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(54) Title: AGENTS FOR USE IN THE THERAPEUTIC OR PROPHYLACTIC TREATMENT OF MYOPIA OR HYPEROPIA

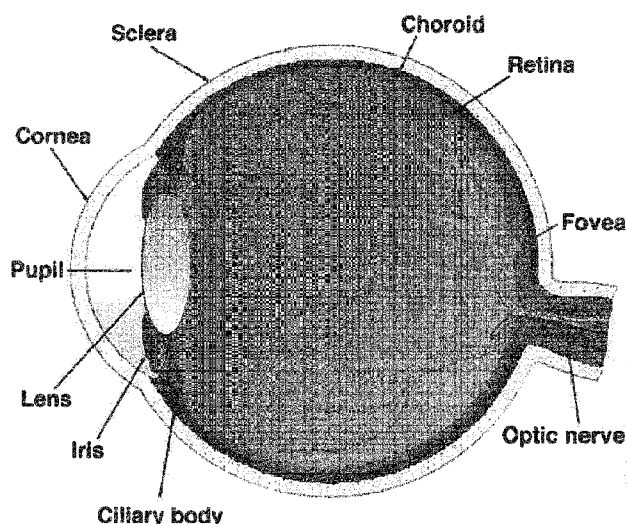


Figure 1

(57) Abstract: The present invention relates to agents for use in the prophylactic or therapeutic treatment of myopia in a subject, wherein said agents are capable of decreasing epidermal growth factor receptor (EGFR) signaling and/or signaling of another receptor susceptible for amphiregulin in a subject in a direct or indirect manner. The present invention further relates to agents for use in the prophylactic or therapeutic treatment of hyperopia in a subject, wherein said agents are capable of increasing epidermal growth factor receptor (EGFR) signaling and/or signaling of another receptor susceptible for amphiregulin in a subject. Furthermore, the present invention relates to methods for the diagnosis of myopia or hyperopia in a subject, comprising the steps of (a) providing a biological sample from the subject; (b) determining the amphiregulin level in said sample; (c) comparing the level determined in step (b) to the amphiregulin levels found in emmetropic subjects or subjects going to be emmetropic; and (d) determining that the subject has myopia or is predisposed for the development of myopia in case the level determined in step (b) is higher than the amphiregulin levels found in emmetropic subjects or subjects going to be emmetropic; and determining that the subject has hyperopia or is predisposed for the development of hyperopia in case the level determined in step (b) is

lower than the amphiregulin levels found in emmetropic subjects or subjects going to be emmetropic. Finally, the present invention relates to a method for identifying agents which associate with amphiregulin or fragments or variants thereof.



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