

Job Description for NIHR Academic Clinical Fellowship in **Clinical Neurophysiology ST3**

1. Job Title.

NIHR Academic Clinical Fellowship in Clinical Neurophysiology

2. Duration of post.

3 years

3. Research institutions in which training will take place

King's College London (KCL)

4. Timetabling of clinical and research time

The posts are three years long with nine months of protected research time integrated into the clinical rotation timetable. The clinical rotations in clinical neurophysiology are the same as for non-academic positions. The specific pattern of the research block(s) has some flexibility but is usually split into a series of three-month blocks.

5. Description of research component of programme

King's College Hospital hosts some of the largest neurology and neurosurgery services in the UK and works closely with Maudsley Hospital and neurorehabilitation units. King's has world-leading expertise in both clinical neurological disorders and mechanism-focused research e.g. neurodevelopment, pain, brain repair, neurodegeneration, epilepsy, headache and brain tumours. Neuro-specialty research is highly integrated with mental health, with close collaborations including bioengineering, imaging, computational science, immunology, cancer and advanced medical therapies, e.g. CAR-T cell therapies. This makes King's an ideal place for IATs to undertake clinical and translational research.

The research project will be based broadly on digital technologies and big data analysis. These areas of work are all supported by major grant programs and substantial existing data, including well-developed informatics tools for electronic health records and unique datasets from ultra-long-term EEG and wearable sensor monitoring. The research programs build on strong collaborations between Neurophysiologists, Neurologists and the Biomedical Engineering Unit and Centre for Translational Informatics. Project options are wide-ranging. Example projects based on established strengths include: remote monitoring of wearable sensors to predict clinical deterioration; developing machine learning tools to identify predictive biomarkers in brain imaging and electroencephalography; and artificial intelligence analysis of electronic health records to develop real-time clinician alerts and outcome predictors

The trainee will be based in the Department of Basic and Clinical Neuroscience at the Maurice Wohl Clinical Neuroscience Institute, which is part of the NIHR Maudsley Biomedical Research Centre and is a UK Dementia Research Institute hub. The Wohl has world class facilities for neurophysiology, neuroimaging, genetics, proteomics, transcriptomics, epigenomics, metabolomics, bioinformatics, cell models and animal models. Big data facilities are available through the Rosalind supercomputing cluster and the Maudsley BRC. First in man, and Phase 2, 3 and 4 clinical trials are also strongly supported with state-of-the-art clinical research facilities and clinical trials offices.

The [School of Neuroscience](#) is ranked 4th globally for highly-cited publications. External research funding is >£22m p/a. Research infrastructure includes [MRC Centre for Neurodevelopmental Disorders](#); [Maurice Wohl Clinical Neuroscience Institute](#); [King's Centre of the UK Dementia Research Institute](#); and [NIHR Clinical Research Facility](#) integrated with the [NIHR Maudsley BRC](#) and an [NIHR BioResource for Mental and Neurological Health](#).

The ACF will be mentored to develop a personalized academic training program that will prepare the ACF to apply for a PhD at or towards the end of the fellowship. Potential research areas include:

1. [Health data science](#) and [AI for brain MRI](#) abnormalities
2. Trials of novel therapies, including:
 - [calcitonin gene-related peptides for migraine](#)
 - [transcranial magnetic stimulation in spinal cord injury prior to trials of advanced gene therapies](#)
3. Neuromodulation
 - [intracranial electrophysiology using electrodes externalised after deep brain stimulation surgery during motor and cognitive paradigms](#), neuromodulatory therapies
 - [task-dependent modulation of epileptogenic EEG to understand mechanisms underlying epileptic activity](#)
4. Novel biomarkers
 - [Cognitive and pain biomarkers](#) and [outcome measures](#) in long COVID

Brain Frontiers research theme

King's hosts a world-leading, interdisciplinary research environment in the clinical neurosciences, recognised in [REF21 with 100% 4* for UoA4 at the Institute of Psychiatry, Psychology and Neuroscience \(IoPPN\)](#). Our research outputs are among the most highly cited globally, with more top 1% citations than any other centre internationally (SciVal), supported by a research income of over £80.5M/year.

There is an emphasis on pioneering translational research in the clinical neurosciences, exemplified by the [NIHR Clinical Research Facility](#) and the strong translational partnership with the South London and Maudsley NHS Trust (SLaM), e.g. via the [NIHR Maudsley Biomedical Research Centre and Clinical Research Facility](#) (combined £47M). The [Pears Maudsley Centre for Children and Young People](#), housing a new [Clinical Research Facility for research on children's mental health](#) (combined investment of >£80million from SLaM, UKRIPF, King's College London and philanthropy) will open in 2026.

