Reviewer's report

Title: FOXP2 gene and language impairment in schizophrenia: association and epigenetic studies

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Reviewer: Martin Poot

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Review of a manuscript entitled "Epigenetic and association study of FOXP2 gene in schizophrenia" by Amparo Tolosa, Julio Sanjuán, Adam M Dagnal, Maria D Moltó, Neus Herrero and Rosa de Frutos for BMC Medical Genetics.

In this thorough revision of a preceding manuscript the authors now clearly focused on their core findings and derived a clear message from those, i.e. that FOXP2 may be involved in the language endophenotypes of schizophrenia.

Minor essential revisions

Their conclusion section reading as: “Our results do not support the involvement of FOXP2 in the vulnerability to schizophrenia as a global syndrome. Nevertheless, this gene might be implicated in schizophrenia through its role in language impairment. Epigenetic mechanisms affecting the expression of FOXP2 might be also contributing to the developing of this disorder.” tends to underrate their findings. Maybe it should be more straightforwardly read as: "Our results implicate FOXP2 in schizophrenia through its role in language development. Epigenetic mechanisms affecting the expression of FOXP2 might contribute to the development of schizophrenia and related neurodevelopmental disorders.”

Discretionary revisions

Meanwhile, a just published case report on CNTNAP2 (a downstream target of FOXP2) further highlights the hypothesis that FOXP2 may indeed be a core regulator of language development in humans (Disruption of CNTNAP2 and additional structural genome changes in a boy with speech delay and autism spectrum disorder, in Neurogenetics (2010) 11(1):81-89). The authors may consider citing this paper as additional support for their hypothesis.

Minor points:

The first name of de Frutos Rosa seems to be missing.

The affiliation in Oxford should be number 4 instead of number 3 (which represents already the CIBERSAM in Valencia).

Some of the English usage needs touching up before printing.
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
This reviewer has no competing interests to declare