

Michal Trajdos

Address 48149 Münster, Germany
Email michal.trajdos95@gmail.com
GitHub [mtrajdos/mainRepo](https://github.com/mtrajdos/mainRepo)

Phone +31 620159700
LinkedIn [mtrajdos](https://www.linkedin.com/in/mtrajdos)

Core Skills

Cloning, genotyping • HPLC, LC-MS, GC, sample prep, titrations • Cell culture • iPSCs • Organoids • BSL-2
Diligent, analytical, adaptable • Problem-solving, detail-oriented • Agile • Hardware and software maintenance
Scientific and technical writing • Neuroscience • Molecular Biology • Analytical Chemistry • COSHH, MSDS, SOPs • Optimization
Java, Python, UNIX, R • MS-365 (Office), Google Workspace, Fiji, ImageJ, Audacity, GIMP, Wonambi, Prism

Scientific Experience

2023/03 – 2023/10: Research Assistant, Academic Medical Centre, Amsterdam – Netherlands

- Developed the initial stages of the new protocol for neuromuscular organoids and created the lab's first SOP accordingly
- Underwent cryostat training and received an approval for independent use
- Supported the research project investigating neurotropism of non-polio Enteroviruses (EVs)
- Carried out infections of neurons, neural progenitors and astrocytes with two variants of EV-A71, and EV-D68, documenting the morphology and sampling media at T0, T24, T48 and T72, leading to management of a library reaching 1000 samples
- Quantified total viral particles through RNA isolation and consecutive qPCR, as well as infectious particles by TCID50
- Investigated the antiviral efficacy of Remdesivir as a putative agent against EV neurotropism and assessed its cytotoxicity by ATP assay

2018/09 – 2019/10: Research Intern, University of Amsterdam, Dr Talamini lab – Netherlands

- Received an introduction to sleep stage scoring by hands-on scoring in Wonambi and use of R-based YASA (Yet Another Spindle Algorithm)
- Supported a project in automated, real-time sleep stage scoring methods using data from ambulatory EEG device using NumPy, Pandas and Keras, leading to creation of a cleanup and preprocessing pipeline for training the Recurrent Neural Network model
- Gained experimental experience with human subjects, managed the intake schedule and contact email account, instrumental set-up (capping, mounting electrodes) and documentation for Ethics Review Board

2019/11 – 2020/01: Assistant Chemist, Fugro Marine GB Limited, Edinburgh – UK

- Gained full competency in sample preparation for GC analysis, extraction of hydrocarbons from soils and water samples
- Improved reproducibility through strict compliance with local protocols, standards, and traceability

2018/09 – 2019/06: Research Assistant, University of Edinburgh / Wellcome Trust Centre for Cell Biology, Prof. Beggs lab – UK

- Contributed to lab efficiency by handling on-demand analysis for RNA splicing research in yeast: carrying out RT-PCR and PCR reactions, setting up yeast cultures in solid and liquid media, plotting growth curves of yeast under auxin, β -estradiol treatment
- Performed plasmid extractions, western blots, transformation of yeast cells and restocked the lab with reagents and glassware
- Adapted to fast-paced environment and produced final results for the manuscript:
"A fast and tunable auxin-inducible degron for depletion of target proteins in budding yeast" (Mendoza-Ochoa *et al.* 2019)
- Daily collaboration with senior lab members in the lab, communication with the PI during lab meetings

2018/02 – 2018/08: Teaching Laboratory Assistant, University of Warwick / School of Life Sciences, Teaching labs – UK

- Provided safe and sterile workbench area for lab practicals, stocked up on reagents and properly maintained and clean apparatus, and tracked practicals attendance in cooperation with Teaching Lab team
- Ensured compliance with safety rules by students, including safe waste disposal
- Learned procedures for microbial waste and carcass disposal, including safe use of the waste compactor

2017/07 – 2017/10: Laboratory Technician, Wroclaw Medical University / Biological Activity Screening Laboratory – Poland

- Maintenance and cleaning for assigned apparatus, maintained an efficient system for booking student experiments
- Contributed to spectroscopic research on zinc complexes with novel pharmaceuticals using UV-VIS spectroscopy and ELISA

2016/10 – 2017/02: Research Assistant, IMP Research Institute of Molecular Pathology Vienna / Dr Cochella lab – Austria

- Supported ongoing projects by providing reagents, culture media, sterile equipment, recurring 12L fermentation batches of *E. Coli* cultures, consecutively concentrated into a suspension for *C. Elegans* sustenance
- Ensured safe lab migration by preparation of lab equipment flagged for relocation (sterilization, packing, transport)

