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Erratum

Genetic Variations in *ABCA7* Can Increase Secreted Levels of Amyloid-β_{40} and Amyloid-β_{42} Peptides and *ABCA7* Transcription in Cell Culture Models

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In this paper it was stated that the major and minor allele of SNP rs3752246 were C and G, respectively. While Naj et al. Nat Genet 43:436-441, 2011 and Hollingworth et al. Nat Genet 43:429-435, 2011 both stated that the C>G mutation at rs3752246 leads to a glycine to alanine substitution, it is actually a major-G allele and a minor-C allele at this site that creates the missense mutation of Glycine to Alanine (https://www.ncbi.nlm.nih.gov/projects/SNP/snp_ref.cgi?rs = 3752246). It follows that the allele labeled 'Ala1527' in the paper is actually the major-G allele (GGT) encoding glycine and the allele labeled 'Gly1527' is actually the minor-C allele (GCT) encoding alanine (see Erratum Table 1).

Erratum Table 1: Actual minor- and major-alleles for rs3752246

Rs3752246	MAJOR-G	MINOR-C
ACTUAL allele	G	C
ACTUAL codon	G**G**T	G**C**T
ACTUAL amino acid	Glycine	Alanine
Proposed Modification	Myristoylated	Not myristoylated
LABEL IN PAPER	Ala1527	Gly1527

Please note important changes to the abstract and introduction stemming from these revelations (Erratum Table 2). Figures 1 and 2 of Bamji-Mirza et al. 2016 are not affected by this labeling issue. The labeling in Figs. 3, 4, 5 & 6 require modification such that Fig. 3A and all subsequent figures should read Minor-C allele (ABCA7/Ala1527) and Major-G allele (ABCA7/Gly1527). The data from Figs. 3, 4 and 5 thus show that the Major-G allele is the risk allele conferring AD phenotypes. Data from Fig. 6 now show that increase in BACE1 activity and Aβ levels observed with HMA treatment of ABCA/Ala1527-expresing cells is not due to removal of the putative myristoylation site. Cellular treatment with HMA is non-specific and may alter other cellular mechanisms for the observed that requires further investigation. However, Fig. 7 provides amino acid-based

evidence that expression of an ABCA7 peptide containing Glycine is larger (heavier) than an ABCA7 peptide containing Alanine, suggesting a difference in protein modification, as evidenced by western blot and mass spectrometry.

Figure 2: Typological errors in Abstract and Introduction

Page #/Line	Original Text	Corrected Text
Page1, Line2	The minor alleles at two ABCA7 . . .	The **genetic variation** at two..
Page1, Line4	C>G; exon33; p.Gly1527Ala	G>C; exon33; pGly1527Ala
Page1, Line8	. . . carrying rs3752246 risk allele . . .	. . . carrying rs3752246 **major** allele . . .
Page1, Line11	..suggesting that lack of myristoylation contributes to the observed cell phenotypes	Omit
Page2, Line8	(rs375446; C>G)	rs3752246; G>C)
Page 2, Line11	LOAD risk was associated with the minor G-allele	LOAD risk was associated with the minor C-allele