

ELISA INES FANTINO

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EXPERIENCE

Postdoc (2017 - Present)

Characterization and evaluation of transgenic potato plants that overexpress the isoform StCDPK7 in their tolerance/resistance to infection by *Phytophthora infestans*. Dr. Rita Ulloa Laboratory. Plant signaling. Institute of Genetic Engineering and Molecular Biology (INGEBI) Buenos Aires, Argentina.

Visiting Scientist

Research project for international collaboration, supported by the Department of Science and Technology (DST) – Ministry of Science, Technology and Productive Innovation (MINCyT) (India - Argentina) (2014) Project: *Deciphering the transcriptional and miRNA mediated control of calcium-dependent protein kinase, StCDPK1, during tuber development in potato (Solanum tuberosum L.)* Dr. Banerjee's Laboratory at the Indian Institute of Science Education and Research (IISER), Pune, India.

PhD (2012 - 2017)

Identification and characterization of new CDPKs in the potato plant. Study of their role in response to *P. infestans* infection. Production of transgenic potato plants that overexpress CDPKs and evaluation of their resistance. Institute of Genetic Engineering and Molecular Biology (INGEBI), directed by Dr. Rita M. Ulloa.

EDUCATION

PhD (2012 - 2017)

Buenos Aires University (UBA). PhD in Biological Chemistry. Fellowship from the National Council of Science Technology Research (CONICET)

University degree (2006 - 2011)

MSc in Biological Sciences, Buenos Aires University (UBA).

PUBLICATIONS

- **Fantino E**, Segretin ME, Santin F, Mirkin FG, Ulloa RM (2017) *Analysis of the potato calcium-dependent protein kinase family and characterization of StCDPK7, a member induced upon infection with Phytophthora infestans*. Plant Cell Rep. doi:10.1007/s00299-017-2144-x.

- Grandellis C, **Fantino E**, Muñiz-García N, Bialer M, Santin F, Capiati D, Ulloa RM (2016) *StCDPK3 phosphorylates in vitro two transcription factors involved in GA and ABA signaling in potato: StRSG1 and StABF1*. PONE-D-16-37950R1.
- Santin F, Bhogale S, **Fantino E**, Grandellis C, Banerjee AK; Ulloa RM (2016) *Solanum tuberosum StCDPK1 is regulated by miR390 at the posttranscriptional level and phosphorylates the auxin efflux carrier StPIN4 in vitro, a potential downstream target in potato development*. Physiologia Plantarum. doi: 10.1111/ppl.12517.
- Grandellis C, Giammaria V, **Fantino E**, Cerrudo I, Bachmann S, Santin F, Ulloa RM (2016) *Transcript profiling reveals that Cystein protease inhibitors are up-regulated in tuber sprouts after extended darkness*. Functional & Integrative Genomics. FIGE-D-15-00173.1DOI: 10.1007/s10142-016-0492-1
- Palmucci HE, Grijalba PE, Wolcan SM, Guillin E, López MV, Herrera C, **Fantino E** (2011) *Phytophthora nicotianae causing root and stem rot on Dieffenbachia picta in Argentina*. Tropical Plant Pathology 36 (5): 327-331.

INTERNATIONAL MEETINGS

- Fantino E, Santin F, Sciorra M, Ulloa RM (2015) *Subcellular localization and tissue expression analysis of StCDPK7, a CDPK isoform related to biotic stress*. 11th International Congress on Plant Molecular Biology (IPMB), Foz do Iguazú, Brazil.
- Santin F, Fantino E, Sciorra M, Ulloa RM (2015) *Expression profiles of three calcium-dependent protein kinases during potato life cycle*. 11th International Congress on Plant Molecular Biology (IPMB), Foz do Iguazú, Brazil.
- Fantino E, Santin F, Ulloa RM (2012) *The Solanum tuberosum Var phureja CDPK family*. 10th International Congress on Plant Molecular Biology (IPMB), Jeju, Korea.
- Palmucci H, Grijalba P, Wolcan S, Herrera C, Fantino E, Steciow M, Abad G (2011) *Morphological-molecular characterization of Phytophthora, Pythium and Phytophythium on intensive crops in Buenos Aires-Argentina*. The American Phytopathological Society - International Association for the Plant Protection Sciences (APS- IPPC) Joint Meeting Honolulu, Hawaii.

NATIONAL MEETINGS

- Fantino E, Santin F, Gomez Poviña JC, Melgar A, Ulloa RM (2014) *New calcium-dependent protein kinase from Solanum tuberosum, StCDPK7, associated with chloroplasts and biotic stress*. 30th Argentine Meeting on Plant Physiology (RAFV), Mar del Plata, Argentina.
- Santin F, Fantino E, Gómez-Poviña JC, Ulloa RM (2014) *Potato transgenic lines harboring StCDPK1 promoter-GUS fusion reveal spatio-temporal gene expression profile during tuberization*. 30th Argentine Meeting on Plant Physiology (RAFV), Mar del Plata, Argentina.
- Fantino E, Santin F, Ulloa MR (2013) *Cloning of two new CDPK isoforms from Solanum tuberosum*. Argentine Society for Biochemical Research and Molecular Biology (SAIB), Buenos Aires, Argentina.
- Santin F, Fantino E, Bhogale S, Banerjee AK, Ulloa RM (2013) *mRNA of StCDPK1 is expressed in roots and vascular system and targeted by micro RNAs*. Argentine Society for Biochemical Research and Molecular Biology (SAIB), Buenos Aires, Argentina.

