



## Marie E. Burns, Ph.D.

<b>Clinical Interests</b>	Trained as a biochemist and electrophysiologist, Marie E. Burns studies the temporal regulation of signal transduction mechanisms in neurons. Much of her work has investigated the deactivation of the G protein cascade in photoreceptor cells of the retina. Her future studies will seek to understand the mechanisms by which different G protein cascades yield signals of varying amplitude and durations, such as in the rod and cone photoreceptors in the retina.
<b>Title</b>	Professor
<b>Specialty</b>	Ophthalmology
<b>Department</b>	Ophthalmology and Vision Science
<b>Division</b>	Ophthalmology
<b>Center/Program Affiliation</b>	<a href="#">Center for Neuroscience</a> <a href="#">Eye Center</a>
<b>Education</b>	Ph.D., Duke University, Durham, North Carolina, 1996 M.S., Duke University, Durham, North Carolina, 1994
<b>Fellowships</b>	Stanford University, Palo Alto, California, 1996-00
<b>Professional Memberships</b>	Association for Research in Vision and Ophthalmology Biophysical Society Society for Neuroscience
<b>Select Recent Publications</b>	Burns, M.E. and Pugh, Jr. E.N. (2009). RGS9 concentration matters in rod phototransduction. <i>Biophysical J.</i> 97, 1538-1547. Song, X., Vishnivetskiy, S.A, Gross, O.P., Emelianoff, K., Mendez, A, Chen, J., Gurevich, EV., Burns, M.E., and Gurevich, VV. (2009). Enhanced arrestin mutant facilitates photoresponse recovery and protects rod photoreceptors in the absence of rhodopsin phosphorylation. <i>Curr. Biol.</i> 19,700-5. Lobanova, E.S., Finkelstein, S., Herrmann, R, Chen, Y.-M., Kessler, C., Michaud, N.A, Trieu, L.H., Strissel, K.J., Burns, M.E. and Arshavsky, V.Y. (2008). Transducin gamma-subunit set expression levels of alpha- and beta-subunits and is crucial for rod viability. <i>J. Neurosci.</i> 28, 3510-20. Martemyanov, K.A, Krispel, C.M., Lishko, PV., Burns, M.E., and Arshavsky, V.Y. (2008). Functional comparison of RGS9 splice isoforms in a living cell. <i>Proc. Natl. Acad. Sci.</i> 105,20988-



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