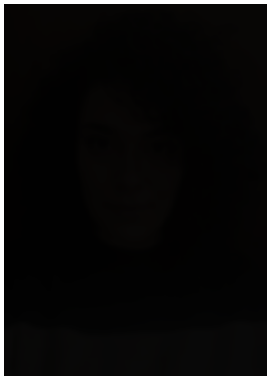
***CURRICULUM VITAE***
***CRISTINA CAISSUTTI***

**PERSONAL INFORMATION**



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| **Name, surname** | Cristina Caissutti |
| **Place and date of birth** | [redacted] |
| **Nationality** | [redacted] |
| **Phone number** | [redacted] |
| **e-mail(s)** | [redacted] |

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**EDUCATION AND TRAINING**

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| **Dates** | 23/12/2021 - 17/10/2023 |
| **Title of qualification awarded** | Master's degree in Biotechnology and Genomic for Industry and Environment [LM - Ordin. 2022] (classe LM-8)<br>Protocol number: 15726/43 |
| **Level in national or International classification** | 110/110 cum laude |
| **Name and type of organisation providing education and training** | Sapienza University of Rome, Italy.<br>Department of Biology and Biotechnology Charles Darwin, Sapienza University of Rome. |
| **Thesis title** | "Risposta morfo-fisiologica e molecolare di *Lepidium sativum L.* cresciuto in presenza di bismuto".<br><br>Advisor Dr. Davide Marzi, Sapienza University of Rome, Italy.<br>E-mail: davide.marzi@uniroma1.it<br>Supervisor Dr. Patrizia Brunetti, Institute of Molecular Biology and Pathology (IBPM) – CNR.<br>E-mail: patrizia.brunetti@cnr.it |
| **Activities** | Investigation of plant response to bismuth through molecular and morpho-physiological analysis. In vitro culture of *Lepidium sativum* seedlings treated with increasing contaminant concentration and execution of ecotoxicological assays in accordance with official guidelines (germination index and plant organs length measures). Searching the best reference gene by molecular analysis and histochemical assays on *L. sativium* seedlings. Identification of putative *Arabidopsis thaliana* orthologous genes by local alignment and primer design. Quantification of target genes expression by Real time RT-qPCR. *L. sativum* tissues histochemical staining.<br>In parallel, training of Bachelor's student on *in vitro* culture and growth on soil substrate of the model plant species *Arabidopsis thaliana*; flowers hand pollination, mutant screening by PCR and DNA gel electrophoresis and evaluation of the arsenic tolerance. Molecular and morpho-physiological analysis on *Arabidopsis thaliana* seed and seedlings grown on arsenic containing media. In-depth analysis of root |

development of seedlings treated with arsenic (root apical meristem analysis)
In addition, passive hydroponic culture of *Pteris vittata, Lepidium Sativum* and *Arabidopsis thaliana* plantlets with PFOA supplemented growth medium, evaluation of PFOA accumulation in plant tissue.

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| **Dates** | 19/09/2018 – 17/12/2021 |
| **Title of qualification awarded** | Bachelor's degree in Agro-Industrial Biotechnology [L-270 – Ordin. 2019] (classe L-2).<br>Protocol number: 14726/41 |
| **Level in national or International classification** | 110/110 cum laude |
| **Name and type of Organisation providing education and training** | Sapienza University of Rome, Italy.<br>Department of Biology and Biotechnology Charles Darwin, Sapienza University of Rome. |
| **Thesis title** | "Valutazione dell'efficacia dell'inibizione del gene della chitina sintasi nel vettore *Culex pipiens*".<br><br>Advisor Prof. Sandra Urbanelli, Sapienza University of Rome, Italy.<br>E-mail: sandra.urbanelli@uniroma1.it<br>Co-Advisor Dr. Valentina Mastrantonio, Sapienza University of Rome, Italy.<br>E-mail: valentina.mastrantonio@uniroma1.it |
| **Activities** | Preliminary testing of RNA interference as an alternative vector control method. Maintenance of resistant and susceptible colonies of mosquito vector *Culex pipiens*. Insecticide Diflubenzuron bioassays to estimate the lethal dose ($LD_{50}$) and calculate the resistance ratio (RR). Oral administration of siRNAs and induction of chitin synthase gene silencing in resistant and susceptible mosquito larvae. |

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| **Dates** | 2013 - 2018 |
| **Title of qualification Awarded** | High School Degree – Diploma<br>N. 126021 |
| **Level in national or International classification** | 100/100 |
| **Name and type of organisation providing education and training** | Liceo scientifico E. Majorana, Latina (LT) |

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| **Dates** | 2015 - 2017 |
| **Course** | First for Schools (FCE for Schools) preparation course. |
| **Title of qualification Awarded** | Cambridge English level 1 (B2) Certificate in ESOL International (FIRST)<br>Certificate number: 0057730316 |

Protocol number: 01913800

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| **Name and type of organisation providing education and training** | Accademia Britannica - Liceo scientifico E. Majorana, Latina (LT). |

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**SKILLS & TECHNIQUES**

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| **General plant growth** | Growth on soil substrates, hydroponic culture, *in vitro* culture. Experience with *Lepidium sativum, Arabidopsis thaliana, Pteris vittata.* |
| **Molecular biology techniques** | DNA and RNA isolation from both model and non-model plant tissues, cDNA synthesis, PCR, qRT-PCR, DNA and RNA gel electrophoresis, DNA and RNA quantification using NanoDrop spectrophotometer. |
| **Cell biology techniques** | Resin inclusion and thin sections production using microtome. Histology and plant tissues staining. Phenotypic analysis and characterization of plant physiological traits. |
| **Genetics** | Plant manual crosses (hand pollination), Mutant screening, Phenotypic and molecular characterization. |
| **Microscopy** | Stereo and Optical Microscopy. |
| **Computing skills** | Primer design, Gene and protein database search, Homology search analysis, DNA analysis and design (SerialCloner), Analysis tools (ImageJ, Fiji-ImageJ), Microsoft office, Power Point, Excel, Word. |
| **Organizational and soft skills** | Problem solving, Teamwork, Multitasking, Good organizational skills. |
| **Language** | Italian (mother tongue); English (B2). |

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**PUBLICATIONS**

**Caissutti C**, Marzi D, Antenozio ML, Pietrini F, Zacchini M, and Brunetti P (*manuscript in preparation*). Disentangling the effects of bismuth on the physiological and molecular responses in *Lepidium sativum* seedlings.

Rome, 14/12/2023

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