

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF PATHOLOGY
DEPARTMENT OF PEDIATRICS

Sriram Venneti, M.B.B.S., Ph.D., assistant professor of pathology, Department of Pathology, and assistant professor of pediatrics, Department of Pediatrics, Medical School, is recommended for promotion to associate professor of pathology, with tenure, Department of Pathology, and associate professor of pediatrics, without tenure, Department of Pediatrics, Medical School.

Academic Degrees:

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| Ph.D. | 2006 | University of Pittsburgh |
| M.B.B.S. | 1999 | Bangalore Medical College and Research Institute, Bangalore, Karnataka, India |

Professional Record:

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| 2018 – present | Assistant Professor of Pediatrics, University of Michigan |
| 2014 – present | Assistant Professor of Pathology, University of Michigan |
| 2011 – 2014 | Research Associate, Memorial Sloan Kettering Cancer Center |

Summary of Evaluation:

Teaching: Dr. Venneti has had extensive experience teaching undergraduate and graduate students, residents in pathology and pediatrics, post-doctoral fellows and clinical fellows. His teaching activities include research mentoring, didactic instruction of graduate students and residents and fellows, diagnostic training of residents and fellows during autopsy and surgical pathology sign-out sessions, service on preliminary examination and thesis committees and service to graduate programs, continuing medical education classes, lectures, and panel discussions. Dr. Venneti has mentored two undergraduate students, one medical student, seven Ph.D. students, and six fellows. He teaches Pathology 581, Tissue, Cellular and Molecular Basis of Disease, Pathology 862, Translational Pathology and is the course director and teaches Pathology 858, Introduction to Diagnostic Neuropathology.

Research: Dr. Venneti's major scientific focus has centered on pediatric brain tumors using tumor samples and animal models to evaluate mechanisms that drive brain tumor development and growth. Among his discoveries are the enhanced metabolism of amino acid glutamine in human gliomas which is of clinical use in imaging studies. Another discovery was the finding that most pediatric ependymoma brain tumors have global reduction in a certain protein that impacts both DNA methylation and gene expression pathways. His laboratory is dedicated to mutant specific molecular biomarkers that may be clinically relevant and easily translatable. His work has been continually funded from the National Cancer Institute, the Doris Duke Charitable Foundation, the Sidney Kimmel Foundation and the Defeat DIPG Foundation. Dr. Venneti has published more than 65 peer-reviewed articles, and has been invited to present his research on 54 occasions regionally, nationally and internationally. In recognition of his outstanding research

contributions, he received the Lucien J. Rubenstein Award for Best Paper in Neurooncology, the Young Physician Scientist Award of the American Society for Clinical Investigation and the Pediatric Basic Science Research Award from the Society for Neurooncology.

Recent and Significant Publications:

Pratt D, Camelo-Piragua S, McFadden K, Leung D, Mody R, Chinnaiyan A, Koschmann C, Venneti S: BRAF activating mutations involving the β 3- α C loop in V600E-negative anaplastic pleomorphic xanthoastrocytoma. *Acta Neuropathologica Communications*. 6(1): 24, 2018.

Pratt D, Natarajan SK, Banda A, Giannini C, Vats P, Koschmann C, Mody R, Chinnaiyan A, Venneti S: Circumscribed/non-diffuse histology confers a better prognosis in H3K27M-mutant gliomas. *Acta Neuropathol*. 135(2): 299-301, 2018.

Panwalkar P, Clark J, Ramaswamy V, Hawes D, Yang F, Dunham C, Yip S, Hukin J, Sun Y, Schipper MJ, Chavez L, Margol A, Pekmezci M, Chung C, Banda A, Bayliss JM, Curry SJ, Santi M, Rodriguez FJ, Snuderl M, Karajannis MA, Saratsis AM, Horbinski CM, Carret AS, Wilson B, Johnston D, Lafay-Cousin L, Zelcer S, Eisenstat D, Silva M, Scheinemann K, Jabado N, McNeely PD, Kool M, Pfister SM, Taylor MD, Hawkins C, Korshunov A, Judkins AR, Venneti S: Immunohistochemical analysis of H3K27me3 demonstrates global reduction in group-A childhood posterior fossa ependymoma and is a powerful predictor of outcome. *Acta Neuropathologica*. 134(5): 705-714, 2017.

Bayliss J, Mukherjee P, Lu C, Jain SU, Chung C, Martinez D, Sabari B, Margol AS, Panwalkar P, Parolia A, Pekmezci M, McEachin RC, Cieslik M, Tamrazi B, Garcia BA, La Rocca G, Santi M, Lewis PW, Hawkins C, Melnick A, David Allis C, Thompson CB, Chinnaiyan AM, Judkins AR, Venneti S: Lowered H3K27me3 and DNA hypomethylation define poorly prognostic pediatric posterior fossa ependymomas. *Science Translational Medicine*. 8(366): 366ra161, 2016.

