

Researchers launch study into search-and-destroy antigen for deadly skin cancer

August 10 2009

UT Southwestern Medical Center researchers are studying a new antigen to see whether it can track down and kill cancer cells in patients with recurring melanoma, the leading cause of skin cancer deaths.

Researchers are testing a tumor-specific protein called recombinant human [melanoma](#) antigen A3 (MAGE-A3) that researchers hope will interact with the body's [immune system](#) and generate a search-and-destroy program targeting deadly melanoma cells.

"We inject this antigen into the person and hopefully their immune system will respond to the protein, creating antibodies and cells that will kill the [tumor cells](#). Then, they go through the body to kill cancer cells wherever they reside," explained Dr. James Huth, professor of surgery at UT Southwestern. "It's an old concept, but now we're keying on a specific antigen."

Researchers have been looking for proteins found exclusively in melanoma cells and not in normal human cells so that they can then direct the immune system to generate antibodies that kill only cells containing that specific protein. Earlier studies flagged the MAGE-A3 protein, which resides on the top of certain [cancerous cells](#) but is not expressed in normal cells, as a possible target for treating melanoma as well as certain lung, head-and-neck and bladder cancers.

UT Southwestern is one of about 50 sites nationally that will participate in the trial and is actively recruiting patients who have melanoma that

has also affected lymph nodes. Participants will be tracked over a five-year period after receiving a series of injections.

"We'd be interested in talking to anyone who has melanoma that has spread to their lymph nodes," Dr. Huth said. "MAGE-A3 had some responses in some melanoma patients in phase 1 and phase 2 studies, and so now we want to see in this phase 3 if something happens in a larger population."

One in every three cancers diagnosed in the U.S. is a skin cancer and, according to the Skin Cancer Foundation, one in five Americans will develop skin cancer in their lifetime.

Melanoma is the leading cause of all deaths related to skin cancer, killing more than 8,000 people annually in the U.S., mostly men due to late detection.

Nearly 60,000 will be diagnosed with melanoma this year. Melanoma is the most common cancer in women ages 25 to 29 and second only to breast cancer in women ages 30 to 34. Risk factors include fair skin, freckles, blond or red hair, blue or green eyes, a history of sunburns at an early age and a family history of [skin cancer](#).

The number of melanoma cases is rising faster than any other cancer and is projected to affect one person in 50 by 2010, up from one in 75 currently. In 1935, only one in 1,500 was diagnosed with the disease.

More than 90 percent of melanomas are caused by ultraviolet radiation either from the sun or tanning salons. Dr. Huth said the best way to avoid the disease is to prevent excessive sun exposure with sunblock, hats and clothing.

About 1,300 men and women are being recruited nationally for this trial,

sponsored by GlaxoSmithKline Biologicals.

Source: UT Southwestern Medical Center ([news](#) : [web](#))

Citation: Researchers launch study into search-and-destroy antigen for deadly skin cancer (2009, August 10) retrieved 26 July 2024 from <https://medicalxpress.com/news/2009-08-search-and-destroy-antigen-deadly-skin-cancer.html>

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