DEPARTMENT OF OPHTHALMOLOGY AND VISUAL SCIENCES

Publications (2020)

ARTHURS, BRYAN

Bergeron S, Itoa H, Arthurs B , Burnier MN Jr. Pleomorphic adenoma of the eyelid skin: A series of three atypical cases. *Human Pathology: Case Reports*. 20: 200384. April, 2020. HPCR-D-20-00008R1

Hussain A, Tucker N, DeAngelis D, Yin V, Ing E , **Arthurs B**, Gill H, Hardy I, Hurwitz J, Maleki, B, Kratky V, Nijhawan N, Oestreicher, J, Zafar A. Guidelines for consideration of vismodegib for the management of advanced or metastatic periocular basal cell carcinoma: *CJO* Vol 55, Issue 3, June 2020. P245-252.

Salimi A, Bergeron S, **Arthurs B**, Burnier MN. Sebaceous carcinoma masquerade syndrome: Importance of biopsy and histopathological examination. *Human Pathology: Case Reports.* 2020;21:200410.

BURNIER, MIGUEL

Bergeron S, Arthurs B, Burnier MN Jr. Pigmented caruncular lesion; The ABCDE's. Indian J Ophthalmol 2020 *(In Press)*

Bergeron S, Arthurs B, Sanft DM, Mastromonaco C, Burnier MN. Jr., Optical Coherence Tomography of Peri-Ocular Skin Cancers: An Optical Biopsy. Ocul Oncol Pathol. 2020 https://doi.org/10.1159/000511188

Dias AS, Burnier JV, Bergeron S, Miyamoto D, Ferreira PCC, Dantas CN, Coblentz J, Burnier MN Jr., The clinical and histopathological features of patients with both uveal and cutaneous melanoma. Pan Am J Ophthalmol 2020;2:19.

Castro, CE; Burnier, JV; Bergeron, S; Coblentz, J; Dias, ABT; Burnier MN. Expression of BRCA1-associated protein 1 in primary tumors and metastasis in an animal model of uveal melanoma. Pan Am J Ophthalmol 2020;2:26.

Salimi A, Bergeron S, Arthurs B, Burnier MN Jr., Sebaceous carcinoma masquerade syndrome: Importance of biopsy and histopathological examination. Hum Pathol. 2020

Fonseca C, Pinto-Proença R, Bergeron S, Pires L, M, Fernandes J, Carreira I, M, Burnier M, N, Proença R: Intratumoral Heterogeneity in Uveal Melanoma. Ocul Oncol Pathol 2020. doi: 10.1159/000508517

Fausto de Souza D, Tsering T, Burnier MN, Bravo-Filho V, Dias ABT, Abdouh M, Goyeneche A, Burnier JV. Acetylsalicylic Acid Exerts Potent Antitumor and Antiangiogenic Effects in Cutaneous and Uveal Melanoma Cell Lines. Ocul Oncol Pathol. 2020 Dec;6(6):442-455.

Mastromonaco C, Balazsi M, Saheb N, Salimi A, Burnier MN Jr. Histopathological changes in the anterior segment with anterior and posterior chamber intraocular lens. Can J Ophthalmol. 2020 55(5):437-444

Bergeron S, Salimi A, Arthurs B, Burnier MN Jr., Sebaceous carcinoma masquerade syndrome: Importance of biopsy and histopathological examination. Hum Pathol. 2020

Bergeron S, Ito H, Arthurs B, Burnier MN, Pleomorphic adenoma of the eyelid skin: A series of three atypical cases. Human Pathology: Case Reports, 2020. Volume 20

Darwich R, Ghazawi FM, Le M, Rahme E, Alghazawi N, Zubarev A, Moreau L, Sasseville D, Burnier MN Jr, Litvinov IV. Epidemiology of invasive ocular surface squamous neoplasia in Canada during 1992-2010. Br J Ophthalmol. 2020 104(10):1368-1372

Darwich R, Ghazawi FM, Rahme E, Alghazawi N, Zubarev A, Moreau L, Sasseville D, Burnier MN Jr, Litvinov IV. Epidemiology of ophthalmic lymphoma in Canada during 1992-2010. Br J Ophthalmol. 2020 104(8):1176-1180.

