OAKLAND UNIVERSITY

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Mitton's Laboratory Sorts Out How Rhodopsin Genes are Controlled

Rhodopsin is an important molecule for our perception of light. Associate Professor **Kenneth Mitton**'s laboratory in the **Eye Research Institute** studies the molecular switches, or **transcription factors**, that turn on and off the genes controlling Rhodopsin. One focus of their **NIH**-funded research is a protein called Flt-3 Interacting Zinc-finger, or FIZ1, which interacts with two key transcription factors in the **rods** of the **retina**: Neural-Retina Leucine-zipper, or NRL, and Cone-Rod Homeobox, or CRX. Mitton's lab recently published the paper **FIZ1 is Part of the Regulatory Protein Complex on Active Photoreceptor-Specific Gene Promoters In Vivo** in the journal **BMC Molecular Biology** (Volume 9, Paper 87, 2008). Their results "suggest that FIZ1 may act as a transcriptional co-regulator of photoreceptor-specific genes, recruited by at least two photoreceptor-specific transcription factors, CRX and NRL." First author Raghuveer Mali is a post doctoral fellow working with Mitton. Two other coauthors, Xiao Zhang and Loan Dang, also work in the Eye Research Institute.

SUMMARY
Rhodopsin is an important molecule for our perception of light. Associate Professor Kenneth Mitton's laboratory in the Eye Research Institute studies the molecular switches, or transcription factors, that turn on and off the genes controlling Rhodopsin.

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