

Skin in the Game



Each year, more than a million cancer patients in the United States receive radiation therapy. Many develop painful burns. Their skin peels or blisters. For some, this leads to infections or skin so damaged that treatment must be delayed or stopped completely. Others are left with permanent scars.

A team of University of Pittsburgh researchers may have found a solution: a topical therapy targeting the mitochondria in skin cells. Mitochondria perform cell respiration, and it seems that protecting them prevents inflammation and cell death. The therapy may mitigate the side effects and the long-term effects of radiation.

The team consists of Louis Falot, MD/PhD and chair of dermatology; Peter Wipf, PhD and Distinguished University Professor of Chemistry; and Joel Greenberger, MD and chair of radiation oncology. Their paper, in the *Journal of Investigative Dermatology*, reported the treatment was effective in both animal models and humans. They hope to begin clinical trials soon and to eventually expand their research to include treating sun-damaged and aging skin. —Elizabeth Hoover