Reviewer's report

Title: Retinal nerve fibre layer loss in hereditary spastic paraplegias is restricted to complex phenotypes

Version: 1 Date: 20 June 2012

Reviewer: Denise A. Valenti

Reviewer's report:

The authors presented a hypothesis that was clear and well described. The research is timely and relevant.

Major revision
The reporting of the OCT parameters/readout/instrument is not adequate. This needs to be addressed. Currently there are no standards between instrumentation and without describing which instrument is used it is difficult to follow the charts. For example the Zeiss instruments generally breakdown data into quadrants. The assumption in this paper is that the HRT Spectralis was used. This is because the paper by Stricker utilized this instrument.

At author discretion
The advantage of this technology for neurodegenerative disease is the standard readouts respect the midline and therefore laterality can be investigated. There was an absence of such discussion in this paper. (although this was not considered fatal).

Major revision
The other aspect that requires revision is to further discuss how the instrument used varies from what is being reported in the background section. Only the Hajee paper utilized the more precise Fourier/Spectral Technology. This technology resolves tissue to around 3-5 whereas the older technology in the background material was only to around 8. So it really is not appropriate to compare to current work/paper without further discussion as to the differences.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

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