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Autopsy Tissue Needs

Laboratory of Ian Pollack, M.D.
Children's Hospital of Pittsburgh

Research Interests

We have extensive experience with molecular characterization of gliomas for a variety of markers as well as whole genome molecular analysis, and are engaged in a number of hypothesis-driven studies with gliomas, in part funded by the NIH. Some of this work has incorporated post-mortem samples.

Through funding by the National Institutes of Health, we are conducting several research studies to examine factors that control or regulate growth of pediatric brain tumors. One of his primary research projects is exploring the use of signal transduction inhibitors, or chemical compounds, that slow or stop the growth of brain tumors. In laboratory trials, several chemical compounds have proved effective in slowing tumor growth—and in many cases have eliminated tumors completely.

We are also researching new approaches for treating brain tumors in children by examining brain tumor samples at the genetic level. The goal is to identify which types of tumors may respond successfully to standard treatments, such as chemotherapy, radiation or surgery, and which tumors may require alternative treatments.

Selected publications

Pollack I. F., R. L. Hamilton, R. W. Sobol, J. Burnham, A. J. Yates, E. J. Holmes, T. Zhou T, and J. L. Finlay. O6-Methylguanine-DNA Methyltransferase Expression Strongly Correlates With Outcome in Childhood Malignant Gliomas: Results from the CCG-945 Cohort." *J Clin Oncol* 24: 3431-3437 (2006).

Pollack I.F., R. L. Hamilton, C. D. James, S. D. Finkelstein, J. Burnham, A. J. Yates, E. J. Holmes, T. Zhou, and J. L. Finlay. "Rarity of PTEN Deletions and EGFR Amplification in Malignant Gliomas of Childhood: Results from the Children's Cancer Group 945 Cohort." *J Neurosurg: Pediatr* 105: 3431-3437 (2006).

Pollack I.F., R.L. Hamilton, R.W. Sobol, M. N. Nikiforova, M. A. Lyons-Weiler, W. A. LaFramboise, P. C. Burger, D. J. Brat, M. K. Rosenblum, E. J. Holmes, T. Zhou T, and R. I. Jakacki. "IDH1 Mutations are Common in Malignant Gliomas Arising in Adolescence, Suggesting Similarity with Secondary Malignant Gliomas Occurring in Adults: A Report from the Children's Oncology Group." *Child's Nerv Syst* 2010, in press.

Pollack I. F., R. L. Hamilton, P. C. Burger, D. J. Brat, M. K. Rosenblum, E. J. Holmes, T. Zhou, K. J. Cohen, and R. I. Jakacki.. "Akt Activation is a Common Event in Pediatric Malignant Gliomas and a Potential Prognostic Marker: A Report from the Children's Oncology Group." *J Neuro-Oncol* 2010, in press.

Pollack I.F., R. L. Hamilton, R. W. Sobol, M. N. Nikiforova, M. A. Lyons-Weiler, W. A. LaFramboise, P. C. Burger, D. J. Brat, M. K. Rosenblum, F. H. Gilles, A. J. Yates, T. Zhou, K. J. Cohen, J. L. Finlay, and R. I. Jakacki. "Mismatch Repair Deficiency is an Uncommon Mechanism of Alkylator Resistance in Pediatric Malignant Gliomas: A report from the Children's Oncology Group." *Pediatr Blood Cancer* 2010, in press.

Autopsy Tissue Needed

We are in need of fresh, frozen and/or paraffin embedded samples for the following diagnoses: non-brainstem gliomas and brainstem gliomas.

Contact Information

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