EUROPEAN CURRICULUM VITAE FORMAT

PERSONAL INFORMATION

Name **RICCARDO LORRAI**

WORK EXPERIENCE

• Dates 1/11/2018 to 31/03/2018
• Name and address of employer Dr. Paola Vittorioso Sapienza, University of Rome •
Type of business or sector Research

• Dates 1/10/2018 to 31/05/2019
• Name and address of employer Prof. Simone Ferrari Sapienza, University of Rome •
Type of business or sector Research

• Dates 1/10/2018 to 31/03/2019
• Name and address of employer Prof. Simone Ferrari Sapienza, University of Rome •
Type of business or sector Research

• Dates 1/04/2019 to 30/06/2019
• Name and address of employer Prof. Simone Ferrari Sapienza, University of Rome •
Type of business or sector Research

• Dates 1/07/2019 to now
• Name and address of employer Prof. Simone Ferrari Sapienza, University of Rome •
Type of business or sector Research

EDUCATION AND TRAINING

• Dates February 2018
• Name and type of organisation providing education and training "Sapienza" 5 Aldo Moro, 00185 Rome (Italy)
Dept. Biology and Biotechnology "C. Darwin" University of Rome
• Principal subjects Plant Biology
• Title of qualification awarded PhD Degree, Life Science XXX cycle •

Dates October 2014

• Name and type of organisation providing education and training • Master Degree (110/110 cum laude), Genetics and Molecular Biology
Title of qualification awarded

• Dates March 2012
• Name and type of organisation providing education and training • Dept. Biology and Biotechnology "C. Darwin" University of Rome "Sapienza" 5 Aldo Moro, 00185 Rome (Italy)
Title of qualification awarded Master Degree (103/110), Biology
Dept. Biology and Biotechnology "C. Darwin" University of Rome "Sapienza" 5 Aldo Moro, 00185 Rome (Italy)

LANGUAGES **English** • Reading skills Excellent

• Writing skills Good
• Verbal skills Good

• Reading skills
• *Writing skills*
• Verbal skills

LABORATORY SKILLS AND COMPETENCES

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French
Excellent
Basic
Basic

plasmid DNA extraction, DNA and RNA extraction, molecular cloning, E. Coli and S. *Cerevisiae* transformation. **Expression Analysis:** RT-PCR, qPCR.

Biochemical Analysis: Protein extraction, Western Blot, ChIP, Co-IP, two hybrid assay, Protein separation and in gel digestion, Mass spectrometry analysis and protein identi cation, plate diffusion assay

Plant techniques: plant transformation using Agrobacterium, genetic crossing, mutant isolation, phenotyping analysis, chloroplast isolation, GUS assay

Microscopy techniques: Stereomicroscope, Optical microscope

Basic techniques in molecular biology: PCR, Colony PCR,

ADDITIONAL INFORMATION

Publication:

Boccaccini A, Santopolo S, Capauto D, **Lorrai R**, Minutello E, Serino G, Costantino P, Vittorioso P.
The DOF protein DAG1 and the DELLA protein GAI cooperate in negatively regulating *AtGA3ox1* gene.
Mol. Plant. 2014 Apr 9. doi: 10.1093/mp/ssu046.

Boccaccini A., Santopolo S., Capauto D., **Lorrai R.**, Minutello E., Belcram K., Palauqui J.C., Costantino P. and Vittorioso P.
Independent and interactive effects of DOF AFFECTING GERMINATION 1 (DAG1) and the DELLA proteins GA INSENSITIVE (GAI) and REPRESSOR OF ga1 (RGA) in embryo development and seed germination.
BMC Plant Biology 2014, **14**:200. doi:10.1186/s12870-014-0200-z .

Santopolo S., Boccaccini A., Capauto D., **Lorrai R.**, Minutello E., Serino G., Costantino P. and Vittorioso P.
Dof Affecting Germination 2 is a positive regulator of light-mediated seed germination and is repressed by Dof Affecting Germination 1
BMC Plant Biol. 2015 Mar 4;15:72. doi: 10.1186/s12870-015-0453-1.

