# FELIPE AGUILERA, Ph.D. Updated: 14/October/2024

University of Concepcion
Department of Biochemistry and Molecular Biology
Faculty of Biological Sciences
Concepcion, Chile

Office Phone: +56 41 220 3790
Email: faguilera@udec.cl
Total Citations: 897
H-index: 15


## EDUCATION

**Doctor in Philosophy** — The University of Queensland (Australia) — March 2015
Doctor of Philosophy with mention in Evolutionary Biology and Bioinformatics
Supervisors(s): Prof. Bernard M. Degnan, Dr. Carmel McDougall.
Thesis: Investigation of gene family evolution and the molecular basis of shell formation in molluscs

**Professional Degree** — University of Valparaiso (Chile) — May 2008
Professional degree in Marine Biology
Supervisor: Dr. Cristian Gallardo-Escarate.
Thesis: Utilización de marcadores moleculares de ADN para trazabilidad genética en moluscos gasterópodos de importancia comercial

**Bachelor's Degree** — University of Valparaiso (Chile) — June 2007
Bachelor's degree in Marine Sciences

## RESEARCH EXPERIENCE AND APPOINTMENTS

**Associate Researcher** — June 2024 - Present
Centre of Biotechnology
University of Concepcion
Chile

**Associate Professor** — January 2023 - Present
Department of Biochemistry and Molecular Biology
Faculty of Biological Sciences
University of Concepcion
Chile

**Assistant Professor** — March 2018 - December 2022
Department of Biochemistry and Molecular Biology
Faculty of Biological Sciences
University of Concepcion
Chile

**Postdoctoral Researcher** — February 2016 - February 2018
Principal Investigator: Dr. Andreas Hejnol
Sars International Centre for Marine Molecular Biology
University of Bergen
Norway

**Postdoctoral Researcher** — March 2015 - December 2015
Principal Investigator: Prof. Bernard Degnan
School of Biological Sciences
The University of Queensland
Australia

**Research Assistant** — July 2014 - March 2015
Principal Investigator: Prof. Bernard Degnan
School of Biological Sciences
The University of Queensland

Australia

**Doctorate Student** December 2010 - July 2014
Advisors: Prof. Bernard Degnan and Dra. Carmel McDougall
School of Biological Sciences
The University of Queensland
Australia

**Research Assistant/Lab Manager** July 2007 - December 2009
Principal Investigator: Dr. Cristian Gallardo-Escarate
Centro de Biotecnologia
Universidad de Concepcion
Chile

**Bachelor Student** June 2007 - March 2008
Advisor: Dr. Cristian Gallardo-Escarate
Centro de Biotecnologia
Universidad de Concepcion
Chile

# PUBLICATIONS

1. Opazo-Capurro A, Xanthopoulou K, Arazo del Pino R, González-Muñoz P, Matus-Köhler M, Amsteins L, Jerez C, Hormazábal JC, Vera R, **Aguilera F**, Fuller S, Higgins PG, González-Rocha G. (2024). Co-occurrence of two plasmids encoding transferable *bla*$_{NMD-1}$ and *tet*(Y) genes in carbapenem-resistant *Acinetobacter bereziniae*. *Genes* 15:1213 (doi: 10.3390/genes15091213) (Google Scholar: 0 citations)
2. Decker, SH, **Aguilera F**, Saadi AJ, Schwaha, T. (2024). First soft body morphological data on the tracemaker of the endolithic bryozoan trace fossil *Terebripora ramosa* d´Orbigny, 1842. *Journal of Morphology* 285:e21770 (doi: 10.1002/jmor.21770) (Google Scholar: 0 citations)
3. Castillo H, Hanna P, Sachs L, Buisine N, Godoy F, Gilbert C, **Aguilera F**, Muñoz D, Boisvert C, Debiais-Thibaud M, Spicuglia S, Marcellini S. (2024). *Xenopus tropicalis* osteoblast-specific open chromatin regions reveal promoters and enhancers involved in human skeletal phenotypes and shed light on early vertebrate evolution. *Cells & Development* 179:203924 (doi: 10.1016/j.cdev.2024.203924) (Google Scholar: 1 citation)
4. Decker SH, Saadi AJ, Baranyi C, Hirose M, Lemer S, Sombke A, **Aguilera F**, Vieira LM, Smith AM, Waeschenbach A, Schwaha T. (2024). Boring systematics: a skimmed phylogeny of ctenostome bryozoans and their endolithic family Penetrantiidae with the description of one new species. *Ecology and Evolution* 14:e11276 (doi:10.1002/ece3.11276) (Google Scholar: 3 citations)
5. Medina MA, Fuentes-Villalobos F, Quevedo C, **Aguilera F**, Riquelme R, Rioseco ML, Barria S, Pinos Y, Calvo M, Burbulis I, Alvarez RA, COVID-19 South Chile Group, Garrido JL, Barria MI. (2024). Longitudinal transcriptional changes reveal genes from the natural killer cell-mediated cytotoxicity pathway as critical players underlying COVID-19 progression. *eLife* (doi:10.7554/eLife.94242.2) (Google Scholar: 1 citation)
6. Juárez OE, Galindo-Sánchez CE, Enciso S, López-Lavandery EA, Muñoz C, **Aguilera F**, Lazo JP, Lafarga-De la Cruz F. (2024). Physiological and transcriptomic effects of formulated diets including the prebiotics chitosan, inulin, and ß-glucan on juveniles of *Totoaba macdonaldi*. *Aquaculture International* 32:61-85 (doi:10.1007/s10499-023-01144-1) (Google Scholar: 1 citation)
7. Canales-Aguirre C, Ferrada-Fuentes S, Herrera-Yañez V, **Aguilera F**, Araya C, Lam N, Galleguillos R. (2023). Heterogametic females reveal ZW sex determination system and a putative sex chromosome for Chilean jack mackerel, *Trachurus murphyi*. *Molecular Ecology Resources* (Accepted)
8. Morales-León F, Matus-Köhler M, Araya-Vega P, **Aguilera F**, Torres I, Vera R, Ibarra C, Venegas S, Bello-Toledo H, González-Rocha G, Opazo-Capurro A. (2023). Molecular characterisation of convergent carbapenem-resistant and hypervirulent *Klebsiella pneumoniae* K1-ST23 collected in Chile during COVID-19 pandemic. *Microbiology Spectrum* 11:e00540-23 (doi:10.1128/spectrum.00540-23) (Google Scholar: 4 citations)
9. Zúñiga-Soto N, Pinto-Borguero I, Quevedo C, **Aguilera F**. (2023). Secretory and transcriptomic responses of mantle cells to low pH in the Pacific oyster (*Crassostrea gigas*). *Frontiers in Marine Science* 10:1156831 (doi:10.3389/fmars.2023.1156831) (Google Scholar: 6 citations)
10. **Aguilera F.** (2023). In the Spotlight – Early career researcher. *Journal of Experimental Zoology Part B: Molecular and Developmental Evolution* 340:341 (doi:10.1002/jez.b.23179) (Google Scholar: 1 citation)

