

DR. SEBASTIAN BOLTANA HARMS

Profesor de Inmunología y Fisiología Comparada.

Facultad de Ciencias Naturales y Oceanográficas. Depto. Oceanografía.

Universidad de Concepción, Concepción, Chile

Centro de Biotecnología – Interdisciplinary Center for Aquaculture Research (INCAR)

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EDUCACIÓN

- **Doctorado** 2010. Universidad Autónoma de Barcelona, Departamento de fisiología animal, biología celular e inmunología (Cum Laude).
- **Magister**. 2007. Universidad Autónoma de Barcelona, Departamento de fisiología animal, biología celular e inmunología (Cum Laude).
- **Pre grado**. 2001. Biología Marina, Universidad Católica del Norte (egresado con honores).

EXPERIENCIA LABORAL

- **Profesor asociado**: 2015- a la fecha. Fac. Cs. Naturales y Oceanográficas. Universidad de Concepción.
- **Impact research fellow**. 2013-2015. School of Natural Sciences. University of Stirling, UK.
- **Investigador Post-doctorado**. 2011-2013. Evolutive Immunology Group, Institute of Biotechnology and Biomedicine IBB. Barcelona, España
- **Investigador Post-doctorado**. 2010-2011. Fish Immune Stress Group Universidad de Barcelona, España
- **Investigador asistente**. 2007-2010. Department of Cell Biology, Physiology and Immunology, Universidad de Barcelona, España
- **Investigador asistente**. 2001-2004. BEDIM, Biology, Ecology and Diversity of Invertebrates of Marine Environment, Universidad Católica del Norte, Chile
- **Investigador técnico**. 1999-2001. BEDIM, Biology, Ecology and Diversity of Invertebrates of Marine Environment, Universidad Católica del Norte, Chile

AREA DE INVESTIGACIÓN

- Comparative immunology
- Immune susceptibility (variation)
- Bioinformatics, RNAseq, Chip-Seq
- Thermoregulation
- Comparative physiology
- Ecology, biogeography and taxonomy of aquatic animals

