Protein increases risk of age-related visual impairment

Better risk assessment and targeted therapies possible

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The so-called age-related macular degeneration is one of the most common eye diseases. It affects people over 65 and leads to severe vision loss in the area of sharpest vision (macula). Toxic waste products - also called oxidation products - accumulate there.

One waste product is malondialdehyde (MDA). In earlier studies, researchers found that part of the innate immune system - the complement factor H - binds the waste product MDA and thus prevents inflammation.

In the current study, scientists from Leibniz-HKI and the Medical University of Vienna discovered that a protein named CFHR1 interferes with this protective mechanism: the protein also binds to the breakdown product MDA. This means that complement factor H cannot exert its shielding and protective effect and cannot prevent inflammation.

These findings allow better risk assessments and targeted therapies. For example, the preventive intake of antioxidants could be beneficial.

[Link to the Publication]
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