**Curriculum Vitae**

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**Education**

2010. Doctor in Natural Sciences. La Plata National University (UNLP), Argentina.

1997. BA in Biology, La Plata National University (UNLP), Argentina.

**Research Experience**

Since 2012: Assistant Researcher (CONICET) Instituto de Investigaciones Bioquímicas de La Plata.

2010 - 2012: Postdoctoral Fellow (CONICET) Instituto de Investigaciones Bioquímicas de La Plata. (Adv. Dr. HHeras).

2005 - 2010: Doctoral Fellow (CONICET), Instituto de Investigaciones Bioquímicas de La Plata, National University of La Plata. (Adv. Dr. HHeras).

2002 - 2003: Undergraduate Research Project. Departamento de Ecología, Genética y Evolución, UBA. (Adv. Dr. Papeschi).

**University Teaching Experience**

01/07/2008 – 31/03/2012. Teaching assistant, Biological Chemistry. Facultad de Ciencias Naturales y Museo, National University of La Plata (UNLP). Expte: 10000/10.502/08, Res. 880/2008.

1/4/2006 - 1/7/2008. *Ad Honorem* Teaching assistant, Biological Chemistry. Facultad de Ciencias Naturales y Museo, National University of La Plata (UNLP). Expte. 1000/03211/05, Res. 62/2006.

**Peer Review Experience**

**2010 – present** Member of the Advisor Committee, Postgraduate School of Biology, Universidad Nacional de Cuyo.

**2010 – present** Peer review of manuscripts for publication of the Instituto de Investigaciones Bioquímicas de La Plata (UNLP-CONICET)

