

## CV Profile (max. 2 pages length)

*Martín Angel Zalazar*

### Research interests

Technology transfer with the aim of solving human health problems:

\*Design, simulation, fabrication and characterization of BioMEMS/NEMS (mainly microfluidics, mass sensors and biosensors).

\*Microsensors development for mass, and biomolecules detection using piezoelectric materials (AlN, PVDF and quartz).

### Education

**PhD:** Engineering Sciences, Field of Computational Mechanics. FICH-UNL, Argentina. Thesis qualification: 10 (01/03/2008 - 12/03/2013)

**Biomedical Engineering:** FI-UNER, Argentina. Average qualification: 8,39. (01/03/1999 - 18/09/2007)

English language: TOEFL test score: 576-596 (range) (13/10/2010)

### Sector of activity

Health & Life Sciences

### Experience

**RESEARCH ASSISTANT** (2019-Present): Member of the Scientific and Technological Researcher Career of CONICET. Instituto de Investigación y Desarrollo en Bioingeniería y Bioinformática (UNER/CONICET), Argentina.

**PROFESSOR** (2015-Present): Postgraduate and undergraduate course "Microelectronics: Technology for Biomedical Applications" and "Biosensors", FI-UNER, Argentina.

**RESEARCHER** (2015-2018): DTEC Program: "PhD in Universities for Technology transfer". Electronics Prototyping & 3D Lab, FI-UNER, Argentina.

**Grant** (May 2019): 2019 AIVO (Asociación de Investigación en Visión y Oftalmología) Chapter Affiliate Travel Grant in the amount of \$1,500 USD to attend and present at the ARVO 2019 Annual Meeting, Vancouver, Canada.

**FUNDING** (2019–2020): PID Project for Scientific Research, Development and Technological Innovation: Development of a Surface-Acoustic-Wave-Based Biosensor for the Ocular Health Evaluation (\$4,710, Director). Argentina.

**FUNDING** (2019-2021): PICT StartUp, National Agency for Scientific and Technological Promotion: Biosensor for tear assessment (\$31,500, Director). FI-UNER, Argentina.

**FUNDING** (2018–2020): PID Project for Scientific Research, Development and Technological Innovation: Development of Design, Modelling and Prototyping Techniques for Medical Devices (\$4,900, Co-Director). Argentina.

**FELLOWSHIP FOR RESEARCHERS** (Feb-May 2018): University of Texas-Dallas, USA, with a researcher fellowship from the Ministerio de Educación y Deportes, and the Fulbright Commission. Project: Development of an implantable surface acoustic wave device for biomarkers detection.

**FUNDING** (2015–2017):PID Project for Scientific Research, Development and Technological Innovation: Development of Piezoelectric Biosensor for Disease Diagnosis (\$7,455, Director). Argentina.

**BEST PhD THESIS AWARD** (August 2014): Program "Fortalecimiento de las capacidades del sistema de I+D en la provincia de Santa Fe" (Technology Field). Prize: \$500. UNL, Argentina.

**FUNDING** (2014-2016): PICT National Agency for Scientific and Technological Promotion: Design, simulation, fabrication and characterization of an implantable protein biosensor, integrable to microvalve for the treatment of glaucoma (\$8,000, Director), Argentina.

**POSTDOCTORAL FELLOWSHIP** (2013-2015): Hot Topic (Nanomedicine): Consejo Nacional de Investigaciones Científicas y Técnicas (CONICET). Project: Gravimetric microsensors development for the detection of aqueous humor proteins of the eye. Argentina.

**FELLOWSHIP FOR RESEARCHERS** (Sep 2011-Mar 2012): Researcher fellowship from Fulbright – Bunge y Born. Project: Fabrication of an implantable microfluidic device with enhanced biocompatibility using ultrananocrystalline diamond. Institution: Argonne National Laboratory, Argonne, Illinois, USA.

**NON-REFUNDABLE SUPPORT** (2010-2011): "Programa de I+D+i: Desarrollo de un Cluster en Biociencias aplicadas a la Salud, el Ambiente y la Agroindustria" to the project:Development of a non-invasive Blood Glucose Meter (\$12,380, Director).

**TYPE II DOCTORAL FELLOWSHIP** (2010-2012): CIMEC-INTEC (UNL/CONICET), Argentina. Research interest: BioMEMS– Microsensors. Argentina.

**TYPE I DOCTORAL FELLOWSHIP** (2007-2010): ANPCyT, Argentina. Research interest: BioMEMS – Microsensors. .

**DESIGN AWARD** (2009): Integrated circuit project "Microvalve for Glaucoma Treatment" (prize: \$500). EAMTA, Instituto Balseiro y Centro Atómico Bariloche, Argentina.

**GRADUATE THESIS AWARD** (2008): "Federico Falco" special recognition for the graduate thesis "Glucose Concentration Measurement by Near Infrared Absorption" at the 1st. edition of the 2008 Best Year Project Award given by FI-UNER, Argentina.

## Contact information

Contact Person: Martin Zalazar

Email address: martin.zalazar@fulbrightmail.org - mazalazar@ingenieria.uner.edu.ar