

UMKC Department of Ophthalmology Publications

Peer Reviewed Journal Publications

Michael A. Grillo, Peter **Koulen**. Chapter 'Inositol 1,4,5-trisphosphate-associated cGMP kinase substrate' (pp. 930-932) Encyclopedia of Signaling Molecules, Choi, Sangdun (Ed.) New York, Springer; In Press. ISBN 978-1-4419-0461-4; URL: http://dx.doi.org/10.1007/978-1-4419-0461-4_373; DOI: 10.1007/978-1-4419-0461-4_373

Cholkar K, Patel SP, Vadlapudi AD, **Mitra** AK. Novel strategies for anterior segment ocular drug delivery. *J Ocul Pharmacol Ther.* 2013 Mar;29(2):106-23. doi: 10.1089/jop.2012.0200. Epub 2012 Dec 5.

Earla R, Cholkar K, Gunda S, Earla RL, **Mitra** AK. Bioanalytical method validation of rapamycin in ocular matrix by QTRAP LC-MS/MS: application to rabbit anterior tissue distribution by topical administration of rapamycin nanomicellar formulation. *J Chromatogr B Analyt Technol Biomed Life Sci.* 2012 Nov 1;908:76-86. doi: 10.1016/j.jchromb.2012.09.014. Epub 2012 Oct 3.

Barot M, Gokulgandhi MR, Pal D, **Mitra** AK. Mitochondrial localization of P-glycoprotein and peptide transporters in corneal epithelial cells-- novel strategies for intracellular drug targeting. *Exp Eye Res.* 2013 Jan;106:47-54. doi: 10.1016/j.exer.2012.10.006. Epub 2012 Oct 29.

Vadlapudi AD, Vadlapatla RK, **Pal** D, **Mitra** AK. Functional and molecular aspects of biotin uptake via SMVT in human corneal epithelial (HCEC) and retinal pigment epithelial (D407) cells. *AAPS J.* 2012 Dec;14(4):832-42. doi: 10.1208/s12248-012-9399-5. Epub 2012 Aug 18.

Korolenko TA, Tuzikov FV, **Johnston** TP, Tuzikova NA, Kisarova YA, Zhanaeva SY, Alexeenko TV, Zhukova NA, Brak IV, Spiridonov VK, Filjushina EE, Cherkanova MS, Monoszon AA. The influence of repeated administration of poloxamer 407 on serum lipoproteins and protease activity in mouse liver and heart. *Can J Physiol Pharmacol.* 2012 Nov;90(11):1456-68. doi: 10.1139/y2012-118. Epub 2012 Nov 13.

Stephanie L. Grillo, Jantana Keereetaweep, Michael A. Grillo, Kent D. Chapman, Peter **Koulen**. "N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids" *Drug Des Devel Ther*, 7: 747-752; <http://dx.doi.org/10.2147/DDDT.S48324>; PMID: in progress; PMCID in progress/ submitted; NIHMSID # in progress

Andrew J. Payne, Bryan C. Gerdes, Yuliya Naumchuk, Audrey E. McCalley, Simon **Kaja**, and Peter **Koulen**. "Presenilins regulate the cellular activity of ryanodine receptors differentially through isotype-specific N-terminal cysteines" *Exp Neurol*, accepted for publication; PMCID in progress/ submitted; NIHMSID # in progress

Prokai-Tatrai, Katalin; Xin, Hua; Nguyen, Vien; Szarka, Szabolcs; Blazics, Balázs; Prokai, Laszlo; **Koulen**, Peter. "17 β -Estradiol eye drops protect retinal ganglion cells and preserve visual function in an in vivo model of glaucoma" *Mol Pharm*, 2013 Aug 5;10(8):3253-61. doi: 10.1021/mp400313u. Epub 2013 Jul 23. PMID: 23841874; PMCID in progress/ submitted; NIHMSID # in progress

Andrew J. Payne, Simon Kaja, Nelson R. **Sabates**, Peter **Koulen**. Neuroprotection in Eye Disease: Developments in Translational Research. *Missouri Medicine*, in press; PMCID in progress/ submitted

Vadlapatla RK, Vadlapudi AD, **Mitra** AK. Hypoxia-inducible factor-1 (HIF-1): a potential target for intervention in ocular neovascular diseases. *Curr Drug Targets*. 2013 Jul;14(8):919-35.

Vadlapudi AD, Vadlapatla RK, Earla R, Sirimulla S, Bailey JB, **Pal** D, **Mitra** AK. Novel biotinylated lipid prodrugs of acyclovir for the treatment of herpetic keratitis (HK): transporter recognition, tissue stability and antiviral activity. *Pharm Res*. 2013 Aug;30(8):2063-76. doi: 10.1007/s11095-013-1059-7. Epub 2013 May 9.

Tamboli V, Mishra GP, **Mitra** AK. Novel pentablock copolymer (PLA-PCL-PEG-PCL-PLA) based nanoparticles for controlled drug delivery: Effect of copolymer compositions on the crystallinity of copolymers and in vitro drug release profile from nanoparticles. *Colloid Polym Sci*. 2013 May 1;291(5):1235-1245.

