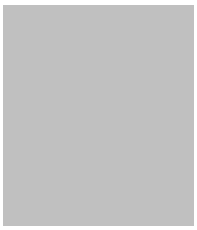
PERSONAL INFORMATION

Andrea Cerrato



andrea.cerrato@uniroma.it
State personal website(s)

Sex M | Date of birth 14/04/1994 | Nationality Italian

POSITION

NOVEMBER 2018 - PRESENT

PhD student in chemical sciences

Department of Chemistry, La Sapienza University of Rome (Italy).
Title of the thesis: “Development of innovative analytical methods based on omics sciences for the characterization of complex matrices”. Supervisor: Prof. Anna Laura Capriotti

EDUCATION AND TRAINING

October 2016 – July 2018

Master’s Degree in Chemistry

Department of Chemistry, La Sapienza University of Rome (Italy).
Title of the thesis: “Study of selectivity in alkyl aromatic compounds oxidation with H2O2 catalyzed by a Fe-nonheme iminic complex”. Supervisor: Prof. Osvaldo Lanzalunga
Final degree mark: 110/110 cum laude

March – April 2018

SPU29x: The Climate-Energy Challenge

HarvardX (United States of America)
A course of study offered by HarvardX, an online learning initiative of Harvard University through edX (Professor Daniel P. Schrag)

October 2013 – July 2016

Bachelor’s Degree in Chemistry

Department of Chemistry, La Sapienza University of Rome (Italy).
Supervisor: Prof. Osvaldo Lanzalunga
Final degree mark: 110/110 cum laude

September 2008 – July 2013

Secondary School Diploma

Liceo Scientifico Camillo Benso Conte di Cavour (Rome, Italy)
School leaving examination mark: 100/100

WORK EXPERIENCE

November 2018 - Present

PhD student
Department of Chemistry, La Sapienza University of Rome (Italy).
Title of the thesis: “Development of innovative analytical m ethods based on omics sciences for biomedical applications”. Supervisors: Susy Piovesana Ph.D, Prof. Aldo Laganà

April – June 2020

Student tutoring for chemistry degree course
Department of Chemistry, La Sapienza University of Rome (Italy).
Lab assistant in the qualitative analytical chemistry laboratory for first year students

November – December 2019

Student tutoring for chemistry degree course
Department of Chemistry, La Sapienza University of Rome (Italy).
Lab assistant in the organic chemistry laboratory for third year students

March – June 2018

Merit-based Paid Internship
Department of Chemistry, La Sapienza University of Rome (Italy).
Lab assistant in the qualitative analytical chemistry laboratory for first year students

March – June 2017

Merit-based Paid Internship
Department of Chemistry, La Sapienza University of Rome (Italy).
Lab assistant in the qualitative analytical chemistry laboratory for first year students

March – June 2016

Merit-based Paid Internship
Department of Chemistry, La Sapienza University of Rome (Italy).
Lab assistant in the qualitative analytical chemistry laboratory for first year students

March – June 2015

Merit-based Paid Internship
Department of Chemistry, La Sapienza University of Rome (Italy).
Lab assistant in the qualitative analytical chemistry laboratory for first year students

PERSONAL SKILLS

Mother tongue: Italian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
Replace with language				
B2	B2	B2	B2	B2
First B2 Certificate issued by University of Cambridge				

Communication skills

Good communication skills gained through the experiences as fellow and PhD student (poster presentations, projects presentations, oral presentations).

Organisational / managerial skills

Good organisational skills gained by coordinating several graduating students.

Computer Skills

Good knowledge of several software programs acquired during the experiences as PhD student.

- Lipostar
- Compound Discoverer
- MZmine
- mMass
- pNovo

- Xcalibur
- Office packages (Word, Excel, Power Point)
- Origin

Professional Skills

- Sample purification
- Evaluation of analytical methods
- Evaluation of chromatographic and mass-spectrometric methods

HPLC system:

- Dionex UltiMate 3000 RSLC
- Waters Acquity Ultra Performance
- Shimadzu Nexera Ultra High Performance
- Waters Acquity UPC^2
- UHPC Thermo-Vanquish

Mass-spectrometry system:

- Thermo LXQ
- Thermo LTQ
- Thermo Qexactive
- Thermo Elite LTQ/XL

Driving licence B

SCIENTIFIC ACTIVITY

Awards	▪ "Excellent graduated student for the 2017/2018 academic year" University of Rome La Sapienza, 16th May 2019
Fellowships	▪ Fellowship for "Incontri di scienze delle separazioni" (Italian chemical society, 28-29 November 2019, Naples, Italy) awarded by GISS (Interdivisional group of separation science of the Italian chemical society, amount: 150 euros)
Memberships	▪ SCI (Italian chemical society) member (Number 22200) (Analytical chemistry division, Separation science division, Young researcher's division)
Institutional positions	▪ **Student representative in chemistry department board** of University of Rome La Sapienza (2017/2018 academic year) ▪ **Student representative in chemistry department council** of University of Rome La Sapienza (2017/2018 academic year)
Fundings	▪ **Progetto di avvio alla ricerca 2019** "Innovative strategies for the comprehensive analysis of bioactive compounds in industrial hemp (Cannabis Sativa L.)" (University of Rome La sapienza, fundings: 1000 euros)
Publications	▪ Capriotti A. L., Aita S. E., Cavaliere C., **Cerrato A.**, Montone C. M., Piovesana S., Lagana A. (2021). A rapid and innovative extraction and enrichment method for the metaproteomic characterization of dissolved organic matter in groundwater samples. JOURNAL OF SEPARATION SCIENCE, ISSN: 1615-9306, doi: 10.1002/jssc.202001025 ▪ **Cerrato, A.**, Aita, S.E., Cavaliere, C., Laganà, A., Montone, C.M., Piovesana, S., Zenezini Chiozzi, R., Capriotti, A.L. Comprehensive identification of native medium-sized and short bioactive peptides in sea bass muscle (2020) Food Chemistry, art. no. 128443. DOI: 10.1016/j.foodchem.2020.128443 ▪ Piovesana, S., Cavaliere, C., **Cerrato, A.**, Montone, C.M., Laganà, A., Capriotti,

A.L. Developments and pitfalls in the characterization of phenolic compounds in food: From targeted analysis to metabolomics-based approaches (2020) TrAC - Trends in Analytical Chemistry, 133, art. no. 116083. DOI: 10.1016/j.trac.2020.116083

- **Cerrato, A.**, Aita, S.E., Capriotti, A.L., Cavaliere, C., Montone, C.M., Laganà, A., Piovesana, S. A new opening for the tricky untargeted investigation of natural and modified short peptides (2020) Talanta, 219, art. no. 121262. DOI: 10.1016/j.talanta.2020.121262

- Montone, C.M., **Cerrato, A.**, Botta, B., Cannazza, G., Capriotti, A.L., Cavaliere, C., Citti, C., Ghirga, F., Piovesana, S., Laganà, A. Improved identification of phytocannabinoids using a dedicated structure-based workflow (2020) Talanta, 219, art. no. 121310. DOI: 10.1016/j.talanta.2020.121310

- **Cerrato, A.**, Capriotti, A.L., Capuano, F., Cavaliere, C., Montone, A.M.I., Montone, C.M., Piovesana, S., Chiozzi, R.Z., Laganà, A. Identification and antimicrobial activity of medium-sized and short peptides from yellowfin tuna (Thunnus albacares) simulated gastrointestinal digestion (2020) Foods, 9 (9), art. no. 1185. DOI: 10.3390/foods9091185

- Capriotti, A.L., **Cerrato, A.**, Laganà, A., Montone, C.M., Piovesana, S., Zenezini Chiozzi, R., Cavaliere, C. Development of a Sample-Preparation Workflow for Sulfopeptide Enrichment: From Target Analysis to Challenges in Shotgun Sulfoproteomics (2020) Analytical Chemistry, 92 (11), pp. 7964-7971. DOI: 10.1021/acs.analchem.0c01342

- Cacciola, N.A., **Cerrato, A.**, Capriotti, A.L., Cavaliere, C., D'Apolito, M., Montone, C.M., Piovesana, S., Squillaci, G., Peluso, G., Laganà, A. Untargeted Characterization of Chestnut (Castanea sativa Mill.) Shell Polyphenol Extract: A Valued Bioresource for Prostate Cancer Cell Growth Inhibition (2020) Molecules, 25 (12), art. no. 2730. DOI: 10.3390/molecules25122730

- Antonelli, M., Benedetti, B., Cavaliere, C., **Cerrato, A.**, Montone, C.M., Piovesana, S., Lagana, A., Capriotti, A.L. Phospholipidome of extra virgin olive oil: Development of a solid phase extraction protocol followed by liquid chromatography–high resolution mass spectrometry for its software-assisted identification (2020) Food Chemistry, 310, art. no. 125860. DOI: 10.1016/j.foodchem.2019.125860

