

MARIANO PRADO ACOSTA

SUMMARY OF EXPERIENCE

Ph.D in Biological Chemistry, with proven track record in managing multiple research projects in Biochemistry, Molecular Biology, Virology, Molecular Microbiology and Pharmaceutical Microbiology. Publication of research articles in high impact journals. Supervisory and teaching experience at the University level.

EDUCATION

- 2005-2010 Ph.D IN BIOCHEMISTRY Laboratory of Microbiology, Department of Biological Chemistry. Faculty of Exact and Natural Sciences. University of Buenos Aires. Dissertation: "S-layer protein of *Lactobacillus acidophilus*: Characterization and Functional analysis". Advisor: Dr. Sandra M. Ruzal
- 1999-2004 MASTER IN BIOLOGICAL SCIENCES Laboratory of Microbiology, Department of Biological Chemistry. Faculty of Exact and Natural Sciences. University of Buenos Aires. Dissertation: "Biosorption of Cooper by Gram Positive Bacteria." Advisor: Dr. Sandra M. Ruzal

RESEARCH EXPERIENCE

- 2013-Current, Assistant Researcher at the National Science Council CONICET Project:: Development of new anti- tuberculosis compounds Training in: Bioinformatic, Biochemistry, Physiology and Molecular Microbiology of Mycobacterium, Cellular biology and Virology
- 2011-2013, Postdoc position Commissariat à l'énergie atomique CEA, Paris France. Laboratory for Research in Genetic Instability (LRIG) Training in: Molecular mechanism of transformation and recombination in *H.pylori* Expertise: Biochemistry, Molecular Biology, Molecular Microbiology
- 2003-2011, Masters and PhD Thesis .Laboratory of Microbiology, Department of Biological Chemistry. Faculty of Exact and Natural Sciences. University of Buenos Aires UBA, Bs As, Argentina. Advisor: Dr. Sandra M. Ruzal Project: Characterization of the physiology and functionality of cell wall proteins in sp. of *Lactobacillus* Training in: Microbiology, Molecular Biology, Bacterial Physiology

TEACHING EXPERIENC

- 2010 Faculty of Natural Science University of Buenos Aires, Teaching Assistant, Undergraduate course : Microbiology
- 2007-2008 Faculty of Veterinary. University of Buenos Aires. Teaching Assistant, Undergraduate courses: Organic Chemistry

HONORS AND AWARDS

- Fulbright Fellowship, Albert Einstein Institute Department of Cell Biology 2016
- Commissariat à l'énergie atomique CEA, Paris France. Eurotalent fellowship 2011-2013 - National Science Council CONICET Postdoctoral Fellowship 2011
- National Science Council CONICET fellowship for Ph.D students 1 2005 -2010
- Argentinean-Brasilean Center for Bitechology CABBIO Travel award 2009

- Journal of Cell Science. Direct Travel Grant 2010 American Society for Cell Biology
ASCB Travel Grant 2010

PUBLICATIOS AND
PRESENTATIONS

Publications in journals :

