

Pedro Carvalho

Geneticist, Bioinformatician, Developer

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SKILLS

Bioinformatics ●●●●●●
Cytogenetics ●●●●●●

Molecular Genetics ●●●●●●
Python ●●●●●●

Data Analyst ●●●●●●
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- Bioinformatics: Sequencing (RNA-seq), systems biology, assembly of genomes and transcriptomes, microtranscriptome analysis, alignment, phylogeny, processing and management of biological data
- Molecular Genetics: Sequencing, genotyping
- Cytogenetics: Fluorescent Hybridization
- English proficiency: Scoring 627 (C1) by TOEFL-ITP Level 1
- Others: C++, HTML, CSS, SQL, JavaScript, Bash, Groovy, Kotlin, Docker, Conda, Nextflow, Snakemake

WORK EXPERIENCE

Universidade de São Paulo

PhD Scholarship 2023 - Current

- Plant Breeding Laboratory of the Center of Nuclear Energy in Agriculture of the Luiz de Queiroz College of Agriculture - Universidade de São Paulo (LAMP/CENA/ESALQ-USP)
- São Paulo Research Foundation (FAPESP)
- Coordination of Improvement of Higher Education Personnel (CAPES)

Journal Human Gene

Reviewer 2023 - Current

- ISSN: 2773-0441

Journal Gene

Reviewer 2023 - Current

- Online ISSN: 1879-0038P
- Print ISSN: 0378-1119

Universidade Estadual de Campinas

Master's Scholarship 2018 - 2020

- Human Cytogenetics Laboratory in the Department of Translational Medicine of the Faculty of Medical Sciences of the Universidade Estadual de Campinas (LCH/DM/FCM-UNICAMP)
- São Paulo Research Foundation (FAPESP)
- Coordination of Improvement of Higher Education Personnel (CAPES)
- Teaching, Research and Extension Support Fund (FAEPEX)

Universitätsklinikum Jena (Alemanha)

Scholarship abroad (BEPE-FAPESP) 2017

- Molecular Cytogenetics Laboratory at Universitätsklinikum Jena (Jena, Germany)
- Scholarships abroad - Research Internship - Scientific Initiation - São Paulo Research Foundation (BEPE-FAPESP)

Universidade Federal de São Carlos

Scientific Initiation Scholarship 2016 - 2017

- Fish Cytogenetics Laboratory of the Department of Genetics and Evolution in the Center for Biological and Health Sciences of the Universidade Federal de São Carlos (LCP/DGE/CCBS-UFSCar)
- São Paulo Research Foundation (FAPESP)

EDUCATION

Universidade de São Paulo

PhD in Agronomy (Genetics and Plant Breeding) 2023 - Current

- Grant from São Paulo Research Foundation (FAPESP) and Coordination of Improvement of Higher Education Personnel (CAPES)

Universidade Estadual de Campinas

Master of Science (Medical Genetics) 2018 - 2020

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Universidade Federal de São Carlos

Bachelor of Science in Biological Sciences

2013 - 2017

- Grant from São Paulo Research Foundation (FAPESP)
- Scholarship abroad (BEPE-FAPESP) as a Researcher at the Molecular Cytogenetics Laboratory at Universitätsklinikum Jena (Jena, Germany)

DEVELOPMENT

Nextflow pipeline for sequencing data

2024

- Nextflow pipeline collaboration for sequencing data analysis automation

Investment android APP

2024

- Development of Android APP Cafinvest

Investment Website

2022

- Development of website Cafinvest

RNA-seq pipeline

2021

- Development of RNA-seq data analysis pipeline

MacroTrends Scraping

2021

- Development of financial data scraping tool

PUBLICATIONS

- Carvalho, P. C., Sgardiolli, I. C., Bonadia, L. C., Spineli-Silva, S., Viguetti-Campos, N. L., Gil-da-Silva-Lopes, V. L., & Vieira, T. P. (2021). Further evidence for lack of association of PRDM9 polymorphisms and 22q11.2 deletion syndrome. *Meta Gene*, 29, 100927
- Carvalho, P. C., De Oliveira, E. A., Bertollo, L. A., Yano, C. F., Oliveira, C., Decru, E., ... & Cioffi, M. D. B. (2017). First chromosomal analysis in Hepsetidae (Actinopterygii, Characiformes): Insights into relationship between African and Neotropical fish groups. *Frontiers in genetics*, 8, 203
- Carvalho, P. C., Bombardelli, R. G. H., Monteiro-Vitorello, C. B., & Figueira, A. V. de O. (2023). Standardization of Transcriptome Analysis Improves Gene Selection for Sugarcane (*Saccharum* spp.) Breeding. In XXII Interunit Graduate Program in Bioinformatics Workshop - USP | 2023 - Abstract Book (p. 12-12). Zenodo
- Carvalho P. C., Vieira T. A. P., Melaragno M. I., Maciel-Guerra A. T., Campinas UE de. 2020. Investigação de fatores de susceptibilidade à deleção 22q11.2. UNICAMP
- Carvalho, P. C.; Vieira, T. A. P.; Campos, N. L. V.; Spineli Silva, S.; Sgardiolli, I. C.; Gil Da Silva Lopes, V. L. . Fatores de susceptibilidade à microdeleção 22q11.2: Investigação da origem parental: Resultados preliminares. In: VI Reunião Brasileira de Citogenética e Citogenômica, 2020, Goiânia. Anais da VI Reunião Brasileira de Citogenética e Citogenômica, 2020
- Carvalho P. C., Cioffi M. B., Oliveira E. A. . 2017. Inter-relações evolutivas da família Erythrinidae (Teleostei, Characiformes). IV. Citogenética comparativa na família Hepsetidae. UFSCAR
- Carvalho, P. C.; Hatanaka, T.; Oliveira, E. A.; Bertollo, Luiz A. C.; Jegede, Oladele I.; Cioffi, M. B. . Inter-relações evolutivas da família Erythrinidae (Teleostei, Characiformes). Citogenética comparativa na família Hepsetidae. In: GENÉTICA 2017 - Brazilian-International Congress of Genetics, 2017, Águas de Lindóia. Resumos do GENÉTICA 2017 - Brazilian-International Congress of Genetics, 2017
- Carvalho, P. C.; Oliveira, A.; Silva-Santos, R. . Uma doce parceria. *Temas Atuais em Biologia*, 2017
- Carvalho, P. C.; Hatanaka, T.; Oliveira, E. A.; Bertollo, L. A. C.; Jegede, O.; Cioffi, M. B. . Inter-relações evolutivas da família Erythrinidae (Teleostei, Characiformes). Citogenética comparativa na família Hepsetidae. In: XVII Simpósio de Citogenética e Genética de Peixes, 2016, São Carlos. Anais do XVII Simpósio de Citogenética e Genética de Peixes, 2016
- Freitas, P. D.; Galetti Junior, P. M.; Bertollo, Luiz A. C.; Cioffi, M. B.; Moreira Filho, O.; Marques, C. G.; Silva, C. B. M.; Blanck, D. V.; Malaver, J. L. R.; Santos, R.; Sember, A.; Yano, C. F.; Oliveira, E. A.; Barby, F. F.; Freitas, N. L.; Carvalho, Pedro C.; Moraes, R. L. R.; Hatanaka, T.; Lopes, U. C. . XVII Simpósio de Citogenética e Genética de Peixes. 2016