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GOAP AWARD: A METABOLOMIC STUDY OF NEOVASCULAR MACULAR DEGENERATION

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Purpose: Metabolomics is the study of small molecules in blood, including signalling molecules that may underlie disease conditions. We conducted a metabolic study of macular degeneration to determine novel pathogenic pathways.

Methods: A prospective case-control study of 94 patients with neovascular macular degeneration, and 88 controls without eye disease. Patients were recruited from 2 tertiary retinal practices specialising in treatment of macular degeneration in Sydney, New South Wales, Australia.

Results: Patients and age-gender matched controls have been recruited. Fasting blood samples were collected for analyses. Blood serum was frozen on the same day and transferred to the mass spectrometry facility for liquid chromatography-mass spectrometry analyses in batches. Protocols for focused extraction of lipid fraction, focusing on acyl carnitines are being developed. Results will be adjusted for age and gender, and pathway analyses conducted to identify metabolites of interest.

Conclusions: Results from this study may provide new insights into the blood metabolites underlying neovascular degeneration. Final results are expected towards the end of 2019 and will be presented then.

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