11. Mongiardino Koch N, Thompson JR, Hatch AS, McCowin MF, Armstrong AF, Coppard SE, **Aguilera F**, Bronstein O, Kroh A, Mooi R, Rouse GW. (2022). Phylogenomic analyses of echinoid diversification prompt a re-evaluation of their fossil record. *eLife* 11:e72460 (doi:10.7554/eLife.72460) (Google Scholar: 32 citations)
12. Muñoz C, Romero A, Sepúlveda V, Vira MA, Fehrmann-Cartes K, Marcellini S, **Aguilera F**, Caprile T, Fuentes R. (2022). Turning the curve into straight: phenogenetics of the spine morphology and coordinate maintenance in the zebrafish. *Frontiers in Cell and Developmental Biology* 9:801652 (doi:10.3389/fcell.2021.801652) (Google Scholar: 6 citations)
13. Rojas J, Hinostroza F, Vergara S, Pinto-Borguero I, **Aguilera F**, Fuentes R & Carvacho I. (2021). Knockin´on egg´s door: Gains N' Losses during egg activation that influence cortical granules exocytosis and fertilization in animal species. *Frontiers in Cell and Developmental Biology* 9:704867 (doi:10.3389/fcell.2021.704867) (Google Scholar: 26 citations)
14. McDougall C, **Aguilera F**, Shokoohmand A, Moase P & Degnan BM. (2021). Pearl sac gene expression profiles associated with pearl attributes in the silver-lip pearl oyster, *Pinctada maxima*. *Frontiers in Genetics* 11:597459 (doi:10.3389/fgene.2020.597459) (Google Scholar: 15 citations)
15. Martínez-Porchas M, Lafarga F, **Aguilera F**, Cicala F & Lago-Lestón A. (2021). Water microbiota is not affected by stocking density of the yellowtail kingfish (*Seriola lalandi*) in a recirculating aquaculture system. *Aquaculture Research* 52:410-414 (doi:10.1111/are.14883) (Google Scholar: 0 citations)
16. González G*, **Aguilera F*** & D'Afonseca V. (2020). Transcriptome profiling of raspberry (*Rubus idaeus* Var. Amira) in response to infection by tomato ringspot virus (ToRSV). *Heliyon* 6:e04518 (doi:10.1016/j.heliyon.2020.e04518) (*These authors contributed equally) (Google Scholar: 6 citations)
17. Ruiz P, Sepúlveda D, Torres C, Vidal JM, Villouta G, Carrasco C, **Aguilera F**, Ruiz-Tagle N & Urrutia H. (2020). Overview and future perspectives of nitrifying bacteria on biofilters for recirculating aquaculture systems. *Reviews in Aquaculture* 12:1478-1494 (doi:10.1111/raq.12392) (Google Scholar: 79 citations)
18. Fromm B, Tosar JP, **Aguilera F**, Friedländer MR, Bachmann L & Hejnol A (2019). Evolutionary implications of the first microRNA- and piRNA complement of *Lepidodermella squamata* (Gastrotricha). *Non-Coding RNA* 5: 19 (doi:10.3390/ncrna5010019) (Cover image) (Google Scholar: 9 citations)
19. Thiel D, Franz-Wachtel M, **Aguilera F** & Hejnol A. (2018). Xenacoelomorph neuropeptidomes reveal a major expansion of neuropeptide systems during early bilaterian evolution. *Molecular Biology and Evolution* 35:2528-2543 (doi:10.1093/molbev/msy160) (Cover image) (Google Scholar: 34 citations)
20. Fernandez-Valverde SL*, **Aguilera F*** & Ramoz-Diaz RA. (2018). Inference of developmental gene regulatory networks beyond classical model systems: new approaches in the post-genomic era. *Integrative and Comparative Biology* 58:640-653 (doi:10.1093/icb/icy061) (*These authors are corresponding authors) (Google Scholar: 15 citations)
21. **Aguilera F.** (2017). Neoplasia in mollusks: What does it tell us about cancer in humans? A Review. *Journal of Genetic Disorders* 1:07 (Google Scholar: 18 citations)
22. Lim DKY, Schuhmann H, Thomas-Hall SR, Chan KCK, Wass JT, **Aguilera F,** Adarme-Vega CT, Dal'Molin CGO, Thorpe GJ, Batley J, Edwards D & Schenk PM. (2017). RNA-Seq and metabolic flux analysis of *Tetraselmis* sp. M8 during nitrogen starvation reveals a two-stage lipid accumulation mechanism. *Bioresource Technology* 244:1281-1293 (doi:10.1016/j.biortech.2017.06.003) (Google Scholar: 37 citations)
23. **Aguilera F,** McDougall C & Degnan BM. (2017). Co-option and *de novo* gene evolution underlie molluscan shell diversity. *Molecular Biology and Evolution* 34:779-792 (doi:10.1093/molbev/msw294) (Google Scholar: 103 citations)
24. Kocot KM*, **Aguilera F*,** McDougall C, Jackson DJ & Degnan BM. (2016). Sea shell diversity and rapidly evolving secretomes: insights into the evolution of biomineralization. *Frontiers in Zoology* 13:23 (doi:10.1186/s12983-016-0155-z) (*These authors contributed equally) (Google Scholar: 181 citations)
25. **Aguilera F,** McDougall C & Degnan BM. (2014). Evolution of the tyrosinase gene family in bivalve molluscs: independent expansion of the mantle gene repertoire. *Acta Biomaterialia* 10:3855-3865 (doi:10.1016/j.actbio.2014.03.031) (Google Scholar: 98 citations)
26. McDougall C, **Aguilera F,** Moase P, Lucas JS & Degnan BM. (2013). Pearls. *Current Biology* 23:R671-R673 (doi:10.1016/j.cub.2013.05.042) (Google Scholar: 16 citations)
27. **Aguilera F,** McDougall C & Degnan BM. (2013). Origin, evolution and classification of type-3 copper proteins: lineage-specific gene expansions and losses across the Metazoa. *BMC Evolutionary Biology* 13:96 (doi:10.1186/1471-2148-13-96) (Google Scholar: 100 citations)
28. McDougall C, **Aguilera F** & Degnan BM. (2013). Rapid evolution of pearl oyster proteins with repetitive, low-complexity domains. *Journal of the Royal Society Interface* 10:20130041 (doi:10.1098/rsif.2013.0041) (Cover image) (Google Scholar: 67 citations)
29. **Aguilera F,** Lafarga-De la Cruz F & Gallardo-Escarate C. (2009). Molecular analysis in Chilean commercial gastropods based on DNA sequences of 16S rRNA, COI and ITS1-5.8S rDNA-ITS2 sequences. *Gayana* 73:17-27 (doi:10.4067/S0717-65382009000100003) (Google Scholar: 13 citations)

30. **Aguilera F,** Valenzuela-Muñoz V & Gallardo-Escarate C. (2008). Authentication of commercial Chilean molluscs using ribosomal internal transcribed spacer (ITS) as species-specific DNA marker. *Gayana* 72:186-195 (doi:10.4067/S0717-65382008000200007) (Google Scholar: 25 citations)

# KEYNOTE LECTURES, SYMPOSIUM, AND CONFERENCES TALKS

***Keynote Lecture Talks***

1. **Bioinformatics approaches applied to the study of the effect of climate change and animal development processes in non-conventional animals in research.** Keynote Lecture PhD in Bioinformatics and System Biology, Andres Bello University, Santiago, Chile. 10/January/2023
2. **Implementing a sequencing unit in real time at UdeC based on Oxford Nanopore technology and its application in genomic studies of prokaryote and eukaryote species.** Cycle of Research Talks Centre of Biotechnology UdeC (CB-UdeC), University of Concepcion, Concepcion, Chile. 15/December/2023.
3. **Understanding how *Crassostrea gigas* copes to ocean acidification: cellular, molecular, and epigenetic perspectives.** Ben Barres Spotlight Award Talk, University of Concepcion, Concepcion, Chile. 24/October/2023.
4. **The Chilean sea urchin (*Tetrapygus niger*) as an emerging model system for comparative genomics and evodevo studies.** XVIII National Congress of Biology Students, University of Concepcion, Concepcion, Chile. 11/October/2023.
5. **Evolution of biomineralization in animals: Insights from mollusks and brachiopods.** The 16th International Symposium on Biomineralization BIOMIN XVI, Zhejiang University, Hangzhou, China. 27/August/2021.

***Symposium Talks***

1. **Studying germline evolution and polyspermy blockage beyond animal model systems: valuable insights from cnidarians, annelids, mollusks, and sea urchins.** Chilean Society of Reproduction and Development 2024. University of Concepcion, Concepcion, Chile. 27/September/2024.
2. **Exploring the power of Oxford Nanopore Technology in determining epitranscriptomic changes under a scenario of climate change.** Nanopore Day Chile 2024. University Andres Bello, Santiago, Chile. 24/July/2024.
3. **Genomic approaches for evaluating climate change in marine animals.** Why do we age? scientific and technological bases of the interaction between climate change and healthy longevity. University of Concepcion, Concepcion, Chile. 09/January/2024.
4. **Cellular and molecular basis underlying sensitivity and adaptation of *Crassostrea gigas* to ocean acidification.** Symposium Molecular Tools Applied to Molluscs. The Malacological Society of Australiasia, New Zealand. 07/September/2023.
5. **Sequencing unit in real time at UdeC and its application in genomic studies of prokaryote and eukaryote species.** Summer School for Genomics Tools Applied to the Study of Resistance to Antibiotics. University of Concepcion, Concepcion, Chile. 13/January/2023.
6. **The arising of new model systems for studying cell type evolution and developmental processes in animals.** Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile. 13/December/2022.
7. **Implementing a real time sequencing platform at UdeC.** Second Cycle of Research Talks FCB 2022. University of Concepcion, Concepcion, Chile. 01/September/2022.
8. **How do mollusks make shells and pearls? Perspectives from comparative transcriptomics.** Seminar Series Center for Genomics and Bioinformatics, University Mayor, Santiago, Chile. 12/January/2021.
9. **Biodiversity Genomics: How do bioinformatics and genomics help to sustain life in our changing planet?** I Symposium on Bioinformatics: Bioinformatics in a multidisciplinary view, University Catholic of Maule, Talca, Chile. 17/December/2020.
10. **How do mollusks make shells and pearls? Perspectives from comparative transcriptomics and influence of climate change.** SOCEVOL Online Seminar Series XXX, Santiago, Chile. 24/November/2020.
11. **Scientific research beyond classical animal models: Introduction of emerging system models in cellular and developmental biology.** Sci Talks CIENCIA CONECTA, Concepcion, Chile. 24/September/2020.
12. ***Tetrapygus niger*: the first Chilean marine invertebrate with its genome sequenced.** Eco2020 Workshop Emergent contaminants in the ocean: Present research for future solutions. Centre in Oceanographic Research, COPAS Sur-Austral, University of Concepcion, Concepcion, Chile. 10/January/2020.
13. **Using omics approaches to study evolution, developmental biology, and adaptation in animals.** Faculty of Biological Sciences, University of Concepcion, Concepcion, Chile. 22/August/2019.

14. **The importance of studying poorly known taxa to understand animal evolution.** Functional Genomics Workshop, University of Concepcion, Concepcion, Chile. 12/December/2018.
15. **Using transcriptomics and genomics to study biomineralisation and tissue evolution in non-model organisms.** Institut de Genomique Fonctionelle de Lyon, Lyon, France. 06/November/2017.
16. **How do molluscs make their shells? Insights from comparative transcriptomics.** Sars International Centre for Marine Molecular Biology, Bergen, Norway. 20/May/2015.

