

# Bringing Research to LIFE

## In Brief

### Trans fatty acids good for the heart

Research scientists at the University of Manitoba and St. Boniface Hospital have published a study suggesting that vaccenic acid – a natural trans fatty acid found in small amounts in milk and dairy products like yogurt and cheese – could actually help in reducing the incidence of heart disease. This finding indicates that we can no longer assume that all trans fats are harmful.

The study, published in the *Journal of Nutrition* in collaboration with scientists from the University of Laval, was led by physiology professor Grant Pierce, a member of the Institute of Cardiovascular Sciences at St. Boniface Hospital Research Centre. The work indicated that a diet fed to animals, including the trans fat vaccenic acid, helped protect against atherosclerotic plaque buildup in arteries – the primary cause of blockages resulting in a heart attack or stroke. The study measured actual reductions in arterial plaque by eating natural trans fats by as much as 31%.

## Upcoming

### Information Session:

#### Scientific Research and Experimental Development (SR&ED) Tax Credit

Friday, December 11, 2009

2:00 PM - 4:00 PM

Robert B. Schultz Lecture Theatre

St. John's College

For more info: contact Lindsey Troschuk at (204) 789-3493 or [troschuk@cc.umanitoba.ca](mailto:troschuk@cc.umanitoba.ca)

### Bringing Research to Life Speaker Series

#### Managing Talent in Tough Times

with Krista Uggerslev

Asper School of Business

Wednesday, January 20, 2010

7:00 PM

Room 290

Education Building

## Finding the Perfect Fit

Researchers create and test clothing made for older women's body shape



Photo by Katie Chalmers-Brooks

Textile sciences professor Lena Horne says product developers and designers are showing a growing interest in the clothing market for older women.

BY KATIE CHALMERS-BROOKS

Shopping for clothes that look good and fit well can be a daunting task for older women. Low-rise jeans and skinny-tanks designed for younger females seem endless in supply, but the pickings are slim for those seeking pieces that are fashionable and flattering on a more mature body shape.

Researchers in the faculty of human ecology's department of textile sciences want to draw attention to the challenges of creating clothing that better fits the body shape of older women. Much of women's wear today is geared towards the younger crowd, who, traditionally, spend more money on clothes. Often the clothing marketed toward older women is simply made baggier, so it lacks shapes and is ill-fitting. If mature women had better selection and styles available to them perhaps they would more freely dip into their wallets, says associate professor and textiles product development expert Lena Horne.

She is convinced there is an untapped market when it comes to providing women age 55-plus with clothing designed to fit them well.

"It is untapped because we do not fully understand what clothing this market wants," Horne says.

Her graduate students have developed and tested pieces that more accurately reflect an older women's body. They found measurements for their patterns by looking south of the border. In 1995, American researchers Ellen Goldsberry and Naomi Reich measured nearly 7,000 women age 55

and up from 38 states and developed a new set of sizing standards that takes into account how a woman's body changes as she ages. Typically, a woman's body tends to become thicker; her upper arms become less toned; her fat distributes differently and more of it settles in the abdomen; her posture changes as her shoulders become more rounded; and her backside loses muscle.

"So, the fit of pants, for example, is a great challenge," says Horne. "If you really want to serve this market well, the product developer needs to invest time in studying (the sizing standards) because that's your blue print for creating well-fitting clothes."

A textile sciences student developed and tested a polyester pant prototype made with Goldsberry and Reich's sizing standards and compared the fit with pants made using measurements from Canada's standard sizing system for women of all ages. A group of older women wear-tested the pants and, overall, found the former were a much better fit.

Another student researcher developed a workout T-shirt that addresses concerns about maintaining modesty while exercising at a public gym, in addition to fabric breathability. It was also important it be flattering by giving the appearance of a lengthened torso. The T-shirt was designed with the American researchers' sizing standards. "A large majority of the (female participants) were very satisfied," says Horne. "There is a lack of age-appropriate clothing for older women who exercise regularly."

Research focused on clothing and older consumers is a growing area of investigation, she adds, noting product developers and designers are beginning to pay closer attention to the older female garment market and how best to address women's concerns. "We are beginning to understand the functional values that older women place on clothing, but the symbolic values are still not clear. We need to reach into our tool box and find the right tools to get at those problems," she says. "We have the technology and the know-how to create well-fitting clothing. We need people who are willing to invest the time in understanding this group of consumers."

Research into clothing for aging consumers with disabilities is another area that may soon gain momentum as the baby boomer generation gets older, Horne adds. The product development process must take into account additional challenges like whether individuals have compromised ability to move their arms, making it difficult to dress themselves.

Horne also believes textile technologies will continue to expand beyond clothing and into the therapeutic realm. "For example, textiles can be used as a medium to deliver a substance that reduces pain. The surface of textiles can be treated with finishes that immobilize or kill bacteria. Textiles can be engineered to transmit and receive signals," she says. "There is a wide range of textile technologies that could be used to create innovative textile products for older consumers."