

CURRICULUM VITAE

Personal Information

First name: Luis
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Academic training

- Bachelor Science (Bsc) degree in Genetics. Facultad de Ciencias Exactas, Químicas y Naturales (FCEQyN). Universidad Nacional de Misiones (UNAM). Misiones, Argentina. Graduation date: May 5, 2011.
- PhD in Biological Sciences. Facultad de Ciencias Exactas, Físicas y Naturales (FCEFyN). Universidad Nacional de Córdoba (UNC). Córdoba, Argentina. Thesis Title: Phylogeographic analysis of *Geraeocormobius sylvarum* Holmberg 1887

(Arachnida, Opiliones, Gonyleptidae) and biogeographical implications in the Northeast of Argentina. Graduation date: March 17, 2016.

Teaching experience

1. Teacher of Chemistry. Instituto de Educación Córdoba (IEC) High School (2013/2014). Córdoba, Argentina (website: <http://iec.edu.ar/>). Orientation: Natural Sciences.

2. Teaching Assistant in Graduate and Undergraduate courses. Departamento de Genética de Poblaciones y Evolutiva. Facultad de Ciencia Exactas, Físicas y Naturales, Universidad Nacional de Córdoba (2012-2014, 2018).

Fellowships and research positions

- Doctoral-level scholarship provided by the Fondo para la Investigación Científica y Tecnológica FONCYT, Argentina (2011-2013). Area: Biology of Organisms and Systems.
- Type II Doctoral-level scholarship provided by the Consejo Nacional de Investigaciones Científicas y Técnicas CONICET, Argentina (2014-2016). Area: Biological and Health Sciences.
- Postdoctoral-level scholarship provided by the Consejo Nacional de Investigaciones Científicas y Técnicas CONICET, Argentina (2016-2018). Area: Biological and Health Sciences.
- Postdoctoral Research Associate position at the Seed Molecular Biology Laboratory; Agronomy, Horticulture & Plant Science Department; South Dakota State University (SDSU). South Dakota, USA (2019). Research Area: Seed Molecular Biology and Epigenetics.

Professional distinctions and memberships

- First Place Award: Poster Presentation (Animal Session). "Phylogeographic analysis of *Geraecormobius sylvarum* Homberg 1887 by using the Cytochrome Oxidase I (COI) gene". *Regional Meeting of Genetics*. 2016. Corrientes, Argentina.
- DNA Day 2018 www.springernature.com/gp/researchers/campaigns/dna-day/. Key articles nominated by Springer-Nature Editors, subject Genome Engineering: "Modulating signaling networks by CRISPR/Cas9-mediated transposable element insertion" (2018) published in *Current Genetics*. DOI: 10.1007/s00294-017-0765-9.
- Member of the Epigenetics Society (2018).
- Member of the Cancer Epigenetics Society (2019).

Participation in research projects

PICT-2007-01296. 2009-2011 FONCyT National Agency of Scientific and Technological Promotion (Argentina). "Diversity, biogeographical and evolutionary historical relations between Gonyleptidae Opiliones (Arachnida) from Yungas and Paranaense regions: a multidisciplinary approach".

Secretary of Science and Technology (Secyt - Universidad Nacional de Córdoba, Argentina). Resol. Secyt 162/12. 2012-2013. "Diversity and Biogeographical relations between Opiliones (Arachnida) from Yungas and Mesopotamia, Argentina".

Secretary of Science and Technology (Secyt). Resol. Secyt 1565-1514. 2014-2015. Harvestmen (Arachnida) from Yungas and Mesopotamia in Argentina: systematic and biogeographical patterns.

Principal posters and conference presentations

I. Lombardo L, Nisi M, Salines N, **Vaschetto LM**, Vanzetti L, Helguera M. 2011. Development of a mutant bread wheat population by EMS and its validation via

identification of mutagenized High Molecular Weight Glutenin genes. *Argentine Congress of Genetics*. Corrientes, Argentina.

II. **Vaschetto LM**, L. Vanzetti L Lombardo L, Helguera M. 2011. "Development of a 96 - bread -wheat cultivars core-collection and determination of its population structure". *2nd Argentine Congress of Bioinformatics*. Córdoba, Argentina.

III. Vergara J, Acosta L, Gonzalez-Ittig R, **Vaschetto LM**, Gardenal N. 2012. Potential distribution modeling and phylogeographic analysis of *Discocyrtus dilatatus* (Arachnida, Opiliones): two approaches to address the Mesopotamia-Yungas disjunction. *Argentine Meeting of Cladistics and Biogeography*. Mendoza, Argentina.