Barot M, Gokulgandhi MR, Patel S, **Mitra** AK. Microvascular complications and diabetic retinopathy: recent advances and future implications. *Future Med Chem*. 2013 Mar;5(3):301-14.

Vadlapudi AD, **Mitra** AK. Nanomicelles: an emerging platform for drug delivery to the eye. *Ther Deliv*. 2013 Jan;4(1):1-3. doi: 10.4155/tde.12.122. No abstract available.

Wang Z, **Pal** D, Patel A, Kwatra D, **Mitra** AK. Influence of overexpression of efflux proteins on the function and gene expression of endogenous peptide transporters in MDR-transfected MDCKII cell lines. *Int J Pharm*. 2013 Jan 30;441(1-2):40-9.

Wallace BS, **Sabates** NR. Simulation in ophthalmology. *Mo Med*. 2013 Mar-Apr;110(2):152-3. Odhav A, Kollipara R, Teymoorian S, Lord RK, **Lyon** DB. Subconjunctival latex paint from occupational injury. *J Emerg Med*. 2013 May;44(5):e345-7.

Ronald L. Rebenitsch, Eric N. Brown, Nick R. Binder, Aditi Jani, Rohit **Krishna**, Kevin **Pikey**. Effect of Topical Loteprednol on Intraocular Pressure After Selective Laser Trabeculoplasty for Open-Angle Glaucoma. *Ophthalmol Ther*. 31 August 2013; DOI 10.1007/s40123-013-0018-z "Surgical Simulation in Ophthalmology." **Wallace B** and **Sabates NR**. *Mo Med* 2013 Mar-Apr (pending publication).

Simon **Kaja**, Nathalie Sumien, Priscilla K. Borden, Nitasha Khullar, Maaz Iqbal, Julie L. Collins, Michael J. Forster, Peter **Koulen**. "Homer-1a immediate early gene expression correlates with better cognitive performance in aging." *Age*, epub 11 Oct 2012, PMID: 23054826; PMCID in progress/ submitted; NIHMSID # 414227

Stella, S. L., Jr., Vila, A., Hung, A.Y., Rome, M., Kreienkamp, HJ, Huynh, U, Sheng, M., and Brecha, N. C. (2012) Shank 1 is expressed at cone but not rod synaptic terminals in mammalian retina, *PLOS One*, 7(9):e43463. PMID: 22984429

Simon **Kaja**, Andrew J. Payne, Stephanie L. Burroughs, Peter **Koulen**. Chapter 'Homer' (pp.876-879) in "Encyclopedia of Signaling Molecules", Choi, Sangdun (Ed.) New York, Springer; In Press. ISBN 978-1-4419-0461-4; URL: http://dx.doi.org/10.1007/978-1-4419-0461-4_372; DOI: 10.1007/978-1-4419-0461-4_372

Daryl L. Goad, Michael A. Grillo, Peter **Koulen**. Chapter 'Polycystin-2' (pp. 1446-1449) in "Encyclopedia of Signaling Molecules", Choi, Sangdun (Ed.) New York, Springer; In Press. ISBN 978-1-4419-0461-4; URL: http://dx.doi.org/10.1007/978-1-4419-0461-4_345; DOI: 10.1007/978-1-4419-0461-4_345

"Evaluation of tensile strength of tissue adhesives and sutures for clear corneal incisions using porcine and bovine eyes, with a novel standardized testing platform." **Kaja S, Goad DL**, Ali F, Abraham A, *Rebenitsch RL, Teymoorian S, Krishna R, Koulen P*. *Clin Ophthalmol*. 2012;6:305-9. Epub 2012 Feb 28.

"Macular Infarction Secondary to Staphylococcus Epidermis Infection." **Kunjukunju N**, Gonzales CR, Rodden WS. *Retinal Cases & Brief Reports*. Winter. 2012; 6(1): 56-9.

"Aqueous Levels of Fluocinolone Acetonide after Administration of Fluocinolone Acetonide Inserts or Fluocinolone Acetonide Implants." Campochiaro PA, Nguyen QD, Hafiz G, Bloom S, Brown DM, Busquets M, Ciulla T, Feiner L, **Sabates N**, Billman K, Kapik B, Green K, Kane FE; Famous Study Group. *Ophthalmology*. 2012 Dec 4. pii: S0161-6420(12)00876-7. doi: 10.1016/j.ophtha.2012.09.014. [Epub ahead of print].

"Effects of Dilution and Prolonged Storage With Preservative in a Polyethylene Container on Bevacizumab (Avastin) for Topical Delivery as a Nasal Spray in Anti-hereditary Hemorrhagic Telangiectasia and Related Therapies." **Kaja S**, Hilgenberg JD, Everett SE, Gossage J, **Koulen P**. *Hum Antibodies* 2012; 20: 95-101.

"Nonblinding, Penetrating Orbital Injury with Pontine and Cerebellar Involvement Secondary to Antenna Trauma." *Teymoorian S, San Filippo A, Wallace B*. *J Neuroimaging* 2012 Apr; 22(2): 201-3.

"Ophthalmologic Abnormalities in Mowat-Wilson Syndrome and a Mutation in ZEB2." **Ariss M**, Natan K, Friedman N, Traboulsi EI. *Ophthalmic Genet.* 2012 Sep; 33(3): 159-60.