- Fantino E, Santin F, Giammaria V, Ulloa RM (2012) *Analysis of the CDPK family in potato plants*. 29th Argentine Meeting on Plant Physiology (RAFV), Mar del Plata, Argentina.
- Palmucci H, Grijalba P, Wolcan S, Herrera C, Fantino E, Petrone E, Steciow M (2011) *Characterization and Molecular - Morphological Identification of Pythium spp affecting Ornamental Plants*. 2nd Congress of Argentine Association of Phytopathology (AAF), Mar de Plata, Argentina.

COURSES

- 2017 - *Science & Beer*. C3 - Patagonian Andean Institute of Biological and Geo-Environmental Technologies (IPATEC) - CONICET, Buenos Aires, Argentina.
- 2014 - *Molecular Genetics of plant-pathogen interaction*. UNR, School of Biochemical and Pharmaceutical Sciences, Virology Area-IBR/CONICET, Rosario, Argentina.
- 2013 - *Applications and methodologies involving Arabidopsis thaliana in the study of pathogen-host interactions*. Argentine-Brazilian Biotechnology Center (CABBIO), Agricultural Sciences Center (CCA), State University of Santa Catarina (UFSC), Florianópolis, Brazil.
- 2013 - *Expression Systems for Protein Production: from vector design to first scaling*. School of Science (FC), University of the Republic (UdelaR), Montevideo, Uruguay.
- 2012 - *Genetic Engineering Conferences*. Department of Physiology and Molecular and Cellular Biology (FBMC), School of Natural Sciences (FCEyN), UBA.
- 2012 - *Plant Signal Transduction*. Department of Biological Chemistry (QB), FCEyN, UBA.
- 2012 - *Molecular Phytopathology*. Department of Physiology and Molecular and Cellular Biology (FBMC), FCEyN, UBA.
- 2011 - *Introduction to Bioinformatics. Applications in Agriculture*. Department of Agricultural Microbiology, School of Agronomics, Buenos Aires University (FAUBA).
- 2011 - *Writing Scientific Papers in English*. Lic. M. Victoria G. Eusevi.
- 2009 - *Discovering native plants*. North Shore Association, City Didactic Nursery of Native Plants of the Shore, Buenos Aires, Argentina.

TEACHING ANTECEDENTS

- 2012 - Present. Teaching assistant. Department of Phytopathology, School of Agronomics, Buenos Aires University (FAUBA).
- 2012 - 2013 Teaching assistant, Area of Biology and Plant Systematics, Department of Biodiversity and Experimental Biology (DBBE), School of Natural Sciences (FCEyN), UBA.
- 2010 - 2012 Teaching assistant, Department of Phytopathology, FAUBA.

SCIENTIFIC COMMUNICATION ACTIVITIES

- 2015 - *Plants and their relationship to light*. Exhibitor, Week of Biology, Department of Biodiversity and Experimental Biology (DBBE), School of Natural Sciences (FCEyN), UBA.
- 2014 - *The Adaptations of the Plants*. Exhibitor, Week of Biology, DBBE, FCEyN, UBA.
- 2013 - *What are transgenic plants and what are they for?* Exhibitor, Chemistry Week, Department of Biological Chemistry (QB), FCEyN, UBA.
- 2012 - *Plants and their relationship to light*. Exhibitor, Week of Biology, DBBE, FCEyN, UBA.

LANGUAGES

Native Spanish and advance oral and written English.

STUDENT GRANT

2017 - 2019 Post Doc fellowship, financed by CONICET. To *Characterize and test transgenic potato plants that over-express StCDPK7, in potato - P. infestans interaction*. Directed by Dr. Rita M. Ulloa

2012 - 2017 *Interina de Postgrado Tipo I*, financed by CONICET. Title: *Identification and characterization of new CDPKs in the potato plant. Study of their role in response to P. infestans infection. Production of transgenic potato plants that overexpress CDPKs and evaluation of their resistance*. Institute of Genetic Engineering and Molecular Biology (INGEBI), directed by Dr. Rita M. Ulloa.

REFEREES

PhD Rita M. Ulloa. Independent Researcher - CONICET. Teaching Assistant, Biological Chemistry Department, FCEyN, UBA, Argentina. Email: rulloa@dna.uba.ar

PhD Anjan Banerjee, Molecular Plant Biology Laboratory, Associate Professor, Biology Division, Indian Institute of Science Education and Research (IISER), Pune, India. Email: akb@iiserpune.ac.in

PhD Hemilse E. Palmucci, Associate Professor, Phytopathology Department, School of Agronomics, Buenos Aires University (FAUBA), Argentina. Email: palmucci@agro.uba.ar