

PERSONAL INFORMATION Chiara De Luca**WORK EXPERIENCE**

- Nov 2018–Present** **Academic Guest**
ETH Zurich, Zurich (Switzerland)
Research about methods to purify peptide mixtures, starting from batch chromatography to continuous chromatography (MCSGP) and study of the influence of some operating parameters on the purity and yield of the process.
- 1 Nov 2017–Present** **PhD student (EQF level 8)**
University of Ferrara, Dept. of Chemical and Pharmaceutical Sciences, Ferrara (Italy)
This PhD, in collaboration with Fresenius Kabi IPSUM, is focused on the study of methods, feasible at industrial scale, to purify complex mixtures of peptides. The research project includes laboratory activities and data analysis with computational tools.
- Jun 2018** **tutor for high school students**
University of Ferrara, Ferrara (Italy)
The main activities were the organization of the experiments, the setting up of the laboratory posts and the supervision of the students.

EDUCATION AND TRAINING

- Sep 2015–Oct 2017** **Master's Degree In Chemical Sciences** EQF level 7
University of Ferrara, Ferrara (Italy)
Advanced knowledges in the principal fields of Chemistry. Advanced expertise in the use of laboratory instrumentation for analysis and characterization. 7-months-long Internship at the University of Ferrara, about heavy metal pollution and other topics related to Environmental Chemistry.
Oral defense of the thesis: 3 Oct 2017
Final grade: 110/110 cum laude. Thesis awarded with a Master Prize dedicated to Prof. Francesco Dondi.
- Sep 2012–Oct 2015** **Bachelor's Degree in Chemistry** EQF level 6
University of Ferrara, Ferrara (Italy)
Basic knowledges in the principal fields of Chemistry. Basic proficiency in the use of laboratory instrumentation.
Oral defence of the thesis: 1 Oct 2015
Final grade: 109/110.
- Sep 2007–Jul 2012** **High school scientific diploma** EQF level 4
Liceo Scientifico A. Rott, Ferrara (Italy)
Good knowledge of scientific subjects (Maths, Physics, Chemistry, Biology) and particular emphasis

to foreign languages (English and French).
Final grade: 84/100

PERSONAL SKILLS

Mother tongue(s) Italian

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills Very good communication skills with teenagers acquired during educational summer camps and during tutorship at the University. Good contact skills with superiors (Professors and Teachers) gained through my experience as class representative during high school and at University.

Organisational / managerial skills Leadership skills acquired during the tutorship for high school students. Good lab organisational skills gained during the apprenticeship during the Master degree course.

Job-related skills During the internship period, I got familiar with the main laboratory instruments, particularly with ICP-OES. Currently, I'm specialising in the field of liquid chromatography, both in batch and in continuous mode, especially for the separation of peptide crude mixtures. I've attended also many conventions.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem-solving
Independent user	Proficient user	Independent user	Independent user	Basic user

Digital skills - Self-assessment grid

Good ability to use the most common softwares (such as Office, OpenOffice, Word), computational tools for data analysis (Origin, Matlab, Fortran), multimedia applications, databases for scientific research (Scifinder, Google Patent, Scopus), search engines.

ADDITIONAL INFORMATION

Publications
 - "On the effect of chiral selector loading and mobile phase composition on adsorption properties of latest generation fully- and superficially-porous Whelk-O1 particles for high-efficient ultrafast enantioseparations" (Felleiti S., De Luca C., Ismail O.H., Pasti L., Costa V., Gasparini F., Cavazzini A., Catani M.), *J Chromatogr A*. 2018, In press
 - "The Way to Ultrafast, High-Throughput Enantioseparations of Bioactive Compounds in Liquid and Supercritical Fluid Chromatography" (O. H. Ismail, S. Felleiti, C. De Luca, L. Pasti, N. Marchetti, V. Costa, F. Gasparini, A. Cavazzini, M. Catani), *Molecules*, 2018, 23, 2709; doi: 10.3390/molecules23102709
 - "Recent Achievements and Future Challenges in Supercritical Fluid Chromatography for the Enantioselective Separation of Chiral Pharmaceuticals" (Felleiti, S., Ismail, O.H., De Luca, C., Costa V., Gasparini F., Pasti L., Marchetti N., Cavazzini A., Catani M.), *Chromatographia* (2018), <https://doi.org/10.1007/s10337-018-3606-1>
 - "New frontiers and cutting-edge applications in ultra-high performance liquid chromatography through latest generation superficially porous particles with particular emphasis to the field of chiral separation" (M. Catani, S. Felleiti, O. H. Ismail, F. Gasparini, L. Pasti, N. Marchetti, C. De Luca, V. Costa and A. Cavazzini), *Analytical and Bioanalytical Chemistry* (2018) 410:2457–2465.

- XVII Giornata della Chimica dell'Emilia Romagna (Dec 2017, Bologna), Poster, "Evaluation of mollusc shell powder as biosorbent for the removal of metal ions from polluted waters"
- 42nd International Symposium on Capillary Chromatography (May 2018, Riva del Garda), Poster, "Purification of a peptide crude mixture with gradient elution RP-LC and study of the adsorption isotherm by means of inverse method"
- XXVII Congresso della Divisione di Chimica Analitica (September 2018, Bologna), Poster, "Study of the adsorption equilibria of a pharmaceutical relevant peptide in RP-LC through advanced numerical means"
- 32nd International Symposium on Chromatography (September 2018, Cannes), Poster, "Modeling the Nonlinear Gradient Behavior of a Pharmaceutical Relevant Peptide in RP-LC"
- Incontri di Scienza delle Separazioni (November 2018, Rome), Oral Presentation, "Study of the adsorption equilibria of a pharmaceutical relevant peptide in RP-LC through advanced numerical means"
- HPLC 2019 (June 2019, Milan), Oral Presentation, "Application of inverse method to study adsorption equilibria of a pharmaceutical peptide to predict overloaded gradient elution profiles in RP-LC"
- World Biopharm Forum 2019 (June 2019, Oxford), Poster, "From preparative batch chromatography to a 2-column Multicolumn Countercurrent Solvent Gradient Purification (MCSGP) process for the purification of a peptide crude mixture"
- PREP2019 (July 2019, Baltimore), Poster, "From preparative batch chromatography to a 2-column Multicolumn Countercurrent Solvent Gradient Purification (MCSGP) process for the purification of a peptide crude mixture"