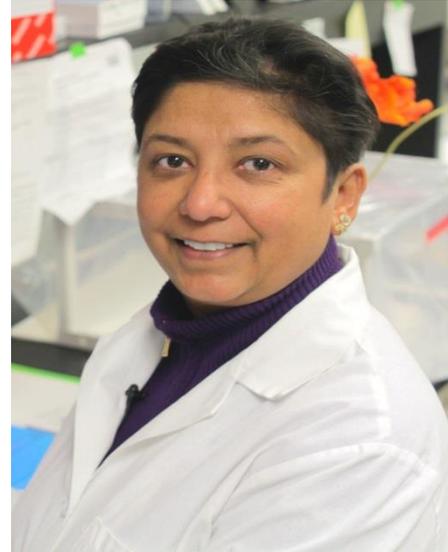


Dr. Kalpna Gupta, PhD.

Dr. Kalpna Gupta, PhD., is a Professor of Medicine in the Hematology, Oncology and Transplantation Division at the University of Minnesota. She received her Ph.D. degree in Biochemistry in 1984 from the All India Institute of Medical Sciences, New Delhi, India and subsequently did her Post-doctoral training in the Hematology, Oncology and Transplantation Division at the University of Minnesota.



Dr. Gupta's laboratory aims to better understand chronic, debilitating pain and develop methods to improve its treatment. A major focus area is the identification of new molecular targets to treat pain in sickle cell disease and cancer. Dr. Gupta and her team are investigating whether these targets can be blocked using medications that are currently available or in advanced stages of development. They have received NIH-funding for and are in the early stages of an in-patient proof of concept study using vaporized cannabis for pain relief in sickle cell disease. Their studies in mice suggest that cannabinoids may be effective in providing relief for different kinds of pain. In addition to improving analgesia, Dr. Gupta is also trying to identify the adverse effects of opioids and cannabinoids, if any, on the biology of sickle cell disease and cancer and to develop technology to objectively quantify pain for more personalized pain treatment. Finally, she seeks to train young scientists in sickle cell disease research and advance public awareness of this condition.

Dr. Gupta's publications include:

Weber ML, Vang D, Velho PE, Gupta P, Nath KA, Crosson JT, Hebbel RP, Gupta K. Morphine promotes renal pathology in sickle mice. *Int J Nephrol* 2012, 5:109-18. PMID: 22888269 .

Cain DM, Vang D, Simone DA, Hebbel RP, Gupta K. Mouse models for studying pain in sickle disease: Effects of strain, age, and acuteness. *Br J Haematol.* 2012 Feb;156(4):535-44. PMID: 22171826

Kohli DR, Li Y, Khasabov SG, Gupta P, Kehl LJ, Ericson ME, Nguyen J, Gupta V, Hebbel RP, Simone DA, Gupta K. Pain-related behaviors and neurochemical alterations in mice expressing sickle hemoglobin: modulation by cannabinoids. *Blood.* 2010 Jul 22;116(3):456-65.

Elikkottil J, Gupta P, Gupta K. The analgesic potential of cannabinoids. *J Opioid Manag.* 2009 Nov-Dec;5(6):341-57. Review. Erratum in: *J Opioid Manag.* 2010 Jan-Feb;6(1):14.