

VISION SCIENCES CENTER

Upcoming Colloquium Presentations

April 11, 2018, 4pm



Martha Bickford, PhD
Professor
Department of Anatomical Sciences & Neurobiology
"Visual signal transfer in the mouse thalamus: the contribution of extraretinal circuits"

<http://louisville.edu/medicine/departments/anatomy/facultylist/martha-bickford-phd>

Visiting Lecturers



Friday, April 6, 2018
Stephen Tsang, MD, PhD
Laszlo T. Bito Associate Professor of Ophthalmology,
Associate Professor of Pathology and Cell Biology
Columbia University

Grand Rounds Presentation:

"Ophthalmoscopy can trump NovaSeq sequencing"
7:30-8:30am, KY Lions Eye Center, Basement Conf. Rm.

Research Seminar Presentation:

"Precision Genome Surgery for ImPrecision Medicine."
12:00-1:00pm, KY Lions Eye Center, Basement Conf. Rm.

<http://www.igm.columbia.edu/profile/shtsang>



Friday, June 1, 2018, 7:30am-8:30am
KY Lions Eye Center, Basement Conf. Rm.
Peter Kaiser, MD
Cole Eye Institute, Cleveland Clinic
Chaney Family Endowed Chair in Ophthalmology Research

Professor of Ophthalmology

Title: TBD

About the colloquium and newsletter:

We want to hear from you for our Visual Sciences Center bi-monthly newsletter. This lets us highlight your research as well as seminars in Vision Sciences. Please send us information about new research initiatives, outside speakers of interest and any grant awards.

We will continue to meet on the second Wednesday of the month in the DOVS basement conference room of the KY Lions Eye Center into 2018. If you know of others that would like to be a part of the Center, please have them send us an email.

Contact us:

Editor: Maureen McCall, Ph.D.
mo.mccall@louisville.edu

Administrative staff:

Erin Moody erin.moody@louisville.edu

Vision Sciences Faculty on the Move!



Dr. Martha Bickford presented "Visual signal transfer in the mouse thalamus: the contribution of extraretinal circuits", May 29, 2017, Erasmus University, Rotterdam.

<https://louisville.edu/medicine/departments/anatomy/facultylist/martha-bickford-phd>



Dr. Borchman gave several talks recently.

"Influence of Saturation on Meibum Structure" Kayla Massey, Douglas Borchman Research week, Howard University, Baltimore MA, April 2017.

"Cholesterol, phospholipids and glucose detection in vitreous humor from diabetic human donors." Abigail Schnepf, M Cecilia Yappert, Douglas Borchman American Society for Mass Spectrometry, June 2017, Indianapolis IN

"Babies, dry eye, meibum lipid compositional, structural and functional relationships" Invited speaker. University of Alabama at Birmingham, Department of Optometry. November, 2017.

<http://www.louisvilleeyedocs.com/member/douglas-borchman-ph-d/research-faculty/>



Dr. Brian Ceresa presented "Modulating EGFR Endocytic Trafficking to Promote Corneal Epithelial Wound Healing" November 2017, University of Alberta, Edmondton, Canada

<https://louisville.edu/medicine/departments/pharmacology/faculty/primary/ceresa>



Dr. Ron Gregg presented "Three Night Blind Mice: Causes and Cures" June 2017, University of Texas Health Science Center at Houston, Dept. Ophthalmology and Visual Sciences.

<https://louisville.edu/medicine/departments/biochemistry/faculty/gregg>



Dr. Qingxian Lu presented "Innovation of anti-angiogenic therapies for treating ocular neovascularization disease." Hangzhou Normal University, China, Nov. 2nd, 2017.

<http://www.louisvilleeyedocs.com/member/yongqing-liu-ph-d/research-faculty/>



Yongqing Liu, Ph.D. presented "Sphere-induced reprogramming and cell-based remediation of retinal degeneration." December 11, 2017 Xiangya Second Hospital, South China University, Changsha, China.

