

CURRICULUM VITAE

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Work Experience

Mar 2017 – Sep 2017 Postdoctoral Position at Fundación Ciencia para la Vida (Life Sciences Foundation), Santiago, Chile

2016 – Sep 2017 Associated Researcher in the laboratory of Dr. Patricia Burgos at the Universidad Austral de Chile.

Education

2011-2016 Ph.D. in Sciences, mention in Cellular & Molecular Biology, Faculty of Sciences, Universidad Austral de Chile, Valdivia, Chile.

2008-2010 Ph.D. in Sciences, mention in Cellular & Molecular Biology, Faculty of Sciences, Universidad Austral de Chile, Valdivia, Chile.

2003-2007 Bachelor of Science, Universidad Austral de Chile, Valdivia, Chile.

Professional and other Positions

2010 Laboratory assistant in Laboratory of Molecular Endocrinology, Department of Physiology, School of Medicine, Universidad Austral de Chile.

2007-2009 Teaching assistant in Physiology courses, Department of Physiology School of Medicine, Universidad Austral de Chile

Laguages

English: fluent
Spanish: native language

Original Publications

1. **Interplay between the autophagy-lysosomal pathway and the ubiquitin-proteasome system: a target for therapeutic development in Alzheimer's disease.** Hianara A Bustamante, Alexis E González, Cristobal Cerda-Troncoso, Ronan Shaughnessy, Carola Otth, Andrea Soza* and Patricia V Burgos. **Review, Front. Cell. Neurosci.** Accepted for publication on 20 April 2018
2. Alexis E. González, Vanessa C. Muñoz, Viviana A. Cavieres, Hianara A. Bustamante, Víctor-Hugo Cornejo, Yunan C. Januário, Ibeth González, Claudio Hetz, Luis L. daSilva, Alejandro Rojas-Fernández, Ronald T. Hay Gonzalo A. Mardones, and Patricia V. Burgos. **(2016) Autophagosomes cooperate in the degradation of intracellular C-terminal fragments of the Amyloid Precursor Protein via the MVB/lysosomal pathway. FASEB J. 2017 Jun;31(6):2446-2459**
3. **Cavieres VA***, González A*, Muñoz VC, Yefi CP, Bustamante HA, Barraza RR, Tapia-Rojas C, Otth C, Barrera MJ, González C, Mardones GA, Inestrosa NC, Burgos PV. **Tetrahydroperforin Inhibits the Proteolytic Processing of Amyloid Precursor Protein and Enhances Its Degradation by Atg5-Dependent Autophagy. PLoS One.** 2015 Aug 26;10(8):e0136313. (*equally contributors)
4. González A, Cavieres VA, Inestrosa NC, Burgos PV. **Tetrahydroperforin (IDN5706) targets the endoplasmic reticulum for autophagy activation: potential mechanism for Alzheimer's disease therapy.** (2016) *Neural Regen Res* 11(2):242-243
5. Bustamante H.A., Rivera-Dictter A., Cavieres V.A., Muñoz V., González A., Lin Y., Mardones G.A., and Burgos P.V. (2013) **Turnover of C99 is controlled by a crosstalk between ERAD and ubiquitin-independent lysosomal degradation in human neuroglioma cells. PLoS One.** Dec 20;8(12):e83096
6. González A, Borquez M, Trigo CA, Brenet M, Sarmiento JM, Figueroa CD, Navarro J, Gonzalez CB. (2011). **The splice variant of the V2 vasopressin receptor adopts alternative topologies. Biochemistry.** 50(22):4981-6

Research projects participation

2015 - 2017	"Use of siRNA screening to identify ubiquitin-related pathways involved in Alzheimer's Disease" DPI20140068. This project finances international scientific cooperation between Chile and the United Kingdom. Participation as graduate Student
2013-2016	"Protective degradation of amyloid precursor protein regulated by ER stress, ERAD, and sorting into lysosomes through MVBs and autophagosomes". 1130929. FONDECYT, Chilean Gov. Participation as graduate Student
2011-2013	"Role of the multivesicular body/lysosomal pathway and ESCRT machinery in the turnover of the amyloid precursor protein; implications for amyloid-beta generation and Alzheimer's disease". 1100027 FONDECYT, Chilean Gov., Participation as graduate Student
2011-2016	"Role of macroautophagy independent of Beclin1 in the turnover of

amyloid precursor protein". DIDUACH Project.
Universidad Austral de Chile. Valdivia. Chile. Principal Investigator

2010 "Vasopressin V1 receptor signaling mechanisms and their modulation by glucose". 1100871 FONDECYT. Participation as laboratory assistant

2008-2009 "Role of oligomerization in the maturation of the vasopressin V2 receptors." 1060158 FONDECYT. Participation as undergraduate student associated with the project

Fellowships and Awards

2011-2015 Graduate Student Fellowship, National Commission for Scientific and Technological Research (CONICYT 21110746-Chile). Chilean government

