**Technology Overview**

Pediatric AML accounts for almost 25% of diagnosed pediatric leukemias, which result in a three-year survival rate of only 70%. Currently, there is a distinct lack of immunotherapeutic AML-specific targets and those targets that are expressed, are found in normal hematopoiesis (e.g., CD33, CD123, etc.). Currently available ADCs result in hematopoietic toxicity and clinical standards of treatment have subpar long-term outcomes. Dr. Meshinchi’s team analyzed 1700 children and young adult patients with AML, which led to the identification and subsequent development of a targeted therapeutic of an aberrantly expressed MSLN surface protein. Importantly, MSLN-targeted treatment in an AML cell line had an efficacy equivalent to or superior to extant anti-MSLN therapeutics designed for solid tumor applications.

**Applications**

- Pediatric AML therapy
- Targeting and treatment of other blood disorders

**Advantages**

- Expressed in 30–40% of pediatric AML patients
- Readily accessible cell surface protein
- Confers cell selectivity since not expressed in normal hematopoietic cells

**Market Overview**

The global AML market is predicted to undergo a CAGR of 14% between 2018 and 2024, increasing the estimated value from USD 701.6 million in 2018 to USD 1.539 billion in 2024. The market is divided into two main segments, childhood acute myeloid leukemia and adulthood acute myeloid leukemia. Approximately 15–20% of children diagnosed with leukemia will have AML and those children under the age of 2 years have a lower chance of remission and cure than older children.