# OPPORTUNITIES TO CONTRIBUTE SAMPLES TO IMPROVE GENERAL KNOWLEDGE ABOUT OSTEOSARCOMA

| | STUDY | INSTITUTION | GOAL | SAMPLE REQUIRED | CONTACT |
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| database | Biology of Osteosarcoma (BOOST) Registry and Biobank | University of Minnesota Masonic Cancer Center | The Biology of Osteosarcoma (BOOST) Registry and Biobank offers a single location where every patient with osteosarcoma and their relatives can participate in research to better understand how genes and environment affect the development and survival of this disease.<br><br>We are only studying osteosarcoma in the BOOST Biobank and Registry. For the time being, we are only collecting samples and not testing them. When we do receive funds to test them, we may analyze up to and including whole genome sequencing of germline (i.e. normal) and tumor DNA. These tests could reveal the presence of actionable germline mutations and/or targetable genes in tumors. The possibility of finding these results in the future is included in the consent for BOOST. | saliva | spect012@umn.edu<br><br>612-625-3910 |
| database | Count Me In | Count Me In is stewarded by four leading organizations: Emerson Collective, the Broad Institute of MIT and Harvard, the Biden Cancer, and the Dana-Farber Cancer Institute. | Count Me In partners researchers directly with osteosarcoma patients through the Osteosarcoma Project (OSproject.org) who share their samples and clinical information in order to generate a large clinically annotated genomics data base that can be shared with the world in order to speed important discoveries.<br><br>This project is still in development to accelerate discoveries in osteosarcoma but you can add your email to the mailing list to receive updates. | medical records, patient data, saliva, with an option to provide blood and tissue | info@osproject.org |
| testing new therapies | New treatment approaches to osteosarcoma | University of Utah | Test new drug treatments for osteosarcoma using primary samples, will be done in vitro and in vivo, with genetic profiling of tumor samples. | patient data, tumor tissue | Joshua.Schiffman@hci.utah.edu<br><br>801-587-4745 |
| testing new therapies | UCSF WGS+RNA sequencing | UCSF | Genomic analysis of advanced osteosarcoma. We are using WGS and RNAseq to study relapsed or metastatic osteosarcoma to understand what drives osteosarcoma to be chemotherapy resistant or to spread beyond the initial site. | Must have frozen tissue available. Matched biopsy/recurrence samples preferred but if this is not available, the relapsed sample can be sequenced.<br><br>Sample required: in addition to frozen tumor tissue, a normal DNA sample (blood, buccal swab) is required | Alejandro.Sweet-Cordero@ucsf.edu |
| testing new therapies | Targeting integrin signaling in myeloid immune compartment in metastatic osteosarcoma | Case Western Reserve University / UH Rainbow Babies & Children's Hospital | To understand the immune landscape of metastatic osteosarcoma and how it relates to integrin signaling between tumor cells and myeloid immune cells.<br><br>We wish to carefully dissect out the presence, abundance and position of various immune cell subsets within metastatic pulmonary osteosarcoma and correlate these finds with the level and VCAM-1 surface expression on tumor cells. We hypothesize that VCAM-1 is a critical factor on metastatic osteosarcoma whose interaction with VLA4 on myeloid compartments, along with TGFb signaling, allows the establishment of an immune privilege site to allow tumor escape. A careful analysis of immune cell landscape among clinical metastatic OS samples (using immunohistochemistry and multi-color flow cytometry) with correlative studies on soluble VCAM-1 molecule in peripheral blood may reveal prognostic and therapeutic insights for pulmonary metastatic osteosarcoma. | patient data, blood sample, tumor tissue | alex.y.huang@case.edu<br><br>216-368-1271 |
| pdx and cell lines | CUREfast legacy autopsy | Childhood Cancer Therapy Development Institute, funded by Childhood Cancer Project | To improve pediatric cancer model systems, we propose to study the genetics, make a cell culture and make a PDX mouse model for each child's cancer in honor of their life – and to the benefit of future children. PDX models are created in collaboration with the Jackson Laboratory. The non-profit Childhood Cancer Project (CCP) will fund legacy autopsy donations. PDX will be made available to to any researchers who requests it. | patient tumor tissue | andy@cc-tdi.org<br>charles@cc-TDI.org<br><br>406-570-3400 (Andy)<br>801-232-8038 (Charles) |



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