***Conference Talks***

1. **Chromosome-level genome assembly of the Chilean jack mackerel (*Trachurus murphyi*) inhabiting the South Pacific Ocean waters.** XLIII Congress of Marine Sciences, Hualpen, Chile. 28/May/2024.
2. **The genome of *Tetrapygus niger* reveals a conserved biomineralization protein repertoire over 200 million years of sea urchin evolution.** International Congress on Invertebrate Morphology (ICIM5), University of Vienna, Vienna 09/August/2022.
3. **The genome of *Lepidodermella squamata* (Dujardin 1841) and the evolution of developmental gene pathways in Spiralia.** Third Global Invertebrate Genomics Alliance Research Conference and Workshop (GIGA III), Willemstad, Curaçao. 21/October/2018.
4. **The evolutionary origin of molluscan shell matrix genes: comparative analysis of ten molluscan mantle transcriptomes.** 10th International Marine Biotechnology Conference, Brisbane, Australia. 14/November/2013.
5. **Evolution of molluscan shell matrix proteins: insights from comparative transcriptomic analysis of bivalves and gastropods.** 12th International Symposium on Biomineralization, Freiberg, Germany. 30/August/2013.
6. **Rapid evolution of mantle transcriptome in pearl oysters.** Malacological Society of Australasia Triennial Conference, Melbourne, Australia. 03/December/2012.
7. **Molecular phylogeny of the Mytilidae family in Chile based on mtDNA (16S rDNA and COI) and internal transcribed spacers (ITS).** XLI Annual Meeting of Genetic Society of Chile, Pucon, Chile. 28/November/2008.
8. **Utilization of partial sequences of 16S rDNA, COI genes and ITS1-5.8SrDNA-ITS2 ribosomal region for genetic traceability of economically important gastropod species in Chile.** XXVII Congress of Marine Sciences, Viña del Mar, Chile. 19/May/2008.

# POSTER PRESENTATIONS IN CONFERENCES

1. Mundaca-Escobar M, Castillo H, Cumilaf L, Torres-Sanhueza I, Saavedra R, **Aguilera F**, Marcellini S. (2024). Metabolic rewiring as a driver of developmental divergence: the case of skull osteogenesis in pipidae frogs. Latin American Developmental Biology Conference, Valparaiso, Chile.
2. Giambo-Falian I, Andaur C, García-Castro P, Aguirre-Campos C, **Aguilera F**, Recabal-Beyer A, Mullins MC, Fuentes R. (2024). Decoding the novel function from krang gene in animal secretory vesicle biology. Latin American Developmental Biology Conference, Valparaiso, Chile.
3. Ruiz-Norambuena MJ, **Aguilera F**, Torrejón M. (2024). Ric8A/GalphaQ signaling regulates neural crest induction and mesoderm formation in *Xenopus tropicalis*. Latin American Developmental Biology Conference, Valparaiso, Chile.
4. Rubilar-Fajardo A, Muñoz-Montecinos C, Cataldo S, Segovia F, **Aguilera F**. Caprile T, Fuentes R. (2024). Deciphering the role of ciliary Armc9 in zebrafish axial spine maintenance. Latin American Developmental Biology Conference, Valparaiso, Chile.
5. Zúñiga-Soto N, Schwaha T, **Aguilera F**. (2024). Developmental myogenesis and morphological fingerprints in the Chilean sea urchin (*Tetrapygus niger*) and the Pacific oyster (*Crassostrea gigas*). Latin American Developmental Biology Conference, Valparaiso, Chile.
6. Palma B, Cisternas R, **Aguilera F**, Segovia F, Mullins MC, Fuentes R. (2024). Maternal spotty factor controls chromosome organization and female pronucleus formation during the zebrafish meiosis-mitosis transition. Latin American Developmental Biology Conference, Valparaiso, Chile.
7. Cisternas R, Palma B, Aguirre C, **Aguilera F**, Mullins M, Fuentes R. (2024). The maternal spotty gene regulates microtubule nucleating activity by repressing MTOC number during the zebrafish oocyte-to-egg transition. Latin American Developmental Biology Conference, Valparaiso, Chile.
8. Aguirre-Campos C, Diaz C, **Aguilera F**, Mullins MC, Fuentes R. (2024). Deciphering the role of Mgat1a in n-glycosylation: implications for egg quality, polyspermy prevention, and *in vitro* fertilization. Latin American Developmental Biology Conference, Valparaiso, Chile.

9. Pinto-Borguero I, Benavente-Cabrera N, **Aguilera F**, Mullins MC, Fuentes R. (2024). The maternal-effect *osbpl7* factor controls the establishment of the first cell cycle in the zebrafish early embryo. The Allied Genetics Conference 2024, Washington, United States.
10. Martinez-Matus E, **Aguilera F**, Farfán C, Knibb W, Sepúlveda FA, González MT, Muñiz-Salazar R, Araneda-Tolosa C, Lafarga-De la Cruz F. (2023). Genetic structure of *Seriola lalandi* in the Pacific Ocean. Chilean Society of Biology LXVI Annual Meeting. Valparaíso. Chile.
11. Ruiz MJ, **Aguilera F**, Torrejón M. (2023). Ric8A/Galphaq signaling regulates neural crest induction and mesoderm in *Xenopus tropicalis*. Chilean Society for Cell Biology XXXV Annual Meeting. Puerto Varas. Chile.
12. Rubilar-Fajardo A, Muñoz-Montecinos C, Cataldo S, Segovia F, **Aguilera F**, Caprile T, Fuentes R. (2023). Unveiling the role of ciliary Armc9 in zebrafish axial spine axis maintenance. Chilean Society for Cell Biology XXXV Annual Meeting. Puerto Varas. Chile.
13. Benavente-Cabrera N, Pinto-Borguero I, **Aguilera F**, Mullins MC, Fuentes R. (2023). Characterization of the maternal-effect Osbpl7$^{SA6256}$ mutant phenotype during zebrafish oogenesis and egg activation. Chilean Society for Cell Biology XXXV Annual Meeting. Puerto Varas. Chile.
14. Oyarzo P, de la Paz J, **Aguilera F**. (2023). Effects of tricaine on the early development of the Chilean sea urchin (*Tetrapygus niger*). Chilean Society for Cell Biology XXXV Annual Meeting. Puerto Varas. Chile.
15. Muñoz C, Zúñiga-Soto N, Fuller S, **Aguilera F**. (2023). How does ocean acidification affect the initiation of shell construction in the Pacific oyster *Crassostrea gigas*? Chilean Society for Cell Biology XXXV Annual Meeting. Puerto Varas. Chile.
16. Urrea-Vásquez H, Cancino-Faure B, Parra-Cid C, Suazo-Soto P, **Aguilera F**, Torres I, Quevedo C, D´Afonseca V. (2023). Whole-genome assembly and annotation of *Enterobacter cloacae* ST114. LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
17. Mardones-Guerrero F, D´Afonseca V, Cancino-Faure B, Suazo-Soto P, Parra-Cid C, **Aguilera F**, Torres I, Quevedo C. (2023). Whole-genome assembly and annotation of *Pseudomonas aeruginosa* ST386. LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
18. Cid Y, **Aguilera F**. (2023). Characterization of the Hox genes cluster in the Chilean sea urchin (*Tetrapygus niger*). LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
19. Quevedo C, **Aguilera F**. (2023). First chromosome-scale genome assembly of a sea urchin species inhabiting Chile: *Tetrapygus niger* as an emerging model system for comparative genomics and Evo-Devo. LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
20. Fuller-Vargas S, Zúñiga-Soto N, **Aguilera F**. (2023). Effect of ocean acidification on the transcriptome and epitranscriptome associated with embryonic and larval shell formation in the Pacific oyster (*Crassostrea gigas*). LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
21. Zúñiga-Soto N, Quevedo C, **Aguilera F**. (2023). The evolutionary history of SLC17 proteins and its specification for glutamate transport in animals. LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
22. Mundaca M, Castillo H, Cumilaf L, Saavedra R, **Aguilera F**, Marcellini S. (2023). Metabolic rewiring as a driver of developmental divergence: the case of skull osteogenesis in pipidae frogs. LVI Annual Meeting of the Chilean Society of Genetics and XV Annual Meeting of the Chilean Society of Evolution. Talca, Chile.
23. Pinto-Borguero I, Benavente-Cabrera N, **Aguilera F**, Mullins MC, Fuentes R. (2023). Maternal Osbpl7 factor controls cleavage furrow formation during the embryonic first cell division. V Meeting of the Latin American Regional Society for Developmental Origins of Health and Disease and XXXIV Meeting Chilean Society of Reproduction and Development. Valdivia, Chile.
24. Ruiz MJ, **Aguilera F**, Torrejón M. (2022). Ric-8A/Galphaq signaling regulates mesoderm formation in *Xenopus tropicalis*. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
25. Pérez-Yáñez C, Ruiz MJ, Romero G, **Aguilera F**, Torrejón M. (2022). Identifications of GPCR at different stages during the formation and migration of the neural crest in *Xenopus*. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
26. Quevedo C, Zúñiga-Soto N, Muñoz C, **Aguilera F**. (2022). Effects of seawater acidity on shell formation in the Pacific oyster (*Crassostrea gigas*). Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
27. Fuller S, Bruzual S, San Martin W, **Aguilera F**. (2022). In the quest for horizontal transfer genes involved in molluscan shell formation. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.

