

GRANT R. KOLAR, M.D., PH.D.

EDUCATION

- 1994 – 1998: Oklahoma Baptist University
Bachelor of Science in Biology
Minors in Philosophy and Mathematics
Summa Cum Laude, with Honors
- 1998 – 2006: University of Oklahoma Health Sciences Center
Doctor of Medicine
Doctor of Philosophy in Microbiology and Immunology

WORK EXPERIENCE

- July 2006 – Dec 2008: Resident in Anatomic Pathology
Department of Pathology
Barnes-Jewish Hospital, St. Louis, Missouri
- Jan 2009 – June 2009: Fellow in Ocular Pathology
Department of Pathology
Barnes Jewish Hospital, St. Louis, Missouri
- July 2009 – July 2011: Postdoctoral Fellow in Immunology
Department of Pathology and Immunology
Washington University, St. Louis, Missouri
- May 2010 – June 2014: Assistant Consultant
Capra Consulting, LLC
Oklahoma City, Oklahoma
- July 2011 – June 2013: Fellow in Neuropathology
Department of Pathology
Barnes Jewish Hospital, St. Louis, Missouri
- July 2013 – June 2014: Research Consultant, Samson Lab
Saint Louis University, St. Louis, Missouri
- July 2014 – Present: Assistant Research Professor
Director, Research Microscopy and Histology Core
Department of Pathology
Saint Louis University, St. Louis, Missouri

PUBLICATIONS

Peer-Reviewed Publications

Kolar GR, Kothari PH, Khanlou N, Jen JC, Schmidt RE, and Vinters HV. Neuropathology and Genetics of Cerebroretinal Vasculopathies. *Brain Pathology*. 2014. *Accepted*.

Kolar, G.R., Elrick, M.M., and Yosten, G.L.C. G protein-Coupled Receptor Signaling: Implications for the Treatment of Diabetes and its Complications (Invited Review). OA Evidence-Based Medicine, London. 2014, *Accepted*.

Lyzogubov VV, Wu X, Jha P, Tytarenko RG, **Kolar GR**, Bora PS, Atkinson JP, and Bora NS. Role of Complement Regulatory Protein CD46 in Laser Induced Choroidal Neovascularization. *American Journal of Pathology*. 2014. *Accepted*.

Gru AA, **Kolar G**, Wagner-Johnston ND, Schmidt R, Yaseen NR. A 54 year-old man with progressive vision and hearing loss. *Brain Pathology*. 2014; 24:197-200.

***This article was named "Case of the Month" in December 2013.**

Yosten GLC, **Kolar GR**, Redlinger LJ, and Samson WK. Evidence for an interaction between proinsulin C-peptide and GPR146. *Journal of Endocrinology*. 2013; 218:B1-8.

Kolar GR, Miller-Thomas MM, Schmidt RE, Simpson JR, Rich KM, Linette GP. Neo-Adjuvant Treatment of a Solitary Melanoma Brain Metastasis with Vemurafenib. *Journal of Clinical Oncology*. 2013; 31:e40-43.

Carreno BM, Garbow JR, **Kolar GR**, Jackson EN, Engelbach JA, Becker-Hapak M, Carayannopoulos LN, Piwnica-Worms D, and Linette GP. Immune-deficient mouse strains display marked variability in growth of human melanoma lung metastases, *Clinical Cancer Research*. 2009; 15:3277-3286.

Kolar GR, Mehta D, Pelayo R, Capra JD. A novel human B cell subpopulation representing the initial population to express AID. *Blood*. 2007; 109:2545-2552.

Kolar GR, Mehta D, Wilson PC, Capra JD. Diversity of the Ig repertoire is maintained with age in spite of reduced germinal centre cells in human tonsil lymphoid tissue. *Scand J Immunol*. 2006;64:314-324.

Kolar GR, Yokota T, Rossi MI, Nath SK, Capra JD. Human fetal, cord blood, and adult lymphocyte progenitors have similar potential for generating B cells with a diverse immunoglobulin repertoire. *Blood*. 2004;104:2981-2987.

Kolar GR, Capra JD. Immunoglobulin heavy-chain receptor editing is observed in the NOD/SCID model of human B-cell development. *Scand J Immunol*. 2004;60:108-111.

Zheng NY, Wilson K, Wang X, Boston A, **Kolar GR**, Jackson SM, Liu YJ, Pascual V, Capra JD, Wilson PC. Human immunoglobulin selection associated with class switch and possible tolerogenic origins for C delta class-switched B cells. *J Clin Invest*. 2004;113:1188-1201.

