



# IMFAR: ISRAEL MEETING FOR AUTISM RESEARCH

Ben Gurion University  
February 13-14, 2019



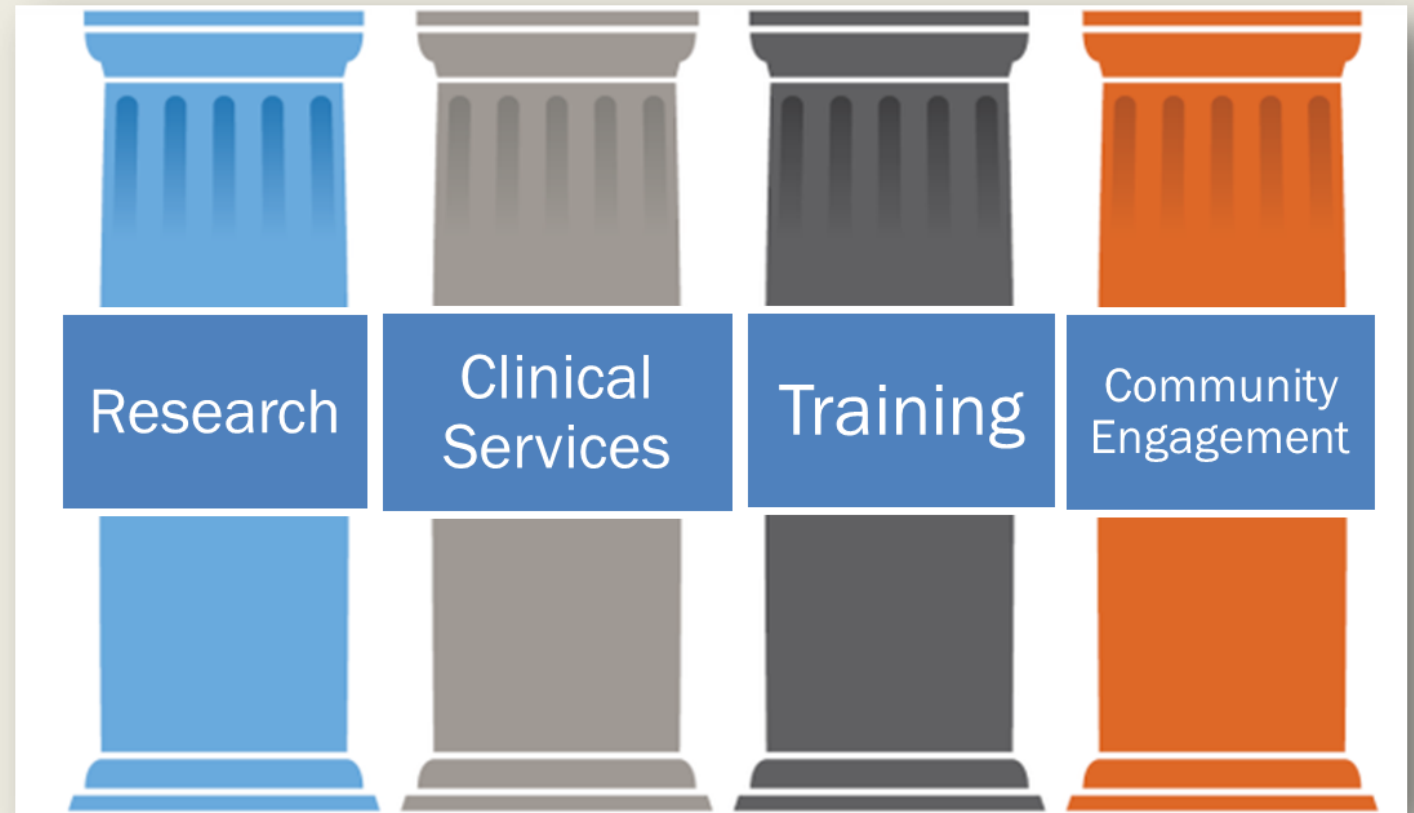
# The Autism Center Hebrew University of Jerusalem

25 members

10 departments

>50 graduate students

4 pillars:





# Ongoing Activities



- Hierarchy of BA→MA courses
- Student scholarships/fellowships
- Monthly seminar
- Development of clinical services with Hadassah
- Annual stakeholder conferences
- ADOS/ADI trainings
- Involvement in national policy





A Section 508-compliant HTML version of this article is available at <http://dx.doi.org/10.1289/ehp.1408133>.



Research | Children's Health

# Autism Spectrum Disorder and Particulate Matter Air Pollution before, during, and after Pregnancy: A Nested Case-Control Analysis within the Nurses' Health Study II Cohort

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# DEVELOPMENTAL CHANGES IN ASD EXPRESSION OF YOUNG BOYS AND GIRLS



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# Male Bias in ASD?