28. Cisternas R, Heller R, **Aguilera F**, Mullins MC, Fuentes R. (2022). Maternal spotty gene controls centrosome elimination and microtubule activity during the vertebrate oogenesis and early embryogenesis. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
29. Castillo H, **Aguilera F**, Spicuglia S, Marcellini S. (2022). ATAC-Seq and RNA-Seq analyses of skull bone regeneration in *Xenopus tropicalis* suggest that a Sox2/AP-1 regulatory switch drives osteoblastic de-differentiation. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
30. Zúñiga-Soto N, Anabalón M, Henríquez JP, Schwaha T, **Aguilera F**. (2022). Developmental dynamics of myogenesis in Chilean sea urchin and Pacific oyster does not reveal homology of larval muscles and provides new insights into bilaterian evolution. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
31. Pinto-Borguero I, An M, Benavente-Cabrera N, **Aguilera F**, Mullins MC, Fuentes R. (2022). The maternal-effect osbpl7 gene controls the establishment of the first cell cycle in the zebrafish early embryo. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
32. Aguirre-Campos C, Díaz C, **Aguilera F**, Mullins MC, Fuentes R. (2022). Maternal Mgat1a regulates cortical granule biology during vertebrate egg activation. Chilean Society for Cell Biology XXXIV Annual Meeting. Puerto Varas. Chile.
33. Zúñiga-Soto N, Henríquez JP, Schwaha T, **Aguilera F**. (2022). In the quest for the molecular fingerprint of myogenesis in the sea urchin embryo. International Congress on Invertebrate Morphology (ICIM5), Vienna, Austria.
34. **Aguilera F**. (2022). The genome of *Tetrapygus niger*: an emerging sea urchin model system from South America for developmental biology, biomineralization, and cell type evolution. Society for Developmental Biology 81st Annual Meeting and Pan-American Society for Evolutionary Developmental Biology 4th Biennial Meeting. Vancouver, Canada.
35. Castillo H, **Aguilera F**, Spicuglia S, Marcellini S. (2022). ATAC-Seq and RNA-Seq analyses of skull bone regeneration in *Xenopus tropicalis* suggest that a Sox2/AP-1 regulatory switch drives osteoblastic de-differentiation. Society for Developmental Biology 81st Annual Meeting and Pan-American Society for Evolutionary Developmental Biology 4th Biennial Meeting. Vancouver, Canada.
36. Ruiz MJ, Pérez C, Romero G, **Aguilera F**, Torrejón M. (2022). The RIC-8A/Galfaq molecular signaling regulates mesoderm formation in *Xenopus tropicalis*. Poster Day, Universidad de Concepción, Concepción, Chile.
37. Castillo H, Godoy F, Spicuglia S, **Aguilera F**, Marcellini S. (2022). ATAC-Seq and RNA-Seq analyses of skull bone regeneration in *Xenopus tropicalis* suggest that a Sox2/AP-1 regulatory switch drives osteoblastic de-differentiation. Poster Day, Universidad de Concepción, Concepción, Chile.
38. Aguirre C, Díaz C, **Aguilera F**, Ruentes R. (2022). The maternal factor *Mgat1a* regulates biogénesis and exocytosis of cortical granules during the transition from oocyte to embryo in vertebrates. Poster Day, Universidad de Concepción, Concepción, Chile.
39. Cisternas R, Heller, R, **Aguilera F**, Fuentes R. (2022). The maternal gene *spotty/kif2c* controls the centrosome elimination during vertebrate oogenesis. Poster Day, Universidad de Concepción, Concepción, Chile.
40. Galindo-Sánchez CE, Juárez OE, Enciso-Contreras S, **Aguilera F**, López-Landavery E, Lazo JP, Lafarga-De la Cruz F. (2022). Transcriptomic and physiological effects of dietary prebiotics chitosan, inulin, and ß-glucan on juveline *Totoaba macdonaldii*. Aquaculture America, San Diego, USA.
41. Quevedo C, **Aguilera F**. (2021). Global analysis of *cis*-regulatory elements controlling larval spicule formation in *Strongylocentrotus purpuratus*. First Latin-American Congress of Evolution (1 CLEVOL), Bogota, Colombia – **Best Poster Award.**
42. Torres I, **Aguilera F**. (2021). Evolutionary history of the mesenchyme-specific-protein 130 kD (MSP130) and spicule matrix (SM) involved in the formation of mineralized structures in sea urchins. First Latin-American Congress of Evolution (1 CLEVOL), Bogota, Colombia.
43. Muñoz-Schuler C, Torres V, **Aguilera F**. (2021). Evaluating the putative role of exosomal pathways in the process of shell formation in *Crassostrea gigas*. 9th European Congress of Malacological Studies (EUROMAL), Prague, Czech Republic.
44. Heller R, **Aguilera F**, Fuentes R. (2021). Spotty/Kif2c: a new regulator of the elimination of centrosome during vertebrate oogenesis. Poster Day, Universidad de Concepción, Concepción, Chile.
45. Fraga J, Castillo H, Godoy F, **Aguilera F**, Spicuglia S, Marcellini S. (2021). "Guardians of the valley": a new role of DNA transposons in delimiting the open chromatin region of transcriptional enhancers. Poster Day, Universidad de Concepción, Concepción, Chile.
46. Zuñiga N, Castro P, **Aguilera F**. (2021). Vesicular glutamate transporter (VGLUT) genes: origin, evolution and molecular signatures underpinning glutamate transport in animals. Poster Day, Universidad de Concepción, Concepción, Chile.

47. Castillo H, Godoy F, Fraga J, **Aguilera F**, Spicuglia S, Marcellini S. (2021). Identification of novel *cis*-regulatory elements involved in intramembranous bone regeneration. Poster Day, Universidad de Concepción, Concepción, Chile.
48. **Aguilera F**. (2020). The first chromosome-scale genome assembly of a sea urchin inhabiting Chilean waters: *Tetrapygus niger* (Molina, 1872) as an emerging model system for Evo-Devo studies in South America. Biodiversity Genomics, Hinxton, United Kingdom.
49. Zuñiga N, Castro P, **Aguilera F**. (2020). Vesicular glutamate transporter (VGLUT) genes: origin, evolution and molecular signatures underpinning glutamate transport in animals. ISCB-Latin America, SioBio and BioNetMX International Conference on Bioinformatics, Mexico.
50. Bayona-Vásquez NJ, Glenn TC, Bobier KE, Hyde JR, del Río-Portilla MA, Galindo-Sánchez CE, Martínez-Matuz E, Farfán C, Vargas-Peralta CE, **Aguilera F**, Araneda-Tolosa C, Knibb W, Muñiz-Salazar R, Sepúlveda FE, González MT, Lafarga-De La Cruz F. (2020). Global population genomics of the Yellowtail Kingfish, *Seriola lalandi*. Third Seriola Workshop, La Jolla, California, USA.
51. Quiroga E, **Aguilera F**, Figueroa M. (2019). Insights on the protein complex Ric8A and $G\alpha_i$. X International Conference on Bioinformatics, Montevideo, Uruguay.
52. **Aguilera F**. (2019). A chromosome-scale genome assembly and the re-emergence of *Tetrapygus niger* as a sea urchin model system for Evo-Devo studies. X$^{th}$ Meeting of the Latin American Society for Developmental Biology. Buenos Aires, Argentina.
53. **Aguilera F**. (2019). A chromosome-scale genome assembly for the Chilean sea urchin *Tetrapygus niger* (Molina 1782) provides new insights into echinoderm evolution. II Molecular Biosystems Conference on Eukaryotic Gene Regulation and Functional Genomics. Puerto Varas, Chile.
54. Montes Orozco V, Juárez Valdez O, **Aguilera F,** López Landavery E, del Río Portilla MÁ, Galindo Sanchez CE, Lafarga de la Cruz F. (2018). Differentially expressed genes in hybrids between red and green abalone (*Haliotis rufescens x Haliotis fulgens*) with low and high growth under commercial conditions. 1er Simposio Internacional de Maricultura. Ensenada, Baja California, Mexico.
55. **Aguilera F,** Andrikou C, Fatima N, Hejnol A. (2018). Bulk and single-cell transcriptomics allow the characterization and identification of blood cell types in *Halicryptus spinulosus* and *Priapulus caudatus* (Ecdysozoa: Scalidophora). ISCB-LA SOIBIO EMBnet Conference, Viña del Mar, Chile.
56. Thiel D, Franz-Wachtel M, **Aguilera F**, Hejnol A. (2018). Changes in the neuropeptide complement of xenacoelomorphs correlate with the evolution of nervous system architectures. 7$^{th}$ Meeting of the European Society for Evolutionary Developmental Biology (EuroEvoDevo), Galway, Ireland.
57. Galindo-Sanchez CE, Juárez-Valdez O, **Aguilera F**, López-Landavery E, Montes-Orozco V Lafarga-De la Cruz F. (2018). Transcriptomic profiling of juveniles from RG hybrid abalones (*Haliotis rufescens x Haliotis fulgens*) and its parental line RR (*Haliotis rufescens x Haliotis rufescens*). 10$^{th}$ International Abalone Symposium, Xiamen, China.
58. Lafarga-De la Cruz F, Panuagua-Chavez C, Del Río-Portilla MÁ, Galindo-Sanchez CE, Juárez-Valdez O, López-Landavery E, **Aguilera F**, Araneda-Tolosa C & Hyde J. (2018). Breeding strategies for hybrid abalone production of North Pacific *Haliotis* species. 10$^{th}$ International Abalone Symposium, Xiamen, China.
59. **Aguilera F,** Andrikou C & Hejnol A. (2016). Comparative tissue-specific transcriptomics of priapulids allows the characterization of blood and nephridia cell types and provides insights into their evolution. 6$^{th}$ Meeting European Society for Evolutionary Developmental Biology (EuroEvoDevo), Uppsala, Sweden.
60. Delgadillo-Anguiano C, Vargas-Peralta C, Vazquez-Vera L, Schramm-Urrutia Y, **Aguilera F,** del Rio-Portilla, MA & Lafarga-de la Cruz F. (2015). Molecular tools for the identification of abalone species (*Haliotis sp.*). Third Congress Meredith Gould, Ensenada, Mexico.
61. **Aguilera F,** Gonzalez G, Valenzuela M & Garcia R. (2015). Identification of differentially expressed genes in raspberry (*Rubus idaeus* var. Amira) in response to tomato ringspot virus (ToRSV). X Plant Biology Meeting, Valdivia, Chile.
62. English C, McDougall C, **Aguilera F** & Degnan BM. (2011). The evolution of *pearlin* gene in pearl oysters. 11$^{th}$ International Symposium on Biomineralization, Noosa, Australia.
63. **Aguilera F**, McDougall C & Degnan BM. (2011). Tyrosinase gene family in pearl oysters. 11$^{th}$ International Symposium on Biomineralization, Noosa, Australia.
64. Prieto-Araya P, **Aguilera F,** Valenzuela-Bustamante M & Gallardo-Escárate C. (2009). DNA barcoding: A potential tool for traceability in aquaculture? COLACMAR, La Habana, Cuba.
65. Lafarga-De la Cruz F, **Aguilera F** & Gallardo-Escárate C. (2009). Genetic variability of cultured populations of Red abalone *Haliotis rufescens* in Chile: An approach based on heterologous microsatellites. COLACMAR, La Habana, Cuba.
66. Lafarga-De la Cruz F, **Aguilera F** & Gallardo-Escárate C. (2009). Genetic analysis of an artificially produced hybrid abalone (*Haliotis rufescens x Haliotis discus hannai*) in Chile. COLACMAR, La Habana, Cuba.

