

Carlos González León

RUT or passport: 14.685.569-5.

Birthdate. Age: 50 **años**

Gender: **Male**

Nationality: **Cuban**

Profession: Biophysics

Other profession: Biologist

Academic degree: PhD in Molecular & Cellular Biology and Neuroscience (Biophysics)

Other academic degree: MSc in Science (Biophysics)

Position: **Full Professor**

Institution where he serves: **Universidad de Valparaíso**

Section or unit or other Department: **Centro interdisciplinario de Neurociencia de Valparaíso**

Faculty: **Ciencias**

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Academic Background and Labor

Education

- 1990 BSc & MSc in Biophysics, Moscow State University, Russia.
- 2004 PhD in Molecular & Cellular Biology and Neuroscience (Biophysics), Universidad de Chile, Chile.

Jobs

- 2015 Adjuncts Professor, Texas tech University, USA
- 2014 Full Professor, University of Valparaiso, Chile.
- 2012 Editorial Board of JBC, USA
- 2011 Associate Professor, University of Valparaiso, Chile.
- 2011 Associate Researcher, University of Valparaiso, Chile.
- 2010 Associate Scientist, University of Miami, USA.
- 2007 – 2010 Postdoctoral Associate, University of Miami, USA.
- 2005 – 2007 Postdoctoral Fellow NINDS, National Institutes of Health, NIH, USA.
- 2004 – 2005 Postdoctoral Fellow University of Virginia, USA.
- 1999 – 2004 PhD degree, University of Chile.
- 1994 – 1999 Assistant Professor, Universidad de La Habana. Cuba.
- 1990 – 1994 Instructor. Universidad de La Habana, Cuba.

Main Research Lines

Our goal is to understand the molecular mechanisms underlying that different ion channels (Cx, Pnx, TRP, K⁺, and H⁺) operate, using molecular biology, electrophysiological techniques (two electrodes, patch clamp in different configurations in oocytes, HEK 293 cells and liposomes,

cut-open, bilayers) and voltage clamp fluorometry (VCF), and they relationship with some diseases in the human organism.

Examples of representative publication by channel:

- **Hv channels**: **Gonzalez C**, Koch HP, Drum BM, Larsson HP. Strong cooperativity between subunits in voltage-gated proton channels. *Nature structural & molecular biology*. 2010; 17:51–56.
- **Connexins channels**: Pinto BI, García IE, Pupo A, Retamal MA, Martínez AD, Latorre R, **González C**. Charged residues at the first transmembrane region contribute to the voltage dependence of connexins slow gate. *J Biol Chem*. 2016 May 3. pii: jbc.M115.709402. IF: 4.573.
- **Pannexins channels**: Krick S, Wang J, St-Pierre M, **Gonzalez C**, Dahl G, Salathe M. Dual Oxidase 2 (DuoX2) Regulates Pannexin 1-mediated ATP Release in Primary Human Airway Epithelial Cells via Changes in Intracellular pH and Not H₂O₂ Production. *J Biol Chem*. 2016 Mar 18;291(12):6423-32. doi: 10.1074/jbc.M115.664854. Epub 2016 Jan 28. IF: 4.573.
- **TRP channels**: Poblete H, Oyarzún I, Olivero P, Comer J, Zuñiga M, Sepulveda RV, Báez-Nieto D, **Gonzalez Leon C**, Gonzalez-Nilo F, Latorre R. (2015) Molecular Determinants of Phosphatidylinositol 4,5Bisphosphate (PI(4,5)P₂) Binding to Transient Receptor Potential V1 (TRPV1) Channels. *J Biol Chem*. 290(4):2086-98. IF: 4.573.
- **K⁺ channels**: **Gonzalez C**, Baez D, Valencia I, Rojas P, Naranjo D & Latorre R. (2012) K⁺ Channels: Function- Structural overview. *Comprehensive Physiology journal*. (2012) 2: 2087-2149. IF: 4.739.

Research funding competitive projects obtained during the last five years.

