



# Chiara Longo

## WORK EXPERIENCE

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[ 31/10/2020 – Current ]

### PhD candidate

***PhD in Life Science, School BeMM, Biology and Molecular Medicine, Sapienza University of Rome***

**City:** Rome

**Country:** Italy

Third year PhD student, XXXVI cycle, PhD in Life Sciences [10/31/2020 – ongoing]  
School of Doctorate BeMM, Biology and Molecular Medicine, Sapienza University of Rome  
Department of Biochemical Sciences, La Sapienza University  
c/o Department of Biology and Biotechnology Charles Darwin  
Tutor: Prof. Vittorioso – supervisor Prof. Costi

[ 31/07/2020 – 31/07/2021 ]

### Editorial assistant

***Department of Biology and Biotechnology Charles Darwin, Sapienza University of Rome***

**City:** Rome

**Country:** Italy

Editorial support  
Postgraduate course 'Science in journalistic practice'  
Department of Biology and Biotechnology Charles Darwin  
Sapienza University of Rome  
First place winner of the public call

## EDUCATION AND TRAINING

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[ 31/10/2020 – Current ]

### PhD candidate

***PhD in Life Science, School BeMM, Biology and Molecular Medicine, Sapienza University of Rome***

**City:** Rome

**Country:** Italy

**Field(s) of study:** Natural sciences, mathematics and statistics

**Thesis:** The Role of Polycomb Repressive Complex 2 homologs in regulating cold acclimation and freezing tolerance in *Arabidopsis thaliana*

Third year PhD student, XXXVI cycle, PhD in Life Sciences [10/31/2020 – ongoing]  
School of Doctorate BeMM, Biology and Molecular Medicine, Sapienza University of Rome  
Department of Biochemical Sciences, La Sapienza University  
c/o Department of Biology and Biotechnology Charles Darwin  
Tutor: Prof. Vittorioso – supervisor Prof. Costi  
Thesis topic: Plant epigenetics, genetics and molecular biology; pharmacological strategy in plants.

[ 10/05/2023 – 20/08/2023 ]

### PhD visitor

***CRAG Centre for research in agricultural Genomics***

<https://www.cragenomica.es/>

**City:** Barcelona

**Country:** Spain  
PhD visitor  
c/o CRAG Centre for research in agricultural Genomics  
Epigenetics and plant development  
Laboratory of Dr. Julia Qüesta

Winner of Sapienza founding grant 'Inter-Institutional Agreement for International doctoral mobility'

[ 12/09/2022 – 14/09/2022 ]

### **Participant of Training School Epicatch**

**COST Euroean Cooperation for Science and Technology** <https://www.cost.eu/>

**City:** Prague

**Country:** Czechia

Participant of Training School Epicatch: 'Plant epigenetics, heritability, adaptation, evolution: latest advances digested for beginners'

c/o Charles University, Prague

Winner of Epicatch COST Action CA19125 travel grant

[ 30/06/2022 – 01/07/2022 ]

### **Participant of Summer School**

**Nanoinnovation2022 and La Tuscia University** <https://www.nanoinnovation2022.eu/home/>

**City:** Viterbo

**Country:** Italy

Participant of Summer school: Nanotechnology in Agriculture, 2022

c/o Department of Agricultural and forest sciences DAFNE

La Tuscia University, Viterbo

[ 20/10/2020 ]

### **Master's Degree in Genetics and Molecular Biology**

**Sapienza University of Rome** <https://www.uniroma1.it/>

**City:** Rome

**Country:** Italy

**Final grade:** 110/110 cum laude

**Thesis:** Development of a pharmacological approach to study epigenetic mechanisms in *Arabidopsis thaliana* : inhibition of the activity of Enhancer Of Zeste Homolog2 (EZH2) and of P300/CBP protein related to acetyl transferase (HACs).

Master's Degree in Genetics and Molecular Biology

Department of Biology and Biotechnology Charles Darwin

Sapienza University of Rome

Experimental thesis c/o Prof. Vittorioso Laboratory of plant molecular biology

10.01.2018 - 20.10.2020

[ 17/12/2017 ]

### **Bachelor's Degree in Biological Science**

**Sapienza University of Rome** <https://www.uniroma1.it/>

**City:** Rome

**Country:** Italy

**Final grade:** 107/110

**Thesis:** Study on the activity of a new generation EZH2 inhibitor on seeds and seedlings of *Arabidopsis thaliana*

Bachelor's Degree in Biological Science

Department of Biology and Biotechnology Charles Darwin

Sapienza University of Rome

Experimental thesis c/o Prof. Vittorioso Laboratory of plant molecular biology

20.08.17 - 16.12.2017

## CONFERENCES AND SEMINARS

[ 02/05/2023 – 03/05/2023 ]

### **COST EPI\_CATCH Epigenetic mechanisms in plant responses to environmental stresses**

Parma, Italy

Conference COST EPI\_CATCH talk and poster:

PRC2 involvement in plant response to cold stress: phenotypic and transcriptomic analysis in response to chilling and freezing temperatures

Longo C., D'Orso F., Possenti M., Paciolla A., Morelli G. and Vittorioso P..

[ 13/06/2022 – 17/06/2022 ] **EMBO workshop - Molecular responses of plants facing climate change**

Montpellier, France

EMBO workshop, poster

New strategy to study plants' epigenetic plasticity against cold stress: a chemical-based approach.

Longo C., Lepri A., Messore A., Madia V. N., Vittorioso P..

[ 18/05/2022 – 19/05/2022 ] **7th European Workshop on Plant Chromatin (EWPC2022)** Prague, Czech Republic

7th European Workshop on Plant Chromatin (EWPC2022), Poster

New strategies to study plant epigenetic plasticity: a chemical-based approach.

