ARISTEIDIS SIONAKIDIS

RESEARCH ASSOCIATE

EDINBURGH, UNITED KINGDOM

DETAILS

Edinburgh,
United Kingdom
aressionakides@gmail.com

LINKS

- Personal webpage
- LinkedIn
- Twitter/X
- GitHub
- ResearchGate

SKILLS

R, Python

Linux, Bash, UNIX

Data analysis, Biostatistics

Machine Learning

LaTeX

HTML, CSS, JavaScript

Cloud computing (AWS)

Nextflow, Snakemake

HOBBIES

Piano, bouzouki, basketball, football, movies, travelling, writing

LANGUAGES

Greek

English

French

PROFILE

Researcher at the crossroads of bioinformatics, cancer multi-omics, and machine learning. Dedicated to unlocking the potential of omics for transformative patient outcomes.

EDUCATION

MRC DTP in Precision Medicine, University of Edinburgh, Edinburgh
September 2020 — March 2024

Project Title: Molecular Dynamics of the Response to Breast Cancer Therapies

Supervisors: Dr. Jonine Figueroa, Dr. Timothy Cannings, Dr. Andrew Sims

Skills:

- Data analysis with advanced statistical and machine learning techniques (R, R Shiny, Python)
- Bioinformatics (Differential Gene Expression Analysis, Pathway Analysis, Network Analysis, Genomics)
- Communication skills, multi-tasking, problem-solving skills, networking, self-motivation

MSc in Precision Medicine and Pharmacological Innovation, University of Glasgow, Glasgow
September 2019 — September 2020

Grade: Distinction

Dissertation title: Creating a patient-centric educational platform for personalised medicine

Dissertation supervisor: Professor Sandosh Padmanabhan

Skills:

- Data processing and analysis (R, MS Excel) and visualisations in Circos (Perl, command line)
- Building an interactive web tool for blood pressure pharmacogenomics

BSc in Pharmacy, Aristotle University of Thessaloniki, Thessaloniki
September 2013 — July 2018

Grade: 8.57/10, Equivalent in the UK: 1st class

Dissertation title: Cloning of IL-2 coding sequence via recombinant DNA technology.

Dissertation supervisor: Associate Professor Lefkothea Papadopoulou

Skills:

- Recombinant DNA technologies (PCR, cloning, bacterial transformation, restrictive enzymes etc.)
- Browsing online omics databases (GeneCards, NCBI, COSMIC etc.)

EMPLOYMENT HISTORY

Research Associate – Machine Learning, University of Cambridge
February 2024 — ongoing

- **Fixed-term position**
  Development and application of modern deep learning architectures for the integration of multi-omic, clinical and imaging data in breast cancer.

Advisor at iGEM Thessaloniki
April 2021 — April 2022

- **Advisor in Bioinformatics and Data Analysis**
  Data analysis on Pancreatic Ductal Adenocarcinoma (PDAC) gene expression studies with a focus on the development of early-diagnosis tools for precision medicine interventions.

Pharmacy internships
June 2017 — June 2018

- 3 months at hospital, 9 months at three community pharmacies

PUBLICATIONS

- Sionakidis, A., McCallum, L., & Padmanabhan, S. (2021). Unravelling the tangled web of hypertension and cancer. Clinical science (London, England: 1979), 135(13), 1609–1625. https://doi.org/10.1042/CS20200307
- du Toit, C., Tran, T. Q. B., Deo, N., Aryal, S., Lip, S., Sykes, R., Manandhar, I., Sionakidis, A., Stevenson, L., Pattnaik, H., Alsanosi, S., Kassi, M., Le, N., Rostron, M., Nichol, S., Aman, A., Nawaz, F., Mehta, D., Tummala, R., McCallum, L., … Padmanabhan, S. (2023). Survey and Evaluation of Hypertension Machine Learning Research. Journal of the American Heart Association, e027896. Advance online publication. https://doi.org/10.1161/JAHA.122.027896
- Sionakidis, A, Lalagkas, PN, Malousi, A, Vizirianakis, IS. Identification of diagnostic markers of pancreatic ductal adenocarcinoma using transcriptomic tumour and blood sample data. Clin Transl Disc. 2023; 3:e248. https://doi.org/10.1002/ctd2.248

Preprints

- Sionakidis, A., Cannings, T. I., Figueroa, J. D. and Sims, A. H. (2023). A novel gene signature to predict response to neoadjuvant chemotherapy and endocrine treatment in estrogen receptor-positive breast cancer patients. Preprint. https://doi.org/10.21203/rs.3.rs-2771576/v1

PRESENTATIONS

Posters

- American Association for Cancer Research (AACR) Annual Meeting 2022 poster, New Orleans
- European Association for Cancer Research (EACR) Annual Congress 2022 poster, Seville
- Molecular Epidemiology Group (MEG)-UK Annual Meeting 2022 poster, Edinburgh
- Edinburgh Breast Cancer Society Symposium (EBCSS) 2023 poster, Edinburgh

SCHOLARSHIPS & AWARDS

- **Scholar-in-training award (American Association for Cancer Research Annual Meeting),** April 2022
  Doreen J. Putrah Cancer Research Foundation Scholar-in-Training Award
- **Onassis Foundation scholarship for PhD students,** September 2021 - Present
- **Bodossaki Foundation scholarship**
  MSc student (09/2019-09/2020), PhD student (09/2021-Present)
- **Aristotle University of Thessaloniki Excellence Award,** May 2019
- **Aristotle University of Thessaloniki undergraduate student scholarship,** March 2017 - November 2017

ADDITIONAL CERTIFICATIONS

- “Advanced Python for Biologists” (Edinburgh Genomics)
- “Data Science in Stratified Healthcare & Precision Medicine” (Coursera)
- “AWS Cloud Concepts” (DataCamp)
- “Fundamentals of Accelerated Computing with CUDA Python” (NVIDIA)
- “Logistic Regression in R for Public Health” (Coursera)
- “Statistics for Genomic Data Science” (Coursera)
- “Python for Genomic Data Science” (Coursera)
- “Network Analysis in Systems Biology” (Coursera)
- “Practical Neural Networks & Deep Learning in R” (Udemy)
- “Deep Learning in Python track” (DataCamp)
- “JavaScript Essential Training” (LinkedIn learning)
- “Shiny Fundamentals with R” (DataCamp)
- “Full-Stack Engineering PRO Career Path” (ongoing, Codecademy)

VOLUNTEERING

Member at ATP (Aristotle Team of Pharmacy, NGO), Thessaloniki

December 2015 — July 2018

Soft skills and managerial skills acquired through organizing academic seminars, conferences and social events

(charity sports tournaments, open-public blood donations, team-fairs etc.).

REFERENCES

Nikola Simidjievski, University of Cambridge – ns779@cam.ac.uk

Jonine D. Figueroa, National Institute of Health - jonine.figueroa@nih.gov

Timothy I. Cannings, University of Edinburgh - timothy.cannings@ed.ac.uk