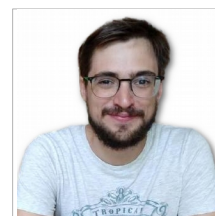


Sergio Castillo Lara

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

PPaxe: easy extraction of protein occurrence and interactions from the scientific literature

Castillo-Lara S., Abril J.F. (2018)

Bioinformatics, AOP.

PlanNET: Homology-based predicted interactome for multiple planarian transcriptomes

Castillo-Lara S., Abril J.F. (2018)

Bioinformatics, 34(6): pp. 1016-1023

Distilling a visual network of retinitis pigmentosa gene-protein interactions to uncover new disease candidates

Boloc D., **Castillo-Lara S.**, Marfany G., González-Duarte R., Abril J.F. (2015)

PLOS ONE, 10(8): e0135307

POSTERS AND COMMUNICATIONS

PPaxe facilitates human-curation of protein-protein interactions filtered from the scientific literature

VI Jornada de Bioinformàtica i Genòmica (Barcelona, 2018)

Castillo-Lara S., Abril J.F.

RPGeNet v2.0 Enhanced navigation through the retinitis pigmentosa interaction network

VI Jornada de Bioinformàtica i Genòmica (Barcelona, 2018)

Arenas-Galnares R., **Castillo-Lara S.**, Toulis V., Gonzalez-Duarte R., Marfany G., Abril J.F.

Understanding the anterior and the posterior signaling centers in planarians

XXIX Developmental Biology Meeting (Barcelona, 2017)

Pascual-Carreras E., Marín-Barba M., **Castillo-Lara S.**, Sureda-Gómez M., Rodríguez-Esteban G., Heyn H., Abril J.F., Saló E., Adell T.

A human-planarian interologs network to annotate planarian transcriptomes: PlanNET

15th International Workshop RECOMB Comparative Genomics (Barcelona, 2017)

Castillo-Lara S., Abril J.F.

Distilling a network of interactions to uncover genes involved in Retinitis Pigmentosa disease

II Jornada de Bioinformàtica i Biologia Computacional (Barcelona, 2014)

Castillo-Lara S., Boloc D., Marfany G., González-Duarte R., Abril J.F.

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>