

Institute for In Vitro Sciences, Inc
30 W Watkins Mill Road #100
Gaithersburg, Maryland 20878

Curriculum Vitae
Argel Islas-Robles

Education

2019 Ph.D. (Pharmacology and Toxicology), University of Arizona, Tucson, AZ, USA
2012 B.S. (Biopharmaceutical Chemistry), University of Guanajuato, Guanajuato, GTO, MEX

Experience

2019 – present Study Director/Toxicologist I – Institute for In Vitro Sciences, Inc.

Assist commercial clients in developing appropriate *in vitro* toxicology programs for their products. Interact with industry, animal welfare groups and government as necessary to discuss use of *in vitro* methods. Perform Study Director responsibilities for *in vitro* GLP/non-GLP toxicology assays, including 3D ocular irritation testing. Participate in identifying, developing, and commercializing novel *in vitro* toxicology assays.

2016 – 2019 Research Assistant – Wayne State University

Designed and implemented experimental approaches aiming to identify the mechanism of toxicity of a hydroquinone metabolite. Implemented a Mass Spectrometry-based approach for the identification of Poly(ADP-ribose)-associated leading to renal proximal tubule cell death. Contributed to the identification of novel pharmacologic effects of a Metformin metabolite in the improvement of endothelial cell function. Participated on the design and execution of non-clinical, *in vivo* and *ex vivo* studies. Assisted in the preparation, submission, and revision of IACUC protocols. Compiled high quality project reports and manuscript drafts. Conducted and summarized scientific literature searches, prepared summaries of data and/or literature for the purposes of reports, presentations, and publications. Mentored, and trained junior Ph. D., and undergraduate students.

2013 – 2015 Graduate Research Assistant – University of Arizona

Collaborated, supervised and lead interdisciplinary teams in several multi-departmental projects. Participated in the development of novel toxicity monitoring strategies implemented to 3D organ-on-a-chip. Assisted in the design, and performed

testing of multi organ 3D cell culture platforms. Conducted and summarized scientific literature searches, prepared summaries of data and/or literature for the purposes of reports, presentations, and publications. Conducted and summarized scientific literature searches, prepared summaries of data and/or literature for the purposes of reports, presentations, and publications. Serve as a mentor for high school students aiming to pursue a career in science.

2012 – 2013 Laboratory Assistant – University of Guanajuato

Identified the genetic mechanism contributing to the high resistance of pathogen yeasts against copper nanoparticles. Collaborated in research projects with industry. Trained laboratory personnel on basic research assays. Prepared scientific reports, and presentations. Performed administrative duties as laboratory manager.

Scientific Awards and Recognitions

- 2019** Society of Toxicology Graduate Student Travel Support Award

- 2019** Sheldon D. Murphy SOT Mechanisms Specialty Section Student Travel Endowment Award

- 2018** Finalist, ASPET Student/Postdoc Poster Competition

- 2016** American Society of Mass Spectrometry (ASMS) Travel Award

- 2014-2019** Graduate and Professional Student Council Travel Award, University of Arizona

- 2013-2018** Fellowship for doctoral studies abroad from the Mexican National Council for Science and Technology (CONACyT)

Professional Affiliations

- American Society for Pharmacology and Experimental Therapeutics. (Since 2017)
- American Society for Mass Spectrometry. (Since 2016)
- Society of Toxicology (Since 2014)

Hispanic Organization of Toxicologists (Since 2014)

Published manuscripts

Argel Islas-Robles, Deepthi Yedlapudi, Serrine S. Lau, Terrence J. Monks. (2019). Toxicoproteomic Analysis of Poly(ADP-ribose)-associated Proteins Induced by Oxidative Stress in Human Proximal Tubule Cells. *Toxicol Sci.* kfz131.

Frances M. Munoz, Fengjiao Zhang, **Argel Islas-Robles**, Serrine S. Lau, Terrence J. Monks. (2017) ROS-Induced Store-Operated Ca²⁺ Entry Coupled to PARP-1 Hyperactivation Is Independent of PARG Activity in Necrotic Cell Death. *Toxicol Sci.* 158(2): 444–453.

Soohee Cho, **Argel Islas-Robles**, Ariana M. Nicolini, Terrence J. Monks, Jeong-Yeol Yoon. (2016). In situ, dual-mode monitoring of organ-on-a-chip with smartphone-based fluorescence microscope. *Biosens Bioelectron.* 86:697-705.

Abstracts

- “The General Transcription Factor II-I increases PAR-association during ROS-mediated cell death”. Poster presentation at the **Society of Toxicology 58th Annual Meeting and ToxExpo.** Baltimore, MD. (March 2019) *Sheldon D. Murphy SOT Mechanisms Specialty Section Award Winner
- “Determination of the role of PAR-associated proteins in ROS-mediated cell death” Poster presentation at **Wayne State University EACPHS 15th Annual Research Forum.** San Diego, CA. (November 2018).
- “Determination of the role of PAR-associated proteins in ROS-mediated cell death” Poster presentation at the **ASPET Annual Meeting at Experimental Biology 2018.** San Diego, CA. (April 2018). * ASPET Student/Postdoc poster competition Finalist
- “Identification of ROS-induced Poly(ADP-ribose)-Associated Proteins by LC-MS/MS”. Poster presentation at the **ASPET Annual Meeting at Experimental Biology 2017.** Chicago, IL. (April 2017)
- “Identification of ROS-induced Poly(ADP-ribose)-Associated Proteins by LC-MS/MS”. Poster presentation at the **Society of Toxicology 56th Annual Meeting and ToxExpo.** Baltimore, MD. (March 2017)
- “Relative Abundance Comparative Analysis of ROS-induced Poly(ADP-ribose)-Associated Proteins by LC-MS/MS and Spectral Counting”. Poster presentation at the **SOT Michigan Regional Chapter Annual Meeting.** East Lansing, MI (October 2016)

- “Relative Abundance Comparative Analysis of ROS-induced Poly(ADP-ribose)-Associated Proteins by LC-MS/MS and Spectral Counting”. Poster presentation at the **64th ASMS Conference on Mass Spectrometry & Allied Topics**. San Antonio, TX. (June 2016)
- “Identification of Poly(ADP-ribose)-Associated Proteins in Response to ROS Stress”. Poster presentation at the **54th Society of Toxicology Annual Meeting and ToxExpo**. San Diego, CA. (March 2015)
- “Localization of PAR polymers during ROS induced cell death in HK-2 cells”. Poster presentation at the **32nd Mountain West Society of Toxicology Annual Meeting**. Tucson, AZ. (September 2014)
- “Study of cooper-mediated resistance induction in Candida strains”. Poster presentation at the **38th Conference of the Mexican Microbiology Association**. Guanajuato, Mexico. (June 2013)
- “Stability evaluation of Folic Acid formulations”. Poster presentation at the **44th National Conference of Pharmaceutical Sciences of the Mexican Pharmaceutical Association**. Ixtapa, Mexico. (October 2011)