A second look at TWINS

The Pennington Biomedical Research Center continues to grow as an international storehouse for intellectual capital in the biological sciences. A campus of the LSU System, it is the largest academically based nutrition research center in the world, with the greatest number of obesity researchers on faculty. The Center’s nearly 600 employees occupy several buildings on the 234-acre campus on Perkins Road.

Along with the recruitment of renowned researchers, one of the key dynamics that has shaped the center is the opportunity it provides for top scientists to exchange ideas and learn across disciplines.

The latest example is the new Clinical Nutrition Research Unit at Pennington. Funded by a five-year, $5.5 million grant from the National Institutes of Diabetes and Digestive and Kidney Diseases (part of the National Institutes of Health), the unit is one of only 10 CNRUs in the country, each of which has a dedicated research theme.

The Pennington CNRU will investigate “nutritional programming,” a line of research that focuses on the role of nutrition on the developing fetus and in early postnatal life. It investigates how variations in nutrition may impact or alter the inherited characteristics of individuals.

“Ten years ago, if I had seen identical twins with an exact, 100% match in DNA, I would have told you they are exactly the same,” says Eric Ravussin, Ph.D., the internationally renowned leader of the CNRU team at Pennington. “Not any more. We see differences that go beyond DNA, and those differences seem to be partly due to influences of nutrients during fetal and early life development.”

Ravussin (above, center, with postdoctoral researchers Leanne Redman and Anthony Civitarese) leads a team of nearly 30 researchers that will try to discover how prenatal variants might make a difference in twins—and what that means for diseases like obesity.