Author's response to reviews

Title: Lipofuscin Accumulation and Autophagy in Glaucomatous Human Lamina Cribrosa Cells.

Authors:

Elizabeth M McElnea (elizabethmcelnea@yahoo.com)
Emily Hughes (emilylhughes@gmail.com)
Barry Quill (barryquill@gmail.com)
Neil G Docherty (dochertyn@tcd.ie)
Moustapha Irnaten (irnatenm@yahoo.fr)
Michael Farrell (michaelfarrell@beaumont.ie)
Abbot F Clarke (abe.clark@unthsc.edu)
Amanda McCann (amanda.mccann@ucd.ie)
Aloysius McGoldrick (aloysius.mcgoldrick@ucd.ie)
Colm J O’Brien (cobrien@mater.ie)
Deborah Wallace (deborah.wallace@ucd.ie)

Version: 2
Date: 12 February 2014

Author's response to reviews: see over
Dear Executive Editor, Alice Murray,

Please find following a manuscript entitled ‘Lipofuscin accumulation and autophagy in glaucomatous human lamina cribrosa cells’ for consideration for publication in BMC Ophthalmology.

In the paper entitled ‘Oxidative stress, mitochondrial dysfunction and calcium overload in human lamina cribrosa cells from glaucoma donors’, published in Molecular Vision in May 2011 we demonstrated the importance of mitochondrial dysfunction and oxidative stress at the optic nerve head in glaucoma pathogenesis. In this, a follow-up study, we examine the differential, oxidative stress driven, accumulation of lipofuscin in normal and glaucomatous lamina cribrosa cells from the optic nerve head and assess the effects of the same on the cell recycling process of autophagy.

We think this work complements wonderfully that of Fernandez de Castro et al. who, in their paper entitled ‘Lipofuscin in human glaucomatous optic nerves’, published in Experimental Eye Research in April of 2013 described the greater accumulation of lipofuscin in the glial columns of optic nerves derived from glaucoma patients compared to healthy donors. Our work may represent a portion of the further study called for by Fernandez de
Castro et al. to evaluate the effects of lipofuscin accumulation on optic nerve damage in glaucoma.

We have amended the Materials and Methods section of the manuscript to state that the donors of the cells/tissue involved in this study gave their informed consent for the use of the same and that the acquisition of such cells/tissue was carried out in accordance with the Declaration of Helsinki.

Further, we have included a section entitled Author Contributions that details the contributions of each of those named as an author of this manuscript to the described research project.

Many thanks again for your review of this manuscript. We look forward to hearing from you regarding its possible future publication.

Yours Sincerely,

Dr. Deborah Wallace.
Post Doctoral Fellow
Institute of Ophthalmology