PUBLICACIONES

1. Ribas L, Crespo B, Sánchez-Baizán N, Xavier D, Kuhl H, Rodríguez JM, Díaz N, **Boltaña S**, MacKenzie S, Reinhardt R, Moran F, Zanuy S, Gómez A, Piferrer F Characterization of the European sea bass (*Dicentrarchus labrax*) gonadal transcriptome during different stages of sexual development. *Marine Biotechnology*. 2019 (DOI: [org/10.1007/s10126-019-09886-x](https://doi.org/10.1007/s10126-019-09886-x))
2. Aedo J, Zuloaga R, **Boltaña S**, Molina A, Valdés J. Membrane-initiated cortisol action modulate the early pyruvate dehydrogenase kinase 2 (pdk2) expression in fish skeletal muscle. *Comparative Biochemistry and Physiology - Part A: Molecular & Integrative Physiology*. 2019. DOI: [10.1016/j.cbpa.2019.03.022](https://doi.org/10.1016/j.cbpa.2019.03.022)
3. Sanhueza N, Donoso A, Aguilar A, Farlora R, Míguez JM, Tort LI, Valdes JA, **Boltana S**. Thermal modulation of monoamine levels influence the fish stress and welfare. *Frontiers in Endocrinology* 2018. DOI: [10.3389/fendo.2018.00717](https://doi.org/10.3389/fendo.2018.00717)
4. Tarifeño-Saldivia E, Aguilar A, Contreras D, Mercado L, Morales B, Marquez, A Henriquez K, Riquelme C, **Boltana S**. Iron overload is associated with oxidative stress and nutritional immunity during viral infection in fish. *Frontiers in Immunology*. 2018. DOI: [10.3389/fimmu.2018.01296](https://doi.org/10.3389/fimmu.2018.01296)
5. **Boltaña S**, Aguilar A, Sanhueza N, Donoso A, Mercado L, Imarai M, Mackenzie S. Behavioural fever drives epigenetics modulation of the immune response in fish. *Frontiers in Immunology*. 2018. DOI: [10.3389/fimmu.2018.01241](https://doi.org/10.3389/fimmu.2018.01241)
6. **Boltana S**, Sanhueza N, Donoso A, Aguilar A, Crespo D, Vergara D, Arriagada G, Morales-Lange B, Mercado L, Rey S, Tort L, Mackenzie S. The expression of TRPV channels, prostaglandin E2 and pro-inflammatory cytokines during behavioural fever in fish. *Brain, Behavior, and Immunity*. 2018. DOI: [10.1016/j.bbi.2018.03.023](https://doi.org/10.1016/j.bbi.2018.03.023). ISI.
7. Aballai V, Aedo J.E, Maldonado J, Bastias-Molina M, Silva H, Meneses C, **Boltaña S**, Reyes A, Molina A, Valdés J.A. RNA-seq analysis of the head-kidney transcriptome response to handling-stress in the red cusk-eel (*Genypterus chilensis*). *Comparative Biochemistry and Physiology - Part D* 24 2017 111–117. <https://doi.org/10.1016/j.cbd.2017.09.002>. ISI
8. **Boltaña S**, Sanhueza N, Aguilar A, Gallardo-Escarate C, Arriagada G, Valdes J.A, Soto D, Quinones R. Influences of thermal environment on fish growth. *Ecology and Evolution*. 2017. 7(17):6814-6825. DOI: [10.1002/ece3.3239](https://doi.org/10.1002/ece3.3239). ISI
9. Valenzuela-Muñoz V, **Boltaña S**, Gallardo-Escárate C. Uncovering iron regulation with species-specific transcriptome patterns in Atlantic and coho salmon during a *Caligus rogercresseyi* infestation. *Journal of Fish Diseases*. 2017 40(9):1169-1148. DOI: [10.1111/jfd.12592](https://doi.org/10.1111/jfd.12592). ISI.
10. Rey S, Moiche V, **Boltaña S**, Teles M, MacKenzie S. Behavioural fever in zebrafish larvae. *Developmental & Comparative Immunology*. 2017. 67:287-292. DOI: [10.1016/j.dci.2016.09.008](https://doi.org/10.1016/j.dci.2016.09.008). ISI.
11. Gallardo-Escárate C, Valenzuela-Muñoz V, **Boltaña S**, Nuñez-Acuña G, Valenzuela-Miranda D, Gonçalves A.T, Détrée C, Tarifeño-Saldivia E, Farlora R, Roberts S, Putnamd H.M. The *Caligus rogercresseyi* miRNome: Discovery and transcriptome profiling during the sea lice ontogeny. *Agri Gene*. 2017. 4:8-22. DOI: [10.1016/j.aggene.2017.03.002](https://doi.org/10.1016/j.aggene.2017.03.002). ISI.
12. **Boltaña S**, Castellana B, Goetz G, Tort L, Teles M, Mulero V, Novoa , Figueras , Goetz FW, Gallardo-Escarate C Planas JV, Mackenzie S. Extending Immunological Profiling in the Gilthead Sea Bream, *Sparus aurata*, by Enriched cDNA Library Analysis, Microarray Design and Initial Studies upon the Inflammatory Response to PAMPs. *International Journal of Molecular Sciences*. 2017. 18(3):317-338. DOI: [10.3390/ijms18020317](https://doi.org/10.3390/ijms18020317). ISI.
13. **Boltaña S**, Valenzuela-Miranda D, Aguilar A, Mackenzie S, Gallardo-Escárate C. Long noncoding RNAs (lncRNAs) dynamics evidence immunomodulation during ISAV-Infected Atlantic salmon (*Salmo salar*). *Scientific Report*. 2016. 6. DOI: [10.1038/srep22698](https://doi.org/10.1038/srep22698). ISI.
14. **Boltaña S**, Sanchez M, Valenzuela V, Gallardo-Escárate C. Density-dependent effects of *Caligus rogercresseyi* infestation on the immune responses of *Salmo salar*. *Fish & Shellfish Immunology*. 2016. 59: 365-374. DOI: [10.1016/j.fsi.2016.11.002](https://doi.org/10.1016/j.fsi.2016.11.002). ISI.
15. **Boltaña S**, Chávez-Mardones J, Valenzuela-Muñoz V, Gallardo-Escárate C. Evidence for the Induction of Key Components of the NOTCH Signaling Pathway via Deltamethrin and Azamethiphos Treatment