Ghazawi FM, Darwich R, Le M, Jfri A, Rahme E, Burnier JV, Sasseville D, Burnier MN Jr, Litvinov IV. Incidence trends of conjunctival malignant melanoma in Canada. Br J Ophthalmol. 2020;104:23-25.

Bergeron S, Fernandes B, Logan P, Burnier MN. Chapter 4: Histopathological Findings in Keratoconus. New Frontiers in Keratoconus. Springer Nature. 2020 *In press.*

CHEN, JOHN

Delayed-Onset Streptococcus intermedius Endophthalmitis Following Anti-Vascular Endothelial Growth Factor Intravitreal Injection. Mercer GD, Politis M, Campagnoli TR, Galic IJ1, Chen JC. Retinal Cases & Brief Reports, 03 Nov 2020, PMID: 33165298

Reopening of Macular Hole After Intravitreal Aflibercept for Neovascular Age-Related Macular Degeneration. Chan, EW, Sun V, Chen JC. Retinal Cases & Brief Reports 2020 (14-3): p 255-259

DESCHENES, JEAN

Quality of life considerations in uveal melanoma patients: a systematic review. Anchouche S, Liu J, Zaguia F, Nassrallah G, Deschênes J. Can J Ophthalmol. 2020 Oct;55(5):413-423. doi: 10.1016/j.jcjo.2020.05.010. Epub 2020 Jul 8.

GALIC, JOHN

Kherani A, Brunck LR, Katz TA, Galic J. First-dose effects with intravitreal aflibercept in wet age-related macular degeneration: A post-hoc analysis of VIEW-1 and VIEW-2 phase 3 studies. Can J Ophthalmol. 2020 Nov 26:S0008-4182(20)30791-2. doi: 10.1016/j.jcjo.2020.11.002. Epub ahead of print. PMID: 33249110.

Mercer GD, Politis M, Campagnoli TR, Galic IJ, Chen JC. Delayed-Onset Streptococcus intermedius Endophthalmitis Following Anti-Vascular Endothelial Growth Factor Intravitreal Injection. Retin Cases Brief Rep. 2020 Nov 4. doi: 10.1097/ICB.0000000000001084. Epub ahead of print. PMID: 33165298.

HESS, ROBERT

Reynaud, A*, Blaize, K, Chavane, F, Hess, R, F. Monocular vision is intrinsically unstable: a side-effect of binocular homeostasis. **BioRXiv** doi: https://doi.org/10.1101/2020.03.17.987362. 2020

Chen, X, Chen, S, Kong, D, Wei, J, Mao, Y, Lin, W, Chen, Y, Yao, Z, Min, S-H*, Lu, F, Qu, J, Hess, R, F,, Zhou, J. Action video gaming does not influence short-term ocular dominance plasticity in visually normal adults. **eNeuro** 7(3) ENEURO.0006-20.2020 1–8. (Featured Research) 2020.

Alex S. Baldwin*, Madeleine Kenwood*, Robert F. Hess (2020). Integration of contours defined by second-order contrast-modulation of texture. **Vision Research** Volume 176, November 2020, Pages 1-15

Mao, Y, Min SH*, Chen, S, Gong L, Chen, H, Hess, R, F & Zhou, J. Binocular imbalance in amblyopia depends on spatial frequency in binocular combination. **Investigative Ophthalmology & Visual Science** 61(8):7

Chen, Y,, Min, S-H*, Cheng, Z, Chen, S, Wang, Z, Tao, C,, Lu, F Qu, J, Huang, P-C, Hess, R, F ,Zhou, J. Short-term deprivation does not influence monocular or dichoptic temporal synchrony at low temporal frequency **Frontiers in Neuroscience** 14:402

Min, S.H*.; Reynaud, A*. & Hess, R. F. Interocular Differences in Spatial Frequency Influence the Pulfrich Effect **Vision** 4(1):20

Webber, A, L. Schmidt, K. L, Baldwin, A. S*. and Hess, R. F. Suppression rather than visual acuity loss limits stereoacuity in amblyopia. **IOVS** (in press)