- **Cerrato, A.**, Cannazza, G., Capriotti, A.L., Citti, C., La Barbera, G., Laganà, A., Montone, C.M., Piovesana, S., Cavaliere, C. A new software-assisted analytical workflow based on high-resolution mass spectrometry for the systematic study of phenolic compounds in complex matrices (2020) Talanta, 209, art. no. 120573. DOI: 10.1016/j.talanta.2019.120573

- La Barbera, G., Capriotti, A.L., Caracciolo, G., Cavaliere, C., **Cerrato, A.**, Montone, C.M., Piovesana, S., Pozzi, D., Quagliarini, E., Laganà, A. A comprehensive analysis of liposomal biomolecular corona upon human plasma incubation: The evolution towards the lipid corona (2020) Talanta, 209, art. no. 120487. DOI: 10.1016/j.talanta.2019.120487

- Piovesana, S., **Cerrato, A.**, Antonelli, M., Benedetti, B., Capriotti, A.L., Cavaliere, C., Montone, C.M., Laganà, A. A clean-up strategy for identification of circulating endogenous short peptides in human plasma by zwitterionic hydrophilic liquid chromatography and untargeted peptidomics identification (2020) Journal of Chromatography A, 1613, art. no. 460699. DOI: 10.1016/j.chroma.2019.460699

	▪ Antonelli, M., Benedetti, B., Cannazza, G., **Cerrato, A.**, Citti, C., Montone, C.M., Piovesana, S., Laganà, A. New insights in hemp chemical composition: a comprehensive polar lipidome characterization by combining solid phase enrichment, high-resolution mass spectrometry, and cheminformatics (2020) Analytical and Bioanalytical Chemistry, 412 (2), pp. 413-423. DOI: 10.1007/s00216-019-02247-6 ▪ Antonelli, M., Benedetti, B., Cavaliere, C., **Cerrato, A.**, La Barbera, G., Montone, C.M., Piovesana, S., Laganà, A. Enrichment procedure based on graphitized carbon black and liquid chromatography-high resolution mass spectrometry for elucidating sulfolipids composition of microalgae (2019) Talanta, 205, art. no. 120162. DOI: 10.1016/j.talanta.2019.120162 ▪ Montone, C.M., Chiozzi, R.Z., Marchetti, N., **Cerrato, A.**, Antonelli, M., Capriotti, A.L., Cavaliere, C., Piovesana, S., Laganà, A. Peptidomic approach for the identification of peptides with potential antioxidant and anti-hyperthensive effects derived from Asparagus by-products (2019) Molecules, 24 (19), art. no. 3627. DOI: 10.3390/molecules24193627 ▪ Cavaliere, C., Antonelli, M., **Cerrato, A.**, La Barbera, G., Laganà, A., Laus, M., Piovesana, S., Capriotti, A.L. A novel magnetic molecular imprinted polymer for selective extraction of zearalenone from cereal flours before liquid chromatography-tandem mass spectrometry determination (2019) Toxins, 11 (9), art. no. 493. DOI: 10.3390/toxins11090493 ▪ Piovesana, S., Capriotti, A.L., **Cerrato, A.**, Crescenzi, C., La Barbera, G., Laganà, A., Montone, C.M., Cavaliere, C. Graphitized Carbon Black Enrichment and UHPLC-MS/MS Allow to Meet the Challenge of Small Chain Peptidomics in Urine (2019) Analytical Chemistry, 91 (17), pp. 11474-11481. DOI: 10.1021/acs.analchem.9b03034 ▪ Montone, C.M., Capriotti, A.L., **Cerrato, A.**, Antonelli, M., La Barbera, G., Piovesana, S., Laganà, A., Cavaliere, C. Identification of bioactive short peptides in cow milk by high-performance liquid chromatography on C18 and porous graphitic carbon coupled to high-resolution mass spectrometry (2019) Analytical and Bioanalytical Chemistry, 411 (15), pp. 3395-3404. DOI: 10.1007/s00216-019-01815-0
Oral communications (as invited speaker)	▪ **Untargeted serum metabolomics for monitoring the course of COVID-19 disease over time.** ***Andrea Cerrato*****,** *Anna Laura Capriotti, Federico Marini, Paola Rizzo, Aldo Lagana.* (Webinar "Orbitrap Technology: a step forward in untargeted analysis", 17 November 2020, Thermo Fisher Scientific)
Oral communications	▪ **An innovative analytical strategy for the identification of short endogenous peptides in body fluids.** ***Andrea Cerrato,*** *Michela Antonelli, Barbara Benedetti, Anna Laura Capriotti, Chiara Cavaliere, Carmela Maria Montone, Aldo Laganà.* (Incontri di scienze delle separazioni" Italian chemists society, 28-29 November 2019, Naples, Italy) ▪ **Development of an innovative analytical platform for enrichment and identification of short peptides in body fluids.** ***Andrea Cerrato****, Michela Antonelli, Carmela Maria Montone, Anna Laura Capriotti, Susy Piovesana, Aldo Laganà* (XXVIII Congress of the Analytical Chemistry Division, 22-26 September 2019, Bari, Italy)
Oral communications (as coauthor)	▪ **Unravelling the bioactivity potential of complex matrices: focusing on lipids and unusual amino acids in oils.** *Susy Piovesana, Michela Antonelli, Barbara Benedetti,* ***Andrea Cerrato****, Carmela Maria Montone, Aldo Laganà.* (XXVIII Congress of the Analytical Chemistry Division, 22-26 September 2019, Bari, Italy)