- **Prado-Acosta M.** Ruzal S. Cordo S. S-layer proteins from different Lactobacillus sp. inhibits bacterial infection by blockage of DC-SIGN cell receptor (2016). Int J Biol Macromol. DOI: 10.1016/j.ijbiomac.2016.07.096
- Influence of osmotic stress on the expression and properties of the Surface Layer proteins of Lactobacillus acidophilus ATCC 4356. 2016. Palomino MM, Waehner PM, Fina Martin J, Ojeda P, Malone L, Sánchez Rivas C, **Prado Acosta M**, Allievi MC, Ruzal SM.(2016) Appl Microbiol Biotechnol. DOI: 10.1007/s00253-016-7698-y
- Palomino MM, Allievi MC, Fina Martin J, Waehner PM, **Prado Acosta M**, Sanchez Rivas C, Ruzal SM.(2015) Draft Genome Sequence of the Probiotic Strain Lactobacillus acidophilus ATCC 4356. Genome Announc. 15;3(1). pii: e01421-14. doi: 10.1128/genomeA.01421-14
- Allievi MC, Palomino MM, **Prado Acosta M**, Lanati L, Ruzal SM, Sánchez-Rivas C.(2014) Contribution of S-layer proteins to the mosquitocidal activity of Lysinibacillus sphaericus. PLoS One. 29;9(10):e111114. doi: 10.1371/journal.pone.0111114. eCollection 2014.
- **Prado Acosta M**, Martínez MG, Candurra NA, Ruzal SM.(2012)S-layer proteins of Lactobacillus acidophilus inhibits JUNV infection. Biochem Biophys Res Commun.;422(4):590-5.
- Allievi, Mariana Claudia, Sabbione Florencia, **Prado Acosta Mariano**, Palomino María Mercedes, Ruzal Sandra M. and Sanchez-Rivas Carmen (2011) Metal biosorption by Surface layer proteins from Bacillus species. Journal of Microbiology and Biotechnology ;21(2):147-53.
- **Prado Acosta M**, Ruzal SM, Allievi MC, Palomino MM, Sanchez Rivas C. (2010) Synergistic effects of the Lactobacillus acidophilus surface layer and nisin on bacterial growth. Appl Environ Microbiol.;76(3):974-7.
- Palomino MM, Allievi MC, **Prado Acosta M**, Sanchez-Rivas C and Ruzal SM. (2010) Improved electroporation method for Lactobacillus by cell-wall-weakening with high salt. Journal of Microbiological Methods.;83(2):164-7
- **Prado-Acosta M**, Palomino MM, Allievi MC, Sanchez Rivas C and SM Ruzal (2008) Murein Hydrolase Activity in the Surface Layer of Lactobacillus acidophilus ATCC 4356. Appl Environ Microbiol. 2008 vol 74:7824-7827
- **Prado Acosta M**, Valdman E., Battaglini F, Leite S.G.F. and Ruzal S. (2005) Biosorption of copper by Paenibacillus polymyxa cells and their exopolysaccharide World Journal of Microbiology and Biotechnology 21: 1157–1163 ISSN: 0959-399

Presentations and invited lectures(LAST 5 YEARS) :

- Role of H.pylori DprA in the induction of transformation after DNA damage Prado Acosta, Mariano; Marsin,Stephanie; Mathiue, Aurelie; Radicella, Juan Pablo. Jornada Plasticité et Intégrité des Génomes (PIG-8). Commissariat à l'énergie atomique (CEA) Francia. Fontenay aux Roses. 2012
- S-layer proteins of Lactobacillus acidophilus Inhibitory effect of JUNV; Prado Acosta M, Ruzal S. Candurra N, Martinez MG. American Society of Cell Biology 50th Annual Meeting; Philadelphia USA . 2010
- Modifications in S-layer of Bacillus sphaericus 2362 during osmotic stress. MC Allievi, M Prado Acosta, MM Palomino, C Sánchez Rivas, SM Ruzal. XLV Reunión Sociedad Argentina de Investigación Bioquímica y Biología Molecular. Tucumán, Argentina. 2009.
- New protocol for transforming Lactobacillus casei using growth in high salt. MM Palomino; M Prado Acosta; MC Allievi; F Sabbione; C Sánchez Rivas; SM Ruzal. XLV Reunión Sociedad Argentina de Investigación Bioquímica y Biología Molecular. Tucumán, Argentina. 2009.
- New application of a murein hydrolase activity of S-layer of Lactobacillus acidophilus. M Prado Acosta, MM Palomino, MC Allievi, C Sanchez Rivas & SM Ruzal. III Simposio de Bacterias Lácticas, CERELA. Septiembre. Tucumán, Argentina. 2009

LANGUAGES

- Spanish: Excellent level (mother language)
- English: Excellent level (reading /speaking/writing)
- French : Very Good level (reading/speaking/writing)

REFERENCES

- Dr. Marcelo A. Marti (Principal Investigator and Advisor) Dto Quimica Biologica y DQIAyQF-INQUIMAE . IQUIBICEN-CONICET Facultad de Ciencias Exactas y Naturales Universidad de Buenos Aires. Argentina Cdad. Universitaria. Pab II. 4 piso. Lab QB65 (C1428EGA) Buenos Aires. Argentina Email: marti.marcelo@gmail.com
- Dra. Sandra M. Ruzal (Principal Investigator and co-advisor) Departamento de Química Biológica Facultad de Ciencias Exactas y Naturales-UBA IQUIBICEN-CONICET Cdad. Universitaria. Pab II. 4 piso. Lab QB40 (C1428EGA) Buenos Aires. Argentina E-mail: sandra@qb.fcen.uba.ar