**2018 ASM Abstract Submission form**

All Raine Study researchers are invited to submit an abstract to present their research findings at the Raine Study Annual Scientific Meeting [8 minute oral presentation followed by 2 mins of questions from the floor]. Early career researchers and PhD students are encouraged to present on behalf of their Special Interest Groups. The Raine Medical Research Foundation have kindly donated **two prizes of $750 each** **for the best presentations** by students and early career researchers. Please complete this form and return to the Scientific Management (raineadmin-SPH@uwa.edu.au) **by Friday 19th October 2018**.

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| Researcher Bio (2-3 sentences – will be included on the final program) |
| Mrs Alison Slevin graduated with a BSc Hons (Physiotherapy) from the Robert Gordon University in Aberdeen, Scotland in 2010. Since then she has worked mostly within the musculoskeletal setting in the UK and WA. She has spent the past year completing her Masters of Clinical Musculoskeletal Physiotherapy at Curtin University.  Mr Jian Soares graduated from Curtin University in 2012. He has worked in multiple rural and international musculoskeletal settings and completed his Masters of Clinical Musculoskeletal Physiotherapy at Curtin University in 2018. |
| **Title:** *Title of presentation* |
| Is there a relationship between pain sensitivity in parents and their 22 year old  offspring in the Raine Study? |
| **Speaker:** *Title, name, position, institution, address, telephone, email* |
| Mrs Alison Slevin, Masters of Clinical Musculoskeletal Physiotherapy Student, Curtin University  Mr Jian Soares, Masters of Clinical Musculoskeletal Physiotherapy Student, Curtin University |
| **Special Interest Group:** |
| **Musculoskeletal SIG** |
| **Co-investigators:** |
| Mr Rob Waller, Ms Sophie Hellings, Mr Erlend Hole, Ms Michelle Kendell, Dr Phillip Melton, Prof Leon Straker, Dr Darren Beales |
| **Abstract:** *Approximately 600 words* |
| BACKGROUND  Pain sensitivity refers to a person’s responsiveness to a stimuli, were the stimuli may be noxious or non-noxious, and that stimuli is accompanied by an (altered) output in terms of the perception of pain. There is a wide variance in pain sensitivity levels experienced by the general population. Pain sensitivity is important because it can be related to the prognosis of a pain disorder or it can be a treatment-effect modifier. Understanding factors related that relate to an individual’s pain sensitivity may be important for addressing this phenomena.  Assess for potential familial associations in pain sensitivity between parents (Gen1) and their adult offspring (Gen2) in The Raine Study (West Australian Pregnancy Cohort).  METHODS  A cross-sectional study utilising intergeneration data from the longitudinal Raine study was performed. Pain sensitivity was determined via measurement of pressure pain threshold (wrist, knee, neck, low back) and cold pain threshold (wrist). Pressure data was summed to provide an overall pressure sensitivity variable. Cold data was dichotomised into cold pain sensitive and not cold pain sensitive categories. Potential confounders, based on factors known to be associated with pain sensitivity from the literature, included sex, adiposity, smoking, measures of psychological distress, sleep, physical activity levels and a pain severity index. Regression analyses was performed for matched mother-child and matched father-child pairs.  RESULTS  In the final adjusted models, mother (β=0.13(95%CI 0.02-0.23), p=0.019, n=528) and father (β=0.13(95%CI 0.4-0.22), p=0.006, n=399) pressure pain thresholds was associated with their offspring’s pressure pain thresholds. For cold pain thresholds, there was no association between mothers (OR=1.13(95%CI 0.75-1.70), p=0.565, n=536) or fathers (OR=1.11(95%CI 0.64-1.92, p=0.714, n=393) and their offspring.  CONCLUSION  Why associations were identified for pressure sensitivity and not cold sensitivity is unclear. It may relate to the widespread characterisation of pressure sensitivity afforded by 4 test sites for pressure, that a single test site for cold does not have the fidelity to identify.  This analysis provides the first step in building a more advanced, unified model that included mother/father/child triads. |

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| x | By placing an ‘X’ in this box the lead investigator certifies that all investigators listed above have read and agree to the contents of this form. |

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| **Corresponding author:** | **Date:** |
| Dr Darren Beales, Senior Research Fellow, Curtin University, 0418955650, D.Beales@curtin.edu.au | 18/10/18 |