Pharmacological suppression of retinal ganglion cell death caused by diabetic retinopathy and metabolic stress

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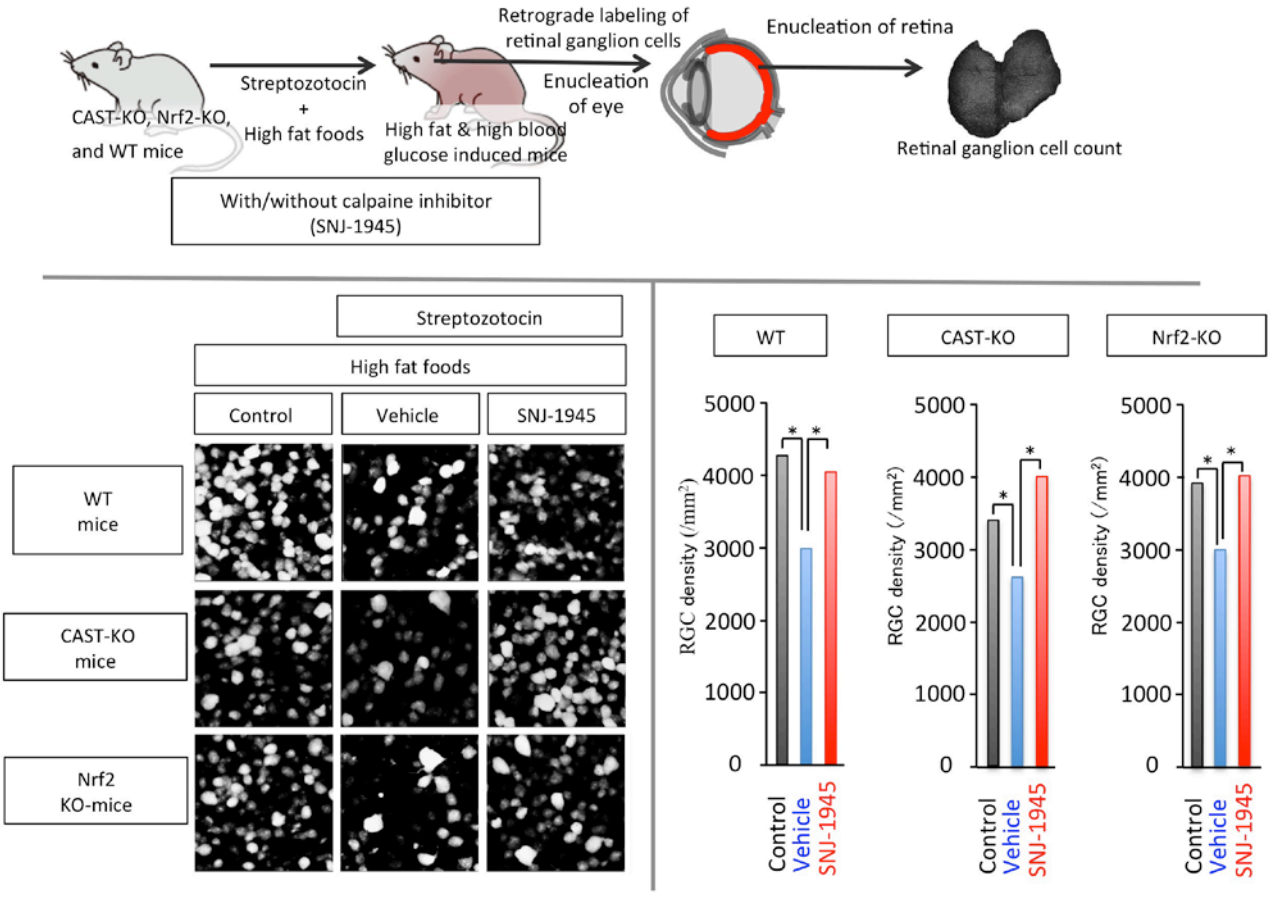
The research group led by Professor Toru Nakazawa of Tohoku University Graduate School of Medicine (1) found that retinal ganglion cells death caused by diabetic retinopathy and metabolic stress, and (2) succeeded in delaying retinal ganglion cell death by therapeutic use of the calpain inhibitor. The research results will be published in the international scientific journal Neurobiology of Disease. The paper's title is "Metabolic stress response implicated in diabetic retinopathy: The role of calpain, and the therapeutic impact of calpain inhibitor."

Figure. Effect of High fat & high blood glucose stress induction and pharmaceutical calpain inhibitor (SNJ-1945) treatment to retinal ganglion cells (RGCs) in Calpastatin（endogenous specific calpain inhibitor, CAST）-KO, Nrf2-KO, and wild type (WT) mice .



“Metabolic stress response implicated in diabetic retinopathy: the role of calpain, and the therapeutic impact of calpain inhibitor.”

Shanab AY, Nakazawa T, Ryu M, Tanaka Y, Himori N, Taguchi K, Yasuda M, Watanabe R, Takano J, Saido T, Minegishi N, Miyata T, Abe T, Yamamoto M.
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