- in the Sea Louse *Caligus rogercresseyi*. *International Journal of Molecular Sciences*. 2016. 17:304. DOI: 10.3390/ijms17050304. ISI.
16. Valenzuela-Muñoz V, **Boltaña S**, Gallardo-Escárate C. Comparative immunity of *Salmo salar* and *Oncorhynchus kisutch* during infestation with the sea louse *Caligus rogercresseyi*: An enrichment transcriptome analysis. *Fish & Shellfish Immunology*. 2016. 59:276-287. DOI: 10.1016/j.fsi.2016.10.046. ISI.
 17. Núñez-Acuña G, **Boltaña S**, Gallardo-Escárate C. Pesticides Drive Stochastic Changes in the Chemoreception and Neurotransmission System of Marine Ectoparasites. *International Journal of Molecular Sciences*. 2016. 17(6):700. DOI: 10.3390/ijms17060700. ISI.
 18. Núñez-Acuña G, Vera-Bizama F, **Boltaña S**, Hawes C, Pino Marambio J, Wadsworth S, Gallardo-Escárate C. In-feed additives modulate ionotropic receptor genes from the sea louse *Caligus rogercresseyi*: A comparative analysis in two host salmonid species. *Aquaculture*. 2016. 451:99-105. DOI: 10.1016/j.aquaculture.2015.09.001. ISI.
 19. Jensen L B, **Boltaña S**, Obach A, McGurk C, Waagbø R, MacKenzie S. Investigating the underlying mechanisms of temperature-related skin diseases in Atlantic salmon, *Salmo salar*, as measured by quantitative histology, skin transcriptomics and composition. *Journal of Fish Diseases*. 2015. 38: 977-992. DOI: 10.1111/jfd.12314. ISI.
 20. Valenzuela-Miranda D, **Boltaña S**, Cabrejos M.E, Yáñez J.M, Gallardo-Escárate C. High-throughput transcriptome analysis of ISAV-infected Atlantic salmon *Salmo salar* unravels divergent immune responses associated to head-kidney, liver and gills tissues. *Fish & Shellfish Immunology*. 2015. 45(2): 367-377. DOI: 10.1016/j.fsi.2015.04.003. ISI.
 21. Rey S, Huntingford F.A, **Boltaña S**, Vargas R, Knowles T.G, Mackenzie S. Fish can show emotional fever: stress-induced hyperthermia in zebrafish. *Proceeding of the Royal Society B, Biological Science*. 2015. 282 (1819): 20152266. DOI: 10.1098/rspb.2015.2266. ISI.
 22. De Santis C, Taylor J.F, Martinez-Rubio L, **Boltaña S**. and Tocher D.R. Influence of Development and Dietary Phospholipid Content and Composition on Intestinal Transcriptome of Atlantic Salmon (*Salmo salar*). *Plos one*. 2015. 10(10): e0140964. DOI: 10.1371/journal.pone.0140964. ISI.
 23. **Boltaña S**, Tridico R, Teles M, Mackenzie S M, Tort L, Lipopolysaccharides isolated from *Aeromonas salmonicida* and *Vibrio anguillarum* show quantitative but not qualitative differences in inflammatory outcome in *Sparus aurata* (Gilthead seabream). *Fish & Shellfish Immunology*. 2014. 39(12): 475-482. DOI: 10.1016/j.fsi.2014.06.003. ISI.
 24. Dios S, Balseiro P, Costa M.M, Romero A, **Boltaña S**, Roher N, Mackenzie S, Figueras A, Novoa B. The Involvement of Cholesterol in Sepsis and Tolerance to Lipopolysaccharide Highlighted by the Transcriptome Analysis of Zebrafish (*Danio rerio*). *Zebrafish*. 2014. 11(5): 421-433. DOI: 10.1089/zeb.2014.0995. ISI.
 25. Pereiro P, Dios S, **Boltaña S**, Coll J, Estepa A, Mackenzie S, Novoa B, Figueras A. Transcriptome Profiles Associated to VHSV Infection or DNA Vaccination in Turbot (*Scophthalmus maximus*). *Plos one*. 2014. 9(8). DOI: 10.1371/journal.pone.0104509. ISI.
 26. Pereiro P, **Boltaña S**, Dios S, Coll J, Estepa A, Mackenzie S, Novoa B, Figueras A. Use of an immune-specific microarray for identifying transcriptome profiles associated to the infection of VHSV or to the protection mechanisms induced by a DNA vaccine encoding the G glycoprotein in turbot (*Scophthalmus maximus*). *Fish and Shellfish Immunology*. 2013. 34(6):1671-1672. DOI: 10.1016/j.fsi.2013.03.116. ISI.
 27. Teles M, **Boltaña S**, Reyes-López F, Santos M.A, Mackenzie S, Tort L. Effects of Chronic Cortisol Administration on Global Expression of GR and the Liver Transcriptome in *Sparus aurata*. *Marine Biotechnology*. 2013. 15(1): 104-114. DOI: 10.1007/s10126-012-9467-y. ISI.
 28. Rey S, **Boltaña S**, Vargas R, Roher N, MacKenzie S. Combining animal personalities with transcriptomics resolves individual variation within a wild-type zebrafish population and identifies underpinning molecular differences in brain function. *Molecular Ecology*. 2013. 22(24): 6100-6115. DOI: 10.1111/mec.12556. ISI.
 29. **Boltaña S**, Rey S, Roher N, Vargas R, Huntingford FA, Goetz FW, Moore J., MacKenzie S. Behavioural fever is a synergic signal amplifying the innate immune response. *Proceeding of the Royal Society B, Biological Science*. 2013. 280(1766): 20131381. DOI: 10.1098/rspb.2013.1381. ISI.

