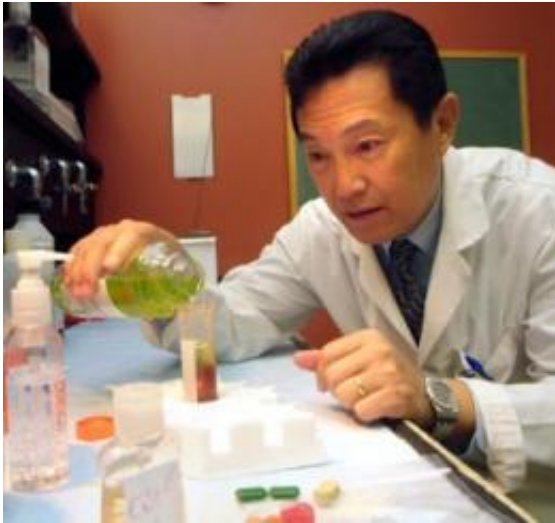


Researcher develops non-toxic dandruff shampoo

April 30 2012



Dr. Stephen Hsu, professor of oral biology at Georgia Health Sciences University College of Dental Medicine, in his laboratory, where he develops products based on his green tea research. Credit: Phil Jones

Dandruff sufferers now have a non-toxic product to treat the condition, says a researcher at Georgia Health Sciences University.

"Most current effective anti-dandruff shampoos contain ingredients that are toxic to humans and the environment," according to Dr. Stephen Hsu, GHSU Professor of Oral Biology. "Our [green tea shampoo](#) uses technology without coal tar, sulfate, sulfur or toxins. It's environmentally friendly, and it works."

Lipadan technology, Hsu's patented green tea formulation, can penetrate the skin's waterproof barrier, unlike water-soluble green tea. This enables the hair-friendly green tea components to combat major causes of dandruff: excessive cell growth, oxidative stress and [inflammation](#).

Coal tar, a common ingredient in conventional dandruff shampoos, works by slowing the production of [skin cells](#), but it is carcinogenic in high doses and banned for cosmetic use in many countries. Anti-dandruff shampoos also typically contain selenium [sulfide](#), sulfur and salt. Side effects can include scalp and [skin irritation](#) as well as hair loss, discoloration and dryness.

"The manufacturers put all that in shampoos for people to put on their head," Hsu said, noting that coal tar also stains and smells bad. "The goal of our research and development has been to replace those potentially hazardous agents with green components that have no risk for humans or the environment."

Green tea polyphenols promote the skin's metabolic equilibrium, shield against [autoimmune diseases](#) and provide antioxidant, anti-microbial, anti-cancer and anti-inflammation properties.

"We cannot put green tea in a bottle and expect it to work. It has to have the Lipadan technology," Hsu said. "We tried many times using a water-soluble molecule, but that will not work. It will not work, period."

Hsu began developing the product based on his "remarkable results" with tests on mice. His company, Camellix LLC, markets products based on his green tea technology. In addition to ReviTeaLize anti-dandruff shampoo, a hair-loss shampoo will soon be launched and upcoming products may include shaving cream, body wash, dish soap, facial soap, hair conditioner and gel. Patents are shared with Georgia Health Sciences University.

The business is supported by two grants from the Georgia Research Alliance, which helps entrepreneurs such as Hsu grow Georgia-based technology businesses while promoting innovation and local economic growth.

Provided by Georgia Health Sciences University

Citation: Researcher develops non-toxic dandruff shampoo (2012, April 30) retrieved 19 April 2024 from <https://medicalxpress.com/news/2012-04-non-toxic-dandruff-shampoo.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.