We contribute to high-impact initiatives, including the [NIHR Translational Research Collaboration in Mental Health](#), the [NIHR BioResource](#) and [UK Biobank](#). Significant research foci are found across the clinical neurosciences including [epilepsy](#), [Parkinson's disease](#), [dementia](#) and [motor neurone disease](#).

Example project areas for Brain Frontiers research theme

1. Mental-physical interface: improving clinical recognition and outcomes for patients with [autoimmune encephalitis](#), using novel cognitive and digital behavioural tests, neuroimaging (fMRI/EEG) and neuro-immunological methods including autoantibody analysis.
2. Neuromodulation e.g. [transcranial direct current stimulation in depression](#)
3. Functional neurological disorders, e.g. [differentiation between epileptic seizures and dissociative seizures](#)
4. Novel biomarker driven translation, e.g. in [long COVID](#) or [fibromyalgia](#)
5. Turning [AI-enabled hospital records research](#) (e.g. using [CogStack](#)) and biomarker tools into real-world clinical use, with the aim of improving diagnosis, prognosis, patient stratification, and trial readiness.

Innovative/interdisciplinary approaches

Core to this theme is the pivotal role of [PPIE](#) and co-produced research. All IATs are trained to incorporate PPIE from research planning onwards, and the [IATs have access to support for this](#), including cross-site efforts from [King's Health Partners](#) and [KCL](#), disorder-specific PPIE in specific areas (e.g. [CRISP](#) in PD, PI-led efforts in epilepsy, MND and spinal cord injury), and wider national efforts (e.g. Epilepsy Research Institute UK's [SHAPE network](#)).

IATs navigate their career progression with an emphasis on generating impactful research with the support of proactive research development, impact and communications professionals. Examples include:

- i. linking social science and policy relevant research to the work of policy makers through the [King's Policy Institute](#)
- ii. interdisciplinary training from psychiatrists, neurologists, cardiologists, radiologists, immunologists and bioinformaticians to integrate mental and physical health research e.g. cardiotoxic effects of antipsychotics
- iii. Combining translational informatics, trial methodology and health economic analyses in web-based virtual trial research

The posts will be led by Dr Winston and ACFs will be supported to choose a supervisor that aligns to their interests from the large pool of supervisors with expertise in the clinical neurosciences at the IoPPN, KCL.

For further information on the IoPPN see <https://www.kcl.ac.uk/ioppn/about/index.aspx>

For further information on the Maudsley BRC see <http://www.maudsleybrc.nihr.ac.uk/>

For further information about the Department of Basic and Clinical Neurosciences see <https://kcl-bcn.org/>

6. Description of clinical training component of programme

Academic Clinical Fellows (ACFs) will join the South London Higher Specialist Training Programme in Clinical Neurophysiology. This includes training in clinical neurophysiology predominantly based at King's College Hospital alongside partner hospitals in South London. The training programme will allow ACFs to achieve all competencies required for CCT in clinical neurophysiology, and includes training in all key aspects of the neurophysiology curriculum (EEG, NCS/EMG, EP, IOM). The size and range of interests within the host institutions permit the ability to pursue subspecialty aspects extending beyond the core curriculum (e.g. autonomic function tests, intracranial EEG, nerve excitability studies, exercise testing, microneurography). Neurology training relevant to the curriculum is provided predominantly through specialist outpatient clinic attendance. There is no out-of-hours element to the post, although the post-holder will be trained and involved in the delivery of a consultant-supervised urgent EEG and inpatient video-EEG telemetry service.

The Annual Review of Competency Progression (ARCP) decision aid defines the targets that have to be achieved for a satisfactory ARCP outcome at the end of each training year. For Clinical Neurophysiology the current curriculum can be found [here](#) and the ARCP decision aid can be found [here](#).

There is an extensive postgraduate teaching programme at King's College Hospital of relevance to trainees in clinical neurophysiology. This includes a weekly departmental educational meeting (1 hour), Neurology Grand Round (2 hours) and a variety of weekly lectures and teaching sessions. Multi-disciplinary team meetings in complex epilepsy (monthly), paediatric EEG (monthly), psychiatric EEG (weekly), epilepsy surgery (weekly), and peripheral nerve (monthly) offer further training and educational opportunities as do muscle biopsy (weekly) and nerve biopsy (monthly) MDTs. The successful candidate will attend the national clinical neurophysiology training days. Study Leave will be available.

7. Academic Programme Director name

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8. Clinical Programme Director name

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9. Programme contact for further information (phone or email)

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10. NHSE contact:

Specialty Team <https://lasepgmdesupport.hee.nhs.uk/support/home>

Recruitment Enquiries - <https://lasepgmdesupport.hee.nhs.uk/support/home>

11. Useful websites for further information [IAT Guide | NIHR](#)

<https://www.nihr.ac.uk/explore-nihr/academy-programmes/integrated-academic-training.htm>

12. Confirmation that the post attracts an NTN (A)

Yes

This job description was prepared on 7-Aug-2026