



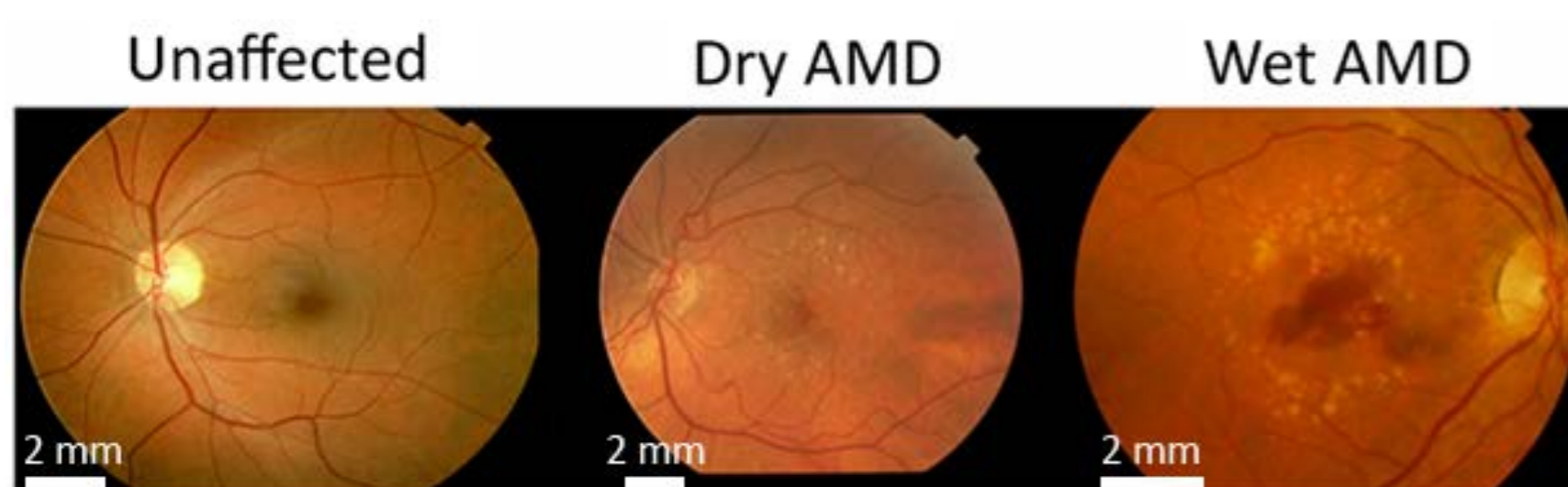
# A Novel Therapeutic target for Age Related Macular Degeneration

## Overview

Age-related-macular-degeneration (AMD) is the leading cause of central vision loss worldwide. Drusen accumulation is the major pathological hallmark common to both dry and wet AMD. While activation of the immune system has been implicated in disease progression, to date, the pathways involved remain unclear.

## What Problem does it Solve / Advantages

We have very recently shown that the cytokine Interleukin-18 (IL-18) plays a protective role during the development of AMD by regulating the development of pathological choroidal neovascularisation (CNV) the end stage of the exudative "wet" form of disease for which the only available treatment is direct intra-ocular injection of the monoclonal antibodies targeting VEGF, Lucentis® or Avastin®, two drugs with an estimated annual market of over US\$2.2 billion (1).



## Applications

- Pre-emptive treatment to prevent progression of dry to wet AMD
- Chronic and non-invasive therapy to abrogate repetitive intra-ocular injections.
- Safe adjunctive treatment with current standard of care.

## Technology and Patent Status

The technology was filed with the UK Intellectual Property office on the 29.09.11, application number GB1116815.0. A PCT application has since been filed entitled "COMPOSITION AND METHODS FOR THE TREATMENT OF DEGENERATIVE RETINAL CONDITIONS" and has now been nationalised in multiple jurisdictions world wide (supported by GSK)

The IL-18 target has been validated in knockout mice and the researchers are currently working to further strengthen these innovative findings in animal models of AMD.

