



Published in final edited form as:

Mol Psychiatry. 2015 February ; 20(1): 1. doi:10.1038/mp.2014.168.

3D visualization of the regional differences

J Ellegood¹, E Anagnostou², BA Babineau³, JN Crawley^{3,4}, L Lin⁵, M Genestine⁵, E DiCicco-Bloom⁵, JKY Lai⁶, JA Foster⁶, O Peñagarikano⁷, DH Geschwind⁷, LK Pacey⁸, DR Hampson⁸, CL Laliberté¹, AA Mills⁹, E Tam¹⁰, LR Osborne¹⁰, M Kouser¹¹, F Espinosa-Becerra¹¹, Z Xuan¹¹, CM Powell¹¹, A Raznahan¹², DM Robins¹³, N Nakai¹⁴, J Nakatani¹⁴, T Takumi¹⁴, MC van Eede¹, TM Kerr¹⁵, C Muller¹⁵, RD Blakely¹⁵, J Veenstra-VanderWeele¹⁵, RM Henkelman^{1,16}, and JP Lerch^{1,16}

¹Mouse Imaging Centre, Hospital for Sick Children, Toronto, Ontario, Canada

²Holland Bloorview Kids Rehabilitation Hospital, Toronto, Ontario, Canada

³National Institute of Mental Health, Bethesda, MD, USA

⁴MIND Institute, University of California Davis School of Medicine, Sacramento, CA, USA

⁵UMDNJ - Robert Wood Johnson Medical School, Piscataway, NJ, USA

⁶The Brain-Body Institute, McMaster University, Hamilton, Ontario, Canada

⁷Semel Institute for Neuroscience and Human Behavior, David Geffen School of Medicine, UCLA, Los Angeles, CA, USA

⁸Leslie Dan Faculty of Pharmacy, University of Toronto, Toronto, Ontario, Canada

⁹Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, USA

¹⁰Departments of Medicine and Molecular Genetics, University of Toronto, Toronto, Ontario, Canada

¹¹University of Texas Southwestern Medical Center, Dallas, TX, USA

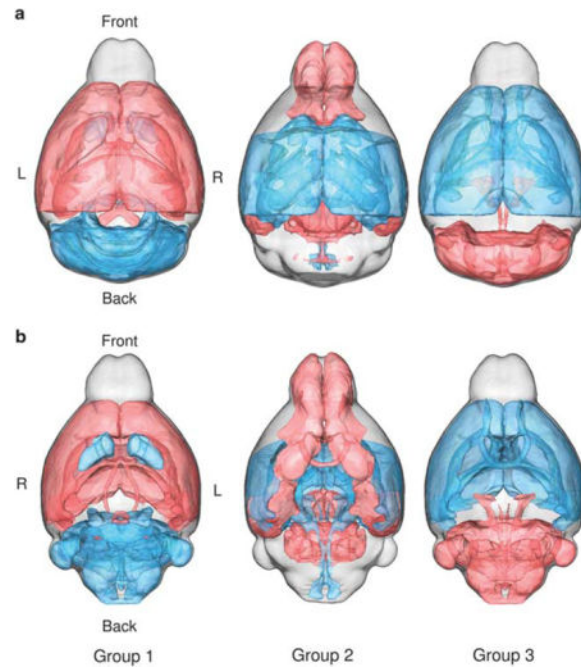
¹²National Institutes of Health, Bethesda, MD, USA

¹³Department of Human Genetics, University of Michigan Medical School, Ann Arbor, MI, USA

¹⁴RIKEN Brain Science Institute, Wako, Japan

¹⁵Vanderbilt Kennedy Center, Vanderbilt Brain Institute, Nashville, TN, USA

¹⁶Department of Medical Biophysics, University of Toronto, Toronto, Ontario, Canada



We examined 26 different mouse models related to autism and identified three groups that shared similar neuroanatomical phenotypes. These three groups and their regional differences are shown here. Anything highlighted in red was determined to be larger in that group (median effect size for group >0.5) and anything highlighted in blue was determined to be smaller in that group (median effect size for group < -0.5). These differences are shown in 3D in an axial representation either looking from above (a) or below (b) the mouse brain. For more information on this topic, please refer to the article by Ellegood *et al* on pages 118–125.