**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 Raine Study, attention: Aggie Bouckley

At [raineadmin-SPH@uwa.edu.au](mailto: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)** |
| Miss Jasmine Paine is a final year Occupational Therapy honours student who is studying at Curtin University. She has a special interest in studying physical activity in children with autism. |
| **Title:** *Title of presentation* |
| **A comparison of objectively measured physical activity and sedentary behaviours among children with autism and their typically developing peers** |
| **Speaker:** *Title, name, position, institution, address, telephone, email* |
| Miss Jasmine Paine, Honours Student, Curtin University, jasmine.paine@student.curtin.edu.au |
| **Special Interest Group:** |
| **Physical Activity and Sleep SIG** |
| **Co-investigators:** |
| Prof Leon Straker, Prof Andrew Whitehouse, Assoc Prof Marina Ciccarelli Assoc Prof Courtenay Harris, Dr Jo McVeigh |
| **Abstract:** *Approximately 600 words* |
| Background: There is growing concern about the amount of time children and adolescents spend engaged in sedentary behaviors, especially time spent watching television, playing video games, and using computers (‘screen time’). In contrast to extensive research on these behaviours in typically developing children, much less is known about the sedentary behaviours of children with intellectual and developmental disabilities, including autistic spectrum disorders (ASD). Autism spectrum disorder is a developmental disability whose prevalence has increased substantially over the last few decades. Research comparing physical activity levels and time spent in sedentary pursuits in this population of children has yielded mixed findings. The social, behavioural, or intellectual impairments evidenced by children with ASD make participation in formal and informal forms of physical activity more difficult, potentially increasing the amount of time they spend in sedentary behaviours. Studies which have examined sedentary behaviours in children with ASD have mostly used self-report measures and to date few have used an objective measure to quantify accumulation of and describe patterns of sedentary behaviour in this population of children. A better understanding of physical activity and sedentary behaviour in children with ASD will be helpful in informing and targeting the promotion of physical activities and reduction in sedentary behaviours. The aim of this study was to use accelerometry to measure time spent in physical and sedentary activities in children with ASD (recruited from the Autism Biobank study) and in age matched typically developing children(recruited from The Raine Study Generation 3). Methods: We used Actical accelerometers to objectively compare physical activity and sedentary behaviours in children with autism (n=12, aged 8 ± 1.9 years) to typically developing children (n= 12, aged 8 ± 1.6 years).  Results: Children with autism and their typically developing peers showed similar levels of sedentary (50 vs 52 % per day; p= 0.32), light (42 vs 39% per day; p= 0.08), and moderate-to-vigorous physical activity (9 vs 10% per day; p= 0.35). Participants had similar compliance with physical activity guidelines (67% children with autism vs 67% typically developing children) and participated in similar volumes of sedentary behaviour and physical activity weekday and weekend activity patterns.  Conclusion: Our study provides novel evidence on patterns and volumes of physical activity in children with autism, compared to their typically developing peers. |

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|  | 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:** |
| Jasmine Paine | 19 Oct 2018 |