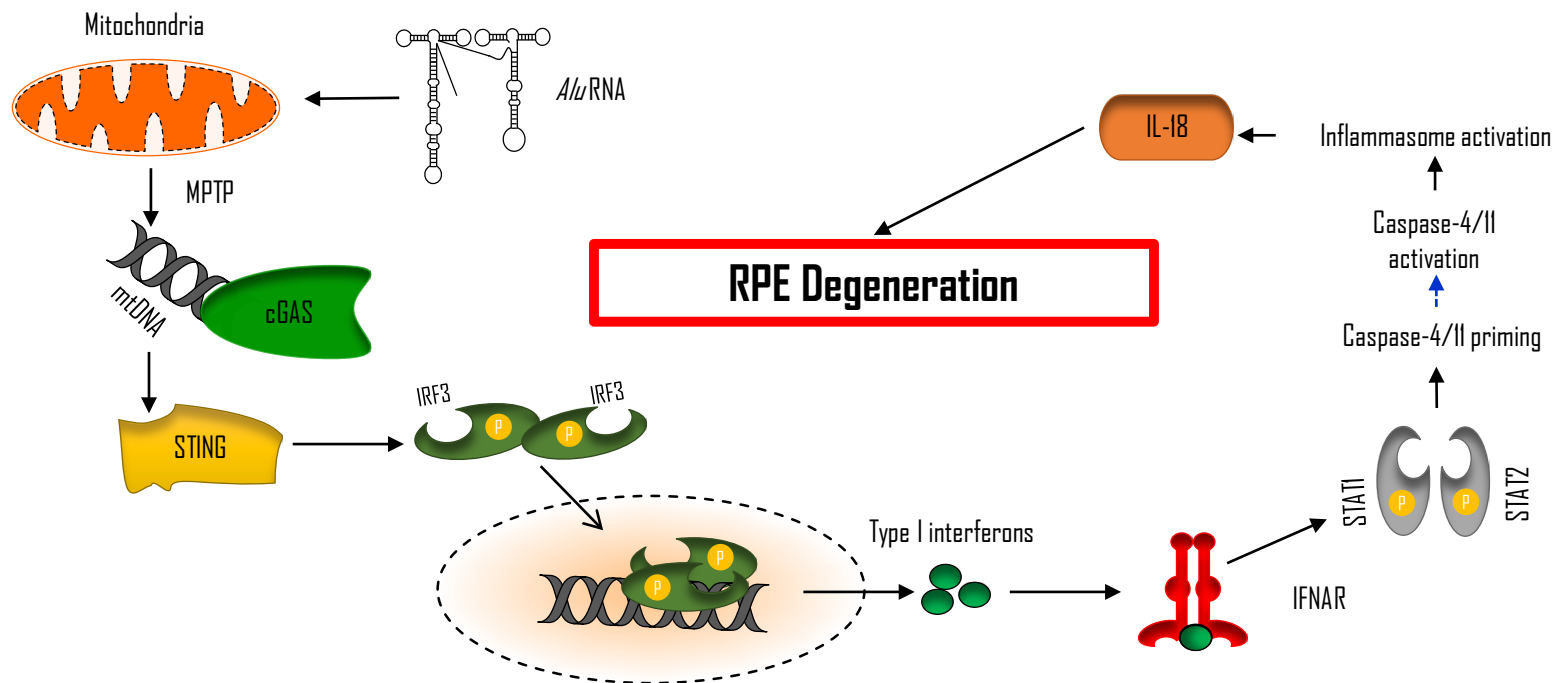


cGAS drives noncanonical-inflammasome activation in age-related macular degeneration



Geographic atrophy is a blinding form of age-related macular degeneration characterized by retinal pigmented epithelium (RPE) death; the RPE also exhibits DICER1 deficiency, resultant accumulation of endogenous *Alu*-retroelement RNA, and NLRP3-inflammasome activation. How the inflammasome is activated in this untreatable disease is largely unknown. Here we demonstrate that RPE degeneration is driven by a noncanonical-inflammasome pathway that activates caspase-4 (caspase-11 in mice) and caspase-1, and requires cyclic GMP-AMP synthase (cGAS)-dependent interferon- β production.

Kerur N, Fukuda S, et al. Nat Med. 2018;24(1):50-61.

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バージニア大学などとの共同研究であるが、マウスを使用してのシグナル経路の解明に貢献したものである