2010 – present	CINV as Millennium Institute (Associated Investigador).
2016	Coupling between voltage sensor and permeation pathway in Proton Channel (Hv1). Fondecyt Regular 2016 – #1160261. (Principal Investigador)
2013 – 2014	Formation of International Networks between the Interdisciplinary Neuroscience Center of Valparaiso and the Department of Biophysics, Faculty of Medicine, University of the Republic, Uruguay. REDES130006. Conicyt. (Principal investigator)
2013 – 2015	Development of a lipid biosensor platform for detecting red tide in situ. II Applied Science Competition 2013 – Programa IDeA # CA13I10274. Conicyt. (Associated Investigador)

2013 – 2016	Mechanism of plasma membrane permeabilization induced by syndromic deafness mutations of CX26. Fondecyt Regular 2013 – #1130855. (Associated Investigador)
2012-2015	Associated grant Anillo ACT 1104. Voltage sensor: Structure to Function (Director)
2012 – 2014	Coupling of voltage-sensors to the gate in calcium channels. Fondecyt Regular 2012 – #1120864. (Associated Investigador)
2012 – 2015	Molecular determinants of architecture and dynamics of voltage-sensitive proton channel (Hv1). Fondecyt Regular 2012 – #1120802. (Principal Investigador)

List of Publications in media with Editorial Committee and other products

Pertinent (**last five years preceding the application**) to realize the scientific excellence of the researchers. Highlight the list of the five most relevant publications/products and **justify your selection**

Five most relevant publications/products and selection justification (last 5 years)

1. Castillo K, Contreras GF, Pupo A, Torres Y, Neely A, **Gonzalez C** and Latorre R. (2015) Molecular mechanism of $\beta 1$ regulation in BK channel. *Proc Natl Acad Sci U S A*. 112(15):4809-14. **Impact Factor: 9.674**. *In this work, my laboratory identified the targets in the Beta 1 subunit responsible in the voltage-dependent modulation of voltage- and calcium-activated potassium (BK) channel. Using gating currents measures of different chimeras (between alpha and beta1 subunits), we established the molecular mechanism by which K3 and K4 of the beta1 stabilize the voltage sensor in BK channels, demonstrating this effect is specific but is not electrostatic.*
2. Qiu F, Rebolledo S, **Gonzalez C** & H. Peter Larsson. The S4 voltage sensor movement that opens Hv proton channels. (2013) *Neuron*, Volume 77, Issue 2, 23 January (2013), Pages 288-298. **Impact Factor: 15.054**. *In this work, in collaboration with Dr. Larsson lab., we demonstrated by fluorescence (VCF) that in Hv1 channels the cooperative conformational change involving interactions between the two subunits of Proton channels.*
3. **Gonzalez C**, Lopez Rogriguez A, Srikumar D, Rosenthal J & Holmgren M Editing of human KV1.1 channel mRNAs disrupts binding of the N-terminus tip at the intracellular cavity. (2011) *Nature Commun.* 2:436 doi: 10.1038/ncomms1446. **Impact Factor: 11.47**. *In this publication we determined with Dr. Holmgren that the mechanism by which the conversion of isoleucine by valine during editing phenomena in Kv1.1, is a result of fast inactivation alteration in these channels.*
4. Contreras GF, Neely A, Alvarez O, **Gonzalez C*** and Latorre R. Modulation of BK Channel Voltage Gating by Different Auxiliary β Subunits. *Proc. Natl. Acad. Sci. USA* (2012) Nov 13;109(46):18991-6. **Impact Factor: 9.674**. *In this article, my laboratory*

shown that betas are interacting with alpha subunit voltage sensor in Bk channels. They stabilized, in general, the active conformation of voltage sensor during channels.

5. Ignacio Diaz-Franulic, Horacio Poblete, Germán Miño-Galaz, **Carlos González**, and Ramón Latorre. Allostereism and Structure in Thermally Activated Transient Receptor Potential Channels. *Annual Review of Biophysics* Vol. 45 (2016). **Impact Factor: 15.436**. In this review we discuss the allosteric between the temperature, voltage sensor and pore, and the thermodynamic basics of TRP channel activation. Also, a structural overview of the molecular targets of the temperature sensitivity and finally the molecular mechanism of some ligands on the TRP channel activity.