30. **Boltaña S**, Reyes-Lopez F, Morera D, Goetz F, MacKenzie S. Divergent responses to peptidoglycans derived from different *E. coli* serotypes influence inflammatory outcome in trout, *Oncorhynchus mykiss*, macrophages. *BMC Genomics*. 2011. 12(34): 1471. DOI: 10.1186/1471-2164-12-34. ISI.
31. Morera D, Roher N, Ribas L, Balasch J.C, Doñate C, Callol A, **Boltaña S**, Roberts S, Goetz G, Goetz F.W, MacKenzie S.A. RNA-Seq Reveals an Integrated Immune Response in Nucleated Erythrocytes. *Plos one*. 2011. 6(10). DOI: 10.1371/journal.pone.0026998. ISI.
32. **Boltaña S**, Roher N, Goetz F.W, MacKenzie S.A. PAMPs, PRRs and the genomics of gram negative bacterial recognition in fish. *Developmental and Comparative Immunology*. 2011. 35: 1195-1203. DOI: 10.1016/j.dci.2011.02.010. ISI.
33. Teles M, Mackenzie S, **Boltaña S**, Callol A, Tort L. Gene expression and TNF-alpha secretion profile in rainbow trout macrophages following exposures to copper and bacterial lipopolysaccharide. *Fish and Shellfish Immunology*. 2011. 30: 340-346. DOI: 10.1016/j.fsi.2010.11.006. ISI.
34. Rivadeneira M, Hernandez P, Baeza A, **Boltaña S**, Cifuentes M, Correa C, Cuevas A, del Valle E, Hinojosa I, Ulrich N, Valdivia N, Vásquez N, Zander A, Thiel M, Testing the abundant-centre hypothesis using intertidal porcelain crabs along the Chilean coast: linking abundance and life-history variation. *Journal of Biogeography*. 2010. 37: 486-498. DOI: 10.1111/j.1365-2699.2009.02224.x. ISI.
35. MacKenzie S, Roher N, **Boltaña S**, Goetz FW, Peptidoglycan not endotoxin, is the key mediator of cytokine gene expression induced in rainbow trout macrophages by crude LPS. *Molecular Immunology*. 2010. 47: 1450-1457. DOI: 10.1016/j.molimm.2010.02.009. ISI.
36. **Boltaña S**, Doñate C, Goetz FW, MacKenzie S, Balasch JC. Characterization and expression of NADPH oxidase in LPS-, poly(I:C)- and zymosan-stimulated trout (*Oncorhynchus mykiss*) macrophages. *Fish and Shellfish Immunology*. 2009. 26: 651-661. DOI: 10.1016/j.fsi.2008.11.011. ISI.
37. Hinojosa I, **Boltaña S**, González E.R, Macaya E, Thiel M, Ugalde P, Valdivia N. Early developmental stages of crustacean decapods associated with floating seaweed in fiord and channels from southern Chile. *Ciencia y Tecnología del Mar*. 2007 (30). 75-89. ISI
38. Hinojosa I, **Boltaña S**, Lancellotti D, Macaya E, Ugalde P, Valdivia N, Vásquez N, Newman W A, Thiel M. Geographic distribution and description of four pelagic barnacles along the south east Pacific coast of Chile - a zoogeographical approximation. *Revista Chilena de Historia Natural*. 2006. 79:13-27. DOI: 10.4067/S0716-078X2006000100002. ISI.
39. Macaya E, **Boltaña S**, Buschmann A, Hinojosa I, Macchiavello J, Valdivia N, Vásquez N, Vásquez J, Vega J. Presence of sporophylls in floating kelp rafts of macrocystis spp. (phaeophyceae) along the chilean pacific coast. *Journal of Phycology*. 2005. 41: 913-922. DOI: 10.1111/j.1529-8817.2005.00118.x. ISI.
40. **Boltaña S**, and Thiel M. Associations between two species of snapping shrimp, *Alpheus inca* and *Alpheopsis chilensis* (Decapoda: Caridea: Alpheidae). *Journal of the Marine Biological Association of the UK*. 2001. 81(04): 633-638. DOI: 10.1017/S0025315401004295. ISI.

