STATE AFFAIRS
WISPOLITICS
Wisconsin's Premier Political News Service

Researchers develop method to treat radiation-induced tissue damage

Posted on Monday, Jan 7, 2019

Researchers at UW-Madison have discovered a new method for treating radiation-induced tissue damage using certain white blood cells altered with stem cells.

According to an info sheet from the Wisconsin Alumni Research Foundation, existing radiation treatments can reduce damage to the thyroid, which can have its hormone producing capabilities reduced by radiation. They can also bind to radioactive material to keep it from getting absorbed by the body.

But these therapies have some drawbacks, WARF says, such as failing to protect bone marrow or enhance immune recovery.

To improve upon available options, UW-Madison scientists discovered that macrophages — a certain type of white blood cell — can regenerate some tissues after being “educated” by stem cells to do so. This strategy minimizes damage due to radiation, and “increases survival in clinically significant ways.”

WARF says those researchers have shown in a preclinical model the new method is better than other cellular therapies, including stem cells alone, for treating radiation damage. It’s described as a “potential breakthrough therapy,” with “major commercial potential due to potential terrorist threats.”

See more at WisBusiness.com.