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TITLE: Biomarkers for Autism and for Gastrointestinal and Sleep Problems in Autism

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Introduction

The objective of the proposed research is to compare the production of melatonin by young children with autism (N=45) to typically developing children (N=45). Specifically, we will see if the nighttime excretion rate of melatonin sulfate is markedly lower in the children with autism, whether there is a subgroup of children with autism having very low excretion; whether low nighttime excretion of melatonin sulfate is associated with sleep problems; and whether low daytime melatonin sulfate excretion is associated with gastrointestinal problems.

Body

Due to slower than anticipated recruitment over Year 1, we simplified the study in Year2 Quarter1 by collecting one daytime diaper and one overnight diaper (instead of two daytime diapers and one overnight diaper) and have condensed the questionnaire and instructions to one page. We have also made arrangements to approach subjects during visits to the Yale Child Study. We expected that these changes would enable us to recruit 2-4 subject per month for the remainder of the study. All appropriate approvals were obtained from the Yale Human investigation Committee.

Over the Year 2 period we have recruited a total of 28 subjects. Quarterly totals of autism and control (A & C) subjects recruited were Q1, 1 & 2; Q2 4 & 5; Q3 4 & 3; Q4 4 & 5.

(4) Section III - Problem Areas

(a) Current problems:

Recruitment rates have improved, but are still lower than planned.

(b) Anticipated problems and corrective action planned:

Increased recruitment efforts will be applied. This will include recruitment through word-of-mouth at local day-care centers for typically developing control subjects.

Key Research Accomplishments: None

Reportable Outcomes: None

Conclusions: None

References: None

Appendices: None