

## Melissa C. Alegría Arcos, Bioinformatics Engineer, PhD(c).

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### EDUCATION

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**Currently** PhD(c) in Science, Biophysics and Computational Biology. Universidad de Valparaíso, Chile  
**2013** Bioinformatics Engineering – Universidad de Talca, Chile

### PRINCIPAL POSITIONS HELD

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**2019 – Present** Founder & CEO DrugDevs.  
**2017 - 2019** Bioinformatics Engineering, Drug Development Group, uBiome Chile.  
**2012 - 2015** Research Assistant. Center for Bioinformatics and Integrative Biology, UNAB, Santiago, Chile.

### TEACHING

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**Mar '13 – Dec '15** Teaching Assistant – Universidad Andrés Bello, Santiago, Chile.  
Courses taught included: Bioinformatics (biotechnology engineering students), structural bioinformatics (biochemistry and biotechnology engineering students), computer architecture (bioinformatics engineering students) and data mining (bioinformatics engineering students).

**Mar '11 – Aug '11** Teaching Assistant – Universidad de Talca, Talca, Chile.  
All courses taught to bioinformatics engineering students: Introduction to Bioinformatics, Bioinformatics I, Bioinformatics II, and Application of Molecular Simulation to Biological Systems.

### SELECTED PUBLICATIONS (RESEARCH)

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- Vivek Sharma, Osvaldo Yañez, [Melissa Alegría-Arcos](#), Ashish Kumar, Ramesh C Thakur, Plinio Cantero-López (2020). A physicochemical and conformational study of co-solvent effect on the molecular interactions between similarly charged protein surfactant (BSA-SDBS) system. The Journal of Chemical Thermodynamics.
- M Moreno, A Zacarias, A Porzel, L Velasquez, G Gonzalez, [M Alegría-Arcos](#), F Gonzalez-Nilo, E KU Gross.(2018) IR and NMR spectroscopic correlation of enterobactin by DFT. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy.
- Arias-Darraz L, Cabezas D, Colenso CK, Alegría-Arcos M, Bravo-Moraga F, Varas-Concha I, Almonacid DE, Madrid R, and Brauchi S. (2015) The cloning of a TRP ion channel from the single-celled alga Chlamydomonas reinhardtii reveals the robustness of TRP channel architecture. The Plant Cell.
- Ipinza, F., Collao, B., Monsalva D., Bustamante, V. H., Luraschi, R., [Alegría-Arcos, M.](#), Almonacid, D. E., Aguayo, D., Calderón, I. L., Gil, F., Santiviago, C. A., Morales, E. H., Calva, E., Saavedra, C. P. (2014). Participation of the Salmonella OmpD porin in the infection of RAW264.7 macrophages and BALB/c mice. PLoS One.
- Ravanal, M. C., [Alegría-Arcos, M.](#), Gonzalez-Nilo, F. D., & Eyzaguirre, J. (2013). Penicillium purpurogenum produces two GH family 43 enzymes with  $\beta$ -xylosidase activity, one monofunctional and the other bifunctional: Biochemical and structural analyses explain the difference. Archives of biochemistry and biophysics.

### PUBLICATIONS (PATENT)

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- Zachary Apte, Jessica Richman, Daniel Almonacid, Valeria Márquez, Ingrid Araya, [Melissa Alegria](#), Mario Saavedra, Luis Gomez, Janyra Espinoza, Javier Gimpel, Eduardo Morales, Rodrigo Ortiz. (2019) Rieske-type oxygenase/reductase targeted drugs for diagnostic and treatment of diseases.
- Zachary Apte, Jessica Richman, Daniel Almonacid, Melissa Alegria, Valeria Marquez, Eduardo Morales, Rodrigo Ortiz, Janet Torres, Paulo Covarrubias, Javier Gimpel, Ingrid Araya. (2018). Therapeutic & diagnostics compositions targeting toll-like receptors and methods thereof.

### HONORS AND AWARDS

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- 2019** DrugDevs SpA selected to participate The S Factory Program (TSF-10) of start-up Chile, CORFO.
- 2017** National Ph.D Scholarship CONICYT Chile.
- 2016** Best poster in CINV Annual Meeting, Valparaíso, Chile.
- 2015** Best poster in iCBSM (First International Conference in Bioinformatics, Simulations and Modeling), Talca, Chile.
- 2015** Winner of the 2nd Competition R&D – “APLICA TU IDEA”, Santiago, Chile.
- 2010** Scholarship for Academic Merit, School of Bioinformatics Engineering, Universidad de Talca, Talca, Chile.