Impaired Face Perception in Individuals with Autism Spectrum Disorder: Insights on Diagnosis and Treatment

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Received: 28 August 2017/Accepted: 9 October 2017/Published online: 9 November 2017 Shanghai Institutes for Biological Sciences, CAS and Springer Nature Singapore Pte Ltd. 2017

Autism spectrum disorder (ASD) is a neurodevelopmentautophagy deregulation in the pathology of autistia. disorder characterized by impaired social interaction and However, this work remains far from fully elucidating the communication along with restricted and repetitive behav-heritable causes of ASD. To our knowledge, ASD is a ior. For a long period of time, ASD was considered to be acomplex genetic disorder with abnormalities in thousands rare mental disorder, with a prevalence of less tharof genes, copy number variants, and linkage regions. 1/100,000. However, the prevalence of diagnosed ASB uch, a tremendous amount of research is needed to Pnd the has increased rapidly in recent years to approximately determinant gene changes and develop an effective method 1/100 in the USA. Relative epidemiological investigations of diagnosis and treatment based on these Þndings. have not yet been performed across China because of the sychologists and psychiatrists address the issue from complex public health situation and insufpcient publicanother perspective. It should be noted that ASD individawareness. ASD children are usually considered peculiarals usually have multiple cognitive and behavioral and suffer prejudice. Unfortunately, this disorder is verydebcits. For example, restricted and repetitive behaviors hard to cure and continues to develop during adolescencære typical indicators of ASD. In particular, the ÔÔtwinÕÕ and adulthood 1. As a result, ASD has become a serious nonapeptides oxytocin and arginine-vasopressin, which public issue in our society and deserves much moreplay regulatory roles in social behaviors, have been attention from scientists in revealing the mechanisms associated with specipic autistic symptoms. [Accord-]7 2Tm 804 the disorder and developing underlying effective treatments.

Hereditary factors have been shown to be important in the pathogenesis of ASDI Evidence from twin studies has shown that the risk of an individual having ASD is [90% if the monozygotic twin is also diagnosed as having ASD [3]. Biologists and geneticists have worked tirelessly to reveal the underlying genetic mechanism of ASD, and achieved many signibcant bindings. For example, Ambra1 debciency has been shown to result in autism-like phenotypes in female mice, and suggests a role of

presented. Observers are then instructed to indicate whether the face stimulus is novel or not. This task has been shown to be very reliable and sensitive in identifying individuals with selective impairments in face processing and thus might be a promising test in ASD diagnosig.[

Our neural system has specibc circuitries to process face stimuli. For example, the circuitry used to process face identity includes the lateral occipital cortex, fusiform area, and anterior temporal cortex. The emotional information of the face may be processed by the superior temporal cortex, amygdala, and insula. The normal functioning of each region and interregional connection forms the basis of face perception. Given that face perception is selectively impaired in ASD, it follows that neurophysiological studies

3. Bailey A, Le Couteur A, Gottesman I, Bolton P, Simonoff E, Yuzda E, et al. Autism as a strongly genetic disorder: evidence