67. **Aguilera F**, Prieto-Araya P, Haye P & Gallardo-Escárate C. (2009). Isolation and characterization of microsatellite loci in the Northern scallop *Argopecten purpuratus* (Bivalvia: Pectinidae). COLACMAR, La Habana, Cuba.
68. Mendoza-Porras O, **Aguilera F,** Prieto-Araya P, Gallado-Escárate C & del Rio-Portilla MA. (2009). Genetic traceability: A feasible tool for Mexican abalone. 42 Annual Meeting of the Western Society of Malacologists, California, United States.
69. Mendoza-Porras O, **Aguilera F,** Prieto-Araya P, Gallado-Escárate C & del Rio-Portilla MA. (2009). Genetic polymorphism in Mexican haliotidae using Inter Simple Sequence Repeat (ISSR) as a tool in traceability assays. 7th International Abalone Symposium, Pattaya, Thailand.
70. **Aguilera F**, Mendoza-Porras O, del Rio-Portilla MA, Prieto-Araya P & Gallado-Escárate C. (2009). Molecular tools for genetic traceability in abalone species. 7th International Abalone Symposium, Pattaya, Thailand.
71. Lafarga-De la Cruz F, **Aguilera F** & Gallado-Escárate C. (2009). Genetic variability of cultured populations of Red abalone *Haliotis rufescens* in Chile: An approach based on heterologous microsatellites. 7th International Abalone Symposium, Pattaya, Thailand.
72. Lafarga-De la Cruz F, **Aguilera F** & Gallado-Escárate C. (2009). Genetic analysis of an artificially produced hybrid abalone (*Haliotis rufescens x Haliotis discus hannai*) in Chile. 7th International Abalone Symposium, Pattaya, Thailand.
73. Lafarga-De la Cruz F, **Aguilera F** & Gallardo-Escárate C. (2009). Genetic analysis of an artificially produced hybrid abalone (*Haliotis rufescens x Haliotis discus hannai*) in Chile. XXIX Congress of Marine Sciences, Concepción, Chile.
74. Lafarga-De la Cruz F, **Aguilera F** & Gallardo-Escárate C. (2009). Genetic variability of cultured populations of Red abalone *Haliotis rufescens* in Chile. XXIX Congress of Marine Sciences, Concepción, Chile.
75. Prieto-Araya P, **Aguilera F** & Gallardo-Escárate C. (2009). Phylogenetic relationships of the keyhole limpet *Fissurella* genus (Mollusca: Vetigastropoda) in the Chilean coasts through analysis of 16S rDNA, COI and ITS region. II National Congress of Aquaculture, Temuco, Chile.
76. Costa-Venegas C, **Aguilera F** & Gallardo-Escárate C. (2009). Genetic variability in cultured populations of Red abalone (*Haliotis rufescens*) through PCR-ISSR markers. II National Congress of Aquaculture, Temuco, Chile.
77. **Aguilera F**, Lafarga-de la Cruz F & Gallardo-Escárate C. (2009). Molecular phylogeny of the Mytilidae family in Chile based mtDNA (16S rDNA and COI) and internal transcribed spacers (ITS). II National Congress of Aquaculture, Temuco, Chile.
78. Lafarga-de la Cruz F, **Aguilera F,** Perone-Millar C & Gallardo-Escárate C. (2009). Cross-amplification of microsatellite loci in Red abalone (*Haliotis rufescens*) obtained by heterologous primers. II National Congress of Aquaculture, Temuco, Chile.
79. **Aguilera F**, Lafarga-de la Cruz F & Gallardo-Escárate C. (2008). Molecular phylogeny of the Mytilidae family in Chile based mtDNA (16S rDNA and COI) and internal transcribed spacers (ITS). Biotechnology Habana 2008, AgroBiotechnolgy: New approaches and big challenges, La Habana, Cuba.
80. Lafarga-de la Cruz F, **Aguilera F,** Perone-Millar C & Gallardo-Escárate C. (2008). Cross-amplification of microsatellite loci in Red abalone (*Haliotis rufescens*) obtained by heterologous primers. Biotechnology Habana 2008, AgroBiotechnolgy: New approaches and big challenges, La Habana, Cuba.
81. **Aguilera F**, Lafarga-de la Cruz F & Gallardo-Escárate C. (2008). Molecular phylogeny of the Mytilidae family in Chile based mtDNA (16S rDNA and COI) and internal transcribed spacers (ITS). XLI Annual Meeting of the Genetic Society of Chile, Pucón, Chile.
82. Prieto-Araya P, **Aguilera F** & Gallardo-Escárate C. (2008). Phylogenetic relationships of the keyhole limpet *Fissurella* genus (Mollusca: Vetigastropoda) in the Chilean coasts through analysis of 16S rDNA, COI and ITS region. XLI Annual Meeting of the Genetic Society of Chile, Pucón, Chile.
83. Lafarga-de la Cruz F, **Aguilera F,** Perone-Millar C & Gallardo-Escárate C. (2008). Cross-amplification of microsatellite loci in Red abalone (*Haliotis rufescens*) obtained by heterologous primers. XLI Annual Meeting of the Genetic Society of Chile, Pucón, Chile.
84. Costa-Venegas C, **Aguilera F** & Gallardo-Escárate C. (2008). Genetic variability in cultured populations of Red abalone (*Haliotis rufescens*) through PCR-ISSR markers. XLI Annual Meeting of the Genetic Society of Chile, Pucón, Chile.
85. **Aguilera F** & Gallardo-Escárate C. (2008). Design of specific primers for amplifying ITS1 and ITS2 internal transcribed spacers in economically important gastropod species in Chile. XXVII Congress of Marine Sciences, Viña del Mar, Chile.
86. Perone-Millar C, **Aguilera F,** Lafarga-de la Cruz F & Gallardo-Escárate C. (2008). Characterization of microsatellite loci with cross-amplification in *Haliotis rufescens* y *Haliotis discus hannai*. XXVII Congress of Marine Sciences, Viña del Mar, Chile.

87. **Aguilera F**, Faundez V & Gallardo-Escárate C. (2007). Species-specific identification of economically important molluscs through PCR-RFLP of cytochrome oxidase I. XL Annual Meeting of the Genetic Society of Chile, Tome, Chile.
88. **Aguilera F**, Faundez V & Gallardo-Escárate C. (2007). Species-specific identification of economically important molluscs through PCR-RFLP of cytochrome oxidase I. I National Congress of Aquaculture, Coquimbo, Chile.

# RESEARCH GRANTS

**2024-2025** FIPA, SUBPESCA-Chile. Title: Population genomics for fishing management of the South Pacific mackerel. Proposal ID: FIPA2023-18. **Co-Investigator** (Funds: CLP$142.800.000; US$ ~153,028)

**2023-2024** FOVI, ANID-Chile. Title: Calcium and fertility: protein-protein molecular interactions determining animal and human reproductive physiology. Proposal ID: FOVI230192. **Principal Investigator** (Funds: CLP$30.000.000; US$ ~34,519)

**2023-2024** UCO21102, UdeC. Title: Strengthening interdisciplinary training and research at the University of Concepción. Proposal ID: 01-2023. **Co-Investigator** (Funds: CLP$1.000.000; US$ ~1,150)

**2023-2027** FONDECYT Regular Grant, ANID-Chile. Title: Immunological characterization of antibody-mediated Fc effector functions during hantavirus infection. Proposal ID: 1231295. **Co-Investigator** (Funds: CLP$264,362,000; US$ ~325,430)

**2023-2026** Anillo Grant, ANID-Chile. Title: Integrated multi-omic immune profiling of human RNA respiratory viruses: Current and future pandemics. Proposal ID: ATE220034. **Principal Investigator** (Funds: CLP$612,000,000; US$ ~690,336)

**2022-2023** eLife's 2022 Ben Barres Spotlight Awards. Title: Manufacturing an indoor mesocosm system to study the effect of ocean acidification on marine animals. **Principal Investigator** (Funds: US$5,000)

**2022-2026** FONDECYT Regular Grant, ANID-Chile. Title: Probing gene regulatory network origin and diversification: a functional characterization of skeletogenic enhancers in an early-branching sea urchin species inhabiting Chile. Proposal ID: 1220708. **Principal Investigator** (Funds: CLP$264,362,000; US$ ~325,430)

**2021-2022** Teaching Direction, UdeC-Chile. Title: EDUCACOVID: Diversification of learning resources for teaching bioinformatics. Proposal ID: A21-105. **Co-Investigator** (Funds: CLP$400,000; US$ ~488)

**2020-2025** Consortium Technology of Water CORFO-Chile. Title: Microbiome and virome from water and continental sediments: Establishing a tool for monitoring water microbiological quality and epidemiologic surveillance in a climate change scenario. Proposal ID: Project P07 CoTH2O. **Deputy Director** (Funds: CLP$149,100,000; US$ ~197,000)

**2020-2026** FONDEQUIP, ANID-Chile. Title: Implementation of an Oxford Nanopore sequencing platform and bioinformatic server for improving research and innovation in sciences in the Southern Chile. Proposal ID: EQM200056. **Principal Investigator** (Funds: CLP$224,254,280; US$ ~288,400)

