Nissi M. Varki, M.D.

- Professor
- Director of Histopathology Resources, Cancer and Mouse Histopathology

M.D. - Christian Medical College, Vellore, India

Residency Training:
Creighton University, Omaha, Nebraka

Board Certification:
Anatomic and Clinical Pathology 1983

Clinical Specialty:
Tumor markers and histopathology of gene-altered mice

Research interests:

- Analyzing and interpreting the histopathology of genetically altered mice. Visit our Mouse-Phenotyping Services Website
- Defining the role of selectins in tumor metastasis.
- Working toward an understanding of the uniqueness of human carcinogenesis
- Studying the histopathology of antiangiogenic agents in mouse models.
- Studying immunological mechanisms of gastrointestinal mucosal epithelia.

Representative Publications:

1. Diaz SL, Padler-Karavani V, Ghaderi D, Hurtado-Ziola N, Yu H, Chen X, Brinkman-Van der Linden EC, Varki A, Varki NM. Sensitive and specific detection of the non-human sialic Acid N-glycolylneuraminic acid in human tissues and biotherapeutic products. PLoS ONE. 2009;4(1):e4241. Epub 2009 Jan 21. PMID: 19156207
2. Hedlund, M., Ng, E., Varki, A., and Varki, N: α2-6-Linked Sialic Acids on N-Glycans Modulate Carcinoma Differentiation In vivo. Cancer Res. 68:388-394, 2008. PMID: 18199532
3. Brink-Van der Linden, E.C.M., Hurtado-Ziola, N., Hayakawa, T., Wiggleton, L., Benirschke, K., Varki, A., and Varki, N.: Human-Specific Expression of Siglec-6 in the Placenta. Glycobiology, 17:922-931, 2007. PMID: 17580316
4. Gagneux, P., Cheriyan, M., Hurtado-Ziola, N., Brinkman van der Linden, E.C.M., Anderson, D., McClure, H., Varki, A., and Varki, N.M. Human-specific Regulation of Alpha2-6 linked Sialic Acids. J. Biol. Chem. 278: 48245-48250, 2003
5. Martin, L.T., Marth, J.D., Varki, A., and Varki, N.M. Genetically altered mice with different sialyltransferase deficiencies show tissue-specific alterations in sialylation and sialic acid 9-0-acetylation. J. Biol. Chem. 277:32930-32938, 2002.

6. McKenzie, B.A., Barrieux,A. and Varki, N.M. A novel detection system for metastatic human neoplastic cells in athymic mice. Cancer Communications 3 :1-5, 1991.
7. Varki, N.M., Roome, L., Sparkes, R.S. and Miller, J.: Microscopic metastasis of a human lung carcinoma cell line in athymic nude mice: Isolation of a metastatic variant. Int. J. Cancer 40: 46,1987.
8. Varki, N.M., Reisfeld, R.A. and Walker, L.E. Antigens of non-oat cell lung carcinoma defined by monoclonal antibodies. Cancer Research 44: 681, 1984.

Biography:

Dr. Nissi Varki completed her MBBS degree in 1974 from Christian Medical College, Vellore, India, one of the foremost medical institutions in South-East Asia. http://www.cmch-vellore.edu/main.asp

She then completed pathology residencies at Creighton University, Omaha, Nebraska, and at St. Louis, Missouri. She was Board Certified in Anatomic and Clinical Pathology in 1983. She went on to postdoctoral training in tumor immunology, first at Washington University in St. Louis, Missouri, and then at the Research Institute of Scripps Clinic, La Jolla, CA.

In 1984 she was an Assistant Professor in the Department of Pathology at the University of California, Los Angeles, where she started her NIH funded research in cancer metastasis. She then moved to her joint appointment in the Departments of Medicine and Pathology at the University of California, San Diego, where she used her funded NIH RO1 grants to continue her work on lung carcinoma metastasis and in developing athymic mouse models of carcinoma metastasis. She also started four histopathology core laboratories, helping investigators analyze genetically altered animals.

She is on the School of Medicine Recruitment and Admissions Executive Committee and teaches laboratory sessions for the sophomore SOM 208 Human Disease course. She teaches immunohistochemistry and histopathology during one-on-one sessions with medical and graduate postdoctoral fellows. She also helps students attain histotechnology certification and teaches undergraduate BIO 199 as well as an elective course for graduate and medical students during the fall quarter MED 234 entitled "Practical Histopathology in mouse models of human disease".