



## **2019 Jawsome Shark Tank – Multidisciplinary Pilot Project Program**

### **Extrachromosomal DNA in Medulloblastoma**

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#### **Abstract:**

Oncogenes are commonly amplified on extrachromosomal DNA (ecDNA) in cancer. Medulloblastoma (MB) is a highly malignant childhood brain tumor that starts in the cerebellum. In this study we will analyze whole genome sequencing data, chromatin accessibility and gene expression of a cohort of medulloblastoma tumors to identify their ecDNA status. The predicted ecDNAs are then validated by interphase FISH experiments and correlated with clinical information. This project will allow us to formulate new hypotheses on the role of ecDNA in the progression of medulloblastoma and to explore ecDNA mediated vulnerabilities for the treatment of medulloblastoma patients.