**2020-2021** Teaching Direction, UdeC-Chile. Title: ADAPTA.doc KINESEM: Support for conducting seminar activities at the Cellular and Molecular Biology subject for Kinesiology. Proposal ID: A20-069. **Principal Investigator** (Funds: CLP$400,000; US$ ~510)

**2020-2020** Teaching Direction, UdeC-Chile. Title: IDECLab BioTuto: Bioinformatics in Tutorials. Proposal ID: UCO1808. **Co-Investigator** (Funds: CLP$ 2,000,000; US$ ~2,550)

**2020-2022** VRID Multidisciplinary, UdeC-Chile. Title: Combination of zebrafish and mouse models to study Mgat1-dependent protein N-glycosylation regulating cortical granule biology and egg activation. Proposal ID: 220.031.117-M. **Co-Investigator** (Funds: CLP$ 8,000,000; US$ ~10,280)

**2020-2022** FONDEF IDeA, CONICYT-Chile. Title: Development and validation of a biological product to control the diseases produced by *Ralstonia solanecearum* at the potato culture. Proposal ID: ID19I10382. **Associate Investigator** (Funds: CLP$ 199,603,000; US$ ~256,700)

**2019-2023** FONDECYT Regular Grant, CONICYT-Chile. Title: A Sox2/Sox9/FoxL1 transcriptional code drives developmental and regenerative skull ossification. Proposal ID: 1190926. **Co-Investigator** (Funds: CLP$ 109,300,000; US$ ~140,500)

**2019-2023** LIA-MAST, CNRS-France. Title: International Associated Laboratory-Multiscale Adaptive STrategies Laboratory. **Co-Investigator in the working groups: Evolutionary Developmental Biology and Cellular Processes, and Emergent Biological Tools**.

**2018-2020** FONDEF IDeA, CONICYT-Chile. Title: Basis for the development of biotechnology tools for improving biofilter operations in aquaculture recirculating systems. Proposal ID: ID18I10192. **Co-Investigator** (Funds: CLP$ 198,928,000; US$ ~255,700)

**2018-2021** FONDECYT Starting Grant, CONICYT-Chile. Title: Cellular, transcriptional and regulatory characterization of shell formation in the Pacific oyster (*Crassostrea gigas*) under ocean acidification

conditions. Proposal ID: 11180084. **Principal Investigator** (Funds: CLP$ 88,506,000; US$ ~113,800)

**2018-2021** Inclusion of Advanced Human Capital PAI/Academia, CONICYT-Chile. Title: Functional and comparative genomics applied to the understanding the evolution of biomineralization in animals. Proposal ID: PAI79170033. **Principal Investigator** (Funds: CLP$ 86,960,000; US$ ~111,800)

**2016-2018** ERC Consolidator Grant-European Union. Title: EVOMESODERM: The evolution of mesoderm and its differentiation into cell types and organ systems. Proposal ID: 648861. **Postdoctoral Researcher**.

**2014-2015** ARC Linkage Grant-Australia. Title: Translating genomic discoveries into improved commercial outcomes for the South Sea Pearl industry. Proposal ID: P0990280. **Postdoctoral Researcher**.

**2008-2009** FIP-Chile. Title: Molecular characterization of the main benthic resources and connectivity study among their population between I and I regions. Proposal ID: 2008-39. **Research Assistant**.

**2008-2009** FONDEF IDeA, CONICYT-Chile. Production of monosex abalones through gametic nuclear inactivation and development of a technique to sexual identification: Biotechnological solutions for the abalone industry. Proposal ID: D06I1085. **Research Assistant**.

**2008-2009** INNOVA, CORFO-Chile. Genetic traceability of aquaculture products: Development of a genetic information bank for the export food industry. Proposal ID: 07CT9 PDT-79. **Research Assistant**.

**2007-2009** FONDEF IDeA, CONICYT-Chile. Biotechnology applied to the production of a hybrid between red and green abalone: Development of a new product and prospecting of the consumer market. Proposal ID: D06I1027. **Research Assistant**.

# AWARDS, SCHOLARSHIPS, TRAVEL GRANTS, AND TRAINING COURSES

***Awards***

**2023** Promotion to Associate Professor, Academic Evaluation Committee, University of Concepcion.

**2022** eLife´s 2022 Ben Barres Spotlight Award (https://elifesciences.org/inside-elife/6794cd8a/ben-barres-spotlight-awards-announcing-the-winners-for-2022)

**2022** "Outstanding" Academic Evaluation with a final score 4.0 (maximum score) for the period 2018-2021. Academic Evaluation Committee, Faculty of Biological Sciences, University of Concepcion.

**2021** Best Poster Award at the EvoDevo topic, "Global analysis of *cis*-regulatory elements controlling larval spicule formation in *Strongylocentrotus purpuratus*" presented at the First Latin-American Congress of Evolution (1 CLEVOL).

**2017** Seal of excellence project proposal 746953, EVODEVOGRN "Comparative regulatory genomics of xenacoelomorph mesoderm development and evolution of developmental gene regulatory networks" submitted to the Horizon 2020's Marie Sklodowska-Curie actions call H2020-MSCA-IF-2016.

***Scholarships***

**2011-2014** Top-Up Scholarship from The University of Queensland.

**2010-2014** PhD Scholarship from the Chilean government (BECAS CHILE Bicentennial scholarship program)

***Travel Grants***

**2022** SBD-PASEDB International Faculty Scholarship from the Society for Developmental Biology to attend the Joint Society for Developmental Biology-Pan-American Society for Evolutionary Developmental Biology Meeting (Funds: US$ 2000)

**2013** BIOL Conference Travel Award from the School of Biological Sciences, The University of Queensland, Australia. Scholar (Funds: AUS$ 1000; US$ ~755)

***Training Courses***

**2021** Workshop for Implementation of Genomic Epidemiology, Fogarty International Center NIH and John Hopkins University. Online from Chile.

**2018** Train the trainer workshop, EMBL-European Bioinformatics Institute – CABANA Project (Capacity building for bioinformatics in Latin America). University of the Andres, Bogota, Colombia.

**2013** From your raw sequencing data to a functional annotated genome using BLAST2GO software. The University of Queensland, Brisbane, Australia.

**2012** Winter School in Mathematical and Computational Biology. The University of Queensland, Brisbane, Australia.

# PARTICIPATION IN UNDERGRADUATE AND POSTGRADUATE PROGRAMS

***Undergraduate Programs***

- Bachelor's in Biochemistry, Faculty of Pharmacy, University of Concepcion, Chile.
- Bachelor's in Biology, Faculty of Natural Sciences and Oceanography, University of Concepcion, Chile.
- Bachelor's in Bioengineering, Faculty of Biological Sciences, University of Concepcion, Chile.
- Bachelor's in Education of Natural Sciences and Biology, Faculty of Education, University of Concepcion, Chile.
- Bachelor's in Chemistry and Pharmacy, Faculty of Pharmacy, University of Concepcion, Chile.
- Bachelor's in Kinesiology, Faculty of Medicine, University of Concepcion, Chile.
- Bachelor's in Veterinary Medicine, Faculty of Veterinary Sciences, University of Concepcion, Chile.
- Bachelor's in Chemistry, Faculty of Chemical Sciences, University of Concepcion, Chile.

***Master Programs***

- Master in Biochemistry and Bioinformatics, Faculty of Biological Sciences, University of Concepcion, Chile.
- Master in Sciences with mention in Microbiology, Faculty of Biological Sciences, University of Concepcion, Chile.

***Doctoral (PhD) Programs***

- PhD program in Biological Sciences with mention in Cell and Molecular Biology, Faculty of Biological Sciences, University of Concepcion, Chile.
- PhD program in Microbiology, Faculty of Biological Sciences, University of Concepcion, Chile.
- PhD program in Bioinformatics and System Biology, Faculty of Life Sciences, Andres Bello National University, Chile.
- PhD program in Biochemistry and Bioinformatics, Faculty of Biological Sciences, University of Concepcion, Chile.

# MENTORING EXPERIENCE IN UNDERGRADUATE AND POSTGRADUATE

***Doctorate Mentoring***

**2024-** **Cristian Pérez Gallardo**, Doctorate student in Biological Sciences mention Cellular and Molecular Biology, University of Concepcion, Chile. **Co-Supervisor**.

**2024-** **Priscila García Castro**, Doctorate student in Biological Sciences mention Cellular and Molecular Biology, University of Concepcion, Chile. **Co-Supervisor**.

**2021-** **Ingrid Pinto Borguero**, Doctorate student in Biological Sciences mention Cellular and Molecular Biology, University of Concepcion, Chile. **Co-Supervisor**.

**2021-** **Nicolás Zúñiga Soto**, Doctorate student in Biological Sciences mention Cellular and Molecular Biology, University of Concepcion, Chile. **Supervisor**.

***Master Mentoring***

**2024-** **Nicolás Garrido Gutiérrez**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Supervisor**.

**2024-** **Claudio Quevedo Gallardo**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Supervisor**.

**2023-** **Luis Amstein Romero,** Master student in Sciences, mention Microbiology, University of Concepcion, Chile. **Co-Supervisor**.

**2022-** **Sebastián Fuller Vargas**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Supervisor**.

**2021-** **María José Ruiz Norambuena**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Co-Supervisor**.

**2020-** **Carla Rámirez Rámirez**, Master student in Sciences, mention Microbiology, University of Concepcion, Chile. **Co-Supervisor**.

**2020-** **Carlos Pérez Yánez**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Co-Supervisor**.

**2018-2020** **Valentina Troncoso Sepúlveda**, Master student in Sciences, mention Microbiology, University of Concepcion, Chile. **Co-Supervisor**. Thesis Title: "Methodological proposal for the specific molecular characterization of *Ralstonia solanacearum* based on the 16S ribosomal DNA molecular marker".

