

Praghalathan Kanthakumar, M.D., Ph.D.

**PUBLICATIONS:**

Complete List of Published Work in My Bibliography:

**PUBMED:** <https://www.ncbi.nlm.nih.gov/myncbi/1fqflsyK3EQk1/bibliography/public/>

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**Research:**

1. Michael OS, **Kanthakumar P**, Soni H, Rajesh Lenin R, Abhiram Jha K, Gangaraju R, Adebiyi A. Urotensin II system in chronic kidney disease. *Current Research in Physiology*. 2024;7:100126. doi: <https://doi.org/10.1016/j.crphys.2024.100126>.
2. Eguchi S, Torimoto K, Adebiyi A, **Kanthakumar P**, Bomfim GF, Wenceslau CF, Dahlen SA, Osei-Owusu P. Milestone Papers on Signal Transduction Mechanisms of Hypertension and Its Complications. *Hypertension*. 2024 May;81(5):977-990. doi: 10.1161/HYPERTENSIONAHA.123.21365. Epub 2024 Feb 19. PubMed PMID: 38372140; PubMed Central PMCID: PMC11023792.
3. Elsherif L, **Kanthakumar P**, Afolabi J, Stratton AF, Ogu U, Nelson M, Mukhopadhyay A, Smeltzer MP, Adebiyi A, Ataga KI. Urinary angiotensinogen is associated with albuminuria in adults with sickle cell anaemia. *Br J Haematol*. 2023;202(3):669-673. doi:10.1111/bjh.18862
4. Afolabi JM, **Kanthakumar P**, Williams JD, Kumar R, Soni H, Adebiyi A. Post-injury inhibition of endothelin-1 dependent renal vasoregulation mitigates rhabdomyolysis-induced acute kidney injury, *Function*, May 2023; zqad022, <https://doi.org/10.1093/function/zqad022>
5. Afolabi JM, Michael OS, Falayi OO, **Kanthakumar P**, Mankuzhy PD, Soni H, Adebiyi A. Activation of renal vascular smooth muscle TRPV4 channels by 5-hydroxytryptamine impairs kidney function in neonatal pigs. *Microvasc Res*. 2023 Jul;148:104516. doi: 10.1016/j.mvr.2023.104516. Epub 2023 Mar 6. PubMed PMID: 36889668; PubMed Central PMCID: PMC10258165.
6. Peixoto-Neves D\*, **Kanthakumar P\***, Afolabi JM, Soni H, Buddington RK, Adebiyi A. KV7.1 channel blockade inhibits neonatal renal autoregulation triggered by a step decrease in arterial pressure. *Am J Physiol Renal Physiol*. 2022 Feb 1;322(2):F197-F207. doi: 10.1152/ajprenal.00568.2020. Epub 2022 Jan 10. PubMed PMID: 35001664; PubMed Central PMCID: PMC8816635.  
**(Joint first author; AJP Renal Physiol. "First author spotlight":**  
<https://journals.physiology.org/doi/full/10.1152/ajprenal.2022.322.2.AU>)
7. Peixoto-Neves D\*, **Kanthakumar P\***, Kumar R, Soni H, Adebiyi A. Loss of urotensin II receptor diminishes hyperglycemia and kidney injury in streptozotocin-treated mice. *J Mol Endocrinol*. 2022 Apr 1;68(3):167-178. doi: 10.1530/JME-21-0199. Print 2022 Apr 1. PubMed PMID: 35244607; PubMed Central PMCID: PMC9334220. **(Joint first author)**
8. Kumar R, Soni H, Afolabi JM, **Kanthakumar P**, Mankuzhy PD, Iwhiwhu SA, Adebiyi A. Induction of reactive oxygen species by mechanical stretch drives endothelin production in neonatal pig renal epithelial cells. (2022) *Redox Biology* 55: 102394. doi.org/10.1016/j.redox.2022.102394

