**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) |
| Ms Catie Panossian is a nutritionist currently studying a Masters of Nutrition & Dietetics at Edith Cowan University. She is passionate about healthy eating and is particularly interested in potential links between diet and Autism Spectrum Disorder in children. |
| **Title:** *Title of presentation* |
| Associations with toddler dietary intake and autistic-like-traits in early adulthood |
| **Speaker:** *Title, name, position, institution, address, telephone, email* |
| Ms Catie Panossian, Student, Masters of Nutrition and Dietetics, Edith Cowan University.cpanossi@our.ecu.edu.au. 0413 828 588 |
| **Special Interest Group:** |
| **Diet SIG** |
| **Co-investigators:**  |
| Dr Therese O’Sullivan, Prof Andrew Whitehouse, Prof Jane Scott, Dr Philippa Lyons-Wall, Prof Wendy Oddy |
| **Abstract:** *Approximately 600 words* |
| **Background:** Feeding difficulties are frequently reported in children with Autism Spectrum Disorder (ASD), potentially resulting in low food variety and a poorer quality diet in childhood. Given the spectrum of autistic-like traits also present in the general population, we aimed to explore whether food variety and quality in early childhood was associated with autistic-like traits, in young adults without diagnosed ASD. **Methods:** A total of 811 (418 female, 393 male) subjects participating in the ongoing longitudinal Western Australian Pregnancy Cohort (Raine) study completed 24-hour diet recalls at ages 1, 2 and 3 years along with the self-reported Autism Spectrum Quotient (AQ) at age 20 years. A Food Variety Score was calculated from the diet recalls, based on the number of different food groups consumed in one day. Variety sub-scores were also calculated for: core foods, unhealthy foods, fruits and vegetables, dairy and dairy alternatives, grains and cereals, and meat and meat alternatives. Diet quality was assessed using the Raine Eating Assessment in Toddlerhood score (EAT), which took into consideration whether food and beverages consumed were healthy items or discretionary/treat foods. The AQ measured autistic-like-traits, and scores were divided into quartiles: quartile 1 (range 0 - 11), quartile 2 (range 12 - 14), quartile 3 (range 15 - 18), and quartile 4 (19 and above). ANOVA tests were used to compare food variety, EAT scores and specific food types across AQ quartiles.**Results:** Average Food Variety Score in early childhood over the three years was 10.9 ± 2.30 (range 4.0 - 18.7) out of a possible 40, with a higher score indicating higher variety of intake. The average EAT scores were 43.5±10.0, 40.2±10.2 and 38.3±10.1 for years 1, 2 and 3, respectively, out of a possible 70, with a higher score indicating a higher quality diet. The average AQ score was 15.1 ± 5.48 (range 1 - 47) out of a possible 50, with a higher score indicating more autistic-like-traits. There were small but significant decreases from the lowest to the highest AQ score quartile for Food Variety Score (*p* = .007), Core Food Variety Score (*p* = .003), and Dairy Variety Score (*p* = .001). Diet quality followed the same trend, with small but significant decreases over AQ quartiles for EAT Score at Year 1 (p = .007), Year 2 (p = .005), and Year 3 (p = .030). There were also small but significant decreases across AQ quartiles for consumption of yoghurt (p=0.002) and citrus fruit (0.001).**Conclusion:** Although picky eating is considered common in toddlers, our results suggest that young adults with more autistic like traits are more likely to have had lower food variety and quality in early childhood compared to those who have less traits. Issues relating to food intake, including sensory issues and preferences for more familiar foods, may be contributing to these differences, even in adults without diagnosed ASD. |

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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:** |
| Catie Panossian | 19/10/2018 |