

We are pleased to announce the first **UoB/UIUC BRIDGE Seminar**, focused on Developmental Neurophysiology.

Our first two speakers will be Barbara Pomiechowska (Birmingham) **and Caroline Kelsey** (Illinois), who will discuss uses of OPM-MEG and fNIRS to study development. [Here is the zoom link: https://bham-ac-uk.zoom.us/j/82436963260](https://bham-ac-uk.zoom.us/j/82436963260)

SPEAKER: Barbara Pomiechowska (UoB)

Title: **Magnetoencephalography with Optically Pumped Magnetometers (OPM-MEG): a new window into infant brain and cognitive development**

Abstract: Magnetoencephalography with Optically Pumped Magnetometers (OPM-MEG) is a quantum-enabled emerging neuroimaging method. OPM-MEG, unlike conventional MEG, uses lightweight wearable sensors that can be arranged in bespoke arrays to study brains at all ages, from neonates to elderly, with unprecedented spatiotemporal precision. Our team at the Centre for Human Brain Health, has developed one of the world-first OPM-MEG environments for human infants (< 4 months). I will present our infant OPM-MEG setup and the first infant results, validating OPM-MEG as a promising tool for studying the developing brain and cognition.

SPEAKER: Caroline Kelsey (Illinois)

Title: **Using functional Near Infrared Spectroscopy (fNIRS) to map the neurovascular correlates of behavior across development**

Abstract: In this talk, I will present on prior work in two main areas 1) identifying informative early emerging neural markers of mental health outcomes and 2) examining how our internal and external environments shape development. Throughout the presentation, I will highlight how functional Near Infrared Spectroscopy (fNIRS) is a useful tool for addressing these research directions.