

# University Academic Curriculum Vitae

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## Personal information

Adriana Teresa Ceci  
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## Education since leaving school

- 2011 - 2014 Laurea Triennale in Tecniche Erboristiche; University of Bari, Bari (Italy)
- 2014 - 2018 Laurea Magistrale a Ciclo Unico in Farmacia; University of Bari, Bari (Italy)
- 2018 – 2022 Doctor of Philosophy in Biomolecular Science (CIBIO); University of Trento; Trento (Italy)
- 2020 Qualification for the profession of Pharmacist; University of Bari, Bari (Italy)

## Present appointment

- Towards sustainable viticulture: a case study on wines from resistant grape varieties in South Tyrol (SUWIR)
- 01/06/2022
- Research Assistant – Free University of Bozen
- Metabolomic investigation on wine matrices by applying uni- and multi-variate chemometric tools
- Physical-chemical analytical methods based on HPLC, GC, spectrophotometer (UV-Vis)
- Make experimental design up by ensuring the use of standard operation procedures
- Generate the results of analytical experiments by ensuring the recording and the delivery of the results in due time
- Draft and/or review of laboratory SOPs according to company quality standards.
- Check the status of laboratory equipment
- Development and validation of analytical methods, as well as demonstration of their applicability according to the needs of quality control
- Statistical data analysis (R and RStudio, SPSS, XLSTAT).

## Professional experience

Chronological list of all previous employments (each with job title, starting and finishing dates, level, employer, responsibilities)

From / to	Job title	Name of academic Institution	Academic level	responsibilities
06/2022 Current position	Towards sustainable viticulture: a case study on wines from resistant	Free University of Bozen	Research Assistant	<ul style="list-style-type: none"><li>• Chemical analysis</li><li>• Supervision of PhD students</li><li>• Group support</li><li>• Data analysis</li><li>• Design of Experiment</li></ul>

	grape varieties in South Tyrol (SUWIR)			
11/2018 / 05/2022	Measuring the nutritional quality of local plant based EUREGIO food	University of Trento	Doctor of Philosophy	<ul style="list-style-type: none"> <li>• Analysis of food matrices by liquid chromatography coupled to mass spectrometry</li> <li>• Data analysis</li> <li>• Design of Experiment</li> </ul>

**Experience in academic teaching**

- Teaching Assistant Title: Wine production processes and plants (AGR/15) - Food Science and Technology (12 hours) Oct 2022 – Jan 2022 NOI Techpark Bozen (Postgraduate level)
- Teaching Assistant Title: Agro-industries (AGR/15) - L-25 Agricultural, Food and Mountain Environmental Sciences (24 hours) April 2023 – June (2023) NOI Techpark Bozen (Bachelor level)
- Postgraduate supervision– Title: Analysis of red fleshed apple varieties on their content of health-relevant metabolites Versuchszentrum Laimburg Bachelorarbeit feb 2021 – mar 2021 NOI Techpark Bozen (Postgraduate level)

**Memberships**

The Groupe Polyphénols (GP)  
Enrolled at the Italian Chemical Society as a junior member with the Division of Mass Spectrometry

**Research and scholarships**

Current position: Research Assistant in the Oenolab (Free University of Bozen)  
Project: It performs analyses oenological and applies chemical-instrumental techniques, such as GC and HPLC in one or multidimensional configuration and coupled with mass spectrometry, to assess the quality of wines obtained from resistant and nonresistant grape varieties.

PhD in the Laboratory for Flavours and Metabolites (Dr. Peter Robatscher), Laimburg Research Centre (Dr. Michael Oberhuber), enrolled at University of Trento (Prof. Fulvio Mattivi).

Project: Measuring the nutritional quality of local plant based EUREGIO foods. The eating habits are very important to fight diseases. The increase of obesity and the progressively ageing population caught the interest of regional researches in order to improve the lifestyle of the local population. Indeed, the aim of this project is the evaluation of the nutritional quality of local products, with special focus on the identification and characterization of active compounds relevant for human health.

Host Institute: Laimburg Research Centre, supervisor Dr. Michael Oberhuber, Dr. Peter Robatscher.

