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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.

Keywords

urinary melatonin, toddlers, autism, sleep, gastrointestinal

Overall Project Summary

Problems with recruitment led to the need to extend the study past the original end date of September 30, 2013. A request for a no-cost extension was granted through September 30, 2014 in order that original total recruitment targets could be reached. The total recruitment target of 45 ASD individuals has now been reached. Sample collection has now been completed and final biochemical analysis are underway and expected to be completed by March, 2015. Data analysis and presentation of results are planned for 2015. The study has been re-approved by the Yale Human Investigation Committee through October 10, 2015. At this time we are requesting an extension of the date for the submission of the Final Report so that the findings of the study and presentations of the results can be described. A final post-completion report will be submitted to the U.S. Army Medical Research and Materiel Command by December 31, 2015.

Key Research Accomplishments

None to date (see above)

Conclusions

None to date (see above)

Publications, Abstracts and Presentations

None to date (see above)

Inventions, Patents and Licenses

None to date (see above)

Reportable Outcomes

None to date (see above)

Other Achievements

None to date (see above)

References

None to date (see above)

Appendices None