CAPÍTULOS EN LIBROS

- **Boltaña S**. Boshra H. Tort L. Trout: From Physiology to Conservation 16th Immune system and immune responses in rainbow trout. Science Publishers. Ed by: S. Polakoff and T. Moon. Page: 371-412 NOVA Publishers. ISBN: 978-1-62417-009-6. 2013.
- Mackenzie S. **Boltaña S**. Novoa B. Figueras A. Infectious disease in aquaculture 13th Developments in genomics relevant to disease control in aquaculture. Page: 331-352 Austin Publishers. Ed Brian Austin. ISBN: 978-0-85709-016-4. 2012

PREMIOS Y HONORES

Premios

- 2019 Promoción jerarquía académica profesor asociado, Universidad de Concepción

- 2018 Sobresaliente, Evaluación Académica, Universidad de Concepción
- 2018 Asignación Académica, Universidad de Concepción
- 2013 Extraordinary Award PhD Thesis, Autònoma of Barcelona University

Becas

- 2013 Impact Research Fellowship, University of Stirling, UK
- 2008 University Doctoral Fellowship, IMAQUANIM Funding European Union
- 2007 University MSc Fellowship, Funding Ministry of Science and Innovation, Spain Govern
- 1998-2001 University undergraduate fellowship, Funding Ministry of Science Chile Govern

EXPERIENCIA DOCENTE UNIVERSITARIA

Instituto de Acuicultura, Universidad de Stirling, Reino Unido

2013. *Profesor Asistente* Proteomic large-scale dataset (Cytoscape software)- Mag. Biotecnología Marina.

Universidad Autónoma de Barcelona, España

2011-2012. *Profesor* Introduction to Animal Manipulation.

2009-2011 *Profesor Asistente* Fish immune system- Mag. Acuicultura

2008-2009. *Profesor Asistente* Comparative physiology (práctico)- Pre-grado.

CURSOS COMPLEMENTARIOS Y TECNICAS

Cursos

- **The Genome Analysis Centre TGAC**,
2013. Analysis RNA-seq Data. TGAC Centre, Noruega, Reino Unido.
- **Home office personal licence animal training modules 1,2,3.**
2013. Universidad de Glasgow, Reino Unido.
- **Microarray Analysis.**
2009. Agilent support, Universidad Autónoma de Barcelona.
- **Biostatistics: Advanced Statics Analysis II.**
2009. Universidad Autónoma de Barcelona.
- **Biostatistics: Advanced Statics Analysis I.**
2004. Universidad Católica del Norte.

Técnicas

- Molecular and cellular technics (RNA-DNA extraction, Cloning, SDS-PAGE, relative and absolute gene expression approaches rt-QPCR, protein assay, microarray assay, primary cell culture, flow cytometry, cytology, histology)
- Large dataset analysis (Microarray, RNA-seq); Network modelling (Cytoscape)
- Computer skills (molecular and bioinformatics software to gene expression analysis; R Bioconductor, Genexpring, Microarray design eArray, Gene network modelling)
- Biostatics (R Bioconductor, JMP Statics, Systat, SPSS)

REVISOR REVISTAS Y COMITES

INVITADO COMITÉ CIENTÍFICOS

1. Evaluador Fonds de recherche du Québec
2. Evaluador Grupo de estudio Biología Celular CONICYT, Chile
3. Evaluador Programa FONDEF- IDEA, Chile
4. Evaluador Programa PAI-CONICYT, Chile
5. Evaluador Programa Becas Doctorado, CONICYT, Chile
6. Evaluador Programa Inserción en el Sector Productivo, CONICYT, Chile
7. Evaluador Programa FONDECYT Regular, Chile
8. Evaluador Programa ECOS-CONICYT, Chile
9. Evaluador Internacional Universidad Santiago de Compostela, España
10. Evaluador Indian Alliance DBT Welcome, India
11. Evaluador Becas Magister CONICYT, Chile
12. Evaluador Becas Doctorado CONICYT, Chile
13. Coordinador Científico, Genomics In Aquaculture, FAASG, Animal Sample