2013 Graduate Student Fellowship MECESUP3 AUS 1203, Chilean Gov. and Universidad Austral de Chile for an international internship at National Institutes of Health (NIH), National Heart, Lung and Blood Institute (NHLBI), Building 50, Bethesda, Maryland, USA. This internship was performed in the laboratory of Dr. Rosa Puertollano

2015 Travel Award to attend the 25th ISN-APSN Joint Biennial Meeting organized in conjunction with ANS, 23-27 August 2015, Cairns, Australia

International Courses

2012 3rd Cell Biology Summer Course. Training Unit, International Courses, Institut Curie, Paris-France. Universidad de Buenos Aires, Argentina. October 1 2012 – October 6 2012. The organizers of this course were Ana-Maria Lennon, Claire Hivroz, Ariel Savina, Matias Ostrowski

2014 EMBO Workshop 2014: Current advances in membrane trafficking: Implications for polarity and disease, Puerto Natales, Chile

2015-2016 Non-Graduating Programme in School of Life Sciences at University of Dundee, UK (From October 12, 2015 – January 12, 2016). This programme is for an investigation internship at the laboratory of Professor Ronald Hay at the Centre for Gene Regulation and Expression. Student matric Number: 150025616.

2016 EMBO Workshop 2016: Actualizations in Membrane Trafficking in Health and Disease, La Serena, Chile

2017 Austral Symposium on Ubiquitin-like Proteins and Proteostasis in Health and Diseases. Universidad Austral de Chile, Center of Scientific Studies (CECs) and CISNE. January 5 - January 7, 2017 in Valdivia-Chile

Selected Conferences Presentations/Participations (Last 2 years)

2017

1. **New insights into Beclin-1 complex and lysosomal system.** 1st Austral Symposium on Ubiquitin-like Proteins and Proteostasis in Health and Diseases. Organized by Universidad Austral de Chile, Center of Scientific Studies (CECs) and CISNE. January 5 - January 7, 2017 in Valdivia-Chile. (Invited Speaker)

2016

1. **A Gonzalez**; V Munoz; V Cavieres; V Cornejo; Y Januario; I Gonzalez; C Hetz; L daSilva; A Rojas-Fernandez; G Mardones and P. Burgos. (2016). **Autophagosomes regulate degradation of APP intracellular C-terminal fragment through the endo-lysosomal pathway.** 2016 Keystone Symposia Conference. Whistler Conference Centre, Whistler, British Columbia, Canada. June 5 - June 9, 2016. (Poster Session).

2. **Alexis Gonzalez**, Andrés Rivera-Dicter, Alejandro Rojas- Fernández, Ronald Hay, Gonzalo Mardones, Patricia Burgos. (2016). **Depletion of Beclin-1/UVRAG complex positively regulates TFEB dependent endolysosomal status.** EMBO Workshop 2016: Actualizations in Membrane Trafficking in Health and Disease, La Serena, Chile. (Poster Session).

3. Patricia Burgos, **Alexis González**, Vanessa Muñoz, Viviana Cavieres, Hianara Bustamante, Victor-Hugo Cornejo, Yunan Januario, Ibeth González, Claudio Hetz, Luis daSilva, Alejandro Rojas-Fernandez, Ronald T. Hay and Gonzalo A. Mardones. (2016). **Autophagosomes cooperates in the degradation of intracellular Cterminal fragments of the Amyloid Precursor Protein via the MVB/lysosomal pathway.** EMBO Workshop 2016: Actualizations in Membrane Trafficking in Health and Disease, La Serena, Chile. (Oral Session).

4. Viviana Cavieres, Cecilia Arriagada, **Alexis González**, Patricia Burgos, Gonzalo Mardones. (2016). **Depletion of GOLPH3 in different breast cancer cell lines produces distinct effects in protein trafficking and glycosylation.** EMBO Workshop 2016: Actualizations in Membrane Trafficking in Health and Disease, La Serena, Chile. (Poster Session).

5. Cecilia Arriagada, Viviana Cavieres, **Alexis González**, Marcelo Aguilar, Patricia Burgos, Gonzalo Mardones. (2016). **Depletion of GOLPH3 affects protein trafficking and glycosylation in human glioblastoma multiforme T98G cells.** EMBO Workshop 2016: Actualizations in Membrane Trafficking in Health and Disease, La Serena, Chile. (Poster Session).

6. Ronan Shaughnessy, Fabian Segovia, Andrea Soza, Javier Cerda, Viviana P. Montecinos, Claudia Oyanadel, Jonathan Barra, **Alexis González**, Patricia V. Burgos, Alfonso González. (2016). **D-propranolol has antitumoral effects perturbing both EGFR endocytic traffic and autophagic flux.** EMBO Workshop 2016: Actualizations in Membrane Trafficking in Health and Disease, La Serena, Chile. (Poster Session).