Sheynin, Y*, Rosa-Neto, P, Hess, R. F. & Vaucher, E. Cholinergic modulation of binocular vision, **J Neurosci .** 2020 Jul 1;40(27):5208-5213. doi: 10.1523/JNEUROSCI.2484-19.2020.Epub 2020 May 26

Tao, C, He, Z, Chen, Y, J Zhou, J,& Hess, R, F. (2020). Can ocular dominance plasticity provide a general index to visual plasticity to personalize treatment in amblyopia? **Front Neurosci** Vol. 14, 625.

Alarcon Carrillo, S,*, Baldwin, A. S,* & Hess, R, F. (2020). Factors limiting sensitivity to binocular disparity in human vision: evidence from a noise-masking approach. **Journal of Vision.** Vol.20, 9.

Atchison, D, A. Lee, J, Lu, J, Webber, A, L, Hess, R. F, Baldwin, A, S,* & Schmid, K. L. (2020). Effects of simulated anisometropia and aniseikonia on stereopsis. **Ophthalmic & Physiological Optics** 40: 660– 668. https://doi.org/10.1111/opo.12724

Wu Y, Reynaud A*, Tao C, Mao Y, He Z, Zhou J & Hess RF. (2020) Two patterns of interocular delay revealed by spontaneous motion-indepth Pulfrich phenomenon in amblyopes with stereopsis. **Investigative Ophthalmology & Visual Science.** Vol.61, 22.

Chen Y, He Z, Mao Y, Chen H, Zhou J & Hess RF. Patching, suppression and amblyopia: one mechanism or two? **Frontiers in Neuroscience.** 2020, Vol.13, 1364.

Beylerian, M.; Hess; R. F.; Matonti, F.; Denis, D.; Chavane, F. & Reynaud, A*. (2020) Interocular Suppressive Interactions in amblyopia depend on spatial frequency. **Vision Research.** 168, 18-28

KINGDOM, FREDERICK

Kingdom, F. A. A., Touma, S. & Jennings, B. J. (2020). Negative afterimages facilitate the detection of real images. *Vision Research*, 170, 25-34.

Kingdom, F. A. A., Yared, K-C., Hibbard, P. & May, K. (2020). Stereoscopic depth adaptation from binocularly correlated versus anticorrelated noise: test of an efficient coding theory of stereopsis. *Vision Research*, 166, 60-71.

KOENEKOOP, ROBERT

Koenekoop RK, Moises Arriaga, Karmen M Trzupek, and Jennifer Lentz. Usher Syndrome Type II In: *GeneReviews*. University of Washington, Seattle; 2020. PMID: 20301515.

Kiang AS, Kenna PF, Humphries MM, Ozaki E, **Koenekoop RK**, Campbell M, Farrar GJ, Humphries P. Properties and Therapeutic Implications of an Enigmatic D477G RPE65 Variant Associated with Autosomal Dominant Retinitis Pigmentosa. *Genes (Basel)*. 2020 Nov 27;11(12): E1420. PMID: 33261050.

Heon E, and **Koenekoop RK**. Treatments for inherited retinal degenerations are coming to Canada: Brief update on a new standard of care for inherited retinal degenerations. *Can J Ophthalmol.* 2020 Nov 19: S0008-4182(20)30789-4. PMID: 33220176.

Murphy C, Johnson AP, **Koenekoop RK**, Seiple W, Overbury O. The Relationship Between Cognitive Status and Known Single Nucleotide Polymorphisms in Age-Related Macular Degeneration. *Front Aging Neurosci.* 2020 Oct 16; 12: 586691. PMID: 33178008; PMCID: PMC7596199.

de Bruijn SE, Fiorentino A, Ottaviani D, Fanucchi S, Melo US, Corral-Serrano JC, Mulders T, Georgiou M, Rivolta C, Pontikos N, Arno G, Roberts L, Greenberg J, Albert S, Gilissen C, Aben M, Rebello G, Mead S, Raymond FL, Corominas J, Smith CEL, Kremer H, Downes S, Black GC, Webster AR, Inglehearn CF, van den Born LI, **Koenekoop RK**, Michaelides M, Ramesar RS, Hoyng CB, Mundlos S, Mhlanga MM, Cremers FPM, Cheetham ME, Roosing S, Hardcastle AJ. Structural Variants Create New Topological-Associated Domains and Ectopic Retinal Enhancer-Gene Contact in Dominant Retinitis Pigmentosa. *Am J Hum Genet.* 2020 Nov 5;107(5):802-814. PMID: 33022222; PMCID: PMC7675008.