"Comparing the efficacy of the monocular trial treatment paradigm with multiple measurements of intraocular pressure before and after treatment initiation in primary open-angle glaucoma." **Krishna R**, Debry PW, Waldman CW, **Koulen P**. *Clin Ophthalmol.* 2012;6:491-6. Epub 2012 Mar 28.

"Distribution and function of polycystin-2 in mouse retinal ganglion cells" *Neuroscience*, 2012 Jan 27;202:99-107. **Simon Kaja**, Oloruntoyin A. Mafe, Ruby A. Parikh, Prasanthi Kandula, Elaine V. Gregg, Hua Xin, Peter Mitchell, Michael A. Grillo, **Peter Koulen**. Epub 2011 Dec 2. PMID: 22155264; NIHMSID: 342441; PMCID: PMC3268838

"Comparison of the Efficacy of the Monocular Trial Treatment Paradigm Versus Multiple Measurements of intraocular pressure (IOP) before and after treatment initiation in Primary Open Angle Glaucoma." **Rohit Krishna**, Peter W. DeBry, Corey W. Waldman, **Peter Koulen**. *Clinical Ophthalmology*, 2012; 6:491-6. Epub 2012 Mar 28. PMID: 22536042; PMCID: PMC3334208

"Homer-1a immediate early gene expression correlates with better cognitive performance in aging." **Simon Kaja**, Nathalie Sumien, Priscilla K. Borden, Nitasha Khullar, Maaz Iqbal, Julie L. Collins, Michael J. Forster, **Peter Koulen**. *Age*, epub 11 Oct 2012, PMID: 23054826; PMCID in progress/ submitted; NIHMSID # 414227

"Exudative Retinal Detachment and Angle Closure Glaucoma as the Presenting Signs of Primary Pulmonary Hypertension." **Kunjukunju N**, Gonzales CR, Rodden WS. *Retinal Cases & Brief Reports.* Spring. 2011; 5(2): 108-12.

"Recombinant tissue plasminogen activator in the treatment of suprachoroidal hemorrhage." **Kunjukunju N**, Gonzales CR, Rodden WS. *Clinical Ophthalmology.* 2011; 5: 155-157.

"Meningitis Without Papilledema." Ruda F, **Kunjukunju N**, Mazzulla A. *Case Report. Retinal Physician.* 2011 June.

"Normative Data Set Identifying Properties of the Macula Across Age Groups: Integration of Visual Function and Retinal Structure with Microperimetry and Spectral-Domain Optical Coherence Tomography." **Sabates FN**, **Vincent RD**, **Koulen P**, **Sabates NR**, Gallimore G. *Retina* 2011 Jul-Aug; 31(7): 1294-302.

"Congenital 4th Nerve Palsy." **Olitsky SE**, Strominger MB, Tien DR. *J Pediatr Ophthalmol Strabismus* 2011; 48: 6-9.

"Telangiectasias Secondary to Hereditary Hemorrhagic Telangiectasia." *Picture of the Month.* **Olitsky SE**. *Arch Pediatr Adolesc Med* 2011; 165:275-76.

"Severe Neurologic Impairment in Mice with Targeted Disruption of the Electrogenic Sodium Bicarbonate Cotransporter NBCe2 (Slc4a5 Gene)." Kao L, Kurtz LM, Shao X, Papadopoulos MC, Liu L, Bok D, Nusinowitz S, Chen B, **Stella SL**, Andre M, Weinreb J, Luong SS, Piri N, Kwong JM, Newman D, Kurtz I. J Biol Chem 2011; 286(37): 32563-74.

"Location of Release Sites and Calcium-Activated Chloride Channels Relative to Calcium Channels at the Photoreceptor Ribbon Synapse." Mercer AJ, Rabl K, Riccardi GE, Brecha NC, **Stella SL Jr**, Thoreson WB. J Neurophysiol 2011; 105(1): 321-35.

"Spectral Domain Optical Coherence Tomography Findings of Retinal Macroaneurysm." *Shah VA, Poulouse A, Cassell M, Sabates NR.* Ophthalmic Surg Lasers Imaging 2010 Mar; 9:1-4.

"Novel Uses of Smartphones in Ophthalmology." *Lord RK, Shah VA, San Filippo AN, Krishna R.* Ophthalmology. 2010 Jun; 117(6): 1274.

"Bilateral Macular Hole Formation Secondary to Sclopetetaria." **Kunjukunju N**, Navarro A, Oliver S, et al. BMC Ophthalmology. 2010; 19: 10-16.

"Upper Blepharoplasty and Browlift: State of the Art." **Lyon DB.** Missouri Medicine 2010; 107: 383-90.

"Perforating Globe Injury from Taser Trauma." *Teymoorian S, San Filippo AN, Poulouse AK, Lyon DB.* Ophthalmic Plast Reconstr Surg 2010; 26:306-08.

"Sinonasal Adenoid Cystic Carcinoma Presenting as an Orbital Mass." Kown RO, **Lyon DB**, Floyd M, Girod DA. Ophthalmic Plastic Reconstr Surg 2010; 26: 54-56.

