
EDUCATION

- 2020 - 2026** **School of Medicine, Trinity College Dublin – MB, BCh, BAO**
Distinction in Anatomy (84%), **Distinction** in Physiology (76%)
- 2023 - 2024** **Intercalated M.Sc. in Neuroscience, Trinity College Dublin**
Graduated with **Distinction** (80%)
- 2018 - 2020** **International Baccalaureate (IB), Bangkok Patana School, Thailand**
Graduated **top 3.4%** worldwide (43 out of 45 points)

CLINICAL ELECTIVES

- 08/25 - 09/25** **Beaumont Hospital – Neurosurgery** **Dublin (IE)**
[1 month] Advisor: Mr John Caird, Consultant Neurosurgeon
- **Scrubbed in 2 neurosurgical cases** (ETV, cranioplasty) and ward procedures including EVD removal
 - **Presented 4 post-op cases** with a focus on CT brain interpretation and neurological examination skills
 - Performed 20+ supervised clinical tasks including phlebotomy, ECGs, and GCS assessments
- 06/25 - 07/25** **Royal Melbourne Hospital, University of Melbourne – Neurosurgery** **Melbourne (AU)**
[1 month] Advisor: Mr Nicholas Hall, Consultant Neurosurgeon
- Observed and analysed **30+ cases**: aneurysm clipping, C2 corpectomy, parietal tumour resection
 - Evaluated **8+ outpatients/week**, integrating MRI/CT findings to guide management decisions
 - Improved clinical reasoning via weekly consultant-led tutorials on GBM and cervical myelopathy
- 07/24 - 08/24** **National University Hospital, National University of Singapore** **Singapore (SG)**
[1 month] Advisor: Dr Vincent Nga, Head of Neurosurgery and Dr Lee Jing Tzer, Consultant Plastic Surgeon
- Developed assessment-to-management thinking through elective/emergency cases, clinics, and MDTs
 - Observed and participated in team-based treatment discussions emphasising shared decision-making

RESEARCH EXPERIENCE

- 10/25 - 02/26** **Beaumont Hospital – Research Assistant** **Dublin (IE)**
[5 months] Advisor: Mr. John Caird, Dr. Pierce Cambay, and Dr. Shane Higgins
- Focus: **Audit** of cerebral angiogram cases evaluating multidisciplinary meeting referral compliance
 - Responsibilities: Conducted data collection from **350+** patient charts
 - Outcome: Audit awaiting review and findings will guide improvements and minimise missed referrals
- 02/24 - 02/26** **St. Vincent's University Hospital, Neurology – Biomedical Researcher** **Dublin (IE)**
[2 years] Advisor: Prof Richard Reilly, PhD and Dr Conor Fearon, MD, PhD
- Focus: Investigating perceptual decision-making in cervical dystonia via an EEG-behavioural paradigm
 - Responsibilities: Developed paradigm, led patient recruitment, data collection, and multimodal analysis
 - Outcome: **Poster presentation at MDS congress** and ongoing use of novel EEG-behaviour paradigm
- 06/22 - 08/22** **Beth Israel Deaconess Medical Centre, Harvard Medical School – Research Intern** **Boston (US)**
[2 months] Advisor: Leo E. Otterbein, PhD
- Focus: Examining exercise conditioning effects on mTBI and HO-1 knockout mice models
 - Responsibilities: Conducted exercise and mTBI protocols, tissue processing, and data analysis
 - Outcome: Advanced the lab's mTBI/heme research and contributed to a **peer-reviewed publication**
- 07/21 - 08/21** **Trinity College Institute of Neuroscience (TCIN) – Research Intern** **Dublin (IE)**
[1 month] Advisor: Sarah McComish, PhD
- Focus: Investigated hiPSC-derived neuronal models to explore mechanisms of neurodegeneration
 - Responsibilities: Conducted supervised cell culture, RNA isolation, cDNA synthesis, and PCR
 - Outcome: Strengthened **wet lab skills** and understanding of neurodegenerative disease research
- 05/21 - 09/21** **Trinity Centre of Health Sciences, St. James's Hospital – Research Assistant** **Dublin (IE)**
[5 months] Advisor: Shalaleh Karkon, PhD
- Focus: Evaluating a four-week pain and fatigue management programme for individuals with arthritis
 - Responsibilities: **Recruited 50+** participants via handwritten letters and **300+** outreach calls
 - Outcome: Strengthened **dry lab skills** and understanding of clinical research

LEADERSHIP AND MENTORSHIP

- 10/25 - Now** **Trinity Neurosurgical and Neurological Society (TNNS)** **Dublin (IE)**
[8 months] **President and Co-Founder:** *Our mission is to educate students about neurosurgery and neurology*
- Founded Trinity's first neurosurgical and neurological society and **led a 14 member** team
 - Facilitated 3 Career & Lecture Series events for **60+ attendees**, achieving **4.8/5** satisfaction
 - Delivered TNNS's first Mock OSCE, coordinating **75+ participants** across **2 days** - **5/5** satisfaction