IV. Lombardo L, Gómez D, Nisi M, **Vaschetto LM**, Fissore G, Vanzetti L, Fraschina J, Helguera M. 2012. Development of three *VRN-1* near-isogenic lines in bread wheat and their responses to vernalization. *XXIX Argentine Meeting of Plant Physiology*. Mar del Plata, Argentina.

V. **Vaschetto LM**, Gonzalez-Ittig R, Vergara J, Acosta L. 2012. Haplotype diversity of the COI gene in *Geraecormobius sylvarum* (Arachnida, Opiliones, Gonyleptidae). *Latin American Congress of Genetics*. Rosario, Argentina. GP, P: 47.

VI. **Vaschetto LM**, Gonzalez-Ittig R, Vergara J, Acosta L. 2016. Phylogeographic analysis of *Geraecormobius sylvarum* Homberg 1887 by using the Cytochrome Oxidase I (COI) gene. *Regional Meeting of Genetics*. Corrientes, Argentina.

Publications in peer-reviewed journals

1. Vanzetti L, Campos P, Demichelis M, Lombardo L, Aurelia R, **Vaschetto LM**, Bainotti C, Helguera M (2011) Identification of leaf rust resistance genes in Argentinean hexaploid wheat (*Triticum aestivum* L.) cultivars. *Electronic Journal of Biotechnology* 14(3):9-9. Publisher: EJB Electronic Journal of Biotechnology.

2. Vanzetti L, Yerkovich N, Chialvo E, Lombardo L, **Vaschetto L**, Helguera M (2013) Genetic structure of Argentinean hexaploid wheat germplasm. *Genetics and Molecular Biology* 36(3): 391-399. Publisher: Sociedade Brasileira de Genetica.
3. **Vaschetto LM** (2015) Exploring an emerging issue: Crop epigenetics. *Plant Molecular Biology Reporter*. DOI: 10.1007/s11105-014-0796-z. Publisher: Springer New York Publishing Company.
4. **Vaschetto LM**, González-Ittig R, Vergara J; Acosta LE (2015) High genetic diversity in the harvestman *Geraecormobius sylvarum* (Arachnida, Opiliones, Gonyleptidae) from subtropical forests in north-eastern Argentina revealed by mitochondrial DNA sequences. *Journal of Zoological Systematics and Evolutionary Research*. DOI: 10.1111/jzs.12093. Publisher: Blackwell Publishing Inc.
5. **Vaschetto LM** (2016) Miniature Inverted-repeat Transposable Elements (MITEs) and their effects on the regulation of major genes in cereal grass genomes. *Molecular Breeding*. 36:30. DOI 10.1007/s11032-016-0440-8. Publisher: Springer Netherlands.
6. **Vaschetto LM** (2016) Understanding the role of protein interaction motifs in transcriptional regulators: implications for crop improvement. *Briefing in functional genomics*. DOI: 10.1093/bfgp/elw022. Publisher: Oxford University Press.
7. Acosta LE, **Vaschetto LM** (2016) Palaeoclimatic distribution models predict Pleistocene refuges for the Neotropical harvestman *Geraecormobius sylvarum* (Arachnida: Opiliones: Gonyleptidae). *Journal of Natural History*, DOI: 10.1080/00222933.2016.1245450. Publisher: Taylor & Francis.
8. **Vaschetto LM** (2017) RNA activation: A diamond in the rough for genome engineers. *Journal of Cellular Biochemistry*, DOI: 10.1002/jcb.26228. Publisher: John Wiley & Sons Inc.