Kolar GR, Capra JD. Ig V region restrictions in human chronic lymphocytic leukemia suggest

some cases have a common origin. *J Clin Invest.* 2004;113:952-954.

Kolar GR, Capra JD. The NOD/SCID chimeric mouse model of human B cell development: studies on the VH4 family immunoglobulin repertoire and implications for SLE. *Lupus.* 2003;12:158-162.

Rossi MI, Medina KL, Garrett K, **Kolar GR**, Comp PC, Shultz LD, Capra JD, Wilson P, Schipul A, Kincade PW. Relatively normal human lymphopoiesis but rapid turnover of newly formed B cells in transplanted nonobese diabetic/SCID mice. *J Immunol.* 2001;167:3033-3042.

Textbook Chapter

Kolar GR, and Capra JD. Ch3: Immunoglobulins: Structure and Function. *Fundamental Immunology*, 5th ed. Lippincott Williams and Wilkins.

Abstracts

Richards JP, Yosten GLC, **Kolar GR**, Bowels EA, Stephenson AH, Ellsworth ML, and Sprague RS. C-peptide and insulin at physiological ratios rescue low O₂-induced ATP release from erythrocytes (RBCs) of humans with type 2 diabetes (DM2): implications for the prevention of microvascular complications. *Experimental Biology* 2014.

Redlinger L, **Kolar GR**, Samson WK, and Yosten GLC. Expression of the receptor for proinsulin C-peptide, GPR146, in the kidney. *Experimental Biology* 2014.

Kolar GR and Yosten GLC. Expression of orphan G protein coupled receptors in glioblastomas. 2013. American Society for Investigative Pathology, *Experimental Biology*.

Bora NS, Lyzogubov VV, Wu X, **Kolar G**, Bora PS and Atkinson JP. Cd46^{-/-} mouse as a model of dry-type age-related macular degeneration. 2013. *Investigative Ophthalmology and Visual Science. Submitted.*

Lyzogubov V, Tytarenko RG, Jha P, Wu X, **Kolar GR**, Atkinson JP, Bora PS, Bora NS. Role Of CD46 In Laser Induced Choroidal Neovascularization. 2011. *Investigative Ophthalmology and Visual Science.*

Kolar GR, Harocopos GJ, El Mofty SK. Identification of IgG4 positive plasma cells in recurrent Idiopathic orbital inflammation but not in non-recurrent lesions. 2009. United States and Canadian Academy of Pathology.

Kolar GR, Wilson P, Capra JD. Human tonsillar B cells undergo dramatic phenotypic changes with age. 2004. American Association for Immunology.

Kolar GR, Yokota T, Rossi MID, Kincade PW, Capra JD. The repertoire produced in NOD/SCID/B2m^{-/-} mice engrafted with fetal and adult bone marrow is remarkably similar. 2003. American Association for Immunology.

Kolar GR, Rossi MID, Yokota T, Kincade PW, Capra JD. The B cell repertoire in NOD/SCID mice engrafted with human lymphoid precursors is diverse. 2003. *Keystone Symposia.*

Kolar GR, Yokota T, Rossi MID, Kincade PW, Capra JD. The VH4 repertoire of newly formed

human B cells engrafted in NOD/SCID mice. 2001. Texas and Oklahoma Immunology Retreat.

HONORS AND AWARDS

2003 Phi Kappa Phi
2003 Alpha Epsilon Lambda
2004 Outstanding Graduate Student Award (University of Oklahoma)
2006 University of Oklahoma Medical School Award in Geriatrics

TEACHING EXPERIENCE

2001 OCCC Internship Program Co-Mentor
2003 SURE Program Co-Mentor
2003 Microbiology and Immunology Teaching Assistant
2011-12 Ad Hoc Resident Instruction in Neuropathology
2013 Neuropathology and Eye Pathology Sections, University of Medicine and Health Sciences, St. Christopher and Nevis

PROFESSIONAL AFFILIATIONS

American Society for Investigative Pathology
College of American Pathology
American Society for Clinical Pathology
American Association of Ophthalmic Pathologists, Associate Member
American Association of Neuropathologists

INVITED PRESENTATIONS

2004 Program in Immunology, University of Alabama.
"Age-Dependent Changes in the Development of the Human Ig Heavy Chain Repertoire."

OTHER PROFESSIONAL ACTIVITIES

2012 Panelist "Orphan Receptors Find a Match: P(eptide)-Harmony, Cayman Peptide X: Peptides in Health and Disease

RESEARCH SUPPORT

2009-2011 K12 Award, National Eye Institute