Complete List of Publications (last 5 years, * corresponding author):

2016:

1. Latorre R, Castillo K, Carrasquel-Ursulaez W, Sepulveda RV, Gonzalez-Nilo F, **Gonzalez C** and Alvarez O. 2016. Molecular determinants of BK channel functional diversity and functioning. *Physiological Reviews* (2016). Accepted. *IF: 27.32*.
2. Ignacio Diaz-Franulic, Horacio Poblete, Germán Miño-Galaz, **Carlos González**, and Ramón Latorre. Allostereism and Structure in Thermally Activated Transient Receptor Potential Channels. *Annual Review of Biophysics* Vol. 45 (2016). *IF: 15.436*.
3. Qiu F, Chamberlin A, Watkins BM, Ionescu A, Perez ME, Barro-Soria R, González C, Noskov SY, Larsson HP. Molecular mechanism of Zn²⁺ inhibition of a voltage-gated proton channel. *Proc Natl Acad Sci U S A*. (2016). *IF: 9.674*.
4. García IE, Bosen F, Mujica P, Pupo A, Flores-Muñoz C, Jara O, **González C**, Willecke K, Martínez AD. From Hyperactive Connexin26 Hemichannels to Impairments in Epidermal Calcium Gradient and Permeability Barrier in the Keratitis-Ichthyosis-Deafness Syndrome. *J Invest Dermatol*. 2016 Mar;136(3):574-83. doi: 10.1016/j.jid.2015.11.017. *IF: 7.216*.
5. Pinto BI, García IE, Pupo A, Retamal MA, Martínez AD, Latorre R, **González C***. Charged residues at the first transmembrane region contribute to the voltage dependence of connexins slow gate. *J Biol Chem*. 2016 May 3. pii: jbc.M115.709402. *IF: 4.573*.
6. Krick S, Wang J, St-Pierre M, **Gonzalez C**, Dahl G, Salathe M. Dual Oxidase 2 (Duox2) Regulates Pannexin 1-mediated ATP Release in Primary Human Airway Epithelial Cells via Changes in Intracellular pH and Not H₂O₂ Production. *J Biol Chem*. 2016 Mar 18;291(12):6423-32. doi: 10.1074/jbc.M115.664854. Epub 2016 Jan 28. *IF: 4.573*.
7. Fernandez A, Pupo A, Mena-Ulecia K, **Gonzalez C***. Pharmacological modulation of proton channel Hv1 in cancer therapy: Future perspectives. *Mol Pharmacol*. 2016 Jun 3. pii: mol.116.103804. *IF: 4.128*.

8. Retamal MA, García IE, Pinto BI, Pupo A, Báez D, Stehberg J, Del Rio R, **González C***. Extracellular Cysteine in Connexins: Role as Redox Sensors. *Front Physiol.* 2016 Jan 28;7:1. doi: 10.3389/fphys.2016.00001. IF: 3.534.
9. García IE, Prado P, Pupo A, Jara O, Rojas-Gómez D, Mujica P, Flores-Muñoz C, González-Casanova J, Soto-Riveros C, Pinto BI, Retamal MA, **González C**, Martínez AD. Connexinopathies: a structural and functional glimpse. *BMC Cell Biol.* 2016 May 24;17 Suppl 1:17. doi: 10.1186/s12860-016-0092-x. IF: 2.341.

2015:

10. Castillo K, Contreras GF, Pupo A, Torres Y, Neely A, **Gonzalez C*** and Latorre R. (2015) Molecular mechanism of $\beta 1$ regulation in BK channel. *Proc Natl Acad Sci U S A.* 112(15):4809-14. IF: 9.674.
11. García IE, Maripillán J, Jara O, Ceriani R, Palacios-Muñoz A, Ramachandran J, Olivero P, Pérez-Acle T, **Gonzalez C**, Sáez JC Contreras JE, Martinez AD. (2015) Keratitis-Ichthyosis Deafness syndrome-associated Cx26 mutants produce non-functional gap junctions but hyperactive hemichannels when co-expressed with wild type Cx43. *J Invest Dermatol.* 135(5):1338-47. IF: 7.216.
12. Carrasquel-Ursulaez W, Contreras GF, Sepúlveda R, Aguayo D, Gonzalez-Nilo F, **Gonzalez C*** and Latorre R. (2015) The BK channel S6 transmembrane domain is a stimuli integration node. *J Gen Physiol.* 145(1):61-74. IF: 4.788.
13. Poblete H, Oyarzún I, Olivero P, Comer J, Zuñiga M, Sepulveda RV, Báez-Nieto D, **Gonzalez Leon C**, Gonzalez-Nilo F, Latorre R. (2015) Molecular Determinants of Phosphatidylinositol 4,5Bisphosphate (PI(4,5)P2) Binding to Transient Receptor Potential V1 (TRPV1) Channels. *J Biol Chem.* 290(4):2086-98. IF: 4.573.
14. Morera FJ, Saravia J, Pontigo JP, Vargas-Chacoff L, Contreras GF, Pupo A, Lorenzo Y, Castillo K, Tilegenova C, Cuello LG, **Gonzalez C***. Voltage-dependent BK and Hv1 channels expressed in non-excitabile tissues: New therapeutics opportunities as targets in human diseases. *Pharmacol Res.* 2015 Nov;101:56-64. doi: 10.1016/j.phrs.2015.08.011. IF: 4.408.
15. Retamal MA, Reyes EP, García IE, Pinto B, Martínez AD, **González C***. Diseases associated with leaky hemichannels. *Front Cell Neurosci.* (2015 Jul 27); 9:267. doi: 10.3389/fncel.2015.00267. IF: 4.289.
16. Castillo K, Pupo A, Baez-Nieto D, Contreras GF, Morera FJ, Neely A, Latorre R, **Gonzalez C***. Voltage-gated proton (H(v)1) channels, a singular voltage sensing domain. *FEBS Lett.* 2015 Nov 14;589(22):3471-8. doi: 10.1016/j.febslet.2015.08.003. IF: 3.169.
17. Mauricio A Retamal, Carmen G. León-Paravic, Marcelo Ezquer, Fernando Ezquer, Rodrigo Del Rio, Amaury Pupo, Agustín D. Martínez, **Carlos González*** (2015) Carbon Monoxide: A New Player in the Redox Regulation of Cx- Hemichannels. *International Union of Biochemistry and Molecular Biology Life.* DOI 10.1002/iub.1388. IF: 3.143.
18. Francisco J. Morera, David Baez-Nieto, Yenisleidy Lorenzo, Karen Castillo, Amaury Pupo, Luis Vargas-Chacoff and **Carlos Gonzalez*** (2015). Role of ion channels in salt

secretion by atlantic salmon gills during acclimation to seawater. *Physiological Mini Reviews*, Vol.8 N° 1, 1-10.

19. Ferreira G, Raddatz N, Lorenzo Y, **Gonzalez C** and Latorre R (2015) Biophysical and Molecular Features of Thermosensitive TRP Channels Involved in Sensory Transduction. Chapter in: TRP Channels in Sensory Transduction, R. Madrid, J. Bacigalupo (eds.). Springer International Publishing Switzerland.

2014:

20. Pupo A, **Gonzalez León C***. In pursuit of an inhibitory drug for the proton channel. *Proc Natl Acad Sci U S A*. 2014 Jul 8;111(27):9673-4. doi: 10.1073/pnas.1408808111. IF: 9.674.
21. Raddatz N, Castillo JP, **Gonzalez C**, Alvarez O, Latorre R Temperature and Voltage Coupling to Channel Opening in Transient Receptor Potential Melastatin 8 (TRPM8). *J Biol Chem*. (2014) Dec 19; 289(51):35438-54. doi: 10.1074/jbc.M114.612713. Epub 2014 Oct 28. IF: 4.573.
22. Baez D, Raddatz N, Ferreira G, **Gonzalez C**, Latorre R. Gating of thermally activated channels. *Curr Top Membr*. (2014);74:51-87. doi: 10.1016/B978-0-12-800181-3.00003-8. IF: 3.295.
23. Pupo A, Baez-Nieto D, Martínez A, Latorre R, **González C***. Proton channel models: filling the gap between experimental data and the structural rationale. *Channels (Austin)*. 2014;8(3):180-92. IF: 2.317.

2013:

