Reviewer's report

**Title:** Evaluation of variants in the selectin genes in age-related macular degeneration.

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**Reviewer:** Chi-Chao Chan

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Mullins et al. evaluated a total of 34 SNPs in the E-selectin, L-selectin and P-selectin in 341 AMD patients and 400 controls. They also examined expression of these selectins in choroid and retina. Although there was high expression of all three selectins in retinal microglia, drusen core and choroidal vessels, no positive statistically significant associations for the SNPs were found. The authors conclude that common ancestral variants in selectin genes are not risk factors for AMD. The study is original and the data are relevant to AMD research.

Specific critiques are:

1. Materials and Methods: How many donor eyes were used for IHC? Were the sections from macular or temporal to macular region? Were all donor eyes normal? Were any donor eyes diagnosed with AMD?

2. Results: Were any AMD eyes stained with selectin antibodies? If so, what were the results? What were the allele frequencies of these 34 genes in the general populations? Were they compatible with the controls in this study?