Dip. Pharmazeutische Bioinformatik Albert-Ludwigs-Universität, Freiburg (Germany) 2017 - 2018 Use of Protein Data Bank (PDB) and database on the biosynthesis of secondary metabolites from gene clusters (MIBiG, Clustermine360, DoBiscuit). Classification systems for the prediction of substrate specificity, focusing on domain A of non ribosomal enzymes (NRPS). Use of programs to search for similarity of sequences (BLAST and FASTA). Classifiers used: PSSM (Position-Specific Scoring Matrix), Random Forest, Decision Tree and HMMER (Biosequence analysis using profile Hidden Markov Models). Statistical data analysis (ROC statistic curve, Cross validation). Summary of significant achievements in research and scholarship

FELLOWSHIPS for participation of young researchers to the conference 6 MS food day Camerino (Italy), September 25-27, 2019

PREMIO DI STUDIO GLOBAL-THESIS 2017 issued by: University of Bari Aldo Moro

Seconda classificata al PREMIO FEI 2016 issued by: FEI (Federazione Erboristi Italiani)

## Publications

Ceci A.T Doctoral Thesis: Measuring the nutritional quality of local plant-based EUREGIO foods; Trento (Italy); University of Trento; 2022; <https://hdl.handle.net/11572/355331> (embargo until 24/10/2024)

Darnal, A.; Poggesi, S; Ceci, A.T.; Mimmo, T.; Boselli, E; Longo, E. "Effects of pre-and post-fermentative practices on oligomeric cyclic and non-cyclic condensed tannins in wine from Schiava grapes." *Current Research in Food Science* 6 (2023): 100513. 10.1016/j.crfs.2023.100513

Darnal, A., Poggesi, S., Ceci, A.T. et al. Interactive effect of pre-fermentative grape freezing and malolactic fermentation on the anthocyanins profile in red wines prone to colour instability. *Eur Food Res Technol* (2023). <https://doi.org/10.1007/s00217-023-04270-5>

Duley, G., Ceci, A. T., Longo, E., & Boselli, E. (2023). Oenological potential of wines produced from disease-resistant grape cultivars. *Comprehensive Reviews in Food Science and Food Safety*.

Poggesi, S.; Darnal, A.; Ceci, A.T.; Longo, E.; Vanzo, L.; Mimmo, T.; Boselli, E. Fusion of 2DGC-MS, HPLC-MS and Sensory Data to Assist Decision-Making in the Marketing of International Monovarietal Chardonnay and Sauvignon Blanc Wines. *Foods* 2022, 11, 3458. <https://doi.org/10.3390/foods11213458>

Ceci, A.T.; Franceschi, P.; Serni, E.; Perenzoni, D.; Oberhuber, M.; Robatscher, P.; Mattivi, F. Metabolomic Characterization of Pigmented and Non-Pigmented Potato Cultivars Using a Joint and Individual Variation Explained (JIVE). *Foods* 2022, 11, 1708. <https://doi.org/10.3390/foods11121708>

Ceci, Adriana Teresa; Bassi, Michele; Guerra, Walter; Oberhuber, Michael;

Robatscher, Peter; Mattivi, Fulvio; Franceschi, Pietro, "Metabolomic Characterization of Commercial, Old, and Red-Fleshed Apple Varieties" in METABOLITES, v. 2021, 11, n. 6 (2021), p. 378.1-378.18. - URL: <https://www.mdpi.com/2218-1989/11/6/378> 10.3390/metabo11060378 This article belongs to the Special Issue Advances in Plant Specialized Metabolites: How to Take Full Advantages of the Properties of Specialized Metabolites?

