Bs Biotechnol Julieta Petrich
PhD Student
Curriculum vitae

DATE AND PLACE OF BIRTH
August 17th, 1994. Rosario, Santa Fe, Argentina
DNI: 37445321

PRESENT ADDRESS :
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EDUCATION:
Postgraduate Studies: PhD student, Biological Sciences, since April 2021, at the National University of Rosario, Argentina. Director: PhD María Lorena Falcone Ferreyra (Researcher of CONICET), Co-Director: PhD Paula Casati (Researcher of CONICET). Functional characterization of genes involved in the synthesis of glycosylated flavonoids in maize plants. Roles in nutritional quality and stress defense. This work is being performed at the Center of Biochemical and Photosynthetic Studies (CEFOBI), National University of Rosario.

Graduate Studies: Bachelor in Biotechnology obtained on March 2021, Faculty of Biochemical and Pharmaceutical Sciences, National University of Rosario. Bs. Thesis: "Microalgae cell wall modification for the enhancement of heavy metal adsorption" Director: PhD María Ayelén Pagani, Co-Director: Bs Biotechnol. María Lucía Burdisso. This work was performed at the Center of Biochemical and Photosynthetic Studies (CEFOBI), National University of Rosario. Overall general Average: 7.66 (Range from 1 to 10).

SKILLS AND ABILITIES
- **Molecular biology**
  - PCR, RT-qPCR
  - Traditional cloning
  - Genomic and plasmid DNA extraction
  - Plant RNA extraction
- **Bioinformatics**
  - Python basics
  - R basics
  - Sequence search and alignment
  - Phylogenetic tree construction
  - Gene network construction
  - Search for cis sites in promoters
  - Construction of positional weight matrices
  - PCR primers design
- **Proteins**
  - Induction, expression and purification
  - SDS-PAGE
  - Enzymatic activity assays and HPLC analysis
- **Plants**
  - Growing and phenotypic characterization of *Arabidopsis thaliana* and maize.
  - Transformation of *Arabidopsis thaliana*
  - Stress treatments (UV-B, salinity, high light)
  - Secondary metabolites extraction (flavonoids) and metabolic analysis by HPLC
- **Microbiology**

- Culture of microalgae and bacteria
- Transformation of Microalgae and bacteria

POSTGRADUATE COURSES:

- Epistemology (30 hs). National University of Rosario. Rosario, Argentina.
- Plant Physiological Anatomy (60 hs). National University of Rosario. Rosario, Argentina.
- Introduction to R Programming (30 hs). National University of Rosario. Rosario, Argentina.
- Essentials in bioinformatics (60 hs). National University of Rosario. Rosario, Argentina.

FELLOWSHIPS:

- Doctoral fellowship granted by the National Agency of Science and Technology (Argentinean Government - ANPCYT).

MEMBERSHIPS IN PROFESSIONAL SOCIETIES

2022 – Member, Argentine Society of Research in Biochemistry and Molecular Biology

COMMUNITY SERVICE

Organizer – "Open doors" 20th edition of the national week of science and technology. CONICET Rosario, Argentina. October 2022. We received high school students to teach them basic laboratory techniques.

TEACHING EXPERIENCE

Private tutor (2015-2020). Subjects taught: Analytical chemistry, biochemistry, general and inorganic chemistry.

PRESENTATIONS TO CONGRESSES:

1. LVI Annual Meeting of Argentinean Society of Biochemistry and Molecular Biology Research. Congress. Virtual meeting. 2020. Participation in Poster: Burdisso ML, Petrich J, Bagnato C, Gomez-Casati DF and Pagani, M.A. Characterization of metallothioneins from algae for use in heavy metal bioremediation.

2. LVII Annual Meeting of Argentinean Society of Biochemistry and Molecular Biology Research. Congress. Virtual meeting. 2021. Participation in Poster: Burdisso ML, Petrich J, Palacios O, Albalat R, Capdevila M, Gomez-Casati DF and Pagani, M.A. Identification and characterization of algae metallothioneins for use in heavy metals bioremediation.

3. LVII Annual Meeting of Argentinean Society of Biochemistry and Molecular Biology Research. Congress. Virtual meeting. 2021. Participation in Poster: Petrich J, Ramos RS, Casati P, Spampinato C and Falcone Ferreyra ML. Contribution of LIMYB in *Arabidopsis thaliana* UV-B response.

4. LVIII Annual Meeting of Argentinean Society of Biochemistry and Molecular Biology Research. Congress. Mendoza, Argentina. 2022. Participation in Poster: Petrich J, Casati P, Grotewold E and Falcone Ferreyra ML. Characterization of an UDP-glycosyltransferase involved in flavonoid glycosides biosynthesis in maize.

LANGUAGES:

English, Pre-Intermediate Level.
Spanish (native).

REFERENCE

Center of Photosynthetic and Biochemical Studies – (CEFOBI, CONICET-UNR)
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