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#### Profile and Research Interests:

Dr Geeta Vemuganti joined to lead and develop the fledgling School of Medical Sciences at the University of Hyderabad in December 2010 after a long stint as Head of Ophthalmic Pathology Laboratory and Head of Sudhakar and Sreekant Ravi Stem Cell Biology Laboratory at the renowned L V Prasad Eye Institute, Hyderabad. Her experience and expertise is in the area of ocular tumors and stem cell biology, where she has contributed cutting edge research that has led to bench-to-bedside applications. Her current research focuses on cancer stem cells in Retinoblastoma, new animal models, role of mesenchymal stem cells in Leprosy and human lacrimal gland cultures. She holds several honorary positions, including an adjunct professorship of ophthalmology in the School of Medicine and Dentistry, University of Rochester, USA. She also served as Chair of the Program Committee, of the AP section and Global Member Committee of the Association for Research in Vision and Ophthalmology (ARVO), and President, Indian Society of Ophthalmic Pathology Indian Society of Ophthalmic Pathology, among other professional and academic affiliations. Dr Vemuganti earned her basic medical degree at the JLN Medical College, Ajmer before completing her MD in Pathology at the Nizam's Institute of Medical Sciences. She has had advanced training in ocular pathology at the Doheny Eye Institute, Los Angeles, USA and has been a visiting pathologist at the Eye and Ear Infirmary and Department of Pathology, University of Illinois, Chicago. She has published widely, authoring more than papers in journals of international repute and has given invited talks at various prestigious Institutions including IAEA, NASA. She is also a recipient of several national and international awards including the recent Dr V R Khanolkar Oration from National Academy of Medical Sciences, Senior Achievement award by American Academy of Ophthalmology, Vishesha Puruskaaram from Dr Ramineni Foundation, USA, and Fellow, National Academy of Medical Sciences, ARVO, Royal College of Pathologists. Dr Vemuganti has received many prestigious academic as well as research grants from national and international agencies and has been on the editorial board of WHO blue book on Classification of Eye Tumors 4 and 5<sup>th</sup> edition. She

has guided many doctoral students and fellow in both basic and clinical sciences related research projects

Publications: Citations: 7500, H Index: 49 ( Google scholar citation)

### **Selected Publications:**

1. Joshi VP, Singh S, Thacker M, Pati F, Vemuganti GK, Basu S, Singh V. Newer approaches to dry eye therapy: Nanotechnology, regenerative medicine, and tissue engineering. *Indian Journal of Ophthalmology*. 2023 Apr;71(4):1292.
2. Jaffet J, Mohanty A, Veernala I, Singh S, Ali MJ, Basu S, Vemuganti GK, Singh V. Human Lacrimal Gland Derived Mesenchymal Stem Cells—Isolation, Propagation, and Characterization. *Investigative Ophthalmology & Visual Science*. 2023 Jul 3;64(10):12-.
3. Vemuganti GK, Veernala I, Singh V, Mohammad JA. Evaluating dry eye model in mice using different methods. *Investigative Ophthalmology & Visual Science*. 2023 Jun 1;64(8):713-.
4. Jakati S, Manukonda R, Mishra DK, Vemuganti GK, Kaliki S. CD9 expression and histopathological features of low-risk and high-risk retinoblastoma. *Investigative Ophthalmology & Visual Science*. 2023 Jun 1;64(8):1264-.
5. Jyothi A, Narayana RV, Manukonda R, Jogula RM, Kaliki S, Vemuganti GK. Carboplatin Loaded Small Extracellular Vesicles Reverse the Chemoresistance of Retinoblastoma Y79 cell lines-In vitro. *Investigative Ophthalmology & Visual Science*. 2023 Jun 1;64(8):3278-.
6. Padamandala K, Honavar SG, Bansal R, Surya Durga Prasad M, Padmaja Gadiraju, Geeta K Vemuganti. Investigating the Quality of Life of Retinoblastoma Survivors: An Initial Exploration. *Journal of Cancer Science and Clinical Therapeutics*. 2023;7:118-26.
7. Singh, S., Naidu, G. C., Vemuganti, G., & Basu, S. (2023). Morphological variants of meibomian glands: correlation of meibography features with histopathology findings. *British Journal of Ophthalmology*, 107(2), 195-200.
8. Draper J, Alexander J, Nair RM, Scullion N, Narayana RV, Aughton K, Vemuganti GK, Kalirai H, Coupland SE. Using the Chick Embryo Model to Examine the Effects of Hypoxia Pre-conditioning of Uveal Melanoma Cells on Tumor Growth and Metastasis. *Current Eye Research*. 2022 Dec 8:1-8.
9. Manukonda R, Narayana RV, Kaliki S, Mishra DK, Vemuganti GK. Emerging Therapeutic Targets for Retinoblastoma. *Expert Opinion on Therapeutic Targets*. 2022 Nov 2(just-accepted)
10. Manukonda R, Yenuganti VR, Nagar N, Dholaniya PS, Malpotra S, Attem J, Reddy MM, Jakati S, Mishra DK, Reddanna P, Poluri KM. Comprehensive Analysis of Serum Small Extracellular Vesicles-Derived Coding and Non-Coding RNAs from Retinoblastoma Patients for Identifying Regulatory Interactions. *Cancers*. 2022 Aug 29;14(17):4179.
11. Nair RM, Revu NVL, Gali S, et al. A short-term chick embryo *in vivo* xenograft model to study retinoblastoma cancer stem cells. *Indian J Ophthalmol*. 2022;70(5):1703-1711. doi:10.4103/ijo.IJO\_2348\_21
12. Manjandavida FP, Honavar SG, Murthy R, Das S, Vemuganti GK, Mulay K, Reddy VAP. Does Multimodal Treatment Improve Eye and Life Salvage in Adenoid Cystic Carcinoma of the Lacrimal Gland? *Ophthalmic Plast Reconstr Surg*. 2021 Dec 6.
13. Narayana RVL, Jana P, Tomar N, Prabhu V, Nair RM, Manukonda R, Kaliki S, Coupland SE, Alexander J, Kalirai H, Kondapi AK, Vemuganti GK. Carboplatin- and Etoposide-Loaded Lactoferrin Protein Nanoparticles for Targeting Cancer Stem Cells in Retinoblastoma In Vitro. *Invest Ophthalmol Vis Sci*. 2021 Nov 1;62(14):13.

