



**Exploring the relationship between sensorimotor integration and social processing
in autism
ESRC DTP Joint Studentship**

The University of Nottingham and Loughborough University

The Midlands Graduate School is an accredited Economic and Social Research Council (ESRC) Doctoral Training Partnership (DTP). One of 14 such partnerships in the UK, the Midlands Graduate School is a collaboration between the University of Warwick, Aston University, University of Birmingham, University of Leicester, Loughborough University and the University of Nottingham.

We are now inviting applications for an ESRC Doctoral Joint Studentship between The University of Nottingham (where the student will be registered) and the Loughborough University to commence in October 2018.

The Project

This studentship will investigate links between specific sensorimotor integration deficits and social difficulties in autism with a view to developing sensory training paradigms using virtual reality that will have a meaningful impact on social functioning.

Sensory abnormalities are a defining feature of autism and may account for a significant amount of social-communication difficulties. However, the current evidence base cannot inform us about how a particular sensory mechanism affects specific areas of social functioning; information vital to the development of appropriate interventions designed to improve both sensory and social function in autism.

One theory to link these domains is atypical sensorimotor temporal binding in autism. Accurate sensorimotor binding underlies the awareness and understanding of our own body and researchers have argued that a failure to detect similarities between another's movements and our own may impair social processing. Recent research has shown that sensorimotor temporal binding is malleable and therefore there is great potential in exploring sensory training as an intervention.

This project addresses 3 key research questions:

- 1) To what extent does sensory integration predict performance on social skills?
- 2) To what extent does sensory training promote improvements in sensory integration in children with autism?
- 3) Do improvements in sensory integration modulate social skills?

Applications are invited from outstanding students with (or expected to achieve) an upper 2.1 or 1st class degree in psychology or related discipline. The successful applicant will have an interest in autism, body representations or sensorimotor integration and will feel comfortable interacting with children with specific needs and will be willing to learn some computer programming skills. The student will be based in the School of Psychology at The University of Nottingham, but will spend significant time at the School of Sport, Exercise and Health Sciences at Loughborough University and will therefore need to travel between the two sites.

Application Process

To be considered for this PhD, please complete the Joint Studentship application form [available online here](#) with a cover letter and a CV and email these to Danielle.Ropar@nottingham.ac.uk. Shortlisted applicants will also be required to provide two references and should expect to hear whether they have been shortlisted by the 21st of February.

Application deadline: Wednesday 14th February 2018

Midlands Graduate School ESRC DTP

Our ESRC studentships cover fees and maintenance stipend and extensive support for research training, as well as research activity support grants. Support is available only to successful applicants who fulfil eligibility criteria. To check your eligibility, visit: www.mgsdtp.ac.uk/studentships/eligibility/

Informal enquiries about the research or School of Psychology prior to application can be directed to Danielle.Ropar@nottingham.ac.uk.