	▪ **Delving into the Polar Lipidome of Microalgae by Optimized Chromatographic Separation, High-Resolution Mass Spectrometry, and Comprehensive Identification with Lipostar.** *Giorgia La Barbera, Michela Antonelli, Barbara Benedetti, **Andrea Cerrato**, Gabriele Cruciani, Laura Goracci, Carmela Maria Montone, Susy Piovesana, Aldo Laganà.* (48th International Symposium on High-Performance Liquid Phase Separation and Related Techniques, 16-20 June 2019, Milan, Italy) ▪ **UHPLC-HRMS per la caratterizzazione del profilo lipidico della microalga Spirulina** *M. Antonelli, **A. Cerrato**, E. Quagliarini, C.M. Montone, G. La Barbera, A. Laganà* ("Incontri di scienze delle separazione" Italian chemists society, November 2018, Rome, Italy)
Poster communications	▪ **A novel enrichment strategy for the detection of phopholipids in olive oil by liquid chromatography-high resolution mass spectrometry.** ***Andrea Cerrato,*** *Sara Elsa Aita, Michela Antonelli, Carmela Maria Montone, Susy Piovesana, Aldo Laganà* (Giornata di Bioanalitica "From molecules to devices, 6 December 2019, Parma, Italy) ▪ **Innovative analytical platform for enrichment and identification of short peptides in urine.** ***Andrea Cerrato****, Michela Antonelli, Barbara Benedetti, Carmela Maria Montone, Sara Elsa Aita, Susy Piovesana, Anna Laura Capriotti, Aldo Laganà.* (Convegno Giovani Ricercatori 2019 "C'è futuro nella ricerca!", 25-26 June 2019, Rome, Italy) ▪ **New Insight in urinary peptidomics: innovative strategy for short peptide analysis**, ***Andrea Cerrato****, Carmela Maria Montone, Chiara Cavaliere, Susy Piovesana, Anna Laura Capriotti, Aldo Laganà* (poster, 48th International Symposium on High-Performance Liquid Phase Separation and Related Techniques, 16-20 June 2019, Milan, Italy) ▪ **Analytical Strategy for the metaproteomic investigation of atmospheric bioaerosol for environmental analysis**, *Michela Antonelli, Barbara Benedetti, **Andrea Cerrato**, Carmela Maria Montone, Aldo Laganà* (poster, 48th International Symposium on High-Performance Liquid Phase Separation and Related Techniques, 16-20 June 2019, Milan, Italy) ▪ **Development of a new peptidomic platform for the extraction, separation and identification of bioactive peptides in microalgae**, *Carmela Maria Montone, Anna Laura Capriotti, Giorgia La Barbera, Michela Antonelli, **Andrea Cerrato**, Aldo Laganà* (poster, 2nd International Symposium on Bioactive Peptides, 22-24 May 2019, Valencia, Spain)
Referee activity	▪ **Food Chemistry (2020-)** ▪ **Applied Sciences (2020-)** ▪ **Processes (2020-)** ▪ **Foods (2020-)**
Guest editor activity	▪ **Assistant guest editor of Special Issue "Advancements in Analytical Techniques for Proteomics" (Molecules)**

Autorizzo il trattamento dei miei dati personali ai sensi dell'art. 13 del Regolamento UE n. 679/2016 del 27.04.2016 "Regolamento generale sulla protezione dei dati" (di seguito "Regolamento") e del D.Lgs. n. 196/2003 "Codice in materia di protezione dei dati personali", come modificato dal D.Lgs. n. 101 del 10.08.2018, recante disposizioni per l'adeguamento dell'ordinamento nazionale al Regolamento europeo.

11/01/2021 Firma