

# Dr Samuel P Leighton – Curriculum Vitae 16<sup>th</sup> April 2026

**Current Research Organisations:** University of Edinburgh & University of Glasgow

## 1. Formal Training and Qualifications

- **Professional Registration:** Full GMC Registration (7131927), RCPsych (856620).
- **CCT Date / Completion of Training:** 21st July 2024.
- **Current Grade:** Consultant General Adult Psychiatrist.
- **PhD:** University of Glasgow (12/2019 – 05/2024) in *Prognostic research in psychiatry: towards a clinically-relevant prediction model for first episode psychosis*. Passed viva without corrections on 13th May 2024.
- **MBChB Medicine:** University of Edinburgh (09/2005 – 06/2011).
- **BMedSci(Hons) 2:1 Biochemistry:** University of Edinburgh (09/2007 – 06/2008).
- **Royal College Examinations:** MRCPsych (2016), MRCP(UK) (2014).

## 2. Career Breaks

- **Shared Parental Leave:** 15 July 2020 (3 months duration).
- **Shared Parental Leave:** 4 January 2024 (2 months duration).

## 3. Career / Employment History

### Clinical Appointments

- **12/2025 – Present:** Consultant Psychiatrist, Intensive Psychiatric Care Unit (IPCU), Leverndale Hospital, NHS Greater Glasgow & Clyde (GG&C). 50% full-time equivalent.
- **08/2024 – 11/2025:** Locum Consultant Psychiatrist, NHS GG&C. Worked 12 months in the Esteem Early Intervention Psychosis Service and 4 months as a Liaison Psychiatrist at Glasgow Royal Infirmary.
- **06/2018 – 07/2024:** Honorary Specialty Registrar, General Adult Psychiatry, NHS GG&C.
- **08/2017 – 05/2018:** Specialty Registrar, General Adult Psychiatry, NHS GG&C.
- **08/2014 – 08/2017:** Glasgow Academic Training Environment (GATE) Core Psychiatry Trainee, NHS GG&C. Performed a systematic audit of physical health monitoring for long-stay psychiatry inpatients, calculating 10-year QRISK scores and initiating statin therapy for patients at >10% risk.
- **08/2013 – 08/2014:** Core Medical Trainee, Inverclyde Royal Hospital, NHS GG&C. Served on the middle-grade medical registrar rota; acted as the most senior medical doctor on-site overnight for all inpatient medical wards, HDU, and CCU. Led the medical arrest team and acute ward rounds.
- **08/2011 – 08/2013:** Academic Foundation Trainee, NHS GG&C.

### Research / Academic Appointments

- **04/2026 – Present:** Senior Clinical Research Fellow, Institute for Neuroscience and Cardiovascular Research, Centre for Clinical Brain Sciences, The University of Edinburgh. 50% full-time equivalent.
- **03/2026 – Present:** Honorary Clinical Senior Lecturer, School of Health & Wellbeing, University of Glasgow.
- **07/2024 – 02/2026:** Affiliate Staff, School of Health & Wellbeing, University of Glasgow.
- **03/2023 – 07/2024:** Clinical Lecturer, Mental Health & Wellbeing, University of Glasgow.

- **08/2019 – 02/2023:** Clinical Academic Fellow / Chief Scientist Office (CSO) Clinical Academic Fellowship, School of Health & Wellbeing, University of Glasgow. Co-designed and implemented the electronic outcome reporting system for NHS GG&C's Esteem Early Intervention Psychosis Service.
- **06/2018 – 08/2019:** Clinical Lecturer, Mental Health & Wellbeing, University of Glasgow.
- **08/2014 – 05/2018:** Honorary Clinical Lecturer, University of Glasgow.
- **08/2011 – 08/2013:** Honorary Clinical Fellow, University of Glasgow.

#### 4. Relevant Experience (Research & Funding)

- **04/2026 – Present:** Award Holder/Fellow, MRC Grant (UKRI4402): "Causal actionable prediction for early cardiometabolic intervention in psychosis - targeting obesity". Awarded: £246,228.82. Time spent on project: 50%.
- **07/2025 – Present:** Lead Clinical Partner to Dr Fani Deligianni PI, UKRI Causality in Healthcare AI Hub 'New to Causality' Call. Project: "*Causal Survival Models for Psychosis: Insights into Risks and Prognosis*". Awarded: £62,843 (funding used for a postgraduate research assistant starting March 2026 under my supervision). Currently focussed on Target Trial Emulation of antipsychotic use, QTc prolongation and ICU mortality.
- **01/2025 – Present:** Principal Investigator, NHS GG&C Endowment Fund. Awarded: £14,762. This funded access to all historical linked electronic healthcare record data for patients accepted to the NHS GG&C Esteem early intervention psychosis service between 2015 and 2025 in the West of Scotland Safe Haven.
- **08/2019 – 03/2023:** Principal Investigator, Clinical Academic Training Fellowship, Chief Scientist Office, Scotland (CAF/19/04). Awarded: £238,177 (paid for full salary).
- **Research Collaborations:** Actively collaborate with extensive research networks and colleagues across the Universities of Birmingham, Cambridge, Edinburgh, Glasgow and Copenhagen.
- **Clinical Intent:** Intends to be clinically active during the award and in subsequent career.