"Spectral Domain Optical Coherence Tomography Findings of Retinal Macroaneurysm." *Shah VA, Poulouse A, Cassell M, Sabates NR.* Ophthalmic Surg Lasers Imaging 2010 Mar 9: 1-4.

"Intraocular Lens Use in Challenging Pediatric Cases." **Hug DA.** Curr Opin Ophthalmol. 2010; 21: 345-49.

"Update on Pediatric Cataracts and Cataract Surgery." **Hug DA.** Int Ophthalmol Clin. 2010; 50(4): 107-13.

"Hereditary Hemorrhagic Telangiectasia: Diagnosis, Management, and Treatment." **Olitsky SE.** Am Fam Physician 2010; 82: 785-90.

"Hereditary Hemorrhagic Telangiectasia/Avastin." Davidson TM, **Olitsky SE**, Wei JL. Laryngoscope 2010; 120: 432-35.

"Ocular Microdialysis: A Continuous Sampling Technique to Study Pharmacokinetics and Pharmacodynamics in the Eye." Boddu S HS, Gunda S, Earla R, **Mitra AK**, Bioanalysis 2010; 2(3): 487-507.

"Ocular Drug Delivery." Gaudana R, Ananthula HK, Parenky A, **Mitra AK**. The AAPS Journal, published online, May 1, 2010.

"Effect of HEPES Buffer on the Uptake and Transport of P-Glycoprotein Substrates and Large Neutral Amino Acids." Luo S, Pal D, Shah SJ, Kwatra D, Paturi DK, **Mitra AK**. Mol. Pharm. 2010; 7(2): 412-20.

"Transporter Targeted Drug Delivery." Mandava N, Oberoi RK, Minocha M, **Mitra AK**. J Drug Del Sci Tech 2010; 20(2): 89-99.

"Development and Validation of a Fast and Sensitive Bioanalytical Method for the Quantitative Determination of Glucocorticoids – Quantitative Measurement of Dexamethasone in Rabbit Ocular Matrices by Liquid Chromatography Tandem Mass Spectrometry." Earla R, Boddu S HS, Cholkar K, Hariharan S, Jwala J, **Mitra AK**. J Pharm & Biomedical Analysis 2010; 52: 525-33.

"Interaction of Gatifloxacin With Efflux Transporters: A Possible Mechanism for Drug Resistance." Kwatra D, Vadlapatla RK, Vadlapudi AD, **Pal D, Mitra AK**. Int J Pharm 2010 Aug 16; 395(1-2): 114-21.

"Guinea Pig Horizontal Cells Express GABA, the GABA-Synthesizing Enzyme GAD 65, and the GABA Vesicular Transporter." Guo C, Hirano AA, **Stella SL Jr**, Bitzer M, Brecha NC. J Comp Neurol 2010; 518(10): 1647-69.

"Spectral domain optical coherence tomography findings of acute branch retinal artery occlusion from calcific embolus." *Shah VA, Wallace B, Sabates NR*. Indian J Ophthalmol 2010 Nov-Dec; 58(6): 523-4.

"Vision Demands in Elementary School," **Langford A, Hug T**. J Ped Ophthalmol Strabismus 2010; 47(3): 152-55.

"Sustained ocular delivery of fluocinolone acetonide by an intravitreal insert." Campochiaro PA, Hafiz G, Shah SM, Bloom S, Brown DM, Busquets M, Ciulla T, Feiner L, **Sabates N**, Billman K, Kapik B, Green K, Kane F; Famous Study Group. Ophthalmology. 2010 Jul; 117(7): 1393-99.

"Spectral Domain Optical Coherence Tomography Findings of Retinal Macroaneurysm." *Shah VA, Poulouse A, Cassell M, Sabates NR*. Ophthalmic Surg Lasers Imaging 2010 Mar 9:1-4.

"Interaction of Ocular Hypotensive Agents (PGF2alpha Analogs-Bimatoprost, Latanoprost, and Travoprost) With MDR Efflux Pumps on the Rabbit Cornea." Hariharan S, Minocha M, Mishra GP, Pal D, **Krishna R, Mitra AK**. J Ocul Pharmacol Ther. 2009 Dec; 25(6): 487-98.

"Resident Laser In Situ Keratomileusis Surgical Training in United States Residency Programs." Kwon RO, *Shah VA, Krishna R, Hausheer J.* J Cataract Refract Surg. 2009 Sep; 35(9): 1629-32.

"Ophthalmic Presentation of Plasma Cell Neoplasm." **Person EA, Lyon DB, Rupani MK.** Ophthalmic Plastic Reconstr Surg 2009; 25: 315-16.

"Resident surgical practice patterns for vitreoretinal surgery in ophthalmic training programs in the United States." *Shah VA, Reddy AK, Bonham AJ, Sabates NR, Lee AG.* Ophthalmology 2009 Apr; 116(4): 783-9.

"Documentation of Optic Disc Melanocytoma by Spectral and Time Domain Optical Coherence Tomography." *Shah VA, Vincent RD, Desai K, Gallimore G, Rupani MK.* Can J Ophthalmol 2009 Oct; 44(5) 603-04.