11/25 - Now [7 months]	Neurology & Neurosurgery Interest Group (NANSIG) Regional Lead for Neurosurgery Expanded neurosurgery education and research access to 200+ TCD students by liaising with NANSIG	Dublin (IE)
11/25 - Now [7 months]	School of Medicine, Trinity College Dublin USMLE Step 1 Mentor - Supported and guided two candidates via biweekly check-ins and personalised study/exam planning - Enabled Step 1 exam preparation for ~20 clinical year students by building a 20-page study guide	Dublin (IE)
09/24 - 09/25 [1 year]	Trinity Student Medical Journal (TSMJ) Section Editor Managed the peer review process by delegating tasks, coordinating timelines, and providing feedback - Reviewed and edited two manuscripts, providing author feedback to reach publication standard	Dublin (IE)
10/23 - 04/24 [7 months]	School of Medicine, Trinity College Dublin University Tutor - Delivered weekly PBL sessions for 70+ first-year students, introducing structured problem-solving skills - Achieved a 97% tutor satisfaction score by fostering a psychologically safe learning environment	Dublin (IE)
09/21 - 09/22 [1 year]	Dublin University Harriers and Athletics Club Men's Track Captain Captained 80+ athletes, coaching technical fundamentals and optimised team lineups - Organised club events including quiz nights and charity bake sales	Dublin (IE)

PUBLICATIONS

- Gill A, **Miyauchi K**, Killian O, Rafee S, Fearon C, Reilly RB. Probing Perceptual Decision Making in Cervical Dystonia: Employment of a Novel Paradigm Integrating Behavioural and Neuronal Measures. *Annu Int Conf IEEE Eng Med Biol Soc.* 2025; 2025:1-4. doi:10.1109/EMBC58623.2025.11254019
- Sanagavaram, A*, **Miyauchi, K***, Optasanu, M., Betzhold, S., Murray, C., & Corssen, F. (2025). Systematic Review: Newer Perspective in the Medical Management of Acute Ischaemic Stroke. *Trinity Student Medical Journal*, 23(1), 30–39.
- Voltarelli VA, Alves de Souza RW, **Miyauchi K**, Hauser CJ, Otterbein LE. Heme: The Lord of the Iron Ring. *Antioxidants* (Basel). 2023 May 10;12(5):1074. doi: 10.3390/antiox12051074.

ABSTRACTS & POSTER PRESENTATIONS

- Miyauchi K**, Killian O, Gill A, Rafee S, Fearon C, Williams L, O’Riordan S, Reilly R. Neural markers of abnormal sensory processing in Cervical Dystonia: a novel combined neurobehavioural-neurophysiological task. Oral presentation at: **61st Annual Irish Neurological Association Meeting**, 2025
- Neichel A, **Miyauchi K**, Zadra L, Scauso J, Kim J, Tan J, Cosgrove S, Rostam I, Barry B, Aherne C, Youngvanich A, Lee C, Mockler D, Trayer J, Stewart P, McCarthy R, Roche E, Meehan J, Molloy E. *Placental Pathology and Outcomes in Infants with Congenital Cardiac Conditions: A Systematic Review*. Poster presented at: **Irish Neonatal Society – 15th Irish Neonatal Research Symposium**, 2025
- Miyauchi K***, Lakhotiya M*, Gill A, Rafee S, Fearon C, Reilly R. *Investigating Impaired Perceptual Decision Making in Cervical Dystonia: A Novel Paradigm Integrating Behavioural and Neural Measures*. Poster presented at: **Movement Disorder Society (MDS) Congress**, 2024
- O’Donoghue E, **Miyauchi K**, Sears J, Allen N, Ni Cheallaigh C. *HIV Models of Care - When One Size Does Not Fit All*. Poster presented at: **Infectious Disease Society of Ireland (IDSI) Annual Scientific Meeting**, 2023.

ADDITIONAL INFORMATION

- Technical Skills:** MATLAB, R, SPSS, EEGLAB, PCR, GraphPad Prism, mice handling
- Languages:** native English, native Japanese
- Interests:** Teaching (5yrs+ secondary & university students); Track & field (4x100m college record holder)
- Countries Lived:** Singapore (6yrs), Japan (5yrs), Thailand (8yrs), Ireland (5yrs)
- Honours & Awards:**
 - SEASAC Division I Volleyball Championship **MVP** (2019)
 - IB Sportsperson **Full Blues Award** - competed in ≥6 varsity teams across all IB seasons (2020)
 - 5x MVP** across Track & Field, Basketball, and Softball (2015-2020)
- Academic Distinctions:**
 - South East Asia Maths Competition (SEAMC): **3x** school representative (2016-2018)
 - Intermediate Maths Challenge: **135/135** (2017)
 - Early IGCSE Mathematics: **A*** (2017)

REFERENCES AVAILABLE UPON REQUEST