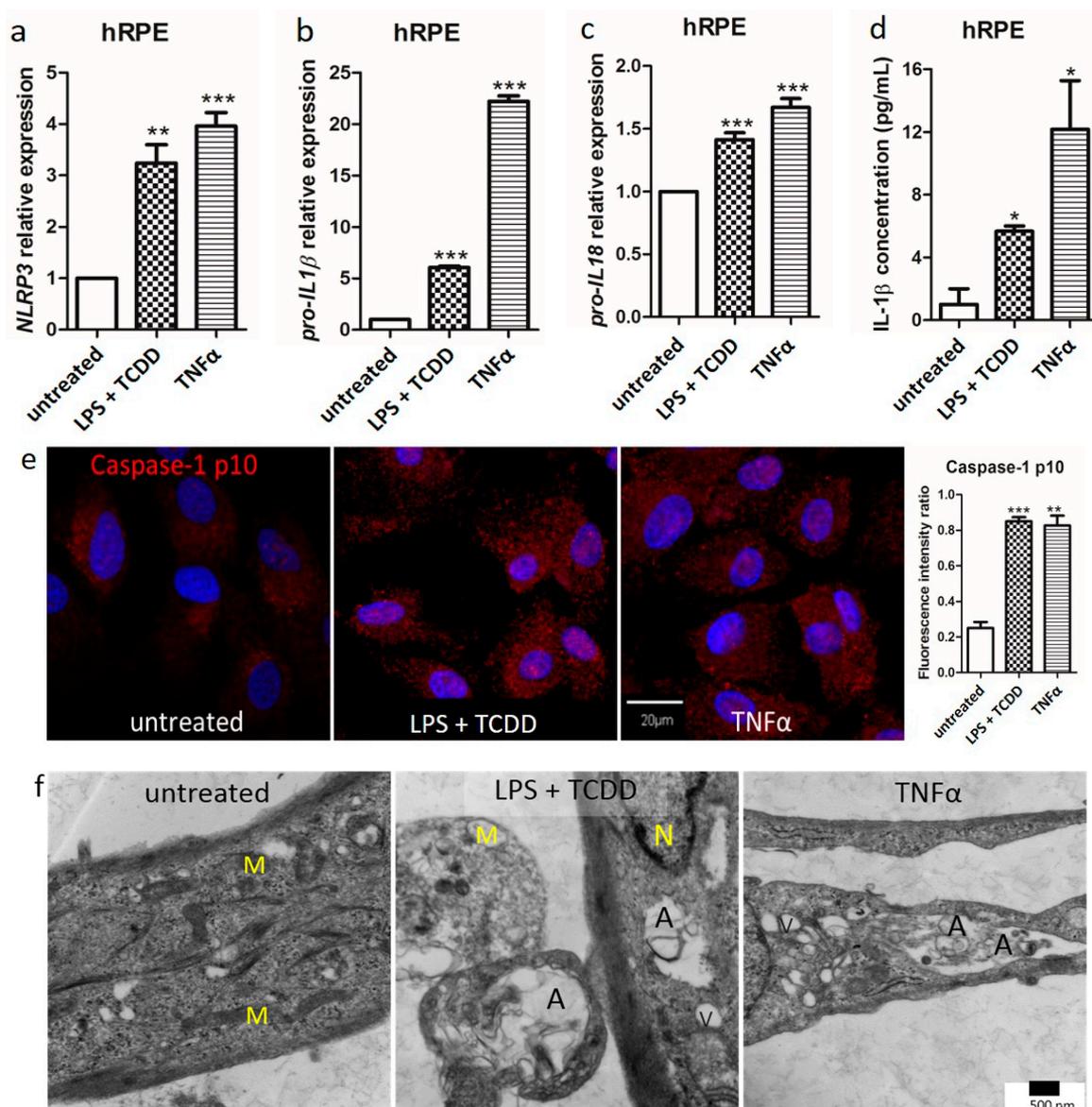
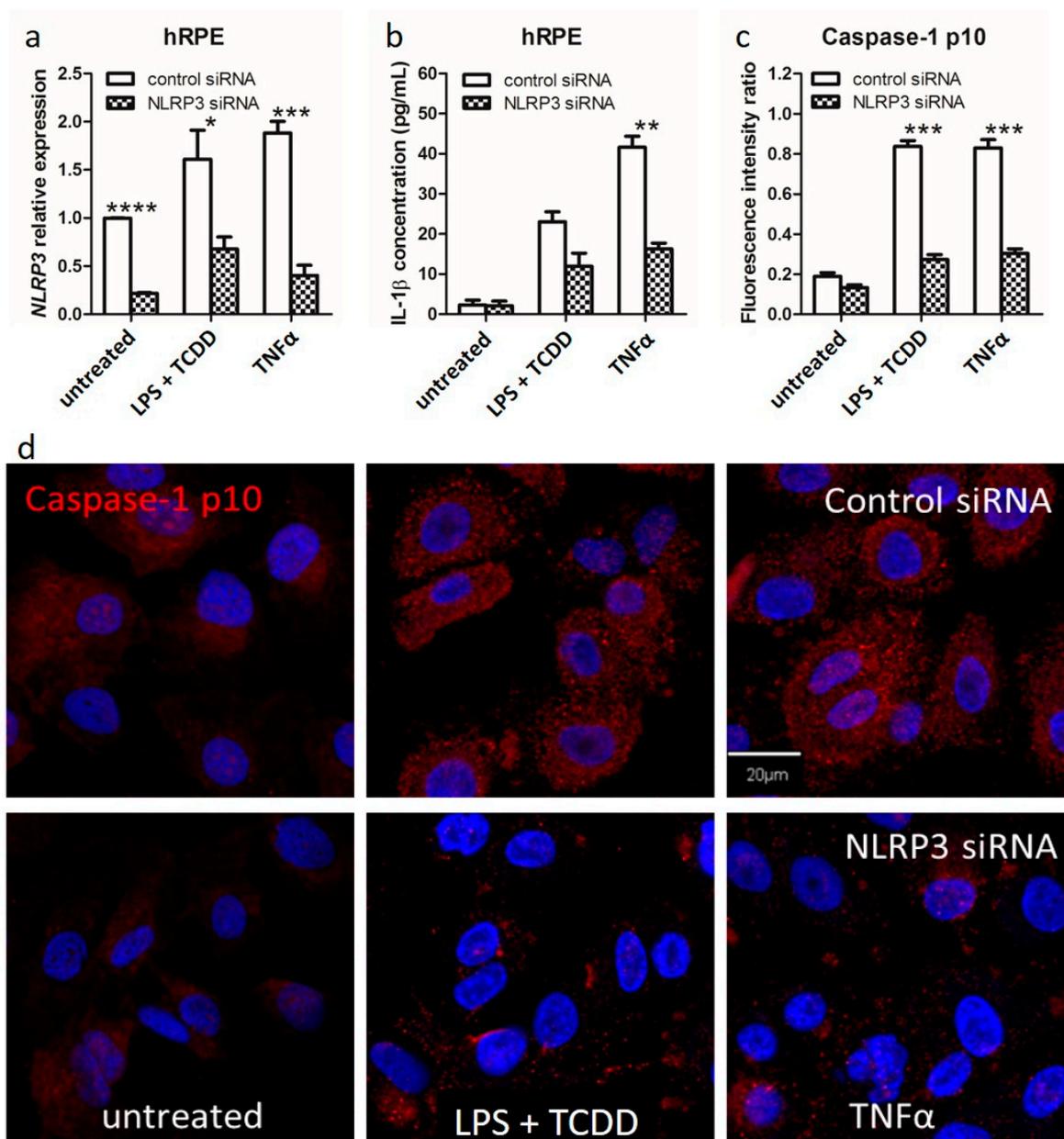