"Management Issues in Amblyopia Treatment." **Olitsky SE, Schnall B, Gunton K, Nelson LB.** J Pediatr Ophthalmol Strabismus 2009; 46: 5-9.

"Ophthalmic Presentation of Plasma Cell Neoplasm." **Person EA, Lyon DB, Rupani MK.** Ophthalmic Plastic Reconstr Surg 2009; 25: 315-16.

"Documentation of Optic Disc Melanocytoma by Spectral and Time Domain Optical Coherence Tomography." *Shah VA, Vincent RD, Desai K, Gallimore G, Rupani MK.* Can J Ophthalmol 2009 Oct; 44(5) 603-04.

"Enhanced Corneal Absorption of Erythromycin by Modulating P-glycoprotein and MRP Mediated Efflux with Corticosteroids." Hariharan S, Gunda S, Mishra GP, **Pal D, Mitra AK.** Pharm Res 2009 May; 26(5): 1270-82.

"Receptor Activated Ca(2+) Release is Inhibited by Boric Acid in Prostate Cancer Cells." Henderson DH, **Stella SL Jr,** Kobylewski S, Eckhert CD. PLoS One 2009; 23(4): e6009.

"Adenosine Suppresses Exocytosis From Cone Terminals of the Salamander Retina." **Stella SL Jr,** Hu WD, Brecha, NC. Neuroreport 2009; 20(10):923-9.

"Galanin Inhibition Of Voltage Dependent Ca²⁺ Influx In Rat Cultured Myenteric Neurons Is Mediated By Galanin Receptor 1." Anselmi L, **Stella SL Jr,** Brecha NC, Sternini C. J Neurosci Res 2009; 87(5): 1107-14.

"Plasmalemmal and Vesicular GABA Transporter Expression in the Developing Mouse Retina." Guo C, **Stella SL Jr,** Hirano AA, Brecha NC. Journal of Comparative Neurology 2009; 512(1): 6-26.

"Talc Retinopathy." *Shah VA, Poulouse A, Cassell M, Sabates NR.* Ophthalmology 2008; 115(4): 755.

"Documentation of Talc Retinopathy by Spectral and Time Domain Optical Coherence Tomography." *Shah VA, Cassell M, Poulouse A, Sabates NR.* Ophthalmology 2008 April; 115(4): 755-755. e2.

"Ocular Involvement as the Initial Manifestation of Wegener's Granulomatosis in Children." Levi M, Kodsi SR, Rubin SE, Lyons C, Golden R, **Olitsky SE**, Christiansen S, Alcorn DM. J AAPOS 2008; 12: 94-96.

"Phakic IOLs in Children." Donahue SP, **Olitsky SE**, Paysse EA, Levin AV, Hertle RW, Cruz OA. Ophthalmology 2008; 115: 592-93.

"Slipped and Lost Muscles." [Ophthalmic Hyperguide Website]. Iyengar S, **Olitsky SE**, Coats DK. February 2008. Available at <http://www.opthalmic.hyperguides.com>

"Diagnosis of Factor XI Deficiency Following Congenital Cataract Extraction." Iyengar SS, **Olitsky SE**, Neville KA. J AAPOS 2008; 12: 297-98.

"Pediatric Refractive Surgery In Review." **Stahl ED.** Journal of Pediatric Ophthalmology and Strabismus 2008 Nov/Dec; 45(6): 331-37.

"Synthesis, Metabolism and Cellular Permeability of Enzymatically Stable Dipeptide Prodrugs of Acyclovir." Talluri RS, Samanta SK, Gaudana R, **Mitra AK.** Int J Pharm 2008 Sep 1; 361(1-2): 118-24.

"Boric Acid Inhibits Stored Ca(2+) Release in DU-145 Prostate Cancer Cells." Barranco WT, Kim DH, **Stella SL Jr**, Eckhert CD. Cell Biol Toxicol 2008; 25(4): 309-20.

"Comparison of the Ontogeny of the Vesicular Glutamate Transporter 3 (VGLUT3) with VGLUT1 and VGLUT2 in the Rat Retina." **Stella SL Jr**, Li S, Sabatini A., Vila A, Brecha NC. Brain Res 2008; 1215: 20-29.

"Quantification of Deficits in Spatial Visual Function of Mouse Models for Glaucoma." Burroughs SL, **Kaja S, Koulen P.** Invest Ophthal & Vis Sci 2011 Jun 1; 52(6): 3654-59.

"Lipid Profiling Reveals Tissue-Specific Differences for Ethanolamide Lipids in Mice Lacking Fatty Acid Amide Hydrolase." Kilaru A, Isaac G, Tamura P, Baxter D, Duncan RS, Venables BJ, Welti R, **Koulen P**, Chapman KD. Lipids 2010 Sep; 45(9): 863-75.

"Intracellular Mechanisms of N-Acylethanolamine-Mediated Neuroprotection in Stroke." Garg P, **Duncan RS, Kaja S, Koulen P.** Neuroscience 2010; 166: 252-62.

"The Neuroprotective Properties of Palmitoylethanolamine Against Oxidative Stress in a Neuronal Cell Line." **Duncan RS**, Chapman K, **Koulen P**. *Molecular Neurodegeneration* 2009; 4: 50.