<http://www.louisvilleeyedocs.com/member/qingxian-lu-ph-d/research-faculty/>

Recent Publications (Fall, 2017 to present; VSC members in bold)

The Second Visual System of the Tree Shrew. Petry HM, **Bickford ME**. *J Comp Neurol*. 2018 Feb 15. doi: 10.1002/cne.24413.

The Mouse Pulvinar Nucleus Links the Lateral Extrastriate Cortex, Striatum, and Amygdala. Zhou N, Masterson SP, Damron JK, **Guido W**, **Bickford ME**. *J Neurosci*. 2018 Jan 10;38(2):347-362. doi: 10.1523

New Breakthroughs in Understanding the Role of Functional Interactions between the Neocortex and the Claustrum. Brown SP, Mathur BN, Olsen SR, Luppi PH, **Bickford ME**, Citri A. *J Neurosci*. 2017 Nov 8;37(45):10877-10881. doi: 10.1523/JNEUROSCI.1837-17.2017.

Whales, lifespan, phospholipids, and cataracts. **Borchman D**, Stimmelmayer R, George JC. *J Lipid Res*. 2017 Dec;58(12):2289-2298. doi: 10.1194/jlr.M079368.

The optical properties of rat, porcine and human lenses in organ culture treated with dexamethasone. Bree M, **Borchman D**. *Exp Eye Res.* 2018 Feb 19;170:67-75. doi: 10.1016/j.exer.2018.02.016.

Proteomics reveals novel Protein associations with early endosomes in an Epidermal Growth Factor-dependent manner. Gosney JA, Wilkey DW, Merchant ML, **Ceresa BP**. *J Biol Chem.* 2018 Mar 9. pii: jbc.RA117.000632. doi: 10.1074/jbc

Regulation of insulin-like growth factor receptors by Ubiquilin1. Kurlawala Z, Dunaway R, Shah PP, Gosney JA, Siskind LJ, **Ceresa BP**, Beverly LJ. *Biochem J.* 2017 Dec 6;474(24):4105-4118. doi: 10.1042/BCJ20170620.

Using Percoll Gradient Fractionation to Study the Endocytic Trafficking of the EGFR. Gosney JA, **Ceresa BP**. *Methods Mol Biol.* 2017;1652:145-158. doi: 10.1007/978-1-4939-7219-7_11

Polychlorinated biphenyls disrupt hepatic epidermal growth factor receptor signaling. Hardesty JE, Wahlang B, Falkner KC, Clair HB, Clark BJ, **Ceresa BP**, Prough RA, Cave MC. *Xenobiotica.* 2017 Sep;47(9):807-820. doi: 10.1080/00498254.2016.1217572.

A missense mutation in *Grm6* reduces but does not eliminate mGluR6 expression or rod depolarizing bipolar cell function. Peachey NS, **Hasan N**, FitzMaurice B, Burrill S, **Pangeni G**, Karst SY, Reinholdt L, Berry ML, Strobel M, **Gregg RG**, **McCall MA**, Chang B. *J Neurophysiol.* 2017 Aug 1;118(2):845-854. doi: 10.1152/jn.00888.2016.

Mouse retinal ganglion cell signalling is dynamically modulated through parallel anterograde activation of cannabinoid and vanilloid pathways. Jo AO, **Noel JM**, Lakk M, Yarishkin O, Ryskamp DA, Shibasaki K, **McCall MA**, Križaj D. *J Physiol.* 2017 Oct 15;595(20):6499-6516

Scott, P.A., 2017. Scott's Head and Neck Anatomy for Optometrists & Ophthalmologists. Denver, CO: Ridgevue Publishing.

Intravitreal Injection of Human Uveal Melanoma Cells in Nude Mice. Chen Y, Ling G, **Liu Y**. *Bio Protoc.* 2017 Nov 5;7(21). pii: e2594. doi: 10.21769/BioProtoc.2594.

Mouse Müller Cell Isolation and Culture. Liu X, Tang L, **Liu Y**. *Bio Protoc.* 2017 Aug 5;7(15). pii: e2429. doi: 10.21769/BioProtoc.2429.

