification (4 CFU)

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.

Please note that CV WILL BE PUBLISHED on the University website and It is recommended that personal and sensitive data should not be included. This template is realized to satisfy the need of publication without personal and sensitive data.

Please DO NOT SIGN this form.

Place and date: Milan, 21.12.2023