"Progesterone Potentiates Calcium Release Through IP3 Receptor by an Akt-Mediated Mechanism in Hippocampal Neurons." Hwang J, **Duncan RS**, Madry C, Singh M, **Koulen P**. *Cell Calcium* 2009; 45: 233-42.

"The Cytosolic N-terminus of Presenilin-2 Increases Single Channel Activity of Ryanodine Receptors Through Direct Protein-Protein Interaction." Hayrapetyan V, Rybalchenko V, Rybalchenko N, **Koulen P**. *Cell Calcium* 2008; 44: 507-18.

"Proteomic Analysis of Mouse Brain Microsomes: Identification and Bioinformatic Characterization of Endoplasmic Reticulum Proteins in the Mammalian Central Nervous System." Stevens S, **Duncan S**, **Koulen P**, Prokai L. *J Proteome Res* 2008; 7(3): 1046-54.

"N-Palmitoylethanolamine depot injection increased its tissue levels and those of other acylethanolamide lipids" Stephanie L. Grillo, Jantana Keereetawee, Michael A. Grillo, Kent D. Chapman, **Peter Koulen**. *Drug Des Devel Ther*, in press

"17 β -Estradiol eye drops protect retinal ganglion cells and preserve visual function in an in vivo model of glaucoma" Prokai-Tatrai, Katalin; Xin, Hua; Nguyen, Vien; Szarka, Szabolcs; Blazics, Balázs; Prokai, Laszlo; **Koulen, Peter**. *Molecular Pharmaceutics*, in press

Other Publications

"The Eye Handbook: a mobile app in ophthalmic medicine." Lord K, *Shah VA*, **Krishna R**. *MO Med*. 2013 Jan-Feb; 110(1):49-51.

"Subconjunctival Latex Paint from Occupational Injury." Odhav A, Kollipara R, *Teymoorian S*, Lord RK, **Lyon DB**. *J Emerg Med* 2013 Feb 8; S0736-4679(12)01473-4

"Presumed Ocular Histoplasmosis Syndrome, In Foster CS and Vitale AT (eds) *Diagnosis and Treatment of Uveitis*." **Singh G**, Singh MS. Second Edition, Jaypee-Highlights Medical Publishers, Inc., New Delhi, India, 2013, p492-511

"Religious traditions and spirituality of Sikhism." In Steven Jeffers, Michael Nelson, Vern Barnet, Michael Brannigan (eds). *The Essential Guide to Religious Traditions and Spirituality for Health Care Providers*. **Singh G**, Khalsa KPS. Radcliff Publishers, London, UK, 2013, p 571-585.

"Novel Uses of Smartphones in Ophthalmology." *Lord RK*, *Shah VA*, San Filippo AN, **Krishna R**. *Ophthalmology*. 2010 Jun; 117(6): 1274.

"Is there a doctor in the house? There is an app for that. Doctor App: Do I Need an App?" *Shah VA, Krishna R, Lord RK.* Pearls in Ophthalmology. 2010; Oct 15.

"Central Retinal Vein Occlusion (CRVO)." **Krishna R** and **Sabates N.** ATVO Viewpoints. Summer 2010.

"Smartphones in Ophthalmology: Potential Uses of the Smartphone in Your Medical Practice." *Shah VA, Lord RK, Krishna R, San Filippo AN,* Pearls in Ophthalmology. 2010; 7(5).

"Clinical Decision Making: Case Presentations." **Langford A, Sullivan A.** Platform Presentation, Children's Mercy Hospitals and Clinics Pediatric Optometric Care Conference, 2010.

"Clinical Decision Making in Pediatric Eye Care: Case Presentations." Platform Presentation, Children's Mercy Hospital Optometry Conference, 2010.

"Spectral Domain Optical Coherence Tomography Findings of Acute Branch Retinal Artery Occlusion From Calcific Embolus." *Shah VA, Wallace B, Sabates NR.* Indian J Ophthalmol 2010 Nov-Dec; 58(6): 523-4.

"EyeRoute Ophthalmic Image Management System." **Krishna R.** Glaucoma Today. 2009; 7(6): 24-6.

Book Chapters

Naumchuk Y, Shah V, **Kaja S.** Mobile Technology in Tele-Education. In Tele-Ophthalmology in Preventive Medicine. Springer, Sven Klemp, Senior (Ed.). 2013

Andrew J. Payne, **Simon Kaja, Nelson R. Sabates, Peter Koulen.** Neuroprotection in Eye Disease: Developments in Translational Research. **Missouri Medicine**, in press; PMID in progress/ submitted

Lyon DB. "Disorders of the Orbit," in Harley's Pediatric Ophthalmology, sixth edition. Nelson LB, **Olitsky SE,** editors. Lippincott, Williams and Wilkins, Baltimore, 2012.

Hug D. "Kawasaki Disease" in The Wills Eye Five Minute Clinical Consult. Maguire JI, Murchison AP, Jaeger EA. Lippincott, Williams and Wilkins, 2012, pp 384-85.