Longo C., Lepri A., Messore A., Madia V.N., Bonaccorsi M.C., Vittorioso P..

[ 12/07/2021 – 14/07/2021 ] **EPI-CATCH Epigenetic Mechanisms of Crop Adaptation to Climate Change**

Online

EPI-CATCH 2021, Participant

[ 28/06/2021 – 01/07/2021 ] **FESPB & EPSO Plant Biology Europe 2021** Online

Writ FESPB & EPSO Plant Biology Europe 2021, Participant

## LANGUAGE SKILLS

**Mother tongue(s):** Italian

**Other language(s):**

**English**

**LISTENING B2 READING B2 WRITING B2**

**SPOKEN PRODUCTION B1 SPOKEN INTERACTION B2**

*Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user*

## DIGITAL SKILLS

Windows MacOS Android iOS | Microsoft Office (Word, Power Point, Excel, Outlook, ...) | Google (Gmail, Drive, Docs, Sheets, etc) | ADOBE Creative Suite

**Bioinformatic skills**

Biology-oriented software: ImageJ, GraphPad, ImageLab, PyMol | SWISS MODEL | EMBL-EBI | GO enrichment analysis (DAVID, PANTHER) | R | Diane

## PUBLICATIONS

[ 2023 ] **Small Molecules: An Up-and-Coming Synergy**

Lepri, A., Longo, C., Messore, A., Kazmi, H., Madia, V. N., Di Santo, R., Costi, R., & Vittorioso, P. (2023). Plants and Small Molecules: An Up-and-Coming Synergy. *Plants* (Basel, Switzerland), 12(8), 1729. <https://doi.org/10.3390/plants12081729>

[ 2022 ]

**New Inhibitors of the Human p300/CBP Acetyltransferase Are Selectively Active against the Arabidopsis HAC Proteins**

Longo, C., Lepri, A., Paciolla, A., Messore, A., De Vita, D., Bonaccorsi di Patti, M. C., Amadei, M., Madia, V. N., Ialongo, D., Di Santo, R., Costi, R., & Vittorioso, P. (2022). New Inhibitors of the Human p300/CBP Acetyltransferase Are Selectively Active against the Arabidopsis HAC Proteins. *International journal of molecular sciences*, 23(18), 10446. <https://doi.org/10.3390/ijms231810446>

[ 2020 ]

**From the Outside to the Inside: New Insights on the Main Factors That Guide Seed Dormancy and Germination**

Longo, C., Holness, S., De Angelis, V., Lepri, A., Occhigrossi, S., Ruta, V., & Vittorioso, P. (2020). From the Outside to the Inside: New Insights on the Main Factors That Guide Seed Dormancy and Germination. *Genes*, 12(1), 52. <https://doi.org/10.3390/genes12010052>

[ 2020 ] **The DOF Transcription Factors in Seed and Seedling Development**

Ruta, V., Longo, C., Lepri, A., De Angelis, V., Occhigrossi, S., Costantino, P., & Vittorioso, P. (2020). The DOF Transcription Factors in Seed and Seedling Development. *Plants* (Basel, Switzerland) , 9 (2), 218. <https://doi.org/10.3390/plants9020218>

[ 2019 ]

**Inhibition of Polycomb Repressive Complex 2 activity reduces trimethylation of H3K27 and affects development in Arabidopsis seedlings.**

Ruta, V., Longo, C., Boccaccini, A., Madia, V. N., Saccoliti, F., Tudino, V., Di Santo, R., Lorrain, R., Dello Ioio, R., Sabatini, S., Costi, R., Costantino, P., & Vittorioso, P. (2019). Inhibition of Polycomb Repressive Complex 2 activity reduces trimethylation of H3K27 and affects development in Arabidopsis seedlings. *BMC plant biology* , 19 (1), 429. <https://doi.org/10.1186/s12870-019-2057-7>

## LAB SKILLS

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### Plant molecular biology

DNA extraction, PCR, SDS PAGE. Genotyping.

RNA extraction, reverse transcription, Real time PCR (qPCR) RNAseq.

Protein extraction, total and histone enrichment, Immunoblot analysis, ChIP assay.

Cloning and purification of proteins. Affinity chromatography.

Germination assay. GUS Essay. Preparation of inclusions for microscopy analysis.

## DIGITAL SKILLS

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### General informatics

Good knowledge of the major operating systems, for desktop (Windows, MacOS) and (Android, iOS).

Excellent knowledge of the Microsoft Office (Word, Power Point, Excel, Outlook, etc.)and Gsuite (Hangouts, Calendar, Drive, Docs, Sheets, etc.).

Good use of Adobe Creative Suite (Acrobat, Photoshop, In Design, Cloud, etc.), Inkscape, Audacity and FFmpeg software. Basic knowledge of programming languages (HTML, R).

### Bioinformatics

Good knowledge of Life Science softwares (Imagelab, PyMOL, Q-rex, ImageJ, etc), of the biological databases (UniProt, Ensembl, PDBe) and search engines for Life Sciences (Pubmed, Google scholar, etc.).

Good knowledge of different bioinformatic tools for biological OMICS and gene ontology analyses (EMBL- EBI tools, MeV, DAVID, SWISS-MODEL, PANTHER, DIANE etc.)

**"Autorizzo la pubblicazione del mio curriculum vitae e il trattamento dei dati personali in esso contenuti in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 GDPR 679/16";**

Il presente *curriculum vitae*, è redatto ai fini della pubblicazione nella Sezione "Amministrazione trasparente" del sito web istituzionale dell'Ateneo al fine di garantire il rispetto della vigente normativa in materia di tutela dei dati. Il C.V. in versione integrale è conservato presso gli Uffici della Struttura che ha conferito l'incarico.