**2019-2023** **Carlos Muñoz Montecinos**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Co-Supervisor**. Thesis Title: "Role of Armc9 in the establishment and maintenance of the axial axis of the spinal cord in zebrafish".

**2019-2021** **Nicolás Zúñiga Soto**, Master student in Biochemistry and Bioinformatics, University of Concepcion, Chile. **Co-Supervisor**. Thesis Title: "Evolutionary origin and functional participation of glutamatergic vesicular communication during the neurulation process in *Xenopus laevis*".

***Undergraduate Mentoring***

**2023-** **Matías Herrera Cornejo,** Bachelor student in Environmental Engineering, University of Concepcion, Chile. **Co-Supervisor**.

**2023-** **Pablo Oyarzo Vera,** Bachelor student in Bioengineering, University of Concepcion, Chile. **Supervisor**.

**2023-** **Sergio Hernández López,** Bachelor student in Bioengineering, University of Concepcion, Chile. **Co-Supervisor**.

**2022-** **Jonathan Núñez Miranda,** Bachelor student in Bioengineering, University of Concepcion, Chile. **Co-Supervisor**.

**2022-** **Albert Arriagada Sandoval**, Bachelor student in Biology, University of Concepcion, Chile. **Supervisor**.

**2022-** **Cristian Muñoz Gonzalez**, Bachelor student in Bioengineering, University of Concepcion, Chile. **Supervisor**.

**2021-2022** **Claudio Quevedo Gallardo**, Bachelor student in Civil Engineering in Bioinformatics, University of Talca, Chile. **Supervisor**. Thesis Title: "Genetic-regulatory characterization of the gene regulatory network underlying spicule formation in *Strongylocentrotus purpuratus*".

**2020-2024** **Sebastián Fuller Vargas**, Bachelor student in Bioengineering, University of Concepcion, Chile. **Supervisor**. Thesis Title: "Identification of horizontal gene transfer events and its implication in molluscan shell formation".

**2020-2024** **Yeruti Cid Cartagena**, Bachelor student in Bioengineering, University of Concepcion, Chile. **Supervisor**. Thesis Title: "Characterization of the Hox gene cluster in the Chilean sea urchin (*Tetrapygus niger*)".

**2020-2023** **Constanza Aguirre Campos**, Bachelor student in Bioengineering, University of Concepcion, Chile. **Co-Supervisor**. Thesis Title: "Phenotypic analysis of the *mgat1a*$^{sa9475}$ mutant during oogenesis and activation of the zebrafish egg".

**2019-2022** **Ignacio Torres Avello**, Bachelor student in Bioengineering, University of Concepcion, Chile. **Supervisor**. Thesis Title: "Characterization of the protein families (MSP130 and Sm) involved in the formation of mineralized structures in the Chilean sea urchin *Tetrapygus niger*".

**2019-2022** **Camilo Muñoz Schuler**, Bachelor student in Biochemistry, University of Concepcion, Chile. **Supervisor**. Thesis Title: "Evaluation of the participation of cellular and vesicular components in shell biomineralization of the Pacific oyster *Crassostrea gigas*".

**2019-2021** **Nicolás Gárate Guerrero**, Bachelor student in Biology, University of Concepcion, Chile. **Co-Supervisor**. Thesis Title: "Phylogenetic reconstruction of the endocannabinoid system and study of protein regions of the CB1 receptor".

# PARTICIPATION IN THESIS EVALUATION COMMITTEE

***Doctoral Thesis Committee***

**2020-2020** **Inés González Castellano**, Doctorate student in the PhD program in Cell and Molecular Biology, Faculty of Sciences, University of Coruña, Spain.

**2019-2024** **Héctor Castillo Cordova**, Doctorate student in Biological Sciences mention Cellular and Molecular Biology, Faculty of Biological Sciences, University of Concepcion, Chile.

***Master Thesis Committee***

**2024-** **Isidora Manriquez Cuadra**, Master student in Biochemistry and Bioinformatics, Faculty of Biological Sciences, University of Concepcion, Chile.

**2020-2023** **María Esperanza Martínez Campos**, Master student in Neurobiology, Faculty of Biological Sciences, University of Concepcion, Chile.

***Undergraduate Thesis Committee***

**2022-2023** **Daniel Candia Herrera**, Bachelor student in Bioengineering, Faculty of Biological Sciences, University of Concepcion, Chile.

**2021-2022** **Jorge Fraga Pérez**, Bachelor student in Biochemistry, Faculty of Pharmacy, University of Concepcion, Chile.

**2021-2022** **Carlos Carrasco Pérez**, Bachelor student in Biochemistry, Faculty of Pharmacy, University of Concepcion, Chile.

**2021-2021** **Macarena Hinrichs Varas**, Bachelor student in Bioengineering, Faculty of Biological Sciences, University of Concepcion, Chile.

**2020-2022** **Mauren Chávez Yánez**, Bachelor student in Biochemistry, Faculty of Pharmacy, University of Concepcion, Chile.

**2019-2024** **Nicolás Badilla Zambrano,** Bachelor student in Biochemistry, Faculty of Pharmacy, University of Concepcion, Chile.

**2018-** **María José Ruiz Norambuena**, Bachelor student in Biochemistry, Faculty of Pharmacy, University of Concepcion, Chile.

# EXPERIENCE IN PEER REVIEW

***Peer-review Research Grants***

**2024** International Call ICGEB (International Centre for Genetic Engineering and Biotechnology) Research Grants (ANID-Chile).

**2023** Concurso de Proyectos Fondecyt Iniciación, Group of Study Biology 3, of the National Agency for Research and Development (ANID - Chile).

**2023** Concurso de Proyectos Fondecyt Regular, Group of Study Biology 3, of the National Agency for Research and Development (ANID - Chile).

**2022** Concurso de Proyectos de Exploración 2022 of the National Agency for Research and Development (ANID - Chile).

**2022** I+D Program of the Sectorial Commission of Scientific Research (CSIC) of the University of the Republic, Uruguay.

**2015-2016** The Saltonstall-Kennedy Grant Program, United States.

***Peer-review Research Articles***

**2024** Frontiers in Neuroscience (1 manuscript), eLife (1 manuscript), Frontiers in Marine Science (1 manuscript), Science Advances (1 manuscript)

**2023** Scientific Reports (1 manuscript), Journal of Marine Science and Engineering (1 manuscript), Proceedings of the Royal Society B (1 manuscript), Briefings in Functional Genomics (1 manuscript), BMC Biology (1 manuscript), Molluscan Research (1 manuscript), eLife (1 manuscript)

**2022** Molecular Biology and Evolution (2 manuscripts), Biochemical Genetics (1 manuscript), Integrative Organismal Biology (1 manuscript), Comparative Biochemistry and Physiology – Part D: Genomics and Proteomics (1 manuscript), BMC Genomic Data (1 manuscript), Proceedings of the Royal Society B (1 manuscript)

**2021** Molecular Biology and Evolution (1 manuscript), Aquaculture Research (1 manuscript), Frontiers in Marine Science (1 manuscript), Aquaculture (1 manuscript), Frontiers in Ecology and Evolution (2 manuscripts), Biochemical Genetics (1 manuscript), PLoS ONE (1 manuscript),

**2020** eLife (1 manuscript), Gene (1 manuscript), Journal of Oceanology and Limnology (1 manuscript), Marine Genomics (1 manuscript), Molecular Biology and Evolution (1 manuscript)

**2019** PeerJ (1 manuscript), iScience (1 manuscript), Gene (2 manuscripts), Ecology & Evolution (1 article), Marine and Freshwater Behaviour and Physiology (1 manuscript), Comparative Biochemistry and Physiology – part D: Genomics and Proteomics (2 manuscripts), Developmental & Comparative

| | |
|---|---|
| | Immunology (1 manuscript), Comparative Biochemistry and Physiology – Part B: Biochemistry and Molecular Biology (1 manuscript) |
| **2018** | Molecular Ecology (2 manuscripts), Biological Reviews (1 manuscript), The Biological Bulletin (1 manuscript), Journal of Oceanology and Limnology (1 manuscript), Acta Biomaterialia (1 manuscript), Journal of Genetic Disorders (1 manuscript), Gene (4 manuscripts), Comparative Biochemistry and Physiology – part D: Genomics and Proteomics (1 manuscript), Aquaculture (1 manuscript), Journal of the Royal Society Interface (1 manuscript), Genes (1 manuscript), Heredity (1 manuscript) |
| **2017** | Journal of the Royal Society Interface (1 manuscript), Journal of Genetic Disorders (1 manuscript), Molecular Ecology (1 manuscript), Scientific Reports (1 manuscript), Journal of Oceanology and Limnology (1 manuscript), PLoS ONE (1 manuscript). |
| **2016** | Scientific Reports (1 manuscript), Journal of the Royal Society Interface (1 manuscript), Comparative Biochemistry and Physiology, Part B: Biochemistry and Molecular Biology (1 manuscript), Journal of Oceanology and Limnology (1 manuscript), Fish & Shellfish Immunology (1 manuscript). |
| **2015** | SpringerPlus (1 manuscript). |
| **2014** | BMC Genomics (1 manuscript), PLoS ONE (2 manuscripts), Gene (1 manuscript). |
| **2013** | Gene (1 manuscript), Proteome Science (1 manuscript). |
| **2012** | Aquaculture (1 manuscript). |

***Peer-review University Accreditation for Undergraduate and Postgraduate Programs***

| | |
|---|---|
| **2022-** | National Commission on Accreditation CNA-Chile, Peer-review Postgraduate Programs. |