## Supplementary Materials: NLRP3 Upregulation in Retinal Pigment Epithelium in Age-Related Macular Degeneration

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**Figure S1.** Activation of NLRP3 inflammasome in primary adult human RPE (hRPE) cells under inflammation and oxidative stress. (a–c) qRT-PCR analysis of *NLRP3*, *pro-IL1 $\beta$*  and *pro-IL18* in hRPE cells stimulated with LPS + TCDD and TNF $\alpha$  ( $n = 4$ ); (d) ELISA analysis of IL-1 $\beta$  in the supernatants of hRPE cells treated with LPS + TCDD and TNF $\alpha$  ( $n = 4$ ); (e) Confocal microscopy of hRPE stimulated for 24 h with LPS + TCDD and TNF $\alpha$  ( $n = 4$ ). Caspase-1 p10 subunit was labeled in red. The nuclei were stained with 4,6-diamidino-2-phenylindole dihydrochloride (DAPI) (blue). Image-J software is used to measure the fluorescence intensity in pixels per area in each image and expressed as fluorescence intensity ratio. Scale bar = 20  $\mu$ m; (f) Ultrastructural evaluation of hRPE cells stimulated with LPS + TCDD and TNF $\alpha$ . Scale bar = 500 nm. N, nuclear; M, mitochondrion; A, autophagosome; V, vesicle. Data are presented as mean  $\pm$  SEM. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .



**Figure S2.** NLRP3 knockdown inhibits inflammasome activation in hRPE cells under inflammation and oxidative stress. (a) qRT-PCR analysis of *NLRP3* in hRPE cells stimulated with LPS + TCDD and TNF $\alpha$  for 24 h after siRNA transfection ( $n = 4$ ); (b) ELISA analysis of IL-1 $\beta$  in the supernatants of hRPE cells treated with LPS + TCDD and TNF $\alpha$  after siRNA transfection ( $n = 4$ ); (c) The Caspase-1 p10 protein ratio of immunohistochemistry is calculated. Image-J software is used to measure the band intensity in pixels ( $n = 4$ ); (d) Confocal microscopy of hRPE cells treated with LPS + TCDD and TNF $\alpha$  for 24 h after siRNA transfection ( $n = 4$ ). Caspase-1 p10 subunit was labeled in red. The nuclei were stained with DAPI (blue). Scale bar = 20  $\mu$ m. Data are presented as mean  $\pm$  SEM. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ , \*\*\*\*  $p < 0.0001$ .