#### 5. Evidence of Recognition (Prizes and Awards)

- **06/2021:** 2nd Place Prize, Rapid Fire Poster Presentation, Royal College of Psychiatrists International Congress (IC) 2021.
- **04/2018:** Royal College of Psychiatrists IC 2018, Presenter Bursary.
- **08/2011:** Wellcome Trust Medical Student Elective Grant.
- **05/2011:** Royal College of Psychiatrists, Medical Student Elective Bursary.
- **12/2010:** British Pharmacological Society, 3rd prize in National Young Investigators poster in Clinical Pharmacology.
- **10/2010:** British Pharmacological Society, Undergraduate Prize in Clinical Pharmacology for the University of Edinburgh.

#### 6. Supervision

##### PhD Supervision

- **2025 – Present:** Co-Supervisor for I Lam Leong, University of Cambridge. Project Focus: Causal modelling of physical health outcomes with Clozapine in psychosis.

##### D Clin Psy Supervision

- **2022 – 2023:** Field Supervisor and Project Lead for Dr Vanessa Albrecht, Service Based Evaluation Project, University of Glasgow. Project Title: *"Assessment of the Implementation of Routinely Collected Clinical Outcome Data Capture in Esteem First Episode Psychosis Service"*.
- **2018 – 2020:** Co-Supervisor for Dr Emma Mawdsley, University of Glasgow. Research Project Focus: Machine learning/prediction modelling to predict cognitive outcomes. Provided specialised statistical and methodological oversight.

### **Masters Supervision**

- **2025 – Present:** Co-Supervisor for Jiayi Lin, University of Cambridge. Project Focus: Causal effects of antipsychotics on ECGs and cardiovascular health.

### **7. Teaching and Training**

- **2018 – 2023:** Lecturer, BMedSci Intercalated Honours Program, University of Glasgow. Delivered regular lectures on psychiatry and research methodologies. Responsible for marking and reviewing student essay examinations, utilising shared moderation to ensure assessment quality.
- **2019 – 2021:** Invited Guest Lecturer (Nursing), Queen Elizabeth University Hospital. Delivers an annual psychopharmacology lecture for nursing staff.
- **12 November 2019:** Workshop Organiser and Lead Instructor, University of Birmingham. Invited to design and run a one-day workshop on prediction modelling and machine learning using the R statistical programming language. The workshop was attended by prominent researchers (including Drs. Benjamin Perry, Siân Lowri Griffiths, and Prof. Rachel Upthegrove), receiving highly positive feedback.

### **8. Professional and Academic Activities**

- **2025 – Present:** Member, Psychosis and Schizophrenia Matrix Advisory Group for evidence-based psychological therapies, NHS Education Scotland.
- **2021 – Present:** Member, Healthcare Improvement Scotland Expert Reference Group for Psychosis. Advised on the successful roll-out of early intervention psychosis pathfinder sites in NHS Dumfries and Galloway and NHS Tayside. Successfully advocated for specific outcome measures to be collected based on findings from my PhD research.
- **2019 – Present:** Regular Peer Reviewer. Routinely review manuscripts for *The British Journal of Psychiatry*, *Psychoneuroendocrinology*, *Brain Behavior and Immunity*, and *General Hospital Psychiatry*. Also served as a grant reviewer for the UKRI MRC Clinician Scientist Fellowship Application (2024).
- **2014 – 2016:** Clinical Trainee Representative, Clinical Academic Training and Advisory Committee, University of Glasgow.

### **9. International Oral Presentations**

- **20 July 2026:** Invited Presenter, British Association for Psychopharmacology 2026 Summer Meeting (University of Birmingham). Presenting *"A problem at the heart of precision medicine - are current clinical prediction models fully actionable for individuals?"* in Post-doctoral symposium.
- **18 June 2026:** Presenter and Session Chair, 2026 RCPsych International Congress, Liverpool. Led the accepted session proposal: *"Precision psychiatry: thinking beyond simple prediction models - enhancing causal predictions"*.
- **10-13 July 2023:** Rapid-Fire Poster Presentation, RCPsych International Congress 2023, Liverpool. *"Prediction modelling in first episode psychosis: an assessment of biological disease markers and machine learning classifiers"*.