9. **Kanthakumar P**, Adebisi A. Renal vascular TRP channels. *Curr Res Physiol*. 2021;4:17-23. doi: 10.1016/j.crphys.2021.02.001. Epub 2021 Feb 8. PubMed PMID: 34179830; PubMed Central PMCID: PMC8225244.
10. Soni H, Kumar R, **Kanthakumar P**, Adebisi A. Interleukin 1 beta-induced calcium signaling via TRPA1 channels promotes mitogen-activated protein kinase-dependent mesangial cell proliferation. *FASEB J*. 2021 Jul;35(7):e21729. doi: 10.1096/fj.202100367R. PubMed PMID: 34143493.
11. Muniswami DM, **Kanthakumar P**, Kanakasabapathy I, Tharion G. Motor Recovery after Transplantation of Bone Marrow Mesenchymal Stem Cells in Rat Models of Spinal Cord Injury. *Ann Neurosci*. 2019 Jan;25(3):126-140. doi: 10.1159/000487069. Epub 2018 Apr 25. PubMed PMID: 30814821; PubMed Central PMCID: PMC6388433.
12. Snekalatha S, **Kanthakumar P**. Increase in voltage gated potassium currents of human lymphocytes on culture. *Indian J Exp Biol*. 2012 Aug;50(8):587-90. PubMed PMID: 23016497.
13. Snekalatha S, **Kanthakumar P**. Ascorbic acid does not modulate potassium currents in cultured human lymphocytes. *J Basic Clin Physiol Pharmacol*. 2017 Jul 26;28(4):371-375. doi: 10.1515/jbcpp-2016-0182. PubMed PMID: 28306530.
14. Snekalatha S and **Kanthakumar P** (2018). Current density of voltage-gated proton currents decreases during differentiation of human peripheral blood monocytes to macrophages in culture. *Indian Journal of Physiology and Pharmacology* 62(1): 97-104.
15. Kachroo U and **Kanthakumar P**. (2020). "An electrophysiological comparison of freshly isolated caprine articular chondrocytes versus cryopreserved chondrocytes." *Indian Journal of Physiology and Pharmacology* 64(3): 181-187.
16. Rajalakshmi R, Amirtham S.M, Abirami V, Subramani S, **Kanthakumar P**. (2018). "Effect of Cleistanthin A on voltage gated proton channels of human neutrophils." *Journal of Clinical and Diagnostic Research* 12(1): CC05-CC08.
17. Vinod E, Francis DV, Jacob T, Amirtham SM, Sathishkumar S, **Kanthakumar P**, Oommen V. Autologous platelet rich fibrin as a scaffold for chondrocyte culture and transplantation: An in vitro bovine study. *J Clin Orthop Trauma*. 2019 Oct;10(Suppl 1):S26-S31. doi: 10.1016/j.jcot.2019.04.023. Epub 2019 Apr 26. PubMed PMID: 31700205; PubMed Central PMCID: PMC6823837.
18. Maneksh D, Sidharthan A, Kettimuthu K, **Kanthakumar P**, Lourthuraj AA, Ramachandran A, Subramani S. Cleistanthus collinus induces type I distal renal tubular acidosis and type II respiratory failure in rats. *Indian J Pharmacol*. 2010 Jun;42(3):178-84. doi: 10.4103/0253-7613.66843. PubMed PMID: 20871771; PubMed Central PMCID: PMC2937321.
19. Subramani S, **Kanthakumar P**, Maneksh D, Sidharthan A, Rao SV, Parasuraman V, Tharion E. O<sub>2</sub>-CO<sub>2</sub> diagram as a tool for comprehension of blood gas abnormalities. *Adv Physiol Educ*. 2011 Sep;35(3):314-20. doi: 10.1152/advan.00110.2010. PubMed PMID: 21908843.
20. Subramanian RK, Sidharthan A, Maneksh D, Ramalingam L, Manickam AS, **Kanthakumar P**, Subramani S. Normative data for arterial blood gas and electrolytes in anesthetized rats. *Indian J Pharmacol*. 2013 Jan-Feb;45(1):103-4. doi: 10.4103/0253-7613.106451. PubMed PMID: 23543943; PubMed Central PMCID: PMC3608284.

