

Department of Child and Adolescent Mental Health

Goal: Early detection and early intervention for Autism Spectrum Disorders (ASD)

Community-based cohort study

Exploring developmental trajectories

- Stability of early autistic symptoms
- Association between early autistic symptoms and later mental health problems
- The key item has been incorporated in the “Maternal and Child Health Handbook” under Japan’s Maternal and Child Health Law and is used by many local governments

Neurophysiological study of ASD:

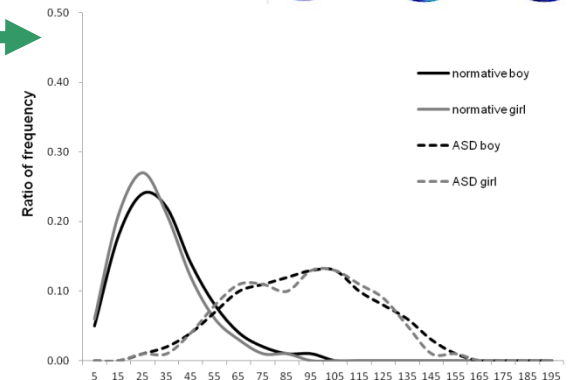
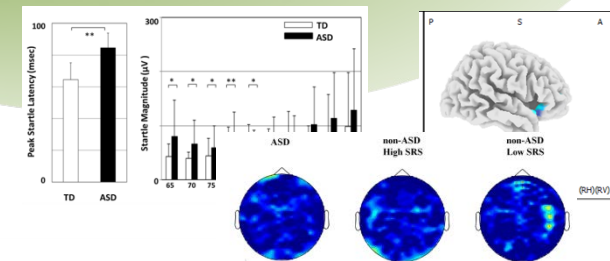
from behavior, via endophenotypes to genomes

- Acoustic startle, ERP (MMN, ASSR), MEG, MRI, physical activity, eye camera, etc.

- We found that the endophenotype candidate is related to sensory hyper/hyposensitivity in children with ASD (Takahashi et al. 2014, 2016a,b, 2017) [Acoustic startle]
- Atypical preattentive auditory discrimination processing in ASD [MMN]
- Atypical brain lateralization of auditory evoked gamma band activity in ASD [MEG]

Effectiveness of Early Intervention for preschool children with ASD

- We found that early outset of intervention was associated with improvement in communication domain, and low-intensity early behavioral intervention was associated with improvement in cognitive function of children with ASD.



Contributions in clinical/educational/welfare settings and to autism research

- Standardization of measures assessing autistic symptoms in Japanese children and adults (SRS) and psychopathology (SDQ) in Japanese children, which has been widely used.

Social Development

Birth



0 3 year-old 5 year-old 7 year-old Adolescence • Adulthood