- **21-24 June 2021:** Rapid-Fire Poster Presentation, RCPsych International Congress 2021 (Virtual). *"Development and Validation of a Nonremission Risk Prediction Model in First-Episode Psychosis: An Analysis of 2 Longitudinal Studies"*. (Awarded 2nd place in the rapid-fire poster category).
- **5-9 February 2011:** Presenter, GnRH 2011 Symposium, Salzburg. *"Novel therapeutic strategies for prostate cancer: receptor binding, activation and growth-inhibitory properties of GnRH analogs containing D-amino acids at position-6"*.

## 10. List of Selected Publications and Outputs

- Krishnadas R, [Leighton SP](#), Jones PB. Commentary. **The British Journal of Psychiatry**. 2026. <https://doi.org/10.1192/bjp.2026.10625>
- [Leighton SP](#), Leong IL, Machlanski D, Perry BI, Tsaftaris SA, Deligianni F, Lawrie SM, Krishnadas R. Antipsychotic-induced weight gain in psychosis: causal mediation analysis and feasibility study of causal actionable prediction model development using counterfactuals to target obesity. **The British Journal of Psychiatry**. 2026. <https://doi.org/10.1192/bjp.2026.10561>
- Hussain Z, Ng D, [Leighton SP](#), Deligianni F, Ritchie C, Cavanagh J. Plasma inflammatory biomarker profiles across the Alzheimer's disease spectrum in the Bio-Hermes cohort. **Alzheimer's and Dementia**. 2026; 22(3): e71257. <https://doi.org/10.1002/alz.71257>
- [Leighton SP](#), Deligianni F, Machlanski D, Perry BI, Lawrie SM, Tsaftaris SA, Krishnadas R. A problem at the heart of precision medicine – are current clinical prediction models fully actionable for individuals? **PsyArXiv preprint**. 24 July 2025. [https://doi.org/10.31234/osf.io/jw37c\\_v2](https://doi.org/10.31234/osf.io/jw37c_v2) (under review at Nature Communications Medicine)
- Krishnadas R, [Leighton SP](#), Jones PB. Precision psychiatry: thinking beyond simple prediction models – enhancing causal predictions. **The British Journal of Psychiatry**. 2025; 226(3):184-188. <https://doi.org/10.1192/bjp.2024.258>
- Alkan M, Zakariyya I, [Leighton SP](#), Sivangi KB, Anagnostopoulos C, Deligianni F. Artificial Intelligence-Driven Clinical Decision Support Systems. In Firouzi F, Chakrabarty K, Farahani B (Eds.), **Smart and Connected Healthcare**, Springer, 2025. In press with a preprint available: arXiv:2501.09628 <https://doi.org/10.48550/arXiv.2501.09628>
- [Leighton SP](#), Herron JW, Jackson E, Sheridan M, Deligianni F, Cavanagh J. Delirium and the risk of developing dementia: a cohort study of 12 949 patients. **Journal of Neurology, Neurosurgery & Psychiatry**. 2022; 93(8): 822-827. <https://doi.org/10.1136/jnnp-2022-328903>
- Lee R\*, [Leighton SP](#)\*, Thomas L, Gkoutos GV, Wood SJ, Fenton SJH, Deligianni F, Cavanagh J, Mallikarjun PK. Prediction models in first-episode psychosis: systematic review and critical appraisal. **The British Journal of Psychiatry**. 2022; 220(4): 179-191. <https://doi.org/10.1192/bjp.2021.219> \*Joint first authors
- Griffiths SL, [Leighton SP](#), Mallikarjun PK, Blake G, Everard L, Jones PB, Fowler D, Hodgekins J, Amos T, Freemantle N, Sharma V, Marshall M, McCrone P, Singh SP, Birchwood M, Upthegrove R. Structure and stability of symptoms in first episode psychosis: a longitudinal network approach. **Translational Psychiatry**. 2021; 11(1): 567. <https://doi.org/10.1038/s41398-021-01687-y>
- [Leighton SP](#), Krishnadas R, Upthegrove R, Marwaha S, Steyerberg EW, Gkoutos GV, Broome MR, Liddle PF, Everard L, Singh SP, Freemantle N, Fowler D, Jones PB, Sharma V, Murray R, Wykes T, Drake RJ, Buchan I, Rogers S, Cavanagh J, Lewis SW, Birchwood M, Mallikarjun PK. Development and Validation of a Nonremission Risk Prediction Model in First-Episode Psychosis: An Analysis of 2 Longitudinal Studies. **Schizophrenia Bulletin Open**. 2021; 2(1): sgab041. <https://doi.org/10.1093/schizbullopen/sgab041>
- [Leighton SP](#), Upthegrove R, Krishnadas R, Benros ME, Broome MR, Gkoutos GV, Liddle PF, Singh SP, Everard L, Jones PB, Fowler D, Sharma V, Freemantle N, Christensen RHB, Albert N, Nordentoft M, Schwannauer M,