Boccaccini A., **Lorrai R.**, Ruta V., Frey A., Marcey-Boutet S., Marion-Poll A., Tarkowska D., Strnad M., Costantino P. and Vittorioso P.
The DAG1 transcription factor negatively regulates the seed-to-seedlings transition in Arabidopsis acting on ABA and GA levels
BMC Plant Biology 2016. Sept 16:198 doi: 10.1186/s12870-016-0890-5

Lorrai R, Gandolfi F, Boccaccini A, Ruta V, Possenti M, Tramontano A, Costantino P, Lepore R, Vittorioso P.
Genome-wide RNA-seq analysis indicates that the DAG1 transcription factor promotes hypocotyl elongation acting on ABA, ethylene and auxin signaling.
Sci Rep. 2018 Oct 26;8(1):15895. doi: 10.1038/s41598-018-34256-3.

Lorrai R, Boccaccini A, Ruta V, Possenti M, Costantino P, Vittorioso P.
Abscisic acid inhibits hypocotyl elongation acting on gibberellins, DELLA proteins and auxin.
AoB Plants. 2018 Oct 5;10(5):ply061. doi: 10.1093/aobpla/ply061. eCollection 2018 Oct.

Ruta V, Longo C, Boccaccini A, Madia VN, Saccoliti F, Tudino V, Di Santo R**, Lorrai R**, Dello Ioio R, Sabatini S, Costi R, Costantino P, Vittorioso P.
Inhibition of Polycomb Repressive Complex 2 activity reduces trimethylation of H3K27 and affects development in Arabidopsis seedlings.
BMC Plant Biol. 2019 Oct 16;19(1):429. doi: 10.1186/s12870-019-2057-7.

Lorrai R, Ferrari S. **Host Cell Wall Damage during Pathogen Infection: Mechanisms of Perception and Role in Plant-Pathogen Interactions.**
Plants (Basel). 2021 Feb 19; doi: 10.3390/plants10020399

Lorrai R, Francocci F, Gully K, Martens HJ, De Lorenzo G, Nawrath C, Ferrari S.

Impaired Cuticle Functionality and Robust Resistance to *Botrytis cinerea* in *Arabidopsis thaliana* Plants With Altered Homogalacturonan Integrity Are Dependent on the Class III Peroxidase AtPRX71.

Front. Plant Sci., 16 August 2021 https://doi.org/10.3389/fpls.2021.696955

AFFECTING GERMINATION 1". The 26th international conference on Arabidopsis research (ICAR 2015). Oral Presentation 2 minutes talk and poster.

2016 "The Arabidopsis DAG1 transcription factor controls the dormancy/germination developmental switch acting on the balance of ABA and GA". The 22nd international conference on plant growth substances (IPGSA 2016). Poster presentation

2016 "studying the role of the DAG1 transcription factor in the control of photomorphogenesis in Arabidopsis thaliana". PhD school on "Environmental regulation of plant development (2016). Oral presentation

2017 "Study of the role of the DOF transcription factor DAG1 in the control of seedling development in Arabidopsis thaliana". Biology and Biotechnology C. Darwin meeting (Ponzano). Oral presentation

2019 "Resistance to *Botrytis cinerea* in Arabidopsis plants impaired in de-esterified homogalacturonan content correlates to increased cuticle permeability and is suppressed by abscisic acid" XV Cell Wall meeting (Cambridge). Poster presentation

SUPERVISION, MENTORING ACTIVITIES AND ACADEMIC SERVICES

I supervised training of bachelor and master students.

I gave technical lecture about "protein-protein interaction analysis" and "plant transformation" in the "Genetic engineering" course within the BSc programme of Biology at Sapienza, University of Rome.

I attended as tutor at the "La scienza illumina" exhibition, during the Maker Faire of Rome 2015

Roma, 21st September 2021

Meeting:

2015 "DOF AFFECTING GERMINATION 2 is a positive regulator of light mediated seed germination and is repressed by DOF

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

Roma, 21/09/2021