Hug D. "Moebius Syndrome," The Wills Eye Five Minute Clinical Consult; Maguire JI, Murchison AP, Jaeger EA, Lippincott, Williams and Wilkins, 2012, pp 428-29.

Hug D. "Ocular Trauma," A Colour Handbook of Pediatric Clinical Ophthalmology. **Olitsky SE,** Nelson LB. Manson Publishing, 2012 Chapter 19, pp 275-89.

A Color Handbook of Pediatric Clinical Ophthalmology. Nelson LB, **Olitsky SE** (ed): Manson, London, 2012.

Simon Kaja, Andrew J. Payne, Stephanie L. Burroughs, **Peter Koulen**. Chapter 'Homer' (pp.876-879) in "Encyclopedia of Signaling Molecules", Choi, Sangdun (Ed.) New York, Springer; 2012. ISBN 978-1-4419-0461-4; URL: http://dx.doi.org/10.1007/978-1-4419-0461-4_372; DOI: 10.1007/978-1-4419-0461-4_372

Daryl L. Goad, Michael A. Grillo, **Peter Koulen**. Chapter 'Polycystin-2' (pp. 1446-1449) in "Encyclopedia of Signaling Molecules", Choi, Sangdun (Ed.) New York, Springer; 2012. ISBN 978-1-4419-0461-4; URL: http://dx.doi.org/10.1007/978-1-4419-0461-4_345; DOI: 10.1007/978-1-4419-0461-4_345

Michael A. Grillo, **Peter Koulen**. Chapter 'Inositol 1,4,5-trisphosphate-associated cGMP kinase substrate' (pp. 930-932) Encyclopedia of Signaling Molecules, Choi, Sangdun (Ed.) New York, Springer; 2012. ISBN 978-1-4419-0461-4; URL: http://dx.doi.org/10.1007/978-1-4419-0461-4_373; DOI: 10.1007/978-1-4419-0461-4_373

"Glaucoma" in Ophthalmology Review Manual, second edition. **Vincent RD, Krishna R.** Chern K, Saidel M, ed. Lippincott, Williams and Wilkins, 2011.

"Maximizing the Benefits of Topical Therapy," in Glaucoma Today. Gross RL, **Vincent RD.** Volume 9, No. 2, Spring 2011.

"The Phakomatoses" in Genetic Mutations of the Eye, second edition. **Ariss, M,** Ragge N, Moodley M, Traboulsi E. Traboulsi E, ed. 2011.

"Systemic Associations of Eyelid Tumors" in Genetic Mutations of the Eye, second edition. **Ariss, M,** Traboulsi E, Singh A. Traboulsi E, ed. 2011.

Lyon DB. "Eyelid Retraction," in Clinical Atlas of Procedures in Ophthalmic Surgery, second edition. Albert DM, Lucarelli MJ. Oxford University Press, 2011.

Olitsky SE, Hug D, Smith LP. Ophthalmology Section in Nelson Textbook of Pediatrics, WB Saunders, Growth and Development; Examination of the Eye; Abnormalities of Refraction and Accommodation; Disorders of Vision; Abnormalities of the Pupil and Iris; Disorders of Eye Movement and Alignment; Abnormalities of the Lids; The Lacrimal System; The Conjunctiva; Abnormalities of the Cornea; Abnormalities of the Lens; The Uveal Tract; The Retina and Vitreous; Abnormalities of the Optic Nerve; Glaucoma; Orbital Abnormalities; Orbital Infections; Injuries to the Eye, Chapters 619-634, respectively, 2011.

Olitsky SE, Nelson LB. "Strabismus Disorders" in Color Atlas and Synopsis of Clinical Ophthalmology. Wills Eye Institute, Nelson LB (ed), Lippincott, Williams and Wilkins, 2011.

Olitsky SE, Stahl ED. "Stickler Syndrome" in 5 Minute Consult (5minuteconsult.com), Lippincott, Williams and Wilkins, 2011.

Olitsky SE, Grigorian AP. "Aicardi Syndrome" in 5 Minute Consult (5minuteconsult.com), Lippincott, Williams and Wilkins, 2011.

"Information Processing: Horizontal Cells." Hirano AA, Barnes S, **Stella Jr SL**, Brecha, NC. In The Retina and its Disorders. Joseph C. Besharse & Dean Bok, editors. Oxford: Academic Press, 2011, pp. 309-317, 2011.

Hug D, Olitsky SE, Plummer L. "Eye Disorders", Textbook of Adolescent Health Care. Fisher MM, Alderman EM, Kreipe RE, Rosenfeld WD (ed). American Academy of Pediatrics, 2011 Chapter 154, pp 1560-72.

Retinal and Vitreoretinal Diseases and Surgery. Boyd S, Cortez R, **Sabates N.** Jaypee, Highlights Medical Publishers, Panama City, Panama 2010.

Pediatric Retina. Reynolds JD, **Olitsky SE** (ed): Springer, Berlin, 2010.

Olitsky SE. "Metabolic Disease of the Retina" in Pediatric Retina. Reynolds JD, **Olitsky SE** (ed), Springer, Berlin, 2010.

"Practical Aspects of Photocoagulation" in Retinal and Vitreoretinal Surgery. Highlights Press Panama City, Panama 2009.