14. Manukonda R, Pujar A, Ramappa G, Vemuganti GK, Kaliki S. Identification of novel RB1 genetic variants in Retinoblastoma patients and their impact on clinical outcome. *Ophthalmic Genet.* 2021 Oct 13:1-9.
15. Vemuganti GK. Viral etiology in retinoblastoma. *Indian J Ophthalmol.* 2021 Aug;69(8):1990. doi: 10.4103/ijo.IJO\_1801\_21
16. Singh S, Naidu GC, Vemuganti G, Basu S. Morphological variants of meibomian glands: correlation of meibography features with histopathology findings. *Br J Ophthalmol.* 2021 Aug 20:bjophthalmol-2021-318876. doi: 10.1136/bjophthalmol-2021-318876.
17. Nandyala S, Mohamed A, Chaurasia S, Kaliki S, Ramappa M, Vemuganti GK. Ocular Features in a Large Cohort of Indians With Xeroderma Pigmentosum. *Cornea.* 2021 May 1;40(5):571-577
18. Singh S, Mishra DK, Shanbhag S, Vemuganti G, Singh V, Ali MJ, Basu S. Lacrimal Gland Involvement in Severe Dry Eyes after Stevens-Johnson Syndrome. *Ophthalmology.* 2021 Apr;128(4):621-624.
19. Vest SD, Mikkelsen LH, Holm F, Rasmussen PK, Hindso TG, Knudsen MKH, Coupland SE, Esmaeli B, Finger PT, Graue GF, Grossniklaus HE, Honavar SG, Mulay K, Sjö LD, Sniegowski MC, Vemuganti GK, Thuro BA, Heegaard S. Lymphoma of the Lacrimal Gland - An International Multicenter Retrospective Study. *Am J Ophthalmol.* 2020 Nov;219:107-120.
20. Hindsø TG, Esmaeli B, Holm F, Mikkelsen LH, Rasmussen PK, Coupland SE, Finger PT, Graue GF, Grossniklaus HE, Honavar SG, Khong JJ, McKelvie PA, Mulay K, Sjö LD, Vemuganti GK, Thuro BA, Heegaard S. International multicentre retrospective cohort study of ocular adnexal marginal zone B-cell lymphoma. *Br J Ophthalmol.* 2020 Mar;104(3):357-362.
21. Chévez-Barrios P, Eagle RC, Krailo M, Piao J, Albert D, Xia C, Gao Y, **Vemuganti G**, Javed A, Khetan V, Honavar SG, O'Brien J, Leahey A, Matthay K, Meadows A, Chintagumpala M. A Study of Unilateral Retinoblastoma With and Without Histopathologic High-Risk Features and the Role of Adjuvant Chemotherapy-A Children's Oncology Group (COG) study. *J of Clin Oncology J Clin Oncol.* 2019 Nov 1;37(31):2883-2891
22. Tiwari S, Nair RM, Vamadevan P, Ali MJ, Naik MN, Honavar SG, **Vemuganti GK**. Establishing and characterizing lacrispheres from human lacrimal gland for potential clinical application. *Graefes Arch Clin Exp Ophthalmol.* 2018 Apr;256(4):717-727
23. A Nair RM, Balla MMS, Khan I, Kalathur, RKR, Kondaiah P, **Vemuganti GK**. In vitro characterization of CD133lo Cancer stem cells in Retinoblastoma Y79 cell line. *BMC Cancer.* 2017 Nov 21;17(1):779.
24. Kirkegaard MM, Rasmussen PK, Coupland SE, Esmaeli B, Finger PT, Graue GF, Grossniklaus HE, Honavar SG, Khong JJ, McKelvie PA, Mulay K, Prause JU, Ralfkiaer E, Sjö LD, Toft PB, Vemuganti GK, Thuro BA, Curtin J, Heegaard S. Conjunctival Lymphoma-An International Multicenter Retrospective Study. *JAMA Ophthalmol.* 2016 Feb 18.
25. Tiwari S, Bhatt A, Nagamodi J, Ali MJ, Ali H, Naik MN, Reddy VAP, **Vemuganti GK**. Aqueous Deficient Dry Eye Syndrome Post Orbital Radiotherapy: A 10-Year Retrospective Study. *Transl Vis Sci Technol.* 2017 Jun 15;6(3):19.  
(Study conceived, planned and written by me, executed by PhD scholar, lead author of the manuscript with 80% contribution)
26. Tiwari S, Ali MJ, Balla MM, Naik MN, Honavar SG, Reddy VA, **Vemuganti GK**. Establishing human lacrimal gland cultures with secretory function. *PLoS One.* 2012;7(1):e29458.  
(Study conceived, planned and written by me, executed by PhD scholar, lead author of the manuscript with 70% contribution)