- Kanner's and Asperger's samples were predominantly male
- Range in male:female ratio in ASD literature is 11.7: 1 to 1.33:1

(Fombonne, Quirke, & Hagen, 2011, Kim et al., 2011; Lai, Baron-Cohen & Buxbaum, 2015)

- Recent research suggests male:female ratios in ASD is 2-3:1

(Werling & Geschwind, 2015)



# Where are the girls?

- Females diagnosed later than males (Lehnhardt et al., 2016)
- Camouflage effect (Rynkiewicz et al., 2016)
- Instruments validated and reliable on males (Lai et al., 2015, 2017)
- Expression is different in girls (Young, Oreve, & Speranza, 2018)

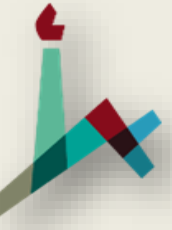




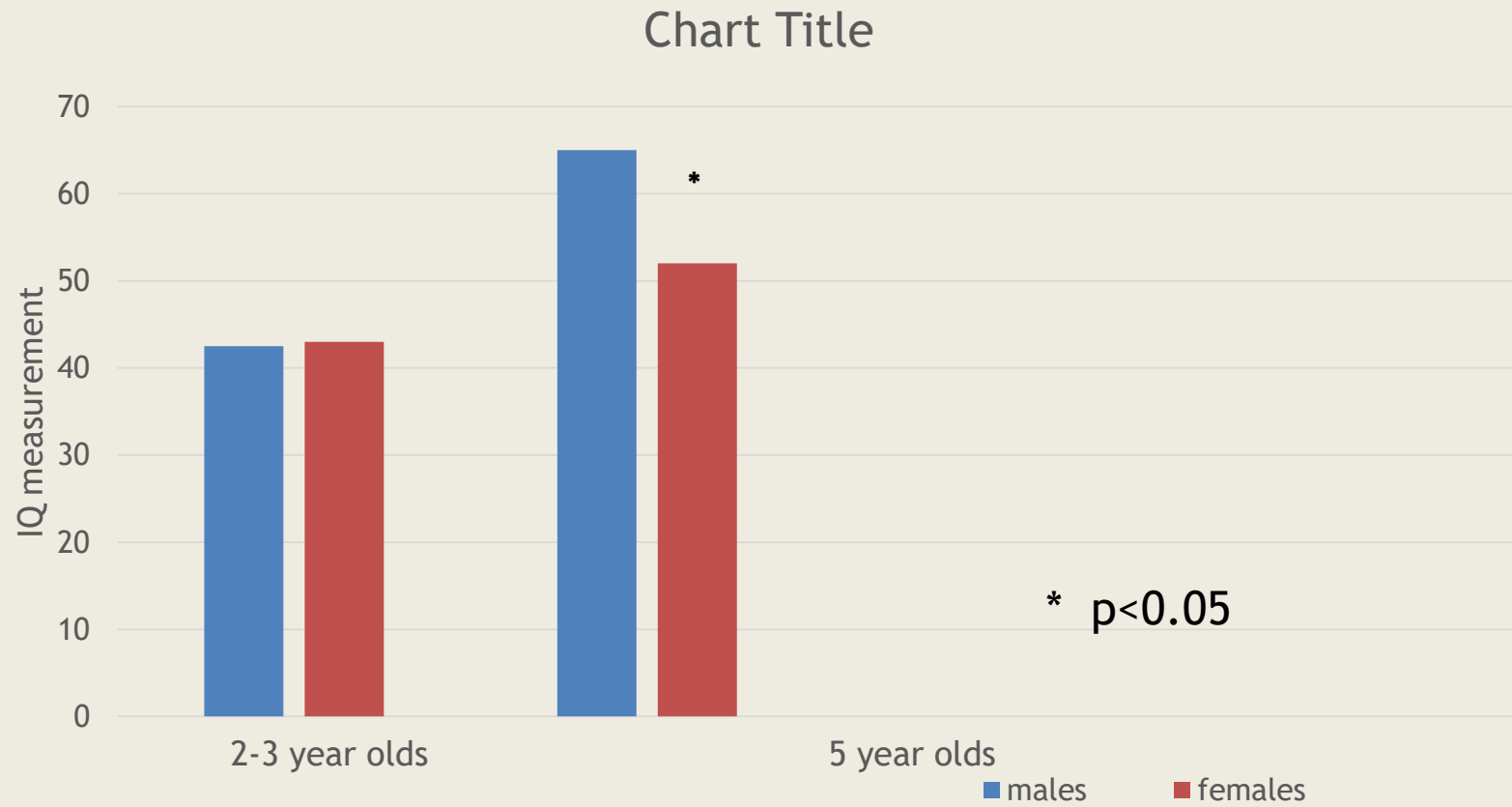
# Differences between males and females with ASD



- Behavioral profiles
- Cognitive profiles
- Age of diagnosis
- Expression of autism symptomatology
- Co-morbidity



# IQ measurements





# Comparison of male and female raw scores on ADOS modules



Chart Title





# Results and conclusions

- No differences in ASD symptomology between males and females before age 3.
- Fewer girls referred before age 3.
- Less language in the boys referred for ASD diagnosis before age 3.
- Item analyses revealed difference between imaginative play between boys and girls even before age 3.



# Results and conclusions

- Significant differences emerged between the boys and girls by age 5 with girls exhibiting less severe autism symptomatology.
- Differences not dependent on cognitive abilities.
- Young females with ASD has not been fully characterized.
- Females receiving an early ASD diagnosis (by age three) reveal similar patterns to males receiving an early ASD diagnosis.
- Differences may appear in developmental trajectory.