



SARCOMA FOUNDATION OF AMERICA

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SARCOMA FOUNDATION OF AMERICA ANNOUNCES 2005 RESEARCH AWARDS

WASHINGTON (March 20, 2005) – The Sarcoma Foundation of America announces the recipients of their 2005 Research Awards. “We hope that the results of these translational research studies will lead to the development of new therapies that will target sarcoma,” commented SFA president Mark Thornton, MD, PhD. The grant title, named fund that supplied the funding and a synopsis of the research to be performed follows: Development of a Mouse Model of Synovial Sarcoma (Recipient of a \$25,000 Bradley J. Breidinger Memorial Research Award): Synovial sarcoma is marked by a unique and specific translocation between the SYT and SSX genes resulting into the expression of the chimeric ‘SYT-SSX’ fusion protein. We are developing a mouse model of Synovial Sarcoma by conditional expression of the human SYT-SSX protein in mouse using the technique of gene targeting. Conditional expression will be achieved by utilizing the Cre-loxP system. This strategy will enable us to investigate into: a) origin of this disease. b) the role of SYT-SSX fusion protein in tumor induction/progression and c) downstream events during tumorigenesis. This model will also enable development/evaluation of novel therapeutic strategies. Immunologic Monitoring of Patients with Alveolar Soft Part Sarcoma Receiving a Long Translocation-Specific Peptide Vaccine with GM-CSF Adjuvant Sarcoma (Recipient of a \$25,000 Bradley J. Breidinger Memorial Research Award): We are developing a long amino acid peptide vaccine to be used with GM-CSF adjuvant to target the ASPL/TFE3 breakpoint translocation of alveolar soft part sarcoma (ASPS). We will address two specific aims: 1) Can CD8+ and CD4+ T-cell responses be generated to this vaccine by ASPS patients of different HLA haplotypes? 2) Can these general immune responses help determine HLA-specific immunogenic peptides for use in future trials? By using a long peptide sequence we can target patients of different HLA types as well as measure class I and class II responses to optimize future vaccines capable of destroying ASPS. Functional Genomic Characterization of a Conditional Mouse Model of Alveolar Rhabdomyosarcoma: Comparison to Human Tumors Sarcoma (Recipient of a \$25,000 Bradley J. Breidinger Memorial Research Award): Rhabdomyosarcomas are the most common childhood soft tissue

sarcoma. We have developed a conditional mouse model of alveolar rhabdomyosarcomas by expressing the Pax3:Fkhr oncogene in skeletal muscle of juvenile mice. We propose to test that our mouse model mimics the secondary genomic and gene expression changes seen in human alveolar rhabdomyosarcomas. We will (1) compare chromosomal segment gains and losses in 8 mouse and 8 human alveolar rhabdomyosarcomas, and (2) correlate genomic imbalances of mouse and human tumors to gene expression changes of those same tumors. Understanding molecular events underlying tumor invasiveness and metastasis, we simultaneously identify potential therapeutic targets. Tumor Angiogenesis in Different Organ Environments: Implications for Anti-VEGF Therapy for Soft Tissue Sarcomas Sarcoma (Recipient of a \$25,000 Brian J. Monaghan Memorial Research Award): Anti-angiogenic agents targeting vascular endothelial growth factor (VEGF) and other angiogenic pathways are a major focus of clinical drug development for cancers including soft tissue sarcomas (STS). An underlying premise of these trials is that VEGF inhibition will have equal efficacy in all sites of tumor growth and against all types of endothelial cells. This proposal seeks to develop an angiogenic profile of STS growing in different organs and tissues and to determine if inhibition of VEGF signaling will have varying effects on tumor angiogenesis in different sites. In Specific Aim 1, expression of VEGF and other angiogenesis-related genes in STS will be assessed by ELISA and genechip microarrays. Specific Aim 2 will study the effect of VEGF inhibition using RNA interference (RNAi) and soluble VEGFR-1 (sVEGFR-1) on mouse models of STS growth in different sites. Taken together, the proposed studies should clarify the role that VEGF and other angiogenic factors play in tumor angiogenesis in different environments and provide insight into the future use of anti-VEGF therapies in STS.

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Quick Facts About Sarcoma

Sarcoma is a rare cancer in adults (1 percent of all adult cancers) but rather prevalent in children (about 20 percent of all childhood cancers). At any one time, 50,000 patients and their families are struggling with sarcoma. Every year, about 10,000 new cases are diagnosed, and about 5,000 people die from sarcoma.

About the Sarcoma Foundation of America

The Sarcoma Foundation of America (SFA), a 501 (c) (3) nonprofit charitable organization, is an advocate for increased research to find new and better therapies with which to treat patients with sarcoma. SFA raises its own funds to provide research grants to sarcoma researchers. SFA also interacts with public, private for-profit, and private non-profit organizations to raise awareness of the treatment needs of sarcoma patients. For more information, please visit www.curesarcoma.org.