27. Sangwan VS, Basu S, **Vemuganti GK**, Kunjal S, Subramaniyam S, Sannapaneni K, Gaddipati S, Tiwari S, Dorairajan B. Clinical Outcome of Xeno-Free Autologous Cultivated Limbal Epithelial Transplantation: A Ten Year study. Br J Ophthalmol. 2011 Nov;95(11):1525-9  
(Study conceived, planned and executed by me, contributed to manuscript writing, analysis with inputs from others-50% contribution)
28. Mariappan I, Maddileti S, Savy S, Tiwari S, Gaddipati S, Fatima A, Sangwan VS, Balasubramanian D, **Vemuganti GK** In vitro culture and expansion of human limbal epithelial cells. Nat Protoc. 2010 Aug;5(8):1470-9. Epub 2010 Jul 29.  
(Study conceived, planned and executed by me, led the manuscript writing by the first author, - 50% contribution)
29. Manderwad GP, Gopinathan G, Khosla S, **Vemuganti GK**, Kannabiran C, Honavar SH. Hypomethylation of the *DNMT3L* Promoter in Ocular Surface Squamous Neoplasia (OSSN) Arch Pathol Lab Med. Arch Pathol Lab Med. 2010 Aug;134(8):1193-6.  
(Study conceived, planned and executed by by PhD Scholar, manuscript writing by scholar with myinputs--40% contribution)
30. Balla MM, **Vemuganti GK**, Kannabiran C, Honavar SG, Murthy R. Phenotypic Characterization of Retinoblastoma for the Presence of Putative Cancer Stem-like Cell markers by Flow Cytometry. Invest Ophthalmol Vis Sci. 2008 Nov 21.  
(Study conceived, planned, written by me, executed by my PhD scholar, analysis, manuscript writing- contribution-70% contribution)
31. Polisetty N, Fatima N, Madhira S, Sangwan VS, **Vemuganti GK**. Mesenchymal cells from limbal stroma of the eye. Mol Vis. 2008 Mar 4;14:431-42  
(Study conceived, planned by me, executed by my PhD scholar and other students, manuscript writing with inputs from others-70% contribution)
32. **Vemuganti GK**, Naik M, Honavar SG, GC Shekar. Rapid Intraoperative Diagnosis of Tumors of the Eye and Orbit by Squash and Imprint Cytology. Ophthalmology 2004 May;111(5):1009-1015.  
(Study conceived, planned and executed by me, manuscript writing with inputs from others-60% contribution)
33. **Vemuganti GK**, Kashyap S, Sangwan VS, Singh S. *Ex-vivo* potential of cadaveric and fresh limbal tissues to regenerate cultured epithelium. Indian J Ophthalmol 2004;52:113-20.  
(Study conceived, planned and executed by by Phd student under by guidance, manuscript writing with inputs from others-70% contribution)
34. **Vemuganti GK**, Garg Prashant, Gopinathan U, Naduvilath TJ, John RK, Rajeev B, Rao GN. Evaluation of agent and host factors in progression of Mycotic keratitis: a histological and microbiological study of 167 buttons. Ophthalmology 2002 Aug;109(8):1538-1546.  
(Study conceived, planned, executed and analyzed by me, manuscript writing with inputs from others-70% contribution)