24. Qiu F, Rebolledo S, **Gonzalez C** & H. Peter Larsson. The S4 voltage sensor movement that opens Hv proton channels. (2013) *Neuron*, Volume 77, Issue 2, 23 January (2013), Pages 288-298. IF: 15.054.
25. **Gonzalez, C**, Rebolledo S, Wang X, Perez M and Larsson HP. Molecular mechanism of voltage sensing in voltage-gated proton channels (2013). *Journal of General Physiology* Mar;141(3):275-85. doi: 10.1085/jgp.201210857. IF: 4.788.
26. Martín P, Moncada M, Enrique N, Asuaje A, Valdez Capuccino JM, **Gonzalez C**, Milesi V. Arachidonic acid activation of BKCa (Slo1) channels associated to the β 1-subunit in human vascular smooth muscle cells. *Pflugers Arch*. 2014 Sep;466(9):1779-92. doi: 10.1007/s00424-013-1422-x. IF: 4.101.
27. Gustavo Contreras, Karen Castillo, Nicolás Enrique, Willy Carrasquel-Ursulaeza, Juan Pablo Castillo, Verónica Milesi, Alan Neely, Osvaldo Álvarez, Gonzalo Ferreira, **Carlos Gonzalez*** and Ramón Latorre. A BK (Slo1) Channel Journey from Molecule to Physiology. *Channels*. Sep 11;7(6). 10.4161/chan.26242. IF: 2.317.
28. Marcus Vinicius Almeyda Campos, Costa C, **González C**, Latorre R, Milesi V y Gonzalo Ferreira. 2013. New biomedical and physiological knowledge of the sport (with emphasis on ion channels in skeletal muscle). In "**New Technologies and Innovation in Human Movement**." (**Book VI REMH**). Ed. Universidad de Chihuahua.

2012:

29. Contreras GF, Neely A, Alvarez O, **Gonzalez C*** and Latorre R. Modulation of BK Channel Voltage Gating by Different Auxiliary β Subunits. *Proc. Natl. Acad. Sci. USA* (2012) Nov 13;109(46):18991-6. *IF: 9.674*.
30. **Gonzalez C**, Baez D, Valencia I, Rojas P, Naranjo D & Latorre R. (2012) K⁺ Channels: Function- Structural overview. *Comprehensive Physiology journal*. (2012) 2: 2087-2149. *IF: 4.739*.
31. Morera, FJ; Alioua, A; Kundu, P; Salazar, M; **Gonzalez, C**; Martinez, AD; Stefani, E; Toro, L.; Latorre, R. The first transmembrane domain (TM1) of β 2-subunit binds to the transmembrane domain S1 of α -subunit in BK potassium channels. *FEBS Lett.* (2012) Jul 30; 586 (16): 2287-93. *IF: 3.169*.
32. **Gonzalez C***, Contreras G, Peyser, A , Larsson, P, Neely A and Latorre R. Voltage sensor of ion channel and enzymes. *Biophys Rev* (2012) 4:1–15.
33. Latorre R, **Gonzalez C** Potassium channel of the Slo family (2012) *Neuroscience in 21st Century*, Eugene Martin and Donald Pfaff, eds. Springer.

2011:

34. **Gonzalez C**, Lopez Rogriguez A, Srikumar D, Rosenthal J & Holmgren M Editing of human KV1.1 channel mRNAs disrupts binding of the N-terminus tip at the intracellular cavity. (2011) *Nature Commun.* 2:436 doi: 10.1038/ncomms1446. *IF: 11.47*.
35. Manzanares D, **Gonzalez C**, Ivonnet P, Chen R, Valencia-Gattas M, Conner G, Larsson HP and Salathe M. BK channels critically regulate airway surface liquid volume. *Journal Biological Chemistry*. (2011) Jun 3;286 (22):19830-9. *IF: 4.573*.

Publications total: 82

Citations: 836 (ResearchGate)

H index: 18 (ResearchGate)

i10: 23 (ResearchGate)

Grade students graduated during the last 3 years: **1**

1. Thesis for the degree in Biology. Papel del Residuo N264 en la conducción de protones a través del canal Hv. Esther Alejandra Otarola Strange. Faculty of Science, Universidad de Valparaiso, Chile. (2014).

Master students graduated during the last 3 years: **2**

2. Thesis for the degree of Master in Neuroscience. Permeation mechanism proton channel. Esther Alejandra Otarola Strange. Faculty of Science, Universidad de Valparaiso, Chile. (2014).
3. Thesis for the degree of Master in Neuroscience. Charged residues at the first transmembrane region mediate the voltage dependence of connexins slow gate. Bernardo Pinto Anwandter. Faculty of Science, Universidad de Valparaiso, Chile. (2016).

PhD students tutored during the last 3 years: **4**

1. Isac Garcia, Faculty of Science, Universidad de Valparaiso, Chile.
2. Oscar Jara Leiva, Faculty of Science, Universidad de Valparaiso, Chile.
3. Yenisleidy Lorenzo Ceballos. CINV, Universidad de Valparaiso, Chile.
4. Amaury Pupo Meriño. CINV, Universidad de Valparaiso, Chile.