ZEB1 Is An Oncogenic Factor that Represses Many Tumor Suppressors in Uveal Melanoma. Chen Y, Gao L, **Liu Y**. *Clin Oncol.* 2: 1256. 2017.

Focal adhesion kinase family is involved in matrix contraction by transdifferentiated Müller cells. Tsukahara R, Umazume K, McDonald K, **Kaplan HJ**, **Tamiya S**. *Exp Eye Res.* 2017 Nov;164:90-94. doi: 10.1016/j.exer.2017.08.010.

Minimally Invasive Ab Interno Four-Point Scleral Fixation of Intraocular Lens. **Hadayer A**, **Puri S**, **Fassbender Adeniran J**, **Wang W**, **Kaplan HJ**. *Retina.* 2018 Mar 8. doi: 10.1097

Diagnostic Utility of Quantitative Polymerase Chain Reaction versus Culture in Endophthalmitis and Uveitis. **Sandhu HS**, Hajrasouliha A, **Kaplan HJ**, **Wang W**. *Ocul Immunol Inflamm.* 2018 Feb 22:1-5. doi: 10.1080/09273948.2018.143129

Osseous Metaplasia (Cataracta Ossea) of Lens Remnants in Chronic Uveitis-A Clinicopathologic Report. Hadayer A, Özkök A, **Kaplan HJ**, Schaal S. *Ocul Immunol Inflamm.* 2018;26(1):133-135. doi: 10.1080/09273948.2016.1203161

Tumor-associated macrophages (TAMs) depend on ZEB1 for their cancer-promoting roles. Cortés M, Sanchez-Moral L, de Barrios O, Fernández-Aceñero MJ, Martínez-Campanario MC, Esteve-Codina A, Darling DS, Györfy B, Lawrence T, **Dean DC**, Postigo A. *EMBO J.* 2017 Nov 15;36(22):3336-3355. doi: 10.15252/embj.201797345

Restoration of Cone Photoreceptor Function in Retinitis Pigmentosa. **Kaplan HJ**, **Wang W**, **Dean DC**. *Transl Vis Sci Technol.* 2017 Sep 6;6(5):5. doi: 10.1167

Recent Grant Awards

Ron Gregg, PhD, Nazarul Hasan, PhD, Maureen A McCall, PhD NIH "Isolation of Congenital Stationary Night Blindness Genes"

Martha Bickford, PhD NIH "GABAergic circuit interactions within the behaving mouse dLGN"

In the Community

DOVS presentations at Lions Club meetings around the state.

DOVS clinical faculty along with Mr. Harry Schulman, DOVS Executive Director and Mr. Telly McGaha, Senior Development Director, visited the Owensboro, Elizabethtown (photo, right), District 43E (central-western KY) and the Bowling Green Noon Lions Clubs.

At each meeting DOVS faculty discussed the eye problems most prevalent in the community:

Dr. Compton focused on oculoplastics
http://www.louisvilleeyedocs.com/member/christopher-compton-md/clinical-faculty/

Dr. Nicolas Silvestros focused on pediatric eye care
http://www.louisvilleeyedocs.com/patient-care/

Dr. Ramasubramanian focused eye cancers
http://www.louisvilleeyedocs.com/member/aparna-ramasubramanian-md/clinical-faculty/

Dr. Sandhu focused on diabetic diseases
http://www.louisvilleeyedocs.com/member/harpal-sandhu-md/clinical-faculty/

The Bowling Green Noon Lions Club generously donated ~\$7,000 to purchase equipment to serve Warren County patients at the ULP Eye Specialists Bowling Green clinic.

Want our clinicians or scientists to present at your function
Please contact Mr. Harry Schulman
hhschu01@exchange.louisville.edu
(502) 588-0588 – Office
(502) 643-2278 – Mobile



Pictured above at the Elizabethtown Lions Club meeting (left to right) Dr. Harpul Sandhu, Mr. Telly McGaha (Development Director), Mr. Bill Wiseman (E-town Lions Club President) and Mr. Harry Schulman (DOVS, Executive Director)

I am grateful for the care and scientific endeavors provided at the University of Louisville Department of Ophthalmology & Visual Sciences!

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