#### Recent Awards and Honors

1. Key note speaker at the International Womens day, 8<sup>th</sup> March 2023
2. Invited member of Technical Expert Committee ( TEC) for BIPP, SBIRI and PACE schemes
3. Selected as Fellow of Royal College of Pathologists, December 2022
4. Selected as Senior Professor, University of Hyderabadm Dec 2022
5. Felicitated by The Academy for Science, Technology, and Communication (ASTC) along with National Academy of Sciences (NASI) Hyderabad chapter,as one of the 5 women achievers at the "Women Scientists Conclave: Self Reliance" 10<sup>th</sup> October, IICT, Hyderabad.
6. Delivered Dr. V.R.Khanolkar Oration of National Academy of Medical Sciences, October 2021

7. Invited by the International Agency for Cancer Research as the member of the Editorial Board of 5<sup>th</sup> Edition of WHO Blue book on Classification of Eye Tumors
8. Interviewed by Nature Group to comment on the paper on Organoids of Lacimal gland, March 2021
9. Advisor, Optometry Council of India (OCI), December 2020
10. Member of Board of Studies for PG Diploma in Stem Cell Technology and Regenerative Biolog, MAHE, Manipal, 15<sup>th</sup> October 2020
11. Dr K S Ratnakar Memorial Oration at Global Health Education and Research Foundation, 16<sup>th</sup> November 2020
12. Member of National Apex Committee, Stem Cell Research, Dept of Health Research, ICMR, Sept 2020
13. Invited talk at the Ames Research Centre, NASA, 9<sup>th</sup> May 2019
14. Honored as Fellow of Association of Research in Vision and Ophthalmology, ARVO 2019
15. Member of Technical Expert Committee on Stem cells and Regenerative medicine, Department of Biotechnology, India
16. Member of TAS - Sectional Committee in " Medical, Health and Pharmaceuticals Sciences" August 2018
17. Member of Ethics and Regulations in Human Research Committee, ARVO(2017-2020)
18. Member of ICMR- Expert Group on Stem Cell Research & Therapy August 2018
19. The Women in Eye and Vision Research (WEAVR) initiative of ARVO selected Geeta K Vemuganti to feature several women who have made significant contributions to the field of eye and vision research as part of the International Women's Day celebration in March.- for her role as a pioneer in culturing human limbal epithelial stem cells for clinical transplantation in India.
20. Elected fellow of Telangana State Academy of Sciences, January 2018
21. Invited expert of the WHO consensus and Editorial Board meeting for Classification of Eye Tumors, Lyon, France, 11-13<sup>th</sup> of January 2018
22. Vishishta Puruskar 2017 by Dr Ramineni Foundation, USA
23. Member of Task Force on "Stem Cell Research and Regenerative Medicine" Department of Biotechnology, N Delhi
24. American Academy of Ophthalmology Senior Achievement Award 2017
25. Mentor in the Pilot Women Leadership Development Program of ARVO 2017

#### **Invited Talks**

##### **International**

1. Invited talk at International Society of Ocular Oncology, ISOO Kenya, August 21-23, 2023
2. Invited talk at the European Congress of Pathology on Keratoconjunctivitis at the Joint Short Course Infectious Diseases Pathology / Ophthalmic Pathology: Pathology with an eye for infectionson, on 31<sup>st</sup> August 2021
3. Invited talk on Cancer Stem Cells in Retinoblastoma at World Ophthalmology
4. Congress WOC2020 Virtual®, 26–29 June 2020 (I)
5. Moderator of International Society of Pharmacovigilance: ISOP, WOC2020 Virtual
6. Invited member of Consortium meeting at Israel, Oct 15-17 2019 (I)Invited to deliver a talk at the NASA Ames Research Centre, California, 8<sup>th</sup> May 2019

7. Invited talk at World Ophthalmology Congress, Bangkok, Feb 2019
8. Member of Consensus and Editorial Board Meeting of International Agency for Cancer Research, WHO on Classification of Eye Tumors, at Lyon, France, January 2018
9. Invited talk at University of Liverpool, June 2017

Other Links:

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