His most innovative work, say colleagues, has been to develop the concept of “nutrition transition,” a way of understanding long-term nutritional status changes by looking at shifts in the stages of eating, drinking and activity underlying societal shifts and resulting effects on body composition.

**Chongben Zhang:**
**Insulin signals connecting human obesity and diabetes**

Human obesity and diabetes are linked, but scientists don’t understand precisely how. Insulin normally controls the liver’s production of glucose and the amount of glucose that muscles use. In diabetes, insulin is ineffective. The liver makes too much glucose, and muscles do not use it well. Insulin’s poor signaling is strongly associated with the amount of triglyceride (fat) that is present in liver and muscles.

Dr. Chongben Zhang, a postdoctoral fellow mentored by nutrition professor Dr. Rosalind Coleman, discovered how triglyceride production blocks insulin signaling, directly linking fatty liver to its overproduction of glucose. This is a major challenge in diabetes. When glucose metabolism is uncontrolled in a person with diabetes, complications can include high blood pressure, heart disease, stroke, kidney disease, sight and hearing loss, amputations and other health risks.

—JB Shelton

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**Community-supported fisheries: an innovative model**

Between 1999 and 2006, more than half of commercial fishers in eastern North Carolina stopped working, as they could no longer support themselves and their families. Why? Cheap seafood. About 90 percent of shrimp available in the U.S. was caught elsewhere, causing prices to plunge 40 percent.

Anna Child, master’s student in health behavior and health education, has found a way to help these fishers while providing fresh, local seafood to North Carolina communities. In March 2010, she established Core Sound Seafood, an environmentally responsible community-supported fishery (CSF) that works much like a community-supported agriculture program. Shareholders make an investment at the start of the season, allowing fishers a premium price for their product, and are rewarded with several deliveries of a variety of fresh fish. “Shares,” which translate into 2- to 4-pound deliveries weekly or biweekly, range from $112 to $450 for the season. Details are available at www.coresoundseafood.org.

Child sees potential for similar CSFs across the U.S. and in developing countries. Read her article in the January 2012 issue of *Infofish International* (www.sph.unc.edu/cph/infofish).

—Linda Kastleman

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Researchers featured in this article include:

- Alice S. Ammerman, DrPH, professor of nutrition and director of the UNC Center for Health Promotion and Disease Prevention
- Rosalind Coleman, MD, professor of nutrition
- Myles Faith, PhD, associate professor of nutrition
- Edwin B. Fisher, PhD, professor of health behavior and health education and global director of Peers for Progress
- Elizabeth Jane Mayer-Davis, PhD, professor of nutrition, American Diabetes Association’s Vice President for Health Care and Education, member of the President’s Advisory Group on Prevention, Health Promotion and Integrative and Public Health
- Barry M. Popkin, PhD, W.R. Kenan Jr. Distinguished Professor of nutrition
- Chongben Zhang, PhD, postdoctoral fellow in nutrition