Author's response to reviews

Title: Identification of a novel functional deletion variant in the 5'-UTR of the DJ-1 gene

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Response to Reviewer (10-09-2009)

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Version 3

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Reviewer’s report: Philipp Kahle
In the final version, the authors have to add to the reference of the PD-ALS patients described by Annsesi et al. (2005) that these patients not only had the 18bp duplication, but also were double homozygous for the E163K mutation. This non-conservative exchange of an extremely well conserved acidic amino acid residue in the structurally important G-helix has been described to alter the thermal stability of the DJ-1 protein (Lakshminarasimhan et al. 2008) and alter the anti-oxidative potential of DJ-1 (Ramsey et al. 2008). Thus, it is not clear whether the Southern Italian PD-ALS patients suffered from the 18bp-duplication within the DJ-1 promoter region or the point mutation in the DJ-1 protein, or both.

Response
We thank the reviewer for this valuable comment.

It has been added to the manuscript (on pages 5 and 17) that the Southern Italian PD-ALS patients had both the 18bp duplication mutation and the E163K mutation. It has also been added that the E163K mutation causes DJ-1 to lose its ability to protect against oxidative stress. The reference Ramsey et al., 2008 was added to the manuscript.

Yours sincerely
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