### Market

Therapeutics: Synthesis, Formulation, Processing and Drug Delivery

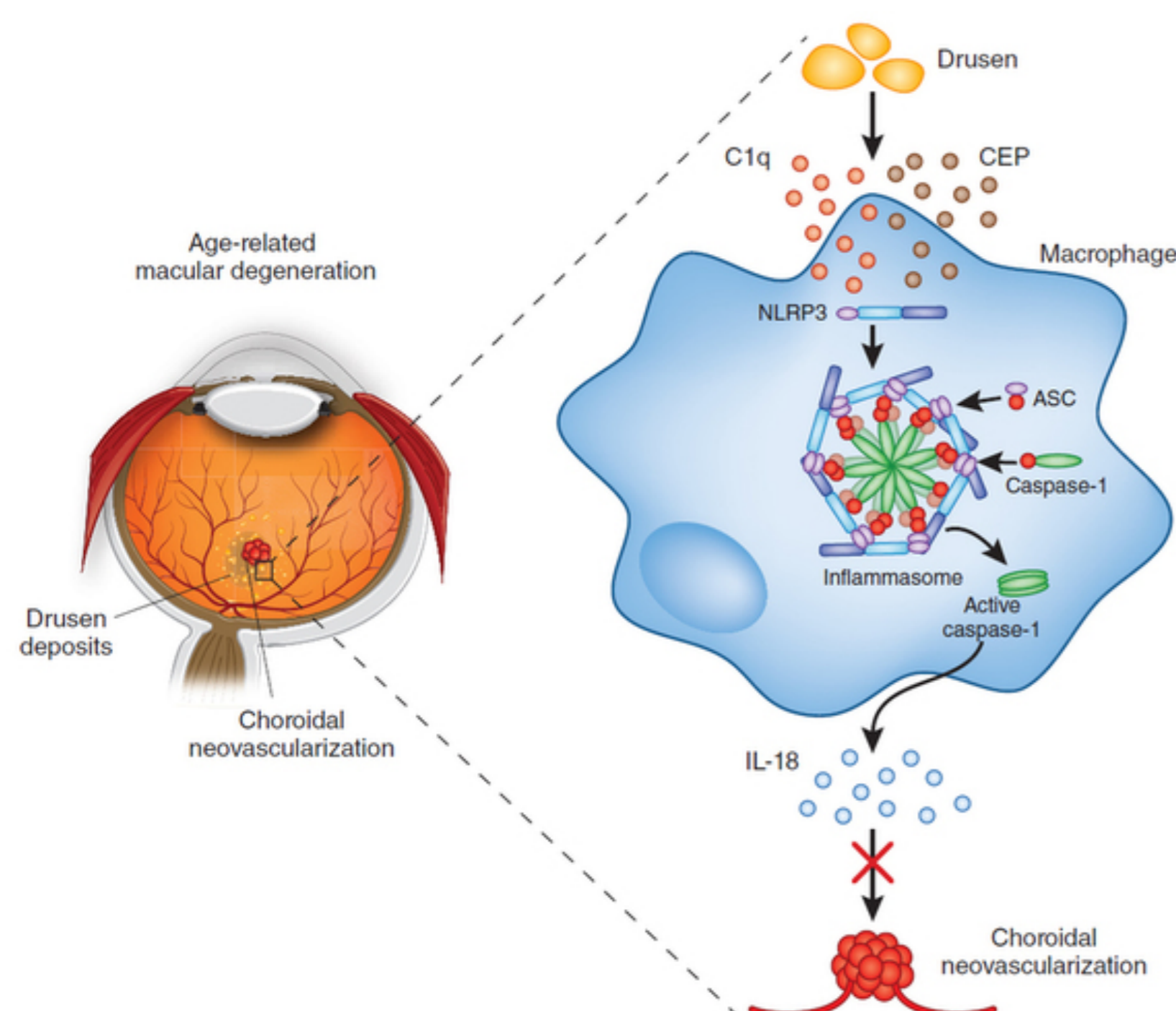
### IP Status

Nationalised patent in multiple jurisdictions (EP, US, CA, IN, JP, BZ, AU, EURASIA)

GB1116815.0

### Opportunity

Research collaboration,  
Available to license



## The opportunity

The global market value for AMD is now estimated at approximately \$2.2 billion annually and is a massively under-penetrated area given that only one drug (Lucentis®) has been approved and makes up the majority of this figure. Any strategy aimed at preventing the development of wet AMD has enormous commercial potential and those that target early stages of the disease process such as that described here would be of immense value.

Trinity College is seeking investment to spin out a company for the purposes of further developing this technology and move it towards clinical endpoints.

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### Reference:

PH01-350-01

## References

1. Doyle\*, SL, Campbell\*, M, *et al.* NLRP3 plays a protective role during the development of age related macular degeneration through the induction of IL-18 by drusen components. *Nature Medicine* (2012) 2012 May;18(5):791-8