

## TISSUE ARCHIVE OF SECOND MALIGNANT NEOPLASMS (SMN) IN THE CHILDHOOD CANCER SURVIVOR STUDY (CCSS)

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(Sponsored by Thomas N. Hansen)

**Background:** The CCSS is a multi-factorial retrospective cohort study of 5+ year survivors of pediatric cancer from 25 institutions in North America. The original malignancies occurred between 1970 and 1986. A cohort of 13,581 patients has been defined (median age 26 years in 2000). Among these, 488 have been found to date. The second or subsequent tumors occurred from 5 to 16 years after the primary.

### Objective:

**Design/Methods:** The possibility of an SMN was indicated by the patient or next of kin in the original questionnaire. Approximately 5% of participants indicated some subsequent event. Their responses were investigated and confirmed or excluded by pathology report or other medical record. Approximately half (56%) of the investigated events were confirmed as new malignancies. Benign tumors (except meningiomas), recurrences and metastases were excluded. Less than half the patients were treated at the same institution as for their original malignancy; a wide variety of other treating institutions were also discovered.

**Results:** The SMNs found include 60 breast carcinomas, 43 thyroid carcinomas, 36 CNS malignancies, 32 sarcomas, 28 bone tumors, and many others. The current project is to collect as much paraffin archival material as possible in order to create a unique research resource for molecular genetics. Paraffin blocks, charged glass slides with tissue sections, and paraffin scrolls will be vacuum-sealed with reduced oxygen and refrigerated. Priorities have been assigned for types of cases to be procured, e.g., breast cancers high, and basal cell cancers low.

**Conclusions:** Preliminary data revealed that 10% of institutions discard their paraffin material after 5 to 10 years. Ninety percent of institutions require their paraffin blocks to be returned. None of the cases had any frozen tissue available. To our knowledge, this is a unique resource. Investigators are invited to make proposals for projects using these materials. Proposals will be evaluated by the CCSS Steering Committee. As health care continues to face many challenges, some institutions no longer find it possible to keep all pathology materials indefinitely. As technology progresses, more and more can be done with paraffin archive material. It is ironic that other pressures may preclude the extensive use of this invaluable resource.