**Research fellow in the Centre for Cognition & Decision Making (Russian Postdoctoral Fellowship Programme)**

from 110,000 rubles (gross)

National Research University "Higher School of Economics"

Moscow

Required work experience: at least 3 years

Full-time

Term of work: 1 year with the possibility of extension for a second year

We, **the Higher School of Economics**, are one of the largest universities in Russia, a leading center for education, research and development. Today, HSE has more than 45,000 undergraduate and graduate students, more than 7,000 teachers, scientists and administrative staff.

Currently, we have an open competition for Russian Postdoctoral Fellowship Programme. Within the framework of the competition, a position of a **postdoc (researcher) in the Centre for Cognition & Decision Making** is available.

**Project name**: Neurophysiological biomarkers for epilepsy surgery from invasive stereoEEG and non-invasive MEG data.

**Project objective:** Epilepsy is the most common severe chronic neurological disease, currently affecting about 1% of the population. At the current level of pharmacological development, approximately one third of patients with epilepsy are refractory to pharmacological treatment - thus, they are candidates for surgical intervention. Surgical intervention requires precise localization of the epileptogenic zone, which is often adjacent to, but not identical to, the epileptogenic lesion, and separation of the epileptogenic zone from functionally healthy areas of the brain that must be preserved during surgery. Despite medical and technological advances in the field of surgery for epilepsy, reliable biomarkers of epileptogenicity that provide optimal resection of the epileptogenic zone have not yet been found. Moreover, the neurophysiological assessment of the residual functional integrity of epileptogenic regions in the brain is still poorly understood. In this project, we plan to conduct clinical and cognitive assessment on patients with drug resistant epilepsy who are undergoing preoperative intracranial EEG (stereoEEG) implantation for optimal surgical planning.

**Tasks of the project:**

* Organization of the database of stereoEEG and MEG recordings;
* Processing of neurophysiological data;
* Implementation of algorithmic approaches on simulated and real data;
* Manuscript writing;
* Results presentation in seminars and conferences.

**From successful candidates for this position we expect:**

* Russian citizenship;
* Candidates must hold a degree (ученая степень кандидата наук, успешная защита кандидатской диссертации, степень PhD);
* Fluent English.

**We offer:**

* Working place in the historical center of Moscow;
* Equipped workplace at the university;
* Access to information resources, databases and electronic subscriptions of HSE University;
* Participation in scientific and educational events and programs of HSE University;
* Working in an international and interdisciplinary research team;
* Participation in academic mobility and professional development programs at HSE University.