INVITADO REVISOR

1. Fish and Shellfish Immunology
2. Fish Physiology and Biochemistry
3. Innate Immunity

4. BMC Genomics
5. Comparative Biochemical Physiology
6. Experimental Parasitology
7. Gene
8. Marine Genomics
9. Molecular Immunology
10. Frontiers in Immunology
11. Frontiers in Endocrinology

Editor

1. Journal of Aquaculture of Marine Science
2. Frontiers in Immunology
3. Frontiers in Marine Biology

CONTRIBUCIÓN EN PROYECTOS

1. 2019-2023: To be hot or not: the underlying regulation of the immuneresponse during behavioural fever.
FONDECYT REGULAR 2019 N° 1190627
2. 2018-2021: Beyond the genome: impact of microbial communities for adaptation to new environments in fish
FONDECYT POSTDOC N° 3180088
3. 2018-2021: Beyond proteins, genes and mutations: the hidden non-coding nature of the drug resistance in sea lice
FONDECYT REGULAR N° 1180867
4. 2017-2018 Estatus inmune de *Salmo salar* en condiciones de campo y su relación con la infección por *P. salmonis*. Bases para la incorporación de péptidos inmunomoduladores en dieta como nuevos medicamentos contra el patógeno y el SRS
SERNAPESCA N° 201708070149.
5. 2017-2018 CaligusLIFE: Investigación científica de excelencia para la comprensión de la biología de *Caligus rogercresseyi* y su aplicación en estrategias de control de la caligidosis en la industria del salmón. Programa Gestión Sanitaria en la Acuicultura.
SERNAPESCA N° 201706070031.
6. 2017-2020 Challenging the stress response paradigm in fish: role of cortisol membrane-initiated signaling in metabolic adaptations of skeletal muscle.
FONDECYT N° 1171318.
7. 2015-2018 Uncovering the role of microRNAs by deep sequencing during the ontogenetic development of the salmon louse *Caligus rogercresseyi*.
FONDECYT N° 1150077.
8. 2015-2018 Some like it hot: the impact of thermal choice on disease susceptibility in fish.
FONDECYT N°1150585
9. 2012-2014 Mining microarrays for development of innovative tools for fish health in aquaculture.
TSB Feasibility Project. File Ref: 131339, UK
10. 2012-2017 Interdisciplinary Center for Aquaculture Research (INCAR), Fourth National Competition for research Centers of Excellence in priority Areas.
FONDAP N°1510027

11. *2011-2014 COPEWELL*-Understanding of the basic mechanisms involved in coping strategies of fish towards improvement of welfare.
European Union FP7-KBBE-2010-4
12. *2009-2011* An integrated approach to understand the effects of enteral immunostimulation upon mucosal and systemic immunity and disease resistance across cultured finfish species.
MEC, Ministerio de Educación y Ciencia, España
13. *2008-2011* Development of genomic and immunologic tools to select for dietary supplements with immunostimulants and antioxidant activity to increase the productivity of salmonids in culture.
CORFO INNO-VA N°07CN13PBT-90
14. *2007-2012* AquaticGenomics: Improvement of Aquaculture production by the use of biotechnological tools.
MEC, Ministerio de Educación y Ciencia, España.
15. *2005-2009* Improving Immunity in aquaculture animals (IMAQUANIM)
Funding European Union
16. *2001-2004* Distribution and dispersal of benthic macrofauna with direct development: the link between benthic and pelagic peracarid assemblages from macroalgae.
FONDECYT N°1010356

INVITADO A SEMINARIOS PUBLICOS

1. Asociacion Chilena de Inmunologia, Asochin, Valparaiso, Chile
2. Workshop Genomics In Aquaculture, FAASG
3. Institute of Biotechnology and Biomedicine IBB (Barcelona, Spain)
4. Web of Catalunya Aquaculture (San Carles de la Rapita, Spain)
5. Immune genomics in fish (Santiago, Chile)
6. Fish Immune System Seminar of MsC of Aquaculture (Barcelona, Spain)

