

## Asst. Prof. Andres Octavio ARAVENA DUARTE

### Personal Information

**Email:** andres.aravena@istanbul.edu.tr

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAD-9182-2020

ScopusID: 35197949100

Yoksis Researcher ID: 217121

### Education Information

Doctorate, Université Rennes I, Informatics, INRIA/Irisa, France 2011 - 2013

Doctorate, Universidad De Chile, Ciencias Físicas Y Matemáticas, Ingeniería Matemática, Chile 2009 - 2013

Undergraduate Double Major, Universidad De Chile, Ciencias Físicas Y Matemáticas, Ingeniería Matemática, Chile 1986 - 1993

### Foreign Languages

Portuguese, A2 Elementary

English, C1 Advanced

Turkish, A1 Beginner

Spanish, C2 Mastery

French, C1 Advanced

Italian, A2 Elementary

### Dissertations

Doctorate, Probabilistic and Constraint Based Modelling to Determine Regulation Events from Heterogeneous Biological Data, Universidad De Chile, Ciencias Físicas Y Matemáticas, Ingeniería Matemática, 2013

Doctorate, Probabilistic and Constraint Based Modelling to Determine Regulation Events from Heterogeneous Biological Data, Université Rennes I, Informatics, Irisa, 2013

### Research Areas

Computer Sciences, bioinformatics, Mathematics, Computer Science, Statistics, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Istanbul University, Faculty of Science, Molekular Biyoloji Ve Genetik, 2018 - Continues

Assistant Professor, Istanbul University, Faculty of Science, Molekular Biyoloji Ve Genetik, 2014 - 2018

## Academic and Administrative Experience

Research Engineer, Universidad de Chile, FCFM, CMM, 2003 - 2014

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Bioinformatics and gene expression analysis of the legume F-box/WD40 proteins in NaCl and high temperature stress**  
Çelik H., Aravena Duarte A. O., Turgut Kara N.  
Genetic Resources and Crop Evolution, vol.70, no.8, pp.2637-2655, 2023 (SCI-Expanded)
- II. **Genetic diversity at the Dhn3 locus in Turkish Hordeum spontaneum populations with comparative structural analyses**  
Ucarli C., McGuffin L. J., Caputlu S., Aravena A., Guerl F.  
SCIENTIFIC REPORTS, vol.6, 2016 (SCI-Expanded)
- III. **Deciphering transcriptional regulations coordinating the response to environmental changes**  
ACUNA V., Aravena A. O., GUZIOLOWSKI C., EVEILLARD D., SIEGEL A., MAASS A.  
BMC BIOINFORMATICS, vol.17, 2016 (SCI-Expanded)
- IV. **Global transcriptional responses of Acidithiobacillus ferrooxidans Wenelen under different sulfide minerals**  
LATORRE M., EHRENFELD N., PAZ CORTES M., TRAVISANY D., BUDINICH M., Aravena A. O., GONZALEZ M., BOBADILLA-FAZZINI R. A., PARADA P., MAASS A.  
BIORESOURCE TECHNOLOGY, vol.200, pp.29-34, 2016 (SCI-Expanded)
- V. **Array CGH genomic profile of hereditary breast cancer tumors: Identification of tumor suppressor genes in deleted regions, determination of promoter hypermethylation and their protein expression in tumor biopsies**  
Alvarez C., Tapia T., Cornejo V., ARAVENA DUARTE A. O., Fernandez W., Alvarez M., Camus M., Maass A., Carvallo P.  
CANCER RESEARCH, vol.72, 2012 (SCI-Expanded)
- VI. **SalmonDB: a bioinformatics resource for Salmo salar and Oncorhynchus mykiss**  
DI GENOVA A., Aravena A. O., ZAPATA L., GONZALEZ M., MAASS A., ITURRA P.  
DATABASE-THE JOURNAL OF BIOLOGICAL DATABASES AND CURATION, 2011 (SCI-Expanded)
- VII. **Genome-wide identification of new Wnt/beta-catenin target genes in the human genome using CART method**  
HODAR C., ASSAR R., COLOMBRES M., Aravena A. O., PAVEZ L., GONZALEZ M., MARTINEZ S., INESTROSA N. C., MAASS A.  
BMC GENOMICS, vol.11, 2010 (SCI-Expanded)
- VIII. **Calcium/Calmodulin-Dependent Protein Kinase Type IV Is a Target Gene of the Wnt/beta-Catenin Signaling Pathway**  
ARRAZOLA M. S., VARELA-NALLAR L., COLOMBRES M., TOLEDO E. M., CRUZAT F., PAVEZ L., ASSAR R., Aravena A. O., GONZALEZ M., MONTECINO M., et al.  
JOURNAL OF CELLULAR PHYSIOLOGY, vol.221, no.3, pp.658-667, 2009 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Expression analysis of F-box/WD40 genes in legumes**  
Çelik H., Aravena Duarte A. O., Turgut Kara N.  
Friend or Foe: Transcription and RNA Meet DNA Replication and Repair, EMBO-EMBL Symposium, 9 - 12 March 2021, pp.1-111
- II. **Modeling Parsimonious Putative Regulatory Networks: Complexity and Heuristic Approach**  
ACUNA V., Aravena A. O., MAASS A., SIEGEL A.

