

Konstantinos Panagiotopoulos, PhD

M3B Lab, PolitoBIOMedLab,
Department of Mechanical and Aerospace Engineering
Politecnico di Torino
Corso Duca degli Abruzzi 24, 10129, Turin, Italy

GENERAL INFORMATION

Konstantinos currently holds a post-doctoral position as a researcher at the Department of Mechanical and Aerospace Engineering of Politecnico di Torino.

His research focuses on exploring biomarkers' discovery using bioinformatics and machine learning methods. During his PhD, he has developed methods for the harmonization of transcriptomics datasets in neurodevelopmental disorders and designed machine learning algorithms for their analysis. Currently, Konstantinos is working on the EU-funded project GALATEA where his role is to describe the human milk composition and the infant's digestion creating a pair of digital twins. He is also guiding master's students of medicine in their thesis to develop skills in artificial intelligence.

EDUCATION

PhD at Politecnico di Torino – Aerospace and Mechanical Engineering Oct. 2021 – Sep. 2025

Biomarkers discovery using ML and Bioinformatics

M.Sc. University of Patras – Medical School Oct. 2018 – June 2021

Informatics for life sciences with specialization in *Bioinformatics* (8.71/10)

Thesis: "*Development of a classification tool for biomedical applications using boosting techniques implementing a Genetic algorithm for the identification of biomarkers*".

B.Eng. Alexander T.E.I. of Thessaloniki Sept. 2011 – Jan. 2018

Automation engineering (8.15/10)

Diploma Thesis: "*Development of a multi-sensor system to assist and early alert pulmonologists in cases of respiratory distress syndrome in preterm infants*".

WORK EXPERIENCE

Politecnico di Torino Oct. 2024 – Present

Researcher in the EU MSCA project GALATEA

Politecnico di Torino Nov. 2021 – Nov. 2024

Research Fellow of the EU MSCA ITN project PARENT

University of Patras Aug. 2019 – Aug. 2020

Administrator and maintenance of the Informatics of life sciences Master's program website

Kosmas S.A. Mar. 2017 – Oct. 2018

Engineer – technician

Andronakis S.A. Mar. 2016 – Sep. 2016

6-month internship

Maintenance technician and electrical engineer assistant



SKILLS

Fields: Machine learning modelling, Bioinformatics

Operating systems: Windows, Linux

Programming languages: Python, R, C/C++, PHP, SQL

Databases: mySQL

Frameworks: PHP, Django



PUBLICATIONS

1. **Panagiotopoulos Konstantinos, Ibanibo Lolia, Perrone Benedetta, Marchetti Caterina, Tumsich Martina, Traetta Giovanni, Theofilatos Konstantinos, Deriu Agostino Marco.** *A review on computational tools for analytical visualisation and molecular interactions of sncRNAs: prospects in NDDs.* Proceedings of the International Workshop in Neurodevelopmental Impairments in Preterm Children - Computational Advancements (DETERMINED 2022), Ljubljana, Slovenia, August 26, 2022. 10.5281/zenodo.8009880
2. **Panagiotopoulos Konstantinos, Korfiati Aigli, Theofilatos Konstantinos, Hurwitz Peter, Marco A. Deriu and Mavroudi Seferina.** *MEvA-X: a hybrid multiobjective evolutionary tool using an XGBoost classifier for biomarkers discovery on biomedical datasets.* Oxford University Press, Bioinformatics, Volume 39, Issue 7, July 2023. <https://doi.org/10.1093/bioinformatics/btad384>
3. **F R Gentile, S T H Shah, M Sperti, K Panagiotopoulos, R Primi, S Bendotti, A Currao, S Compagnoni, E Baldi, C Lopiano, L Vicini Scajola, G Marconi, M A Deriu, S Savastano.** *An innovative Medical dEcision Support tool for neurological outcome prediction from post-resuscitation Electrocardiograms (MILESTONE).* *European Heart Journal*, Volume 44, Issue Supplement_2, November 2023, DOI: <https://doi.org/10.1093/eurheartj/ehad655.650>
4. **S T H Shah, S A H Shah, J Pigueiras-del-Real, K Panagiotopoulos, K Qayyum, S B H Shah, S A Qureshi, A Di Terlizzi, G Di Benedetto, M A Deriu.** *Artificial intelligence coupled with the Internet of Things targeting neurodevelopmental challenges in preterm neonates,* *Journal of Multiscale Neuroscience*, Vol.4(1), 32-56, DOI: <https://doi.org/10.56280/1680389540>
5. **Panagiotopoulos Konstantinos, Marco A. Deriu.** *Molecular biomarker discovery targeting neurodevelopmental disorders and cognitive mechanisms.* *Journal of Multiscale Neuroscience* 4(2): 177-186. DOI: <https://doi.org/10.56280/1703020960>



LANGUAGES

Greek: Mother tongue

English: Fluent speaker (IELTS 7.0)

Italian: Intermediate