Zierep, P.F.; Ceci, A.T.; Dobrusin, I.; Rockwell-Kollmann, S.C.; Günther, S. SeMPI 2.0—A Web Server for PKS and NRPS Predictions Combined with Metabolite Screening in Natural Product Databases. Metabolites 2021, 11, 13. <https://doi.org/10.3390/metabo11010013>

**Publications  
about the  
applicant**

Le patate viola Terra Trentina  
<https://ita.calameo.com/read/000195356fbbb76bf9230> pag.62-63

Mele a polpa rossa l'alimento del futuro (freshpointmagazine.it)  
[http://www.laimburg.it/it/news.asp?news\\_action=4&news\\_article\\_id=658003](http://www.laimburg.it/it/news.asp?news_action=4&news_article_id=658003)  
<https://www.fruitbookmagazine.it/mele-a-polpa-rossa-nuovi-functional-food-lo-studio-di-laimburg/>

<https://www.myfruit.it/prodotti/2021/07/mele-a-polpa-rossa-verso-la-consacrazione-a-functional-food.html>

**Oral Presentations**

Metabolomics investigation of antioxidant properties, polyphenolic profile and, anthocyanin content in commercial, ancient and red-fleshed apple varieties XXX International Conference on Polyphenols, ICP 2020 Virtual Event 13 – 15 Luglio 2021

Metabolic association of health relevant metabolites between peel and pulp in apples of old, commercial, and red-fleshed cultivars 9h MS J-Day, "I giovani e la spettrometria di massa", Webinar, (Italy) 24 Giugno 2021

**Poster Presentations**

Polyphenol composition of 12 apple cultivars grown in South Tyrol (Italy) determinate by ultra-high performance liquid chromatography mass spectrometry (UHPLC-MS) 6th MS Food, University of Camerino Auditorium Benedetto XIII Camerino (Italy), 25 – 27/09/2019

Identification of bioactive compounds with health-related potential by mass spectrometry 7th MS J-Day, "I giovani e la spettrometria di massa", NOI Techpark Südtirol/Alto Adige –Bolzano, (Italy) 27/05/2019

Measuring the nutritional quality of local plant based EUREGIO foods (University for Health Sciences, Medical Informatics and Technology Hall in Tirol, (Austria) 2019

**Further data**

SENSORY PROJECT MANAGER March 2023 Microsoft Teams Società Italiana di Scienze Sensoriali SISS

SCUOLA DI ANALISI MULTIVARIATA 20 – 24/09/21 Microsoft Teams, 30 hours University of Genova

Introduction to Data Analysis in Metabolomics 7 – 8/9/21, 14 hours NOI  
Techpark

LC2 - Ottimizzazione delle variabili cromatografiche in HPLC ed UHPLC  
LC3 - Strategie per lo sviluppo di metodi robusti in HPLC ed UHPLC  
TR (LC) - Troubleshooting HPLC e UHPLC - guida avanzata alla  
prevenzione e soluzione dei problemi cromatografici e strumentali  
LC/MS - Come ottenere Risultati Ottimali in Spettrometria di Massa  
sfruttando le potenzialità della tecnica LC Phenomenex 03/2021

Data exploration: introduction to uni- and multivariate analysis IMASS  
16 – 20/04/20

Trattamento e protezione dei dati personali "conformemente a quanto  
disciplinato dal D.lgs. 196/2003 e dal Regolamento (UE) 679/2016"  
Laimburg – Bolzano/Bozen 2018 – 2020

23° Corso di Spettrometria di Massa - Divisione di Spettrometria di Massa,  
Siena Societa Chimica Italiana – Siena 2019

Corso di Formazione (HPLC e GC-MS)  
Sviluppo e Potenziamento delle Competenze trasversali University of Bari  
2018

Primo soccorso (100ore di Tirocinio pratico e 100ore di Lezioni frontali)  
Ospedale Don Tonino Bello Molfetta (BA) 2011

Corso di Fitopatologia sulle principali avversità parassitarie dell'olivo  
Oleificio Coop. Goccia di Sole s.r.l. – Molfetta (BA) 2010

Spin-offs, patents and entrepreneurship

I am excited to be applying for the Research Assistant position at Free  
University of Bozen. As someone who is highly inquisitive and analytical, I  
am skilled at developing and implementing methodology, assisting in data  
collection and analyzing the results of research

Written and spoken competence in all languages according to CERF levels,  
Common European Reference Framework  
([http://www.coe.int/t/dg4/linguistic/cadre1\\_en.asp](http://www.coe.int/t/dg4/linguistic/cadre1_en.asp)); append certificates  
wherever available

**Entrepreneurship**

**Statement of  
interest**

**Language  
competence**

**Driving license      B**