Venneti S, Dunphy MP, Zhang H, Pitter KL, Zanzonico P, Campos C, Carlin SD, La Rocca G, Lyashchenko S, Ploessl K, Rohle D, Omuro AM, Cross JR, Brennan CW, Weber WA, Holland EC, Mellinghoff IK, Kung HF, Lewis JS, Thompson CB: Glutamine-based PET imaging facilitates enhanced metabolic evaluation of gliomas in vivo. *Science Translational Medicine* 7(274): 274, 2015.

Service: Dr. Venneti is a member of many important societies for his subspecialty, which include the American Association for Neuropathologists, American Society of Investigative Pathology, College of American Pathologists, Society for Neuro-Oncology, United States and Canadian Academy of Pathology, and the American Association for Cancer Research. He serves on committees for the American Association for Neuropathologists, the American Association of Cancer Research, the NCI, the NIH, and the World Health Organization. At the University of Michigan, Dr. Venneti was a co-organizer for the Cancer Metabolism Symposium. He is a member of the *Journal of Neuropathology and Experimental Neurology* and *Brain Pathology* editorial boards, and he has been an active ad hoc grant reviewer for numerous journals, such as the *Journal of Neuroimmunology*, *Virology Journal*, *Journal of Nuclear Medicine*, *Neurobiology of Aging* and others most critical in his field.

External Reviewers:

Reviewer A: “The community of tumor-oriented neuropathologists is small, and every so often a new talent emerges in the group who has the potential to change the field and have an impact in the diagnosis, classification, and understanding of lethal brain tumors; Sriram is such a person. I would rank him in the top ten percent of tumor-oriented neuropathologists with whom I have had the pleasure to work. There is no doubt he will emerge as one of the top people in our field; he is already well on his way to this goal.”

Reviewer B: “He has received a number of awards including the Young Physician Scientist Award from the American Society for Clinical Investigation, the Society for Neuro-Oncology Pediatric Basic Science Research Award, and the prestigious Distinguished Scientist Award from the Sontag Foundation, which recognizes rising stars in the field of brain tumor research. His participation as an invited speaker and expert reviewer for grants and papers provide further evidence of his reputation of excellence.”

Reviewer C: “I have the highest regard for Dr. Sriram Venneti's research program, his clinical activities, his productivity and creativity, service and teaching activities and his stature in the Neuro-Oncology community. He is an original thinker, and highly passionate about his research.”

Reviewer D: “I think Dr. Venneti is one of the premier physician scientists among his generation of neuropathologists...Dr. Venneti is one of very few neuropathologists who are contributing materially to advancement of knowledge with regard to histone methylation in the pathogenesis, diagnosis, and potential therapy of central nervous system tumors...There are very few neuropathologist [sic] in Dr. Venneti's peer group who are anywhere nearly as accomplished with regard to scholarly activity and research depth, and probably none who exceed his accomplishments.”

Reviewer E: “...I believe Dr. Venneti is a highly accomplished neuropathologist who has achieved a national reputation as evidenced by his numerous high quality publications, invited talks, awards, and sustained grant funding...His scholarship and research are of very high quality, particularly for a physician scientist who is clinically active, and he has achieved national and to a degree international recognition in the area of neuro-oncology. This is supported by the numerous national and international invited talks he has given (including one at our institution), as well as his review activities for a range of journals including several of the highest profile. He has significant, sustained grant support for his laboratory, including a number of foundation awards and a recent R01 on which he is the principal investigator.”

Reviewer F: “Sriram has firmly established himself as an emerging leader in neuro-oncology. His work on epigenetic and metabolic dependencies in childhood ependymoma and high-grade gliomas is beautiful and important...Sriram is widely viewed as an insightful, careful, thoughtful scientist. He asks great questions at professional meetings, gives excellent talks, contributes to professional committees and review panels. He is internationally respected in the field.”

Reviewer G: “His h-index of 29 and total papers in peer-reviewed journals in the 70 range are excellent benchmark accomplishments at his career stage. His work on brain tumors, particularly pediatric gliomas, and also metabolic markers of brain function, have certainly moved the fields of science and pathology forward in multiple ways. His papers are highly respected and often cited.”

Reviewer H: “...he has established himself as an independent investigator in the field of pediatric brain tumors and is recognized for this work nationally and internationally. It is remarkable how he has been able to achieve this over a relatively short time period through effective collaboration and novel ideas. This leaves me excited about the future contributions that he will make to the field.”

Summary of Recommendations:

Dr. Venneti has made significant contributions to the study of brain tumor metabolism and development. He is a superb diagnostician who routinely signs out neuropathology specimens both in surgical and autopsy pathology and has established a national and burgeoning international reputation in his field. I am pleased, therefore, to recommend Sriram Venneti, M.B.B.S., Ph.D. for promotion to associate professor of pathology, with tenure, Department of Pathology, and associate professor of pediatrics, without tenure, Department of Pediatrics, Medical School.



Marschall S. Runge, M.D., Ph.D.
Executive Vice President of Medical Affairs
Dean, Medical School

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