CONFERENCIAS Y PRESENTACIONES A CONGRESOS

1. **Boltaña S**, Aguilar A, Mercado L, Imaray M, Barria MI, Gallardo C. Thermoregulatory behaviour influences the epigenetic landscape by histone methylation during pathogenic infection in salmon. 17th European Aquaculture Society, Dubrovnik, Croatia 2017.
2. Fernández EF, Ibarra-Zatarain Z, Rey S, MacKenzie S, **Boltaña S**, Duncan NJ. Stress coping style profiles and brain MRNa expression in senegalese sole *Solea senegalensis* juveniles. 17th European Aquaculture Society, Dubrovnik, Croatia 2017.
3. Gallardo-Escárate C, Aguilar A, Mercado L, Imarai M, Barria M.I, **Boltaña S**. Thermoregulatory behaviour influence the epigenetic landscape by histone methylation during pathogenic infection in salmon. 17th European Aquaculture Society, Dubrovnik, Croatia 2017.
4. Gallardo-Escarate C, Valenzuela-Muñoz V, **Boltaña S**, Nuñez-Acuña G, Valenzuela-Miranda D, Gonçalves AT, Détrée C, Tarifeño- Saldivia E, Farlora R, Roberts S, Putman HM. The *caligus rogercresseyi* miRNOME: Discovery and transcriptome profiling during the sea lice ontogeny. 17th European Aquaculture Society, Dubrovnik, Croatia 2017.
5. Gallardo-Escárate C, Valenzuela-Muñoz V, **Boltaña S**, Nuñez-Acuña G, Valenzuela-Miranda D, Gonçalves AT, Roberts S. The *caligus rogercresseyi* mirnome: discovery and transcriptome profiling during the sea lice ontogeny. Aquaculture Europe, Dubrovnik, Croatia 2017.

6. **Boltana S**, Sanhueza N, Aguilar A, Gallardo-Escarate C, Arriagada G, Valdes JA, Soto D, Quinones R. Influences of thermoregulatory behaviour on fish growth. XXXVII Congreso de Ciencias del Mar. Valparaiso, Chile 2017
7. **Boltaña S**. Thermoregulatory behaviour influences immune regulation and response to infection in ectotherm. Workshop on Functional Genomics in aquaculture. FAASG, Concepción, Chile 2017.
8. **Boltaña S**, Sanhueza N, Aguilar A, Arriagada G, Gallardo-Escarate C. Not Too Hot, Not Too Cold: Influences of Temperature Preference on Fish Growth. Plan & Animal Genome Conference (PAG). United States, San Diego 2017.
9. Valenzuela-Muñoz V, Nuñez-Acuña G, Valenzuela-Miranda D, Gonçalves AT, Détrée C, **Boltaña S**, Gallardo-Escarate C. Micro-RNA Expression Profiles and Gene Target Prediction in Atlantic Salmon Infected with *Caligus rogercresseyi*. Plan & Animal Genome Conference (PAG). United States, San Diego 2017.
10. Gallardo-Escarate C, Valenzuela-Muñoz V, Tarifeño E, Valenzuela-Miranda D, Détrée C, Nuñez-Acuña G, **Boltaña S**, Gonçalves AT, Steven R. In the Shadow: The Emerging Role of Long Non-Coding RNAs in the Immune Response of Atlantic Salmon. Plan & Animal Genome Conference (PAG). United States, San Diego 2017.
11. **Boltaña S**, Nuñez-Acuña G, Aguilar A, Gallardo-Escarate C, Valenzuela-Miranda D, Valenzuela-Muñoz V, Gonçalves A. Switching responses in salmonids: Skin regions exhibit quantitative and qualitative unlike response to caligidosis. 11th International Sea Lice Conference. Ireland Westport 2016.
12. Valenzuela-Miranda D, Nuñez-Acuña G, Valenzuela-Muñoz V, Gonçalves A, **Boltaña S**, Gallardo-Escarate C. Long NON-CODING RNAs: Unexplored players during drug metabolism in the Sea Lice *Caligus rogercresseyi*. 11th International Sea Lice Conference. Ireland Westport 2016.
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MANEJO DE IDIOMAS

- *Español* hablante nativo
- *Inglés* bueno (conversación, escritura)
- *Alemán* básico (conversación, escritura)
- *Italiano:* básico (conversación, escritura)

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