

## ***Rhodopsin Is Phosphorylated Differentially At Specific Sites In Vivo***

Hurley, J. B., Spencer, M. and Niemi, G.A. (1998) Rhodopsin phosphorylation and its role in photoreceptor function. *Vision Research* **38**:1341-1352.

Chen, C. K., Burns, M. E., Spencer, M., Niemi, G. A., Chen, J., Hurley, J. B., Baylor, D.A., Simon, M. I. (1999) Abnormal photoresponses and light-induced apoptosis in rods lacking rhodopsin kinase. *Proc. Natl. Acad. Sci. USA* **96**:3718-22.

Kennedy, M.J., Lee, K.A., Niemi, G.A., Craven, K.B., Garwin, G.G., Saari, J.C. and Hurley, J.B. (2001) Multiple phosphorylation of rhodopsin and the *in vivo* chemistry underlying rod photoreceptor dark adaptation. *Neuron*. **31**:87-101.

Ramulu, P., Kennedy, M., Xiong, W.H., Williams, J., Cowan, M., Blesh, D., Yau, K.W., Hurley, J.B., Nathans, J.(2001). Normal Light Response, Photoreceptor Integrity, and Rhodopsin Dephosphorylation in Mice Lacking Both Protein Phosphatases with EF Hands (PPEF-1 and PPEF-2).*Mol. Cell. Biol.* **21**:8605-14.

Lee, K.A., Craven, K.B., Niemi, G.A. and Hurley, J.B. (2002). Mass spectrometric analysis of the kinetics of *in vivo* rhodopsin phosphorylation. *Protein Sci.* **11**:862-874.

Kennedy, M.J. , Dunn, F.A. and Hurley, J.B. (2004). Visual pigment phosphorylation but not transducin translocation can contribute to light adaptation in zebrafish cones. *Neuron* **41**:915-28.

Nair, K.S., Hanson, S.M., Mendez, A., Gurevich, E.V., Kennedy, M.J., Shestopalov, V.I., Vishnivetskiy, S.A., Hurley, J.B., Gurevich, V.V. and Slepak, V.Z. (2005). Lightdependent redistribution of arrestin in vertebrate rods is an energy-independent process governed by protein-protein interactions. *Neuron* **46**:555-567.

Vishnivetskiy, S.A., Raman, D., Wei, J., Kennedy, M.J., Hurley, J.B., Gurevich, V.V. (2007). Regulation of arrestin binding by rhodopsin phosphorylation level. *J. Biol. Chem.* **282**:32075-83.

Lee, K.A., Nawrot, M., Garwin, G.G., Saari, J.C. and Hurley, J.B. (2010). Relationships among visual cycle retinoids, rhodopsin phosphorylation and phototransduction in mouse eyes during light and dark adaptation. *Biochemistry* **49**:2454-63.