Number of supervised Postdoctoral Researchers in the past 3 years: **5**

1. Supervisor of Dr. David Baez Nieto. Molecular determinants of the architecture and dynamics of voltage-sensitive proton channels. CINV, Universidad de Valparaiso, Chile.
2. Supervisor of Dr. Karen Castillo. Voltage sensor ion channels: from structure to function. CINV, Universidad de Valparaiso, Chile.
3. Fondecyt Sponsor of Dr. Gustavo Contreras. Coupling voltage sensors to gate in Ca²⁺ channels. CINV, Universidad de Valparaiso, Chile.
4. Supervisor of Dr. Germán Miño. Quantum dynamics simulations of proton permeation in voltage-gated proton channel (Hv1). CINV, Universidad de Valparaiso, Chile.
5. Supervisor of Dr. Audry Fernández Gómez. Role of Hv1 in the immunosuppressive and tumor-supporting myeloid-derived suppressor cells (MDSCs). CINV, Universidad de Valparaiso, Chile.

Number of patent applications in the last 3 years: **0**

Number of patents granted in the last 3 years: **0**

Number of presentations at scientific events in the last 3 years: **33 (20 International and 13 National)**

International

1. De Giorgis D., Contreras G., Savalli N., Navarro-Quezada N., **Gonzalez C.**, Olcese R., Neely A. Regulation of Voltage Sensing Structures of CaV1.2 Calcium Channels by the

- Auxiliary β -Subunit ($\beta 3$). Biophysical Society 60th Annual Meeting. Los Angeles, USA. February 2016.
2. García IE, Contreras G, Pupo A, Pinto B, Latorre R, Contreras JE, Martínez AD, **González C**. Molecular Determinants Underlying the Pathogenic Mechanism of Kid Syndrome Elicited by Cx26G12R Mutation. Biophysical Society 60th Annual Meeting. Los Angeles, USA. February 2016.
 3. **C. González**, B. Pinto. The first transmembrane segment of connexins and voltage-dependent gating regulation of hemichannels. International Gap Junction Conference. Valparaíso/Chile. March 2015.
 4. **C. Gonzalez**. Use of Fluorescent Probes to Further Understand Membrane channels: the new connexin era. International workshop Biophysical of Hemichannels and Gap Junction Channels: a theoretical and practical training. Santiago/Chile. March 2015.
 5. Pupo A., Baez-Nieto D., **Gonzalez C**. Proton permeation in Ci-Hv1 voltage-gated proton channels occurs through a proton wire involving residues D160 and D222 and it is modulated by N264. 59th Annual Meeting Biophysical Society. Baltimore/USA. February 2015.
 6. Pinto BI., Baez-Nieto D., Pupo A., Martinez A., Latorre R., **Gonzalez C**. Residues involved in Cx26 hemichannels voltage dependent gating. 59th Annual Meeting Biophysical Society. Baltimore/USA. February 2015.
 7. R. Latorre, **C. González**, N. Raddatz, JP. Castillo, O. Alvarez. Temperature and voltage coupling to TRPM8 Channel Opening. 59th Annual Meeting Biophysical Society. Baltimore/USA. February 2015.
 8. Poblete H., Oyarzún I, Olivero P., Comer J., Zuñiga M., Sepulveda R., Báez-Nieto D., **González C**., Gonzalez-Nilo F., Latorre R. The molecular determinants of pi(4,5)p2 binding to TRPV1 channels. 59th Annual Meeting Biophysical Society. Baltimore/USA. February 2015.
 9. Pupo A., Otarola E., Baez- Nieto DE., Contreras G., González W., Castillo K., Larsson P., Latorre R., **Gonzalez C**. Understanding the structural basis of permeation and selectivity in Hv1 proton channel. OMICS 2014. Varadero, Cuba. October 2014.
 10. **González C**. Proton permeation in Ci-Hv1 voltage-gated proton channels occurs through a proton wire involving residues D160 and D222 and it is modulated by N264. Reunión Anual de la Sociedad Argentina de Fisiología SAFIS 2014. Buenos Aires, Argentina. October 2014.
 11. Piccinini L., Moncada M., Enrique N., González W., **González C**., Martin P., Milesi V. TRC-10 pH-dependent blocking action of bupivacaine on BKCa channel. Reunión Anual de la Sociedad Argentina de Fisiología SAFIS 2014. Buenos Aires, Argentina. October 2014.
 12. Moncada M., Piccinini L., Castillo K., Asuaje A., **González C**., Milesi V., Martín P. TRC-12 Dual effects of Arachidonic acid on BK channel: role of $\beta 1$ -subunit. Reunión Anual de la Sociedad Argentina de Fisiología SAFIS 2014. Buenos Aires, Argentina. October 2014.
 13. **González, C**. Coupling Between Voltage Sensor and Permeation Pathway in Hv1 Channel. Reunión Anual de la Sociedad Argentina de Fisiología SAFIS 2014. Buenos Aires, Argentina. October 2014.
 14. Pupo A., Otarola E., Baez-Nieto DE., Contreras G., Yañez O., Gonzalez W., Miño G., Larsson P.; Latorre R., **Gonzalez C**. Role of C-terminal of S4 in the permeation pathway

