**Targeted Therapy for AML – A Novel Approach Towards Cancer Therapeutics**

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Cancer remains the second leading cause of death in the United States, over 1.3 million new cases diagnosed, more than 500,000 deaths each year (American Cancer Society) and the numbers are increasing despite advancement of cutting edge therapeutic tools and technology. Interestingly, some types of cancer score high and some low to public health classification due to social, commercial and political interest. National Cancer Institute classified few cancers as orphan disease; Acute Myeloid Leukemia (AML) is one of them. Mirx Pharmaceuticals a privately owned company perused extraordinary effort to battle against AML to find a measurable solution towards AML, a deadly disease that affects elderly people (age 55 and above) We identified a unique small molecule drug MIRX-50 leads to disrupts P53/HDMX complex a critical protein complex that regulates cancer cell proliferation. Unlike other conventional anticancer drugs, MIRX-50 targets to protein and does not appeared to have nonspecific interaction with DNA. Therefore MIRX-50 induces stabilization and subsequent activation of p53 protein in rapidly dividing leukemia cells that leads to cell cycle arrest and/or apoptosis. Further to the fact an unbiased treatment of MIRX-50 to a panel of P53 positive cancer cells showed massive apoptosis and eventually suppressed proliferation of aggressive cancer cells. Importantly, MIRX-50 demonstrates promising activity as a single agent in a mouse model of circulating primary human leukemia cells. MIRX-50 is unique and novel HdmX inhibitor that demonstrates promise as a cancer therapeutic candidate not only for AML but other types of cancer under progress. Due to our constant effort and unique technology, MIRX is highly appreciated by National Cancer Institute funded multimillion dollar small business grant towards drug development process. Currently MIRX is investing multiple preclinical efforts to file IND application for MIRX-50 towards AML therapeutics. Apart from cancer therapeutics, MIRX runs multiple research programs towards cancer preventative measures. Mirx Pharmaceuticals holds multiple individual, US/international patents.