Division of General Pediatric Surgery, St Jude Children’s Research Hospital

The division of general pediatric surgery at St Jude offers clinical and translational investigation into the treatment of pediatric solid tumors, neuroblastoma in particular. The basic science laboratory is focused on the development of two newly emerging strategies for the treatment of neuroblastoma (and other tumor types) – antiangiogenic therapy and targeted therapy. Angiogenesis appears to be required for the neoplastic growth of tumor cells, making it a potential target for anti-cancer strategies. Long-term expression of an angiogenesis inhibitor is likely to be required for the successful treatment of cancer. Therefore, gene therapy-mediated delivery of these agents is an alternative way to provide long-term expression of these therapeutic proteins. Vectors expressing a number of different angiogenesis inhibitors are currently being designed and tested in vitro and in vivo in murine models of neuroblastoma. Understanding the molecular basis of tumorigenesis has provided the opportunity to target more selectively the critical signaling pathways, thereby offering effective therapy with potentially fewer toxic side-effects.

Principal Investigator: Andrew Davidoff, MD, Professor and Chairman, Department of Surgery; Director, Surgical Research, andrew.davidoff@stjude.org.

Current Postdoctoral Fellows: Jun Yang (jun.yang2@stjude.org)

Recent Publications:


Recent Presentations:


28. Hartwich J, Spence Y, Ng C, Davidoff AM. The addition of HIF inhibition potentiates the


