ALEJANDRO M CARRASCO

I am a bioinformatician and deep learning enthusiast with a strong background in biotechnology and genetics

WORK EXPERIENCE

GP2 Cohort Integration Working Group member

present | 2021

Remote

- Working group[1] to collect and harmonise clinical data from of sporadic PD cohorts from all around the world
- My role was to help collecting sample manifest from contributors as well as to perform the clinical data harmonization
- I developed an app[2] deployed in Google Cloud Platform to ease the sample manifest as well as the clinical data collection process

EDUCATION

PhD. in Bioinformatics

2024 | 2021

University College London

London, United Kingdom

- **Thesis**: Using genomics to understand Parkinson's disease progression
- Developed and applied multiple pipelines to understand the biological impact of variants nominated in genetic studies

MSc in Bioinformatics

2020 | 2019

University of Murcia

Murcia, Spain

- **Thesis**: Use of community detection algorithms to create co-expression and co-occurrence networks
- Tested the proposed pipeline over transcriptomics and genomics data sets from AMP-PD project

BSc in Biotechnology

2018 | 2014

University of Murcia

Murcia, Spain

- **Thesis**: Review on the key role of inflammation in diabetes' disease etiology
- **Internship**: Studying the role of peritoneal macrophages in endometriosis
- **Internship**: Measuring the anti-inflammatory and antitumour activity of dif- ferent drugs obtained by chemical synthesis

---

CONTACT

✉ alejandro.mc.carrasco@gmail.com

 Github

in LinkedIn

 Google Scholar

LANGUAGES

 Python

 R

</> Bash

TECHNOLOGIES

 Git/GitHub

 nextflow

 docker

 SQL

👥 TEACHING EXPERIENCE

2022
Introduction to Nextflow and longgwas tool
Virtual event   📍 London, United Kingdom

- Developed the content and the presentation
- Lectured a group of GP2 Trainees on Nextflow fundamentals, how to use the main Nextflow elements, and introduced longgwas tool[3]

2022
Bioinformatic analyses in Terra platform
Universidad Nacional Autónoma de México   📍 Queretaro

- Developed content and served as teaching assistant for this two day workshop[4]
- We covered Terra platform basic concepts as well as hot to perform several analyses using GP2 data
- I tought on longitudinal GWAS and performing a cognitive decline PRS from GP2 Latino population data

📖 SELECTED PUBLICATIONS

2023
Genome-wide Analysis of Motor Progression in Parkinson Disease
Neurology Genetics

- **Alejandro Martínez-Carrasco**, Raquel Real, Michael Lawton, Regina Hertfelder Reynolds, Manuela Tan, Lesley Wu, Nigel Williams, Camille Carroll, Jean-Christophe Corvol, Michele Hu, Donald Grosset, John Hardy, Mina Ryten, Yoav Ben-Shlomo, Maryam Shoai, Huw R Morris
- **Role**: First author
- DOI: https://doi.org/10.1212/NXG.0000000000200092

2023
Genetic meta-analysis of levodopa induced dyskinesia in Parkinson's disease
NPJ parkinson's disease

- **Alejandro Martinez-Carrasco**, Raquel Real, Michael Lawton, Hirotaka Iwaki, Manuela M. X. Tan, Lesley Wu, Nigel M. Williams, Camille Carroll, Michele T. M. Hu, Donald G. Grosset, John Hardy, Mina Ryten, Tom Foltynie, Yoav Ben-Shlomo, Maryam Shoai & Huw R. Morris
- **Role**: First author
- DOI: https://doi.org/10.1038/s41531-023-00573-2

2023
Association between the LRP1B and APOE loci and the development of Parkinson's disease dementiaris
Brain

- Raquel Real, **Alejandro Martinez-Carrasco**, Regina H Reynolds, Michael A Lawton, Manuela MX Tan, Maryam Shoai, Jean-Christophe Corvol, Mina Ryten, Catherine Bresner, Leon Hubbard, Alexis Brice, Suzanne Lesage, Johann Faouzi, Alexis Elbaz, Fanny Artaud, Nigel Williams, Michele TM Hu, Yoav Ben-Shlomo, Donald G Grosset, John Hardy, Huw R Morris
- **Role**: Data analyst
- DOI: https://doi.org/10.1093/brain/awac414

🔗 LINKS

1: https://gp2.org/working-groups/complex-disease-cohort-integration-working-group/
2: https://github.com/AMCalejandro/gp2-manifest-checkupload
3: https://github.com/michael-ta/longitudinal-GWAS-pipeline
4: https://docs.google.com/spreadsheets/d/1dNs8KRdoIens2KDg2zKhXwDj8cKYaS88/edit#gid=940143440