15th International Conference on Verification, Model Checking, and Abstract Interpretation (VMCAI), California, United States Of America, 19 - 21 January 2014, vol.8318, pp.322-336

III. **Vitis vinifera Genome Annotation Improvement Using Next-Generation Sequencing Technologies and NCBI Public Data**

MUNOZ C., DI GENOVA A., MAASS A., ORELLANA A., HINRICHSSEN P., Aravena A. O.

10th International Conference on Grapevine Breeding and Genetics, New-York, United States Of America, 1 - 05 August 2010, vol.1046, pp.349-356

IV. **Identification of genes with asymmetric expression in the zebrafish brain**

COLOMBO A., MIONE M., SIGNORE I., OLIVARES F., PEREZ R., GONZALEZ M., Aravena A. O., Wilson S., CONCHA M.

16th Annual Conference of the International-Society-of-Development-Biologists, Edinburgh, Saint Helena, 6 - 10 September 2009, vol.126

V. **Design and use of oligonucleotide microarrays for identification of biomining microorganisms**

EHRENFELD N., Aravena A. O., REYES-JARA A., BARRETO M., ASSAR R., MAASS A., PARADA P.

18th International Biohydrometallurgy Symposium, Bariloche, Argentina, 13 - 17 September 2009, pp.155-156

## Patent

Aravena Duarte A. O., Ehrenfeld Stolzenbach K. N., Badilla Ohlbaum R., Loira N., Ugalde J., Parada Valdecantos P. A., Maass Sepulveda A. E., Array of nucleotidic sequences for the detection and identification of genes that codify proteins with activities relevant in biotechnology present in a microbiological sample, and method for using this array, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: US8207324 B2 , 2012, 2008, 2013

Aravena Duarte A. O., Badilla Ohlbaum R., Ehrenfeld Stolzenbach K. N., Gonzalez Canales M. A., Maass Sepulveda A. E., Martinez Aguilera S., Moreno Cortes P. A., Parada Valdecantos P. A., DNA fragments array from biomining microorganisms and method for detection of them, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: AU2006241345 , 2013, 2010, 2011, 2007

Aravena Duarte A. O., Ehrenfeld Stolzenbach K. N., Gonzalez Canales M. A., Maass Sepulveda A. E., Martinez Aguilera S., Parada Valdecantos P. A., Method for the design of oligonucleotides for molecular biology techniques, Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: AR054923A1 , 2007, 2011, 2012, 2008, 2010

## Metrics

Publication: 13

Citation (WoS): 135

Citation (Scopus): 137

H-Index (WoS): 5

H-Index (Scopus): 5

## Non Academic Experience

Universidad de Chile

Universidad Arturo Prat