FOR IMMEDIATE RELEASE

New Grant Funds Hebrew University Research on Role of MicroRNAs in Osteosarcoma Development and Progression

Jerusalem, March 3, 2014 - The Liddy Shriver Sarcoma Initiative has partnered with the Alan B. Slifka Foundation to fund a $62,500 grant for promising osteosarcoma research at the Hebrew University of Jerusalem’s Faculty of Medicine. In the study, Prof. Rami Aqeilan and his research team will explore pre-treatment biomarkers of osteosarcoma metastasis and their responsiveness to therapy. The study may suggest new treatments, therapeutic targets or biomarkers for the management of osteosarcoma.

Prof. Aqeilan’s laboratory — at the Lautenberg Center for Immunology & Cancer Research, at the Institute for Medical Research Israel-Canada in the Hebrew University’s Faculty of Medicine — investigates the genetic and molecular basis of cancer development in order to uncover the genes and elucidate the pathways responsible for cancer initiation and progression. Prof. Aqeilan seeks to reveal the key genes responsible for the genesis of pediatric osteosarcoma, and developing rational, effective therapeutic approaches to this aggressive malignancy.

The grant, which totals $62,500 over a 15 month period, is co-funded by the Alan B. Slifka Foundation and the Liddy Shriver Sarcoma Initiative. The Liddy Shriver Sarcoma Initiative supports research toward finding a cure and more effective treatment regimens for sarcoma. The Alan B. Slifka Foundation is a private grant-making foundation dedicated to making a world safe for difference and healing.

According to Bruce Shriver, PhD, and Beverly Shriver, RN, Co-Founders of the Liddy Shriver Sarcoma Initiative: “We are delighted to fund this important study of Prof. Aqeilan in which he will explore, in part, pre-treatment biomarkers of osteosarcoma metastasis and responsiveness to therapy. We hope that his efforts are an important step in developing better treatments for this aggressive and rare cancer.”

Prof. Aqeilan said, “I am grateful to the Liddy Shriver Sarcoma Initiative and the Alan B. Slifka Foundation for supporting this important research. In particular I commend the peer review process employed by the Liddy Shriver Sarcoma Initiative, which helped sharpen and enrich the proposed work. Metastasis is a major pitfall of osteosarcoma management. The overarching hypothesis of our proposal is that some miRNAs act as driver genes in the pathogenesis and progression of osteosarcoma. Of
particular interest, we shall focus on characterizing those miRNAs that are involved in osteosarcoma metastasis."

Sarcomas are cancers of the connective tissues, such as nerves, muscles, and bones. Osteosarcoma is a bone cancer commonly found in children and young adults, usually discovered during the growth spurt when teenagers are growing rapidly.

Prof. Aqeilan’s team has investigated the role of small, noncoding genes known as microRNAs (miRNAs) in the pathogenesis of osteosarcoma. After discovering disease-associated changes in the miRNA of osteosarcoma samples, the researchers came to suspect that miRNA plays a significant role in osteosarcoma development. The team recently reported a unique signature of miRNA that differentiates between normal bones and osteosarcoma. They also found that miR-27a was highly upregulated in the primary tumors of metastatic osteosarcoma patients.

In this study, the molecular function and regulation of miR-27a in osteosarcoma metastasis will be explored. The study should reveal driver miRNAs that are associated with pathogenesis of osteosarcoma, as well as critical pre-treatment biomarkers of metastasis and disease responsiveness to therapy.

The Liddy Shriver Sarcoma Initiative funds seed grants for basic and translational research on sarcomas, anticipating that these will allow researchers to apply for funding for larger studies. The Research Grants Program is highly selective, with applications reviewed by sarcoma experts and only the most promising studies approved. The Initiative has funded more than $2.8 million in sarcoma research studies by respected investigators around the world.

The research study is also made possible by generous donations made to the Liddy Shriver Sarcoma Initiative in memory of Hallie Brown and Nathan Burgess, gifts in honor of Grace Buckel and Natalie Flechsig, and a contribution from Sarah’s Garden of Hope.

An Announcement about this grant and Experimental Plan about this research can be found in ESUN, a periodical for the sarcoma community, at http://bit.ly/esunra1 and http://bit.ly/esunra2.

For information:

Dov Smith
Hebrew University Foreign Press Liaison
02-5882844 / +972-54-8820860
dovs@savion.huji.ac.il

Website: new.huji.ac.il/en