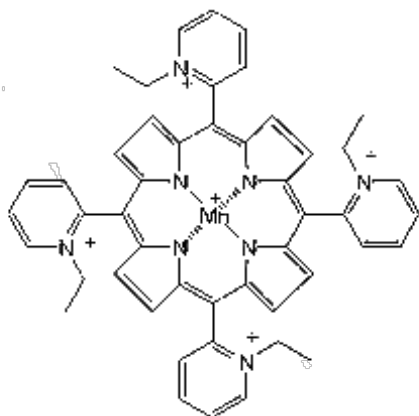


Antioxidant Compound Shows Promising Radioprotective Properties

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DENVER — Researchers at National Jewish Health have shown that an antioxidant compound can protect against injury to the lungs, gastrointestinal tract and the eye in a mouse model of acute exposure to ionizing radiation.



The compound, known as MnTE-2-PyP, is a form of metalloporphyrin antioxidant that is a more effective version of a naturally occurring antioxidant in the body known as superoxide dismutase. It is thousands of times more potent than antioxidants that are currently available in the United States.

As part of a \$9 million, five-year, grant from the US Department of Defense, National Jewish Health researchers, led by James Crapo, MD, are currently collecting safety and efficacy data to enable an application for human clinical trials, and are also pursuing methods to synthesize pharmaceutical-grade MnTE-2-PyP.

MnTE-2-PyP is being developed as a protective agent against acute radiation exposure.

Ionizing radiation leads to the production of reactive oxygen species (ROS). These molecules cause damage to DNA, proteins, lipids, and ultimately, to tissue injury and death. Antioxidant therapy can be effective in reducing both the initial burst of ROS associated with ionizing radiation and in blocking or reducing the chronic ROS production and inflammatory cascade that mediates the radiation-induced tissue injury.

National Jewish Health is the leading respiratory hospital in the nation. Founded 121 years ago as a nonprofit hospital, National Jewish Health today is the only facility in the world dedicated exclusively to groundbreaking medical research and treatment of patients with respiratory, cardiac, immune and related disorders. Patients and families come to National Jewish Health from around the world to receive cutting-edge, comprehensive, coordinated care. To learn more, visit the media resources page.

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