



UNIVERSITY OF WASHINGTON

Harborview Medical Center
Burn Model System

Newsletter

Fall 2006

Scarring After Burns

Scarring may occur following a burn injury. The most devastating kind of scar that can develop is called *hypertrophic scar*. This type of scar is raised, red (in comparison to uninjured skin), itchy, and prone to injury (may blister, especially

if bumped or sheared). It can be treated in various ways but why it occurs is unclear at this time. One of our research efforts is focused on studying this type of scar in hopes that we will be able to prevent its development. Dr. Loren Engrav,

lead investigator, is working closely with research scientist, Dr. Kathy Zhu on this scar-related project. See the **Research Update** and **Staff Profile** to learn more about our current research efforts.

Burn Injury Information Group

Our support group for those injured and recovering from a burn injury continues to meet on the 3rd Thursday of each month

from 7-8:30pm in the 8th floor conference room, East Hospital at Harborview Medical Center. This group is open to all burn survivors

and their families. Upcoming meeting dates include: December 21, 2006, January 18th and February 15th, 2007. This meeting is available free of charge.

Staff Profile: Kathy Q. Zhu, MD.

Dr. Kathy Zhu is a research scientist working in the Harborview Research & Training Center. She has worked with Dr. Loren Engrav (primary investigator on the NIDRR- and NIH-funded grants) on the Scar Research project for over five years. Dr. Zhu attended medical school at Anhui Medical University in China and completed her residency training in the Department of Pathology (Anhui Medical University). Following her residency, Dr. Zhu worked in several laboratories in the United States studying cellular and gene activity related to heart disease (myocardial

ischemia), neurologic development (early embryonic growth), and inhalation injury (occurs when someone breathes in a lot of smoke from a fire). Since coming to Harborview Medical Center in 2001, Dr. Zhu has completed several scar-related studies that provide us with information on how the red female Duroc pig scar is similar to the reddened and raised hypertrophic scar found in humans. These findings have been reported at both national and international scientific meetings. Currently, Drs. Zhu and Engrav are describing the gene activity of scars found in the red Duroc pig.

Research Update

Through funding from the Washington State Council of Firefighters Burn Foundation (WSCFFBF), the National Institutes of Health (NIH), and the National Institute on Disability and Rehabilitation Research (NIDRR), we have verified that the female red Duroc pig is a good animal model for study of hypertrophic scarring following a burn injury. Since beginning this project, Dr. Engrav, (project director) and Dr. Kathy Zhu have published five scientific articles explaining this model of study, Dr. Engrav says, "that without an animal model for research, we will never discover why hypertrophic scarring occurs and how to prevent it. Our current understanding of this process is limited and because of that, we don't know how best to prevent and treat this serious complication of a burn injury."

Did You Know?

Following a burn injury, healed skin is sensitive to the sun. Survivors are encouraged to wear sun screen and light clothing to protect fragile skin from the harmful UV sun rays.

Visit our website at <https://depts.washington.edu/uwnidrr/> for more information. To reach the UW Burn Center Clinic, call 206-731-5735.

