Autopsy Tissue Needs
Children's Brain Tumor Tissue Consortium
The Children's Hospital of Philadelphia

Research Interests

Recent advances in breast cancer, colon cancer, and melanoma treatment show the importance of detailed molecular analysis of tumor samples to find new therapeutic targets. By comparison, progress in the molecular characterizations of childhood brain tumors is much slower. The majority of these studies focus on medulloblastoma and high-grade gliomas but neglect other important childhood tumor histologies. To address this problem, we are developing a new, multi-institutional, collaborative childhood brain tumor tissue research platform that will meet current needs for high-quality brain tumor biopsy samples, comprehensive clinical data, and new tumor model development.

Our plan is to collect and analyze all types of childhood brain tumors. All tumor tissue, genetic and protein, will be performed at The Children's Hospital of Philadelphia using the facilities of the Center for Genomic Analysis. Tissue micro arrays will be generated from as many samples as possible for use in biomarker follow-up and validation studies. Protein extracts will be prepared from blood, cerebrospinal fluid, and tumor samples for proteomic studies. All data--genomic, pathologic and clinical--will be encoded using a common de-identification system to allow cross-platform comparisons.

Selected Publications

Park, Tae-Ju, and Tom Curran. "Crk and Crk-Like Play Essential Overlapping Roles Downstream of Disabled-1 in the Reelin Pathway." *Journal of Neuroscience* 28 no. 50 (December 10, 2008): 13551-62.

Kimura, Hiromichi., Jessica M. Y. Ng, and Tom Curran. "Transient Inhibition of the Hedgehog Pathway in Young Mice Causes Permanent Defects in Bone Structure." *Cancer Cell* 13 (2008): 249-60.

Curran, Tom, and Jessica M. Y. Ng. "Cancer: Hedgehog's Other Great Trick.." *Nature* 455 (7211) (September 18, 2008): 293-94.

Sasai Ken, Justyna T. Romer, Youngsoo Lee, David Finkelstein, Christine Fuller, Peter J. McKinnon, and Tom Curran. "Shh Pathway Activity Is Down-Regulated in Cultured Medulloblastoma Cells: Implications for Preclinical Studies." *Cancer Research* 66 no. 8 (April 15, 2006): 4215-22.

Romer, Justyna T., Hiromichi Kimura, Susan Magdaleno, Ken Sasai, Christine Fuller, Helen Baines, Michele Connelly, Clinton F. Stewart, Stephen Gould, Lee L. Rubin, and Tom Curran. “Suppression of the Shh Pathway Using a Small Molecule Inhibitor Eliminates Medulloblastoma in Ptc1(+/-)p53(-/-) Mice.” *Cancer Cell* 6 no. 3 (September 1, 2004): 229-40.

Autopsy Tissue Needed

We are in need of fresh-frozen and paraffin-embedded samples for all central nervous system tumor diagnoses.

Contact Information

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