2016/07 – 2017/02: Research Technician, BOKU University of Natural Resources and Life Sciences, Kleine-Vehn lab – Austria

- Contributed over 15 total samples into constructs library for auxin research, under internship dissertation: ***“Generation of knock-in and overexpression constructs of Physcomitrella patens to reveal function of PILS proteins.”***
- Work involved synthesis of cDNA, amplification of inserts by PCR, colony PCR, digestion of plasmids, Gibson Assembly, plasmid minipreps, agarose gel electrophoresis, DNA extractions

2016/02 – 2016/06: Research Assistant, Fraunhofer IME Schmallingenberg, Dr Kotthoff lab – Germany

- Published a poster: ***“Passive Dosing as a tool for achieving constant low concentrations of lipophilic and unstable chemicals for ecotoxicology testing.”***
- Work involved GC-FID and HPLC-UV/VIS analysis and optimisation, incubation of silicone O-rings in target compound (bromadiolone, bifenox) concentrations, preparation of eluents and general cleaning

Education

2021/09 – present (coursework completed): MSc Res in Neurosciences, Vrije Universiteit Amsterdam – Netherlands

Statistics in Neurosciences (6.5) • Neurogenomics (6.5) • Neuron-Glia Interactions (6.5)
Advanced Clinical Neurosciences (7.0) • Systems Neuroscience (7.4) • Developmental Neurobiology (8.5)
Neurophilosophy and Ethics (7.0) • Experimental and Clinical Neuroendocrinology (7.5)

2018/09 – 2019/10: BSc Hons (2nd class) in Biomedical Science, Edinburgh Napier University, School of Applied Sciences – UK

- First Class grade for final ***“Nabumetone-derived drug candidate for selective COX-2 inhibition by molecular docking.”*** dissertation
- Sharpened scientific writing and research skills, received a First Class grade for ***“Inhibition of MMP-9 activity in airway epithelial cells as a potential strategy against cystic fibrosis.”*** research proposal
- Quickly adjusted to University’s facilities, policies and lecture schedules, including catching up on the covered topics in Immunology and Molecular Biology after the transfer out of CUC

2018/01 – 2018/09: Higher National Diploma (1st class) in Biological and Chemical Sciences, CUC – UK

- Sharpened practical skills used in pharmacology, e.g., measuring dilution rate for different paracetamol formulations by dialysis
- Improved skills in statistics working ***“Does random sampling of the spectroscopic standards improve the quality of the calibration curve? A pilot study.”*** project – ANOVA, use of Minitab

2014/09 – 2017/02: Academy Profession Degree (Grade A) in Chemical and Biotechnical Science, BAA – Denmark

- Exercised adaptability, language and problem-solving skills by starting a first degree abroad
- Obtained thorough hands-on training in fundamental techniques in Analytical Chemistry, Biotechnology and Molecular Biology (experiments involving chromatography, aseptic technique, crucial safety measures, cloning, food science, bacterial and mold cultures)
- Learned essential experimental stages involving calibrations of the standard curve, optimization, validation of equipment, etc.
- Proven obtained capabilities having met the learning and research goals during placements at Fraunhofer IME and BOKU Vienna

IT Experience

2022/01 – 2021/07: Junior Software Engineer, Bright Side of Life Software and Consulting Services, Breukelen – Netherlands

- PwC Pulse: Using Java and Spring, converted 15 API methods to return a custom XML/JSON response instead of XML only and updated generation of usage reports in the Pulse Administrator API to rely on JSON response, instead of populating cells within an Excel sheet
- NBD Biblion: Using Java, JavaScript and Thymeleaf and facing a few days of a deadline, delivered a small Spring application for updates of bookstore volumes to simplify the receipt-logging-approval-shelving process

2020/01 – 2021/05: Graduate Software Developer, FDM Group, Glasgow – UK

- Built a brand-new app (League of Legends characters library) as technical assessment within 2 days using Java and Spring
- Sharpened front-end skills in React and Bootstrap, built an admin panel and login functionality in a banking app using REST API
- Upskilled in Angular and basic Data Science in Python using Jupyter notebook
- Expanded on soft skills by liaising with coworkers and executives - working Agile (Scrum), participation in Dev lead and Stand-up rota

Additional information

- Excellent command of English (C2), proficient command of German (B2), native Polish speaker, 85 WPM typing, cat. A and B license
- Hobbies: PC gaming (RPGs, roguelikes, puzzle, indie), science, sport (basketball, MMA, jogging), music, cooking, fantasy, woodworking