



## PhD Supervisors:

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## To apply or for further information please contact:

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## Interested in studying a PhD on the neuropsychological profiles of children with childhood apraxia of speech?

Childhood speech disorders are common, affecting 1 in 20 preschool children in the general population. Yet most of these children present with mild articulation or phonological disorders that typically resolve with or without intervention. By contrast, approximately 1 in 1,000 patients present with a persistent and less tractable speech disorder known as childhood apraxia of speech (CAS). Three core symptoms support a CAS diagnosis: inconsistent errors on consonants and vowels; lengthened and disrupted coarticulatory transitions between sounds and syllables; and inappropriate prosody. Lifelong impairment is seen, with psychosocial impact, literacy deficits, and restricted educational and employment outcomes. Why is CAS so much more persistent than other speech conditions? Increasing evidence has shown a genetic basis for up to 1 in 3 children with CAS. Novel molecular pathways have also been revealed, indicating a role for transcriptional dysregulation. This mechanism is associated with altered brain development which results in the CAS symptomatology, along with other commonly shared deficits. Preliminary data from our research program has demonstrated specific deficits in working memory abilities, relative to other cognitive abilities, in some children with CAS. More in depth research is needed in this area to better understand the contribution of working memory difficulties in CAS. A greater understanding of cognitive contributions to the condition, combined with new genomic data, will lead to more targeted therapeutic interventions, and help to explain the mechanisms which lead to this symptom profile. Our team has an exciting PhD opportunity for a project examining cognitive contributions in CAS associated with our speech genetics clinic at the Royal Children's Hospital.

### Application Instructions

This opportunity is open to domestic and international applicants.

To be considered, applicants must submit:

- a cover letter addressing the essential and desirable criteria and outlining relevant experience
- curriculum vitae
- the names of one personal and one professional referee

**Essential criteria:** Degree in Clinical Psychology or Neuropsychology; High academic marks that would meet the essential and desirable criteria for enrolment at the University of Melbourne; Applicants with a non-English speaking background must also satisfy the English language requirements for entry into a graduate research program at the University of Melbourne.

**Desirable:** Experience in testing children with neurodevelopmental disorders or equivalent clinical experience.