

**Supplementary Table S5: Key Studies on Sleep and Ocular Health: Methodology and Findings**

Study Reference	Sample Size	Study Type	Target Topic	Main Findings	Limitations
Liu et al., 1998 [33]	18 healthy adults	Human study, observational	IOP during REM sleep	Nocturnal IOP elevation observed regardless of posture	Intermittent tonometry, sleep interruption
Aptel et al., 2015 [100]	12 adults	Human, CLS-based IOP study	Sleep stage & IOP	IOP highest in REM; CLS enables continuous monitoring	Small sample size, no control for sleep disorders
Xue et al., 2024 [28]	~40 mice	Animal model	Corneal inflammation & SD	SD enhances IL-17-mediated neutrophil recruitment	Rodent model, lacks human extrapolation
Tang et al., 2024 [165]	40 mice	Animal + intervention (antioxidants)	Retinal oxidative stress	SD impairs mitochondrial function; antioxidants reverse damage	No sleep-stage granularity; animal-only data
Huang et al., 2022 [71]	48 mice	Animal, transcriptomic study	Lacrimal gland circadian disruption	SD disrupts circadian gene expression, causes DED-like phenotype	No human validation
Qiu et al., 2019 [142]	6,786 NHANES participants	Human, cross-sectional	SD & glaucoma risk	Short sleep linked to increased glaucoma prevalence	No causal inference; self-reported sleep