## Teaching:

21. **Kanthakumar P**, Oommen V. A simple model to demonstrate the balance of forces at functional residual capacity. *Adv Physiol Educ.* 2012 Jun;36(2):170-1. doi: 10.1152/advan.00030.2012. PubMed PMID: 22665434. **(Corresponding author)**
22. **Kanthakumar P**, Oommen V. A simple model to demonstrate perfusion and diffusion limitation of gases. *Adv Physiol Educ.* 2012 Dec;36(4):352-5. doi: 10.1152/advan.00077.2012. PubMed PMID: 23209018. **(Corresponding author)**
23. Oommen V, **Kanthakumar P**. A simple model of the accommodating lens of the human eye. *Adv Physiol Educ.* 2014 Jun;38(2):183-4. doi: 10.1152/advan.00105.2013. PubMed PMID: 24913456; PubMed Central PMCID: PMC4056173.
24. Oommen V, **Kanthakumar P**. The gastrointestinal system: a piece of cake. *Adv Physiol Educ.* 2015 Jun;39(2):128. doi: 10.1152/advan.00015.2015. PubMed PMID: 26031732.
25. Oommen V, Ganesh G, Vadivel K, **Kanthakumar P**. The Henderson-Hasselbalch Equation : A Three Dimensional Teaching Model. *Indian J Physiol Pharmacol.* 2016 Jan-Mar;60(1):70-5. PubMed PMID: 29953196. **(Corresponding author)**
26. Prince N, Rajendran E, Sidharthan A A, Amirtham SM, **Kanthakumar P**, Oommen V, Bhaskar A. Rat skeletal muscle-nerve preparation to teach skeletal muscle physiology. *Adv Physiol Educ.* 2021 Dec 1;45(4):869-879. doi: 10.1152/advan.00143.2020. Epub 2021 Sep 23. PubMed PMID: 34554845.

## ABSTRACTS:

1. **Kanthakumar P** and Adebisi A. Activation of urotensin II receptor induces podocyte injury via TRPC6-mediated endoplasmic reticulum stress. *American Physiology Summit 2023*, April 2023, Long Beach, CA.
2. Elsherif L, **Kanthakumar P**, Afolabi JM, Mukhopadhyay A, Smeltzer M, Adebisi A, Ataga KI. Association of Novel Urinary Protein Biomarkers with Persistent Albuminuria in Patients with Sickle Cell Disease. November 2022 *Blood* 140(Supplement 1):11100-11102 DOI: 10.1182/blood-2022-170362.
3. **Kanthakumar P**, Peixoto-Neves D, Kumar R, Soni H, Adebisi A. Urotensin II receptor knockout alleviates streptozotocin-induced hyperglucagonemia and diabetic kidney disease. May 2022. *The FASEB Journal* 36(S1) DOI: 10.1096/fasebj.2022.36.S1.R2795 *Experimental Biology 2022*; Philadelphia, PA.
4. Kumar R, Afolabi JM, **Kanthakumar P**, Soni H, Adebisi A. Mechanical stretch-driven ROS generation stimulates endothelin production in neonatal pig renal epithelial and vascular endothelial cells. May 2022. *The FASEB Journal* 36(S1) DOI: 10.1096/fasebj.2022.36.S1.R3486. *Experimental Biology 2022*; Philadelphia, PA.
5. **Kanthakumar P.**, Hyland B., & Heyward P. (2018). Glycogen synthase kinase-3 (GSK3) does not mediate the excitatory effects of acute lithium exposure in limbic cortical neurons. The 41<sup>st</sup> Annual Meeting of the Japan Neuroscience Society, Kobe, Japan, 26-29 July 2018. Japan Neuroscience Society (JNS).
6. **Kanthakumar P.**, Hyland B., & Heyward P. (2017). Lithium may block the delay current ( $I_D$ ) in olfactory projection neurons. 47<sup>th</sup> annual meeting of Society for Neuroscience, Washington DC, USA, 11-15 November 2017. Society for Neuroscience (SfN).

7. **Kanthakumar P.**, Hyland B., & Heyward P. (2017). Lithium may block the delay current ( $I_D$ ) in olfactory projection neurons. In B. Leitch (Ed.), Proceedings of the 35th International Australasian Winter Conference on Brain Research. (pp. 38). AWCBR.
8. Oommen V, Ganesh G, Vadivel K, **Kanthakumar P.** The Henderson-Hasselbalch Equation : A Three Dimensional Teaching Model. (2014) Association of Physiologists of Tamil Nadu Conference.