Kunjukunju N, Hirokazu S, Motohiro K, Quiros-Mercado H. "Artificial Vision, Visual Prostheses, and Retinal Implants" in Macular Surgery. Quiroz-Mercado H, Alfara DV, Liggett PE, et al eds. Lippincott Williams and Wilkins, next edition.

Holekamp N, **Kunjukunju N.** "Submacular Surgery" in Macular Surgery. Quiroz-Mercado H, Alfara DV, Liggett PE, et al eds. Lippincott Williams and Wilkins, next edition.

Kunjukunju N, Quiroz-Mercado H. "Artificial Vision, Implantable Telescope, and Retinal Implants" in Age-Related Macular Degeneration. Alfaro V, Jablon E, Kerrison J, Sharpe K, and Rodriguez-Fontal M, eds. Lippincott Williams and Wilkins, 2nd edition.

Olitsky SE. "Primary Infantile Glaucoma" in Int Ophthalmol Clin, Ostrow G (ed), 50: 57-66, 2010.

Olitsky SE, Coats DK. "Amblyopia" in Duane's Textbook of Ophthalmology, vol. 1, chapter 10, 2009.

"Development of Steroid Nanoparticles for the Treatment of Macular Edema." Boddu S HS, Jwala J, Janoria KG, **Pal D, Mitra AK.** The Journal of Interdisciplinary Research (JIDR) Vol 2, No 1, Megan Cornell (Ed), KCMO, 81-99, 2008.

"Nasal Drug Delivery." Karla PK, Kwatra D, Gaudana R, **Mitra AK**. Modified Release Drug Delivery Technology, 2nd Ed, Vol 2, Michael J. Rathbone, Jonathan Hadgraft, Michael S. Roberts and Majella E. Lane (Eds.), Informa Healthcare, 427-450, 2008.

"Ophthalmic Infections and Therapeutic Strategies." Talluri S, Mishra GP, **Mitra AK**. Advanced Drug Formulation Design to Optimize Therapeutic Outcomes, Skinner M, Williams III RO, Taft DR, McConville JT (Eds.), CRC Press, Inc., Florida, 143-170, 2008.

"Barriers in Ocular Drug Delivery." Ocular Transporters Gunda S, Hariharan S, Mandava N, **Mitra AK**. Ophthalmic Diseases and Drug Delivery, Tombran-Tink J, Barnstable CJ (Eds.), Humana Press, Inc., New Jersey, 399-414, 2008.

Lyon DB, Khan JA. "Acquired Ptosis," in Albert and Jakobiec Principles and Practice of Ophthalmology, third edition. Albert DM, Miller J, Azar D, Blodi B, editors. Elsevier, 2008.

Resident publications, presentations, and research activity

"Is There an Optimal Age for Strabismus Surgery?" *Rebenitsch RL, Olitsky SE*. Chapter in Curbside Consultation in Pediatric Ophthalmology: 49 Clinical Questions. Rudolph Wagner, editor. Pending publication May 2013.

"Subconjunctival Latex Paint From Occupational Injury." Odhav A, Kollipara R, *Teymoorian S, Lord RK, Lyon DB*. J Emerg Med 2013 Feb 8; S0736-4679(12): 01473-4.

"What is the Differential Diagnosis of a Child Who Complains of Double Vision, and How Do I Manage It?" *Binder NR, Olitsky SE*. Chapter 25 in Curbside Consultation in Pediatric Ophthalmology: 49 Clinical Questions. Rudolph Wagner, editor. Pending publication May 2013.

"Metastasis of Squamous Cell Cervical Carcinoma to the Orbit of the Eye." Sareen P, Blandon RE, *Binder NR, Wallace DL*. Gynecologic Oncology Case Reports. 9 April 2012, ISSN 2211-338X, <http://dx.doi.org/10.1016/j.gynor.2012.04.001>.

"Evaluation of Tensile Strength of Tissue Adhesives and Sutures for Clear Corneal Incisions Using Porcine and Bovine Eyes Using a Novel Standardized Testing Platform." **Kaja S, Goad DL, Ali F, Abraham A, Rebenitsch RL, Teymoorian S, Krishna R, Koulen P**. Clinical Ophthalmology 2012; 6: 305-9.

"The Use of the iCare Tonometer Reduced the Need for Anesthesia to Measure Intraocular Pressure in Children." **Grigorian F, Grigorian AP, Olitsky SE**. J AAPOS 2012 Dec; 16(6): 508-10.

"Nonblinding, Penetrating Orbital Injury with Pontine and Cerebellar Involvement Secondary to Antenna Trauma." *Teymoorian S, San Filippo A, Wallace B.* J Neuroimaging 2012 Apr; 22(2): 201-3.

"Perforating Globe Injury From Taser Trauma." *Teymoorian S, San Filippo AN, Poulouse AK, Lyon, DB.* Ophthal Plast Reconstr Surg 2010 Jul-Aug; 26(4):306-8.

"Practical Aspects of Photocoagulation." **Sabates NR, Teymoorian S, Sabates FN.** Chapter 3 in Retinal and Vitreoretinal Diseases and Surgery. Boyd S, Cortez R, Sabates NR, editors. Oct 2010.