**Mentoring experience:**

**2015-2019: PhD Advisor of Lic. Matías L. Giglio**

**Publications (**<https://orcid.org/0000-0002-3670-2843>**)**

1. **2020.** Novel Role for Animal Innate Immune Molecules: Enterotoxic Activity of a Snail Egg MACPF-Toxin.Giglio ML, Ituarte S, Ibañez AE, et al.Front Immunol. 11:428. Published 2020 Mar 13. doi:10.3389/fimmu.2020.00428
2. **2020.** Hemocyanin of the caenogastropod Pomacea canaliculata exhibits evolutionary differences among gastropod clades.Chiumiento IR, Ituarte S, Sun J, Qiu JW, Heras H, Dreon MS. *PLoS One. 2020;15(1):e0228325. Published 2020 Jan 30. doi:10.1371/journal.pone.0228325*
3. **2019.** Signatures of Divergence, Invasiveness and Terrestralization Revealed by Four Apple Snail Genomes.[Sun J](https://www.ncbi.nlm.nih.gov/pubmed/?term=Sun%20J%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)1, [Mu H](https://www.ncbi.nlm.nih.gov/pubmed/?term=Mu%20H%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)2, [Ip JCH](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ip%20JCH%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)2, [Li R](https://www.ncbi.nlm.nih.gov/pubmed/?term=Li%20R%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)2, [Xu T](https://www.ncbi.nlm.nih.gov/pubmed/?term=Xu%20T%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)2, [Accorsi A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Accorsi%20A%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)3, [Sánchez Alvarado A](https://www.ncbi.nlm.nih.gov/pubmed/?term=S%C3%A1nchez%20Alvarado%20A%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)3, [Ross E](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ross%20E%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)3, [Lan Y](https://www.ncbi.nlm.nih.gov/pubmed/?term=Lan%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)1, [Sun Y](https://www.ncbi.nlm.nih.gov/pubmed/?term=Sun%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)1, [Castro-Vazquez A](https://www.ncbi.nlm.nih.gov/pubmed/?term=Castro-Vazquez%20A%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)4, [Vega IA](https://www.ncbi.nlm.nih.gov/pubmed/?term=Vega%20IA%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)4, [Heras H](https://www.ncbi.nlm.nih.gov/pubmed/?term=Heras%20H%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)5,6, [Ituarte S](https://www.ncbi.nlm.nih.gov/pubmed/?term=Ituarte%20S%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)5, [Van Bocxlaer B](https://www.ncbi.nlm.nih.gov/pubmed/?term=Van%20Bocxlaer%20B%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)7, [Hayes KA](https://www.ncbi.nlm.nih.gov/pubmed/?term=Hayes%20KA%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)8, [Cowie RH](https://www.ncbi.nlm.nih.gov/pubmed/?term=Cowie%20RH%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)9, [Zhao Z](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhao%20Z%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)2, [Zhang Y](https://www.ncbi.nlm.nih.gov/pubmed/?term=Zhang%20Y%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)10, [Qian PY](https://www.ncbi.nlm.nih.gov/pubmed/?term=Qian%20PY%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)1, [Qiu JW](https://www.ncbi.nlm.nih.gov/pubmed/?term=Qiu%20JW%5BAuthor%5D&cauthor=true&cauthor_uid=30980073)2. [*Mol Biol Evol.*](https://www.ncbi.nlm.nih.gov/pubmed/30980073)*2019 Apr 12. pii: msz084. doi: 10.1093/molbev/msz084. [Epub ahead of print]*
4. **2019.** Non-digestible proteins and protease inhibitors: Implications for defense of the colored eggs of freshwater apple snails **Santiago Ituarte**, Tabata Romina Brola, Marcos Sebastián Dreon, Jin Sun, Jian-Wen Qiu, Horacio Heras. *Canadian Journal of Zoology*, 2019, 97(6): 558-566, <https://doi.org/10.1139/cjz-2018-0210>
5. **2018.**. A lectin of a non-invasive apple snail as an egg defense against predation alters the rat gut morpho physiology. **Ituarte, S**., Brola, T.R., Fernández, P.E., Mu, H., Qiu, J.-W., Heras, H., and Dreon, M.S. 2018. **PLoS One 13(6): e0198361. doi:10.1371/journal.pone.0198361.**
6. **2018.** AmpuBase: A transcriptome database for eight species of apple snails (Gastropoda: Ampullariidae). Ip, J.C.H., Mu, H., Chen, Q., Sun, J., Ituarte, S., Heras, H., Van Bocxlaer, B., Ganmanee, M., Huang, X., and Qiu, J.-W. 2018. **BMC Genomics 19(1). doi:10.1186/s12864-018-4553-9**
7. **2016**. The eggs of the apple snail *Pomacea maculata* are defended by indigestible polysaccharides and toxic proteins. Matías L. Giglio, **Santiago Ituarte**, M. Yanina Pasquevich, Horacio Heras. **Canadian Journal of Zoology, 94(11): 777-785.**
8. **2015***.* Insights from an integrated view of the biology of apple snails (Caenogastropoda: Ampullariidae). KA Hayes, RL Burks, A Castro-Vazquez, PC. Darby, H Heras, PR. Martín, JW Qiu, SC. Thiengo, IA Vega, T Wada, Y Yusa, S Burela, MP Cadierno, JA Cueto, FA Dellagnola, MS Dreon, MV Frassa, M Giraud-Billoud, MS Godoy, **S Ituarte**, E Koch, K Matsukura, MY Pasquevich, C Rodriguez, L Saveanu, ME Seuffert, EE. Strong, J Sun, NE Tamburi, MJ Tiecher, R L. Turner, PL. Valentine-Darby & RH. Cowie. **Malacologia, 58(1–2):245-302.**
9. **2013**. Novel Animal Defenses against Predation: A Snail Egg Neurotoxin Combining Lectin and Pore-Forming Chains That Resembles Plant Defense and Bacteria Attack Toxins. Dreon MS, Frassa MV, Ceolín M, **Ituarte S**, Qiu JW, Sun J, Fernández PE, Heras H. PLoS One. 2013 May 30; 8(5):e63782. doi: 10.1371/journal.pone.0063782.
10. **2012**. Hemaggluting activity and structural characterization of scalarin, major perivitelin of *Pomacea scalaris* (Architaenioglossa, Ampullariidae). **Ituarte S**, Dreon MS, Ceolín MR, Heras H. PLoS ONE, 2012; 7(11):e50115.
11. **2012**. First Proteome of the Egg Perivitelline Fluid of a Freshwater Gastropod with Aerial Oviposition. Sun J, Zhang H, Wang H, Heras H, Dreon MS, **Ituarte S**, Ravasi T, Qian PY, Qiu JW. Journal of Proteome Research, 11 (8) 4240-4248.
12. **2010**. The role of the proteinase inhibitor ovorubin in apple snail Eggs resembles plant embryo defences against predation. Dreon MS, **Ituarte S**, Heras H. 2010.. PLoS ONE. 5 (12): e15059.
13. **2010**. Carbohydrates and Glycoforms of the Major Egg Perivitellins from *Pomacea* Apple Snails (Architaenioglossa: Ampullariidae). **Ituarte S**, Dreon MS, Pasquevich MY, Fernández PE, Heras H. Comparative Biochemistry and Physiology, Part B. 157 (2010): 66–72.
14. **2008**. Global shape and pH stability of ovorubin, an oligomeric protein from the eggs of *Pomacea canaliculata*. Dreon MS, **Ituarte S**, Ceolín M, Heras H. FEBS J, 275(18): 4522-30.
15. **2008**. Isolation and characterization of a novel perivitellin from the eggs of *Pomacea scalaris* (Mollusca, Ampullariidae). **Ituarte S**, Dreon MS, Ceolín M, Heras H. Molecular Reproduction and Development. 75(9):1441-8.
16. **2007**. Egg carotenoproteins of Neotropical Ampullariidae (Mollusca: Architaenioglossa). Heras H, Dreon MS, **Ituarte S** & Pollero RJ. Comparative Biochemistry and Physiology Part C. Vol. 146, No 1-2, pp.158-167.
17. **2004**. Achiasmatic male meiosis in *Tenagobia (Fuscagobia) fuscata* (Stål) (Heteroptera, Corixoidea, Micronectidae). **Ituarte, S** & Papeschi, AG. Genetica, Vol. 122, nº2: 199-206.
18. **2002**. Meiotic studies in *Dysdercus* Guérin Méneville, 1831 (Heteroptera: Pyrrhocoridae). II. Evidence of variations of the diffuse stage between wild and laboratory-inbred populations of *Dysdercus chaquensis* Freiberg, 1948. MJ Bressa, E Fumagalli, **S Ituarte**, MV Frassa & ML Larramendy. Hereditas, 137: 125-131.

**Book chapters**

1. *Perivitellins, multifunctional egg proteins.* Heras, H., Dreon, M.S., **Ituarte, S**., Pasquevich, M.Y., Cadierno, M.P. En *Golden Apple Snail book* R. Joshi, RH Cowie Eds. 406pp. ISBN: 9786218022256.