

TARGETED ANTISENSE RADIOTHERAPY

Cancer is the one of the leading causes of death worldwide. While huge strides have been made in the treatment of various cancers, there is still a critical need for effective therapeutics that only target and kill the cancer cells while not affecting other cells in the body.

The current invention developed by researchers at the University of Missouri is a novel agent for simultaneous, targeted gene and radiation therapy of blood cancers. The agent binds selectively to non-Hodgkin's lymphoma (NHL) cells and contains an antisense module that reduces the activity of a cancer gene to sensitize tumors to radiation. Simultaneously, the agent delivers radiation that is highly efficient at killing these sensitized cancer cells. Our invention is superior to conventional targeted radiotherapy because its two simultaneous mechanisms of action work together to ensure better cancer cell killing, potentially giving it more efficacy than existing approaches.

POTENTIAL AREAS OF APPLICATIONS:

- Treatment of blood cancer
- Can be modified to treat other cancers

PATENT STATUS: Provisional patent application cover sheet on file - 10UMC069prov

INVENTOR(S): Michael Lewis; Ethan Balkin

CONTACT INFO: Harriet F. Francis, MS; J.D.; francish@missouri.edu; 573.884.0374

Per Stromhaug, Ph.D., MBA; stromhaugpe@missouri.edu; 573.884.3553