Koenekoop RK, Arriaga MA, Trzupek KM, Lentz JJ. Usher Syndrome Type I. In: Adam MP, Ardinger HH, Pagon RA, et al., eds. *GeneReviews®*. Seattle (WA): University of Washington, Seattle; 2020.

Kenna PF, Humphries MM, Kiang AS, **Koenekoop RK** et al. Advanced late-onset retinitis pigmentosa with dominant-acting D477G RPE65 mutation is responsive to oral synthetic retinoid therapy. *BMJ Open Ophthalmol*. 2020;5(1)

LACHAPELLE, PIERRE

Dorfman AL, Gauvin M, Vatcher D, Little JM, Polomeno RC, Lachapelle P. Ring analysis of multifocal oscillatory potentials (mfOPs) in cCSNB suggests near-normal ON-OFF pathways at the fovea only. Doc Ophthalmol. 2020 Oct;141(2):99-109. doi: 10.1007/s10633-020-09755-2. Epub 2020 Feb 14. PMID: 32060756.

Bouthillier A, Berthiaume LF, Nguyen AX, Zhai SY, Lalla S, Bédard O, Gauvin M, Little JM, Lachapelle P. Distinguishing Familial from Acquired Traits in the Retinal Blood Vessel Arborization. Transl Vis Sci Technol. 2020 Jul 16;9(8):27. doi: 10.1167/tvst.9.8.27. PMID: 32855873; PMCID: PMC7422763.

Dellaa A, Mbarek S, Kahloun R, Dogui M, Khairallah M, Hammoum I, Ben Rayana-Chekir N, Charfeddine R, Lachapelle P, Ben Chaouacha-Chekir R. Functional alterations of retinal neurons and vascular involvement progress simultaneously in the Psammomys obesus model of diabetic retinopathy. J Comp Neurol. 2021 Jan 20. doi: 10.1002/cne.25114. Epub ahead of print. PMID: 33474721.

MENDOLA, JANINE

Qiu SX, Caldwell CL, You JY, Mendola JD. Binocular rivalry from luminance and contrast. *Vision Res*. 2020;175:41-50. doi:10.1016/j.visres.2020.06.006.

MULLEN, KATHLEEN

Goddard, E. & Mullen, K.T. fMRI Representational Similarity Analysis reveals graded preferences for chromatic and achromatic stimulus contrast across human visual cortex. J. NeuroImage, 215, 116780, April 2020. Doi:10.1016/j.neuroimage.2020.116780.https://doi.org/10.1016/j.neuroimage.2020.116780. PMID: 32276074

Shooner, C. & Mullen, K.T. (2020) Enhanced luminance sensitivity on color and luminance pedestals: threshold measurements and a model of parvocellular luminance processing, **Journal of Vision**, 20(6), 12-12, 2020. DOI:10.1167/jov.20.6.12

SAHEB, HADY

Salimi, A., Nithianandan, H., Al Farsi, H., Harasymowycz, P. and Saheb, H., 2020. Gonioscopy-Assisted Transluminal Trabeculotomy in Younger to Middle-Aged Adults: One-Year Outcomes. *Ophthalmology Glaucoma, in press.*

Saheb, H., Donnenfeld, E.D., Solomon, K.D., Voskanyan, L., Chang, D.F., Samuelson, T.W., Ahmed, I.I.K. and Katz, L.J., 2021. Five-Year Outcomes Prospective Study of Two First-Generation Trabecular Micro-Bypass Stents (iStent®) in Open-Angle Glaucoma. *Current Eye Research*, *46*(2), pp.224-231.