9. **Vaschetto LM** (2017) Modulating signaling networks by CRISPR/Cas9-mediated transposable element insertion. *Current Genetics*, DOI: 10.1007/s00294-017-0765-9. Publisher: Springer Berlin Heidelberg.
10. Vergara J, Acosta LE, González-Iltig R, **Vaschetto LM**, Gardenal, N (2017) The disjunct pattern of the Neotropical harvestman *Discocyrtus dilatatus* (Gonyleptidae) explained by climate-driven range shifts in the Quaternary: paleodistributional and molecular evidence. *PLOS ONE* 12(11), DOI: e0187983. Publisher: Public Library of Science.
11. **Vaschetto LM** (2018) miRNA activation is an endogenous gene expression pathway. *RNA Biology*, DOI: 10.1080/15476286.2018.1451722. Publisher: Taylor & Francis Group.
12. **Vaschetto LM** (2018) Small Activating RNAs as Promising Agents for Biotechnological Use. *Current Pharmaceutical Biotechnology*, DOI: 10.2174/138920101908180913103654. Publisher: Bentham Science.
13. **Vaschetto LM**, Ortiz N (2019) The role of sequence duplication in transcriptional regulation and genome evolution. *Current Genomics*. DOI: 10.2174/1389202920666190320140721. Publisher: Bentham Science.
14. **Vaschetto LM**, Beccacece HM (2019) The emerging importance of noncoding RNAs in the insecticide tolerance, with special emphasis on *Plutella xylostella* (Lepidoptera: Plutellidae). *Wiley Interdisciplinary Reviews: RNA*. DOI: 10.1002/wrna.1539. Publisher: John Wiley & Sons Inc.
15. **Vaschetto LM** (2019) *Cereal Genomics. Methods in Molecular Biology* (volume 2072). DOI: 10.1007/978-1-4939-9865-4. Publisher: SpringerNature.
16. **Vaschetto LM**, Litholdo CG, Sendín LN, Terenti C, Filippone MP (2019) Cereal

circular RNAs (circRNAs): an overview of the computational resources for identification and analysis. In: Vaschetto L.M (eds) *Cereal Genomics. Methods in Molecular Biology*, vol 2072. DOI: 10.1007/978-1-4939-9865-4_13 Publisher: SpringerNature.

17. Vaschetto LM (2019) The Emergence of Non-coding RNAs as Versatile and Efficient Therapeutic Tools. *Current Gene Therapy*, DOI: 10.2174/156652321905191122154955. Publisher: Bentham Science.

18. Vaschetto LM (2019) The critical role of epigenetic regulation in developmental programming of higher organisms. *Current Genomics*. DOI: 10.2174/138920292006191206141546. Publisher: Bentham Science.

19. Vaschetto LM (Under review) The role of Piwi-interacting RNAs and LINE-1 retrotransposons in cancer epigenetics.

20. Vaschetto LM (In preparation) Analysis of the IGF2R (*Mus musculus*) and PHERES1 (*Arabidopsis thaliana*) imprinted targets: a comparative study based on evolutionary epigenetics

21. Vaschetto LM, González-Iltig R, Vergara J; Acosta LE (In preparation) Phylogeography of the harvestman *Geraecormobius sylvarum* (Arachnida, Opiliones, Gonyleptidae) support range fragmentation and formation of Pleistocene refugia in northeastern Argentina.

22. Vaschetto LM (In preparation) Activation of gene expression via regulation of chromosome architecture: lessons learned from plants and animals.

Referee/Reviewer: *Issues in Biological Sciences and Pharmaceutical Research, Molecular Plant Breeding, Current Pediatric Reviews, BMC Genomics, Nucleic Acids Research, PLOS ONE, Arachnology, RNA Biology.*

Editorial duties

- Guest editor at **Current Pharmaceutical Biotechnology** (2-year IF 2016: **2.46**). ISSN: 1873-4316 (Online); 1389-2010 (Print). Publisher: Bentham Science.
- Guest editor at **Current Gene Therapy** (5-year IF 2016: **3.023**). ISSN: 1875-5631 (Online); 1566-5232 (Print). Publisher: Bentham Science.
- Book Editor at **Methods in Molecular Biology - Springer Protocols**. Cereal Genomics: Methods and Protocols. *Methods in Molecular Biology book series*, volume 2072. ISSN: 1064-3745 (Print); 1940-6029 (Online). Publisher: Springer Nature.
- Guest editor at **Current Genomics** (5-year IF 2018: **3.09**). ISSN: 1875-5488 (Online); 1389-2029 (Print). Publisher: Bentham Science.
- Book Editor at **Methods in Molecular Biology - Springer Protocols**. Plant Circular RNAs: Methods and Protocols. *Methods in Molecular Biology book series*. ISSN: 1064-3745 (Print); 1940-6029 (Online). Publisher: Springer Nature.
- Book Editor at **Methods in Molecular Biology - Springer Protocols**. RNAi Strategies for Pest Management: Methods and Protocols. *Methods in Molecular Biology book series*. ISSN: 1064-3745 (Print); 1940-6029 (Online). Publisher: Springer Nature.