Interoception in Early Childhood: Measurement, Mechanisms and Mental Health

We are recruiting a fully-funded PhD student to join Dr Virginia Carter Leno's group at the Centre for Brain and Cognitive Development at Birkbeck, University of London. This 4-year funded studentship is a partnership between Birkbeck (supervisors Dr Carter Leno and Prof Denis Mareschal) and UCL (supervisor Professor Geoff Bird).

Interoceptive accuracy - the ability to perceive internal bodily signals - has been linked to fundamental aspects of socio-emotional development that emerge early in childhood and are disrupted across a range of clinical conditions, and predict functional outcomes. However, most existing methods of assessing interoception are unsuitable for young children. The project will focus on developing and validating a new experimental task for younger populations. Said task will be combined with eye-tracking, physiological recording and potentially neuroimaging if useful. The PhD candidate will lead on developing experimental work to measure individual differences in interoceptive accuracy early in childhood, and testing how these differences are associated with key aspects of development and mental health.

You will join the project at its earliest stages, with ample opportunity to contribute to the design and direction of planned studies, and will work independently and in collaboration with other members of Dr Carter Leno's group. You will also join a thriving research community at the Centre for Brain and Cognitive Development at Birkbeck, and will be encouraged to take part in research networks within the department and at other institutions nearby. Being based at the Toddlerlab offers extensive opportunities for training in theory and innovative methods at an internationally recognised centre of developmental science.

It is essential that candidates have a strong academic background in psychology, cognitive neuroscience or a related field (i.e., a strong Bachelor's degree and/or a Distinction at postgraduate level) and experience conducting research with human volunteers. Experience with quantitative data analysis or experience with coding/programming is desirable, as is knowledge of the scientific literature around interoception. Experience with any particular experimental technique (e.g., physiological recording) is not an essential requirement, as these skills can be taught during the PhD.

This studentship covers 4 years of PhD tuition fees (at Home level) and provides a tax-free living stipend (comparable to UKRI levels for 2026). The Studentship will be associated with the London Interdisciplinary Doctoral (LIDo) Programme in the Biosciences and you will be expected and supported to participate in all LIDo training and events in the same way as any other LIDo student. The LIDo programme has structure comprising first year research lab rotations. For this studentship, which has a predetermined project, rotations will be carried out in the laboratories of the project's supervisors to enable you to participate in rotation-linked LIDo events. The studentship incorporates a 3-month professional internship, usually carried out in the third year. In addition to your stipend, Birkbeck will provide funding to your supervisory team to support your training and research during rotations and the PhD project. Broader cross-disciplinary training opportunities are also included as part of this studentship (e.g., Python, Data Handling, Machine Learning). International

students can apply but if successful, will only be awarded the tuition fees at the UK home fee rate. The PhD will commence in October 2026.

Any questions about the post can be sent to Dr Carter Leno at v.carterleno@bbk.ac.uk. Please include a CV in the first instance. To apply, please visit the Birkbeck postgraduate study portal https://www.bbk.ac.uk/student-services/financial-support/phd-funding. Make clear on your application you are applying for the PhD with supervisor Dr Carter Leno on the Development of Interoception in the Department of Psychological Sciences, Faculty of Science.

The deadline for applications is 8th June 2026.