Osvaldas Vainauskas
Bioinformatician/Computational Biologist

RESEARCH INTERESTS

MACHINE LEARNING/DEEP LEARNING; CANCER BIOLOGY; MULTI-LEVEL DATA; COMPLEXITY THEORY

PERSONAL DATA

CONTACT DETAILS

- >_ www.tearswillfall.github.io
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- o.vainauskas@ucl.ac.uk

RESEARCH EXPERIENCE

DECEMBER 2016 – OCTOBER 2017
Bioarray S.L
Traineeship + Internship

Conducting DNA extraction, PCR and standard clinical genetic procedures such as NGS and CGH array analysis, as well as, the interpretation of the subsequently data by identifying the variants of significance, and ultimately generating reports with supporting literature for each cases.

KEY RESPONSIBILITIES:

- DNA Extraction
- PCR
- Germline Variant Calling
- Clinical Variant Reporting

SEPTEMBER 2020 – PRESENT
Attard Lab
Research Student

Multi-omic data analysis for clinical research. Tool development and validation for allele-specific variant identification in targeted data. Study of clonal evolution and epigenetic signal changes. Multi-layer data modelling for clonal heterogeneity

KEY RESPONSIBILITIES:

- PCF Select
- Multi-level Data Integration
- Somatic/Germline Variant Calling
- Minimal Residual Disease Detection

JUNE 2022 – AUGUST 2022
Francesca Demichelis Lab
Research Fellow

Software development for cancer clonality analysis and variant detection (CLONET). Shiny development for visualisation and data interpretation for clonal heterogeneity. Batching implementation across various systems to improve performance across analytical methods.

KEY RESPONSIBILITIES:

- Gene-specific Analysis Using CLONET
- R Shiny Development For Data Visualisation
- HPC Batching Implementation
- Clonal Heterogeneity Analysis

EDUCATION

2020 – PRESENT	**Bioinformatics** PHD DEGREE *University College London, London, United Kingdom*
2018 – 2019	**Bioinformatics** MASTER'S DEGREE *University of Murcia, Murcia, Spain*
2013 – 2017	**Biology** BACHELOR'S DEGREE *University of Alicante, Alicante, Spain*

AWARDS

2020

CRUK STUDENTSHIP

2016

SANTANDER SCHOLARSHIP

2013

HONORS SCHOLARSHIP

RESEARCH PROJECTS

BACHELOR'S PROJECT: "Design and validation of CGH arrays for the detection of chromosomal abnormalities in patients with autism"

KEY-POINTS:

- Clinical Data Curation
- Galaxy Platform
- Agilent Design Suite
- Probe Design
- Microarray CGH

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MASTER'S PROJECT: "Clinical implications of whole-blood genetic profiles in metastatic castration-resistant prostate cancer (mCRPC)"

KEY-POINTS:

- Differential Analysis
- Survival Analysis

- Latent Process Decomposition (LPD)
- Risk Stratification Modelling

POSTERS

- Alba Trujillo, B., **Vainauskas, O.** *High-sensiti-vity tracking of copy number alterations and single nucleotide variants in sequential plasma DNA collections from metastatic prostate cancer (mPC) patients.* EACR Liquid Biopsies (2022)

- **Vainauskas, O.**, Alba Trujillo, B., *Integrative multi-omic analysis of epigenetic features in plasma cfDNA of metastatic prostate cancer (mCRPC) patients.* UCL Cancer Institute Conference (2022)

COMPUTER SKILLS

GOOD LEVEL	- R / Shiny - Python - Bash / Unix / HPC systems - caret / keras / PyTorch - Markdown / LaTeX
BASIC LEVEL	- JS - Perl - HTML/CSS - MySQL & SPARQL

LANGUAGE SKILLS

ENGLISH	Proficient speaking/writing
SPANISH	Native
LITHUANIAN	Native
FRENCH	Basic
ITALIAN	Basic