



Marie E. Burns, Ph.D.

Clinical Interests	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.
Title	Professor
Specialty	Ophthalmology
Department	Ophthalmology and Vision Science
Division	Ophthalmology
Center/Program Affiliation	Center for Neuroscience Eye Center
Education	Ph.D., Duke University, Durham, North Carolina, 1996 M.S., Duke University, Durham, North Carolina, 1994
Fellowships	Stanford University, Palo Alto, California, 1996-00
Professional Memberships	Association for Research in Vision and Ophthalmology Biophysical Society Society for Neuroscience
Select Recent Publications	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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