Textbook chapters: Saheb, H. and Crichton, A., 2020. Challenging Case Studies Using OCT. *Atlas of Optical Coherence Tomography for Glaucoma*, pp.175-185.

SAHEB, NABIL

Histopathological changes in the anterior segment with anterior and posterior chamber intraocular lens by C. Mastromonaco. Canadian journal for Ophthalmology volume 55 P.437,october 2020.

SARAGOVI, URI

Alternative Splicing of a Receptor Intracellular Domain Yields Different Ectodomain Conformations, Enabling Isoform-Selective Functional Ligands. Brahimi F, Galan A, Jmaeff S, Barcelona PF, De Jay N, Dejgaard K, Young JC, Kleinman CL, Thomas DY, Saragovi HU. Science. 2020 Aug 10;23(9):101447.

Antagonism of proNGF or its receptor p75NTR reverses remodelling and improves bladder function in a mouse model of diabetic voiding dysfunction. Mossa AH, Galan A, Cammisotto PG, Velasquez Flores M, Shamout S, Barcelona P, Saragovi HU, Campeau L. Diabetologia. 2020 Sep;63(9):1932-1946.

Small-molecule agonists of the RET receptor tyrosine kinase activate biased trophic signals that are influenced by the presence of GFRa1 co-receptors. Jmaeff S, Sidorova Y, Nedev H, Saarma M, Saragovi HU. J Biol Chem. 2020 May 8;295(19):6532-6542.

Small-Molecule Ligands that Bind the RET Receptor Activate Neuroprotective Signals Independent of but Modulated by Coreceptor GFRα1. Jmaeff S, Sidorova Y, Lippiatt H, Barcelona PF, Nedev H, Saragovi LM, Hancock MA, Saarma M, Saragovi HU. Mol Pharmacol. 2020 Jul;98(1):1-12.

Focused ultrasound delivery of a selective TrkA agonist rescues cholinergic function in a mouse model of Alzheimer's disease. Xhima K, Markham-Coultes K, Nedev H, Heinen S, Saragovi HU, Hynynen K, Aubert I. Sci Adv. 2020 Jan 22;6(4):eaax6646.

Aiming for the Sweet Spot: Glyco-Immune Checkpoints and γδ T Cells in Targeted Immunotherapy Margarita Bartish, Sonia V. del Rincón, Christopher E. Rudd and H. Uri Saragovi. Front. Immunol., 29 September 2020 doi.org/10.3389/fimmu.2020.564499

WALLERSTEIN, AVI

Wallerstein A, Gauvin M. RE: Ang et al.: Randomized clinical trial comparing femtosecond LASIK and small-incision lenticule extraction. Ophthalmology. 2020;127:724-730.

Wallerstein A, Gauvin. Disagreement Between Theoretical and Actual Phorcides Outcomes: Is Phorcides Inferior to Treating on the Manifest Refraction? Clin Ophthalmol. 2020;14:3829-3830.

Wallerstein A, Gauvin M, Cohen M. Targeting anterior corneal astigmatism with topography-guided ablation ignores ocular residual astigmatism, resulting in inferior outcomes. J Refract Surg. 020;36(1):63-65.

Wallerstein A, Gauvin M, Qi SR, Cohen M. Effect of the vectorial difference between manifest refractive astigmatism and anterior corneal astigmatism on topography-guided LASIK outcomes. J Refract Surg. 2020;35(12):754-762.

Wallerstein A, Gauvin M, Cohen M. The Relationship Between Preoperative Anterior Corneal Higher Order Aberrations and Topography-Guided Excimer Ablation Depth. J Refract Surg. 2020;36(8):506-510.

Wallerstein A, Gauvin M. Is Phorcides more likely to give better vision than treating the manifest refraction? J Cat Refract Surg. 2020;46(10):1451-1452.

Wallerstein A, Kam JWK, Gauvin M, Adiguzel E, Bashour M, Kalevar A, Cohen M. Refractive, visual, and subjective quality of vision outcomes for very high myopia LASIK from− 10.00 to− 13.50 diopters. BMC Ophthalmol. 2020;20(234):1-10.