# SOCIETY MEMBERSHIPS, PARTICIPATION IN INTERNATIONAL COURSES, AND ADMINISTRATIVE DUTIES IN UNIVERSITIES

***Scientific Society Memberships***

Pan-American Society for Evolutionary Developmental Biology (EvoDevoPanAm)
Latin American Society for Developmental Biology (LASDB)
Global Invertebrate Genomics Alliance (GIGA)
Chilean Society of Evolution (SOCEVOL)
Chilean Society of Cellular Biology (SBCCH)
International Marine Biotechnology Association (IMBA)
International Society of Invertebrate Morphology (ISIM)
Chilean Society of Genetics (SOCHIGEN)
Chilean Society of Developmental Biology (SBDCh)

***Participation in International Courses***

| | |
|---|---|
| **2023** | EMBO Practical Course: Developmental Biology Quintay-Chile (https://biodesarrollo.unab.cl/) (Professor of the Sea Urchin Module) |

***Administrative Duties in Universities***

| | |
|---|---|
| **2023** | Director of Research, Faculty of Biological Sciences, University of Concepcion, Chile |

# BOARD EDITORIAL MEMBER OF SCIENTIFIC SOCIETIES AND JOURNALS

***Editorial Board Member in Scientific Journals***

| | |
|---|---|
| **2018-2020** | eLife – Early Career Reviewer, Genomics and Evolutionary Biology Section. |
| **2021-2023** | Biochemical Genetics – Editorial Broad Member (https://www.springer.com/journal/10528/editors) |
| **2021-** | Journal of Experimental Zoology, Part B: Molecular and Developmental Evolution – Editorial Broad Member (https://onlinelibrary.wiley.com/page/journal/15525015/homepage/editorialboard.html) |
| **2022-2024** | eLife Early Career Reviewer Pool (https://datastudio.google.com/embed/u/0/reporting/7ee3012b-8543-4141-9f8e-03355dbfff55/page/OPij) |

***Board Member in Scientific Societies***

**2022-** International Marine Biotechnology Association (IMBA) - Board Member (http://theimba.org/imba-board)
**2022-** International Society of Invertebrate Morphology (ISIM) - President-elect (https://icim5-2022.univie.ac.at/)
**2023-** Chilean Society of Evolution (SOCEVOL) - Delegate of the Directory.
**2023-** Chilean Society of Genetics (SOCHIGEN) - Delegate of the Genomics and Bioinformatics Section.

# OUTREACH ACTIVITIES AND NEWS

**2024**

- https://portal.ucm.cl/noticias/conservacion-especies-investigan-mecanismos-bioquimicos-determinantes-la-fertilidad
- https://cienciasbiologicasudec.cl/congreso-de-la-sociedad-chilena-de-reproduccion-y-desarrollo-se-realizo-en-la-universidad-de-concepcion/
- https://noticias.udec.cl/vrid-udec-reconocio-a-mentoras-y-mentores-por-su-apoyo-a-investigadores-en-fase-inicial/
- https://www.instagram.com/centrodebiotecnologia/p/C769A1cPu9n/?img_index=2

**2023**

- https://cienciasbiologicasudec.cl/estudiante-de-bioingenieria-realizo-curso-de-verano-en-stowers-institute-de-missouri-es-como-el-disney-world-de-la-ciencia/
- https://cienciasbiologicasudec.cl/academico-fcb-recibe-financiamiento-para-estudiar-la-adaptabilidad-de-animales-marinos-frente-al-cambio-climatico/
- https://www.chillanonline.cl/V6/seremi-de-ciencia-y-ciencias-biologicas-udec-realizan-divulgacion-cientifica-en-santa-juana/
- https://radioeva.cl/seremi-de-ciencia-y-ciencias-biologicas-udec-realizan-divulgacion-cientifica-en-santa-juana/
- https://cienciasbiologicasudec.cl/direccion-de-investigacion-realiza-charlas-enfocadas-en-el-sector-productivo-con-microxchile/
- https://cienciasbiologicasudec.cl/cientificos-fcb-se-adjudican-4-proyectos-en-fondecyt-regular/
- https://cienciasbiologicasudec.cl/dr-felipe-aguilera-es-reconocido-por-la-revista-elife-con-el-premio-ben-barres-spotlight-award/

**2022**

- https://elifesciences.org/inside-elife/6794cd8a/ben-barres-spotlight-awards-announcing-the-winners-for-2022#:~:text=The%20winners%20of%20eLife's%202022,Research%20(a%20unit%20of%20inStem%2C
- https://cienciasbiologicasudec.cl/destacada-participacion-del-grupo-de-procesos-del-desarrollo-gdep-de-la-fcb-en-el-congreso-de-la-sociedad-chilena-de-biologia-celular-2022/
- https://cienciasbiologicasudec.cl/representantes-fcb-participan-en-congreso-internacional-y-estrechan-lazos-con-embajador-de-chile-en-austria/
- https://cienciasbiologicasudec.cl/representantes-de-la-fcb-participan-en-congreso-internacional-en-vancouver/
- https://www.diarioconcepcion.cl/ciencia-y-sociedad/2022/05/05/cientifico-udec-integro-trabajo-que-reconsidera-evolucion-de-los-erizos-de-mar.html
- https://dovetailgenomics.com/resources/testimonials/
- https://cienciasbiologicasudec.cl/dr-felipe-aguilera-el-fin-de-un-postgrado-no-es-solo-la-academia-hay-otros-caminos-profesionales/
- https://noticias.udec.cl/academico-udec-participa-de-estudio-internacional-que-reconsidera-la-evolucion-temprana-de-los-erizos-de-mar/
- https://paginav.cl/2022/04/26/academico-participa-de-estudio-internacional-que-reconsidera-la-evolucion-temprana-de-los-erizos-de-mar/
- https://cienciasbiologicasudec.cl/cinco-academicos-fcb-consiguieron-adjudicacion-fondecyt-regular-2022/
- https://elifesciences.org/for-the-press/4a6d2f47/study-reconsiders-early-evolution-of-sea-urchins
- https://noticias.udec.cl/cientificos-y-cientificas-udec-adjudican-34-nuevos-proyectos-en-fondecyt-regular/

**2021**

- https://www.radioudec.cl/2021/05/28/ciencias-biologicas-udec-se-suma-a-proyecto-de-vigilancia-genomica-del-sars-cov-2-liderado-por-el-ministerio-de-ciencia/
- https://cienciasbiologicasudec.cl/vigilancia-genomica-del-sars-cov-2-desde-la-fcb/
- https://sabes.cl/2021/05/27/laboratorio-de-la-universidad-de-concepcion-se-sumara-a-estudio-genomico-de-covid-19/
- http://www.ladiscusion.cl/vigilancia-genomica-del-sars-cov-2-desde-la-universidad-de-concepcion/?fbclid=IwAR2BMYCLtGwZ9PjvDeNPekS3ZPb55sbr1nDBAuAXEB-sBeGZPB5bahJGOt8
- https://www.diarioconcepcion.cl/ciudad/2021/04/11/parte-secuenciacion-genetica-del-coronavirus-en-la-region.html
- https://cienciasbiologicasudec.cl/cientifico-udec-espera-sumarse-a-estudio-covid/

**2020**

- http://docencia.udec.cl/fondo-adapta-doc-de-apoyo-a-la-docencia-un-respaldo-a-la-innovacion-e-investigacion-educacional/
- https://noticias.udec.cl/proyectos-udec-financiados-por-anid-destacan-en-diversidad-tematica-y-colaboracion/

**2018**

- http://csbiol.udec.cl/dr-felipe-aguilera-publica-articulo-en-revista-internacional-integrative-comparative-biology/
- http://csbiol.udec.cl/dr-felipe-aguilera-publica-investigacion-sobre-neuropeptidos-en-revista-molecular-biology-and-evolution/
- http://csbiol.udec.cl/dr-felipe-aguilera-expone-sobre-el-chanchito-de-tierra-en-colegio-san-agustin-de-concepcion/
- http://csbiol.udec.cl/dr-felipe-aguilera-expuso-en-third-global-invertebrate-genomics-alliance-research-conference-and-workshop/
- http://csbiol.udec.cl/representantes-fcb-expusieron-en-conferencia-internacional-de-bioinformatica-2018/
- http://csbiol.udec.cl/dr-felipe-aguilera-se-adjudica-proyecto-fondecyt-de-iniciacion/
- http://liceojcbrecreo.cl/visita-ex-alumno-cerro-castillo/
- http://csbiol.udec.cl/workshop-en-genomica-funcional-conto-con-la-participacion-de-investigadores-franceses/
- http://csbiol.udec.cl/dr-felipe-aguilera-visita-liceo-jose-cortes-brown-de-vina-de-mar/

**2017**

- http://www.biotechniques.com/news/No-Two-Shells-are-the-Same/biotechniques-365649.html#.WKsRNBIrLEZ
- https://www.uq.edu.au/news/article/2017/01/research-finds-sea-shells-are-unique-fingerprints
- https://www.sciencedaily.com/releases/2017/01/170104103622.html
- http://phys.org/news/2017-01-shell-game-gene-patterns-mollusk.html

# PERSONAL DETAILS


| | |
|---|---|
| Name: | Felipe Eleander Aguilera Muñoz |
| Sex: | Male |
| Marital Status: | Married |
| Date of Birth: | 09-April-1985 |
| Citizenship: | Chilean |
| Known Languages: | Spanish (Mother tongue) and Advanced English (Fluent level) |
| Personal Address: | Bonilla Norte 3152, Condominio Calafquen Casa 28, Concepcion, Chile. |
| Working Address: | Molecular Biology Building 1st floor, Barrio Universitario s/n, University of Concepción, Concepción, Chile<br>Centre for Biotechnology, 3rd floor, Barrio Universitario s/n, University of Concepción, Concepción, Chile |
| Office Phone: | +56 41 220 3790; +56 41 220 7303 |
| E-mail: | faguilera@udec.cl |
| ORCID: | 0000-0003-3235-931X |