Cavanagh J, Gumley AI, Birchwood M, Mallikarjun PK. Development and validation of multivariable prediction models of remission, recovery, and quality of life outcomes in people with first episode psychosis: a machine learning approach. **Lancet Digital Health**. 2019; 1(6): E261-E270.

[https://doi.org/10.1016/S2589-7500\(19\)30121-9](https://doi.org/10.1016/S2589-7500(19)30121-9)

- Lyall LM, Cullen B, Lyall DM, Leighton SP, Siebert S, Smith DJ, Cavanagh J. The associations between self-reported depression, self-reported chronic inflammatory conditions and cognitive abilities in UK Biobank. **European Psychiatry**. 2019; 60: 63-70. <https://doi.org/10.1016/j.eurpsy.2019.05.007>
- Leighton SP, Krishnadas R, Chung K, Blair A, Brown S, Clark S, Sowerbutts K, Schwannauer M, Cavanagh J, Gumley AI. Predicting one-year outcome in first episode psychosis using machine learning. **PLoS One**. 2019; 14(3): e0212846. <https://doi.org/10.1371/journal.pone.0212846>
- Leighton SP\*, Nerurkar L\*, Krishnadas R, Johnman C, Graham GJ, Cavanagh J. Chemokines in depression in health and in inflammatory illness: a systematic review and meta-analysis. **Molecular Psychiatry**. 2018; 23(1): 48-58. <https://doi.org/10.1038/mp.2017.205> \*Joint first authors
- Morgan K, Leighton SP, Millar RP. Probing the GnRH receptor agonist binding site identifies methylated triptorelin as a new anti-proliferative agent. **Journal of Molecular Biochemistry**. 2012; 1(2): 86-98. <https://www.jmolbiochem.com/index.php/JmolBiochem/article/view/25/19>
- Morgan K, Stavrou E, Leighton SP, Miller N, Sellar R, Millar RP. Elevated GnRH receptor expression plus GnRH agonist treatment inhibits the growth of a subset of papillomavirus 18-immortalized human prostate cells. **Prostate**. 2011; 71(9): 915-928. <https://doi.org/10.1002/pros.21308>

## 11. Medical Technology and Innovation

- **2012 – 2022: Co-Founder and Director, Polwarth Medical Ltd (SC435172).**
  - Utilised self-taught programming to digitise clinical guidelines, replacing static paper formats with point-of-care mobile applications.
  - Developed an offline-capable electronic healthcare record and SOP suite for **BASICS Scotland**, enabling first responders in remote locations to document emergency care digitally. This system, launched by the then Deputy First Minister John Swinney in 2015, remains a core component of their emergency response infrastructure. <https://www.thecourier.co.uk/news/perth-kinross/236002/new-app-may-be-life-saver-in-casualties-golden-hour/>
- **2014 – Present: Lead Developer, NHS GG&C Primary Care Antibiotic Guideline App.**
  - Engineered an official NHS GG&C primary care antibiotic guideline application for iOS and Android to improve antibiotic stewardship and adherence. <http://pulsetoday.co.uk/resource/clinical-areas/long-term-conditions-prescribing/how-we-made-an-app-for-gp-antibiotic-prescribing/>
  - The application has achieved over 50,000 unique downloads and is currently used daily by hundreds of clinicians across primary care and psychiatric settings. Regularly updated to reflect the latest best-practice evidence, the app has helped improve regional guideline adherence.

## 12. Voluntary and Extracurricular Roles

- **2025 – Present:** Co-Founder, Director and Chief Operations Officer, Cask Flow Limited (SC845976). An independent whisky cask brokerage based in Scotland. Website: [www.caskflow.uk](http://www.caskflow.uk)
- **2022 – Present:** Director, Scottish Jewish Archives Charity (SC210878). Contribute to academic historical research and organise educational charity events. Website: <https://www.sjac.org.uk/>
- **2020 – Present:** Co-Founder and Director, Ben Èideann Limited (SC653499). A Kosher Scotch Whisky independent bottler. Our Kosher single malt and blended Scotch Whisky brands total annual sales of 50,000 bottles globally markets. Website: <https://beneideann.com/>