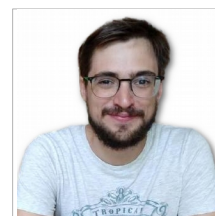


Sergio Castillo Lara

Bioinformatician



CONTACT

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Date of birth October 27th, 1992
Nationality Spanish

EXPERIENCE

2017 - Present

Ph.D. Fellow

Computational Genomics Lab, University of Barcelona

- Development of web-based tools to integrate protein-protein interactions, sequence annotations, and gene expression data for the planaria *Schmidtea mediterranea*.
- Analysis of RNA-seq data for *Schmidtea mediterranea*.
- Development of tools that utilize machine-learning for predicting and retrieving protein-protein interactions.
- Assistant teacher of the courses:
 - “Introduction to Algorithmics”: Msc. Bioinformatics for Health Sciences at UPF.
 - “Bioinformatics”: BSc. Biochemistry at UB.
 - “Computational Genomics”: BSc. Bioinformatics at UPF/UPC/UB.

2014 - 2017

Research Intern

Computational Genomics Lab, University of Barcelona

- Prediction of an interactions network of planarian genes and proteins using sequence homology information and machine learning.
- Implementation of a pipeline to retrieve protein-protein interactions from scientific literature using natural language processing.

EDUCATION

2015 - 2017

MSc Bioinformatics for health sciences

Universitat Pompeu Fabra, Barcelona, Spain

2010 - 2015

BSc Biology

Universitat de Barcelona, Barcelona, Spain

PROFESSIONAL SKILLS

Programming Languages **Python, Perl, R**, JavaScript, Bash
Databases **Neo4j**, Cypher Query Language, SQL
Data Science **ggplot2**, scikit-learn, R caret
Web **HTML5, CSS, Django**, jQuery, Bootstrap, Cytoscape.js
Other **Statistics, Machine-Learning, RNA-seq**, Linux, git, LaTeX

PUBLICATIONS

- S. Castillo-Lara**, J.F. Abril (2018)
PPaxe: easy extraction of protein occurrence and interactions from the scientific literature. *Bioinformatics*, AOP. [doi:10.1093/bioinformatics/bty988](https://doi.org/10.1093/bioinformatics/bty988)
- S. Castillo-Lara**., J.F. Abril (2018)
PlanNET: Homology-based predicted interactome for multiple planarian transcriptomes
Bioinformatics, 34(6): pp. 1016-1023. [doi:10.1093/bioinformatics/btx738](https://doi.org/10.1093/bioinformatics/btx738)
- D. Boloc, **S. Castillo-Lara**, G. Marfany, R. González-Duarte, J.F. Abril (2015)
Distilling a visual network of retinitis pigmentosa gene-protein interactions to uncover new disease candidates. *PLOS ONE*, 10(8): e0135307. [doi:10.1371/journal.pone.0135307](https://doi.org/10.1371/journal.pone.0135307)

POSTERS AND COMMUNICATIONS

- S. Castillo-Lara**, J.F. Abril (2018)
PPaxe facilitates human-curation of protein-protein interactions filtered from the scientific literature. VI Jornada de Bioinformàtica i Genòmica, Barcelona.
- Arenas-Galnares R., **S. Castillo-Lara**, V. Toulis, G. Marfany, R. González-Duarte, J.F. Abril (2018)
RPGeNet v2.0 Enhanced navigation through the retinitis pigmentosa interaction network
VI Jornada de Bioinformàtica i Genòmica, Barcelona.
- E. Pascual-Carreras, M. Marín-Barba, **S. Castillo-Lara**, M. Sureda-Gómez, G. Rodríguez-Esteban, H. Heyn, J.F. Abril, E. Saló, T. Adell (2017)
Understanding the anterior and the posterior signaling centers in planarians. XXIX *Developmental Biology Meeting*, Barcelona.
- S. Castillo-Lara**, J.F. Abril (2017)
A human-planarian interologs network to annotate planarian transcriptomes: PlanNET
15th International Workshop RECOMB Comparative Genomics, Barcelona.
- S. Castillo-Lara**, D. Boloc, G. Marfany, R. González-Duarte, J.F. Abril (2015)
Distilling a network of interactions to uncover genes involved in Retinitis Pigmentosa disease. *II Jornada de Bioinformàtica i Biologia Computacional*, Barcelona.

SCHOLARSHIPS

2017	Grant for the recruitment of early-stage research staff (FI) <i>Agència de Gestió d'Ajuts Universitaris i de Recerca</i>
2016	Beca de colaboración con departamentos (Collaboration Scholarship) <i>Ministerio de Educación Cultura y Deporte</i>
2014	Summer Research in Genetics <i>University of Barcelona</i>