- of Ciona Intestinalis Hv1 Channel. Gordon Research Conference. Ion channels. South Hadley, USA. July 2014.
15. Castillo K., Contreras GF., Pupo A., Torres Y., Granados S., Lorenzo Y., Alvarez O., Neely A, **Gonzalez C.**, Latorre R. The beta1 subunit N-terminus is involved in the modulation of alfa subunit voltage sensor of BK involved. Gordon Research Conference. Ion channels. South Hadley, USA. July 2014.
 16. **C. González.** "Técnicas electrofisiológicas e imagenológicas aplicadas a fisiología, biofísica y neurociencia: Bases y ejemplos en situaciones experimentales concretas". Congreso SUB XV Jornadas de la Sociedad Uruguaya de Biociencias. Montevideo/Uruguay. June 2014.
 17. D. Baez-Nieto, R. Latorre, Ester Otarola, G. Contreras, P. Larsson, **C. González.** Gating Currents of Monomeric Hv Channel Reveals a Permeation Pathway Coupled to the Voltage Activation. 58th Annual Meeting of Biophysical Society. San Francisco, USA. February 2014.
 18. D. E. Otarola, R. Latorre, D. Baez-Nieto, G. Contreras, O. Yañez, K. Castillo, P. Larsson, **C. González.** The Permeation Pathway Mechanism in Ciona Intestinalis Hv Channel. 58th Annual Meeting of Biophysical Society. San Francisco/USA. February 2014 .
 19. Baez, D.; Otarola E.; Contreras G.; Castillo K.; Larsson H.; Latorre R.; Gonzalez C. Permeation mechanism in Hv channels. VIII Congreso Iberoamericano de Biofísica. Valparaiso, Chile. October 2013.
 20. **C. González.** Ion Channels in the Valley. Hv channels: from voltage sensor to permeation pathway. La Serena/Chile. April 2013.

National

1. A. Neely, **C. González**, D. De Giorgis, G. Contreras, N. Savally, N. Navarro-Quezada, R. Olcese. Regulation of voltage sensing structures of Cav1.2 Calcium channel by the auxiliary B-Subunit (B3). XI Reunión Anual de la Sociedad Chilena de Neurociencias 2015. Coquimbo/Chile. September 2015.
2. A. Martínez , AM. Cárdenas, **C. González**, O. Jara, J. Maripillán, F. Momboisse, I. García, B. Pinto. Role of cytoskeleton and RhoA in regulation of Gap Junction Channels and Hemichannels. XI Reunión Anual de la Sociedad Chilena de Neurociencias 2015. Coquimbo/Chile. September 2015.
3. A. Martínez , AM. Cárdenas, **C. González**, O. Jara, J. Maripillán, F. Momboisse, I. García, B. Pinto. Role of cytoskeleton and RhoA in regulation of Gap Junction Channels and Hemichannels. CINV Meeting 2015. Valparaíso/Chile. July 2015.
4. **C. González**, FD. González-Nilo, R. Latorre, G. Miño, R. Salazar, I. Díaz. Heat activation pathways and allosteric cooperativity of the transient receptor potential ion channel V1, TRPV1. CINV Meeting 2015. Valparaíso/Chile. July 2015.
5. **C. González**, A. Martínez, I. García. Molecular determinants underlying the pathogenic mechanism of KID- syndrome elicited by Cx26G12R mutation. CINV Meeting 2015. Valparaíso/Chile. July 2015.
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Number of ISI publications of the last 3 years (2013-2016): **23**

Number of SCIELO publications of the last 3 years : **0**

Number of books published in the last 3 years : **0**

Number of chapters of books published in the last 3 years : **2**
