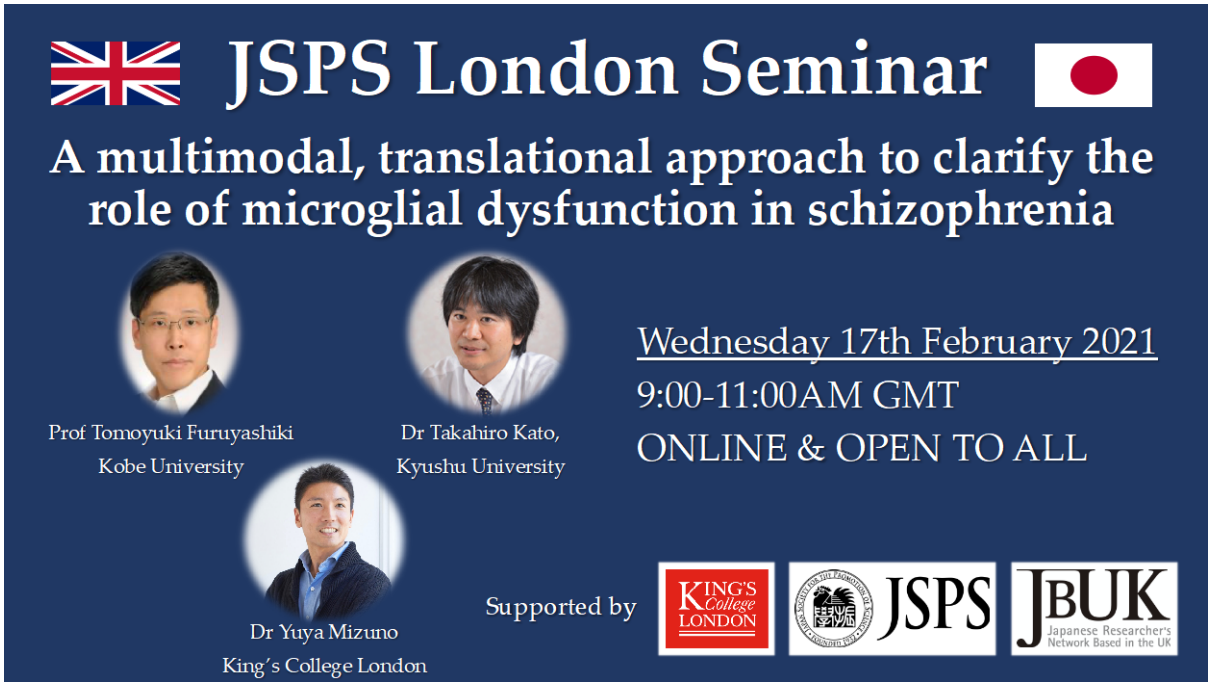

You are warmly invited to the Japan Society for the Promotion of Science (JSPS) London Virtual Seminar. This event, which will be hosted by King's College London, brings together expertise from the fields of cellular biology, animal models of environmental stress and associated immune response, and PET imaging in clinical populations to discuss the nature of microglial dysfunction in schizophrenia.

We are delighted to be inviting two guest speakers from Japan; Dr Takahiro Kato, Associate Professor at the Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University and Professor Tomoyuki Furuyashiki from the Division of Pharmacology, Kobe University Graduate School of Medicine.

Programme

09:00 Housekeeping, *Professor Oliver Howes, King's College London*

09:05 Opening remarks, *Professor Nobuo Ueno, Director of JSPS London*

09:10 1st presentation + Q&A, "A multimodal approach to study microglial dysfunction in patients with schizophrenia: the IRIS-iMG project", *Dr Yuya Mizuno, King's College London*

09:35 2nd presentation + Q&A, "Directly induced microglia-like (iMG) cells from peripheral blood as a dynamic translational research tool", *Dr Takahiro Kato, Kyushu University*

10:00 3rd presentation + Q&A, "Chronic stress-induced neuroinflammation and its relevance to mental illness", *Professor Tomoyuki Furuyashiki, Kobe University*

10:25 Panel discussion + Q&A

10:45 JSPS funding opportunities, *Ms Polly Watson, International Programme Coordinator of JSPS London*

10:55 Closing remarks, *Professor Oliver Howes, King's College London*

11:00 End of event

Dr Yuya Mizuno, who is a Postdoctoral Researcher based at the Department of Psychosis Studies, Institute of Psychiatry, Psychology & Neuroscience will present the ongoing Inflammatory Response in Schizophrenia (IRIS) study. This is a PET imaging study which aims to quantify microglial activation in the brains of patients with schizophrenia, and whether this can be targeted using the monoclonal antibody natalizumab. As a collaborative project within this study, the speaker is collecting blood samples which will enable iMG experiments. The project aims to combine *in vivo* markers of overall microglial activation (PET imaging), *in vitro* markers of dynamic microglial function (iMG), and inflammatory markers in the blood and cerebrospinal fluid to gain a holistic picture of microglial dysfunction in schizophrenia.

Dr Takahiro Kato will present a protocol which his group developed to generate induced microglia-like (iMG) cells from human peripheral blood mononuclear cells. These cells show dynamic functional characteristics consistent with microglia *in vitro*, and have been used to examine abnormalities in the cellular response of microglia-like cells in neurological and psychiatric disorders. The strengths and limitations of this approach in studying human microglial function will be discussed, particularly in contrast to using primary human microglia or microglia-like cells generated from induced pluripotent stem cells.

Professor Tomoyuki Furuyashiki will present his research using the repeated social defeat stress paradigm, which highlights the pivotal role of innate immunity in the relationship between chronic stress and behavioral/emotional changes. The speaker will discuss how the application of iMG experiments can complement findings from rodent studies, and how a combined approach may be used to test the microglia hypothesis of psychiatric disorders.

There will be opportunities to ask questions, and a panel discussion at the end of the event. Furthermore, JSPS London will share information regarding funding opportunities for collaborative research between the UK and Japan.

Registration
This seminar is free and open to all who are interested. Please use the following link to register for the event.

https://us02web.zoom.us/meeting/register/tZ0sdOGprjwqEt1CQXbfKRWXJ4V6NKcSRQkD

We look forward to seeing you to discuss this exciting topic!

Contact Dr Yuya Mizuno yuya.mizuno@kcl.ac.uk