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USU receives major grant for research on placentas

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Utah State University scientists have received more than \$1 million in funding for research that could lead to safer pregnancies.

Chris Davies and Ken White will spend four years investigating the causes of miscarriages that occur when the mother's immune system attacks the placenta. This "placental insufficiency" is similar to rejection of a transplanted organ.

The two researchers, both from USU's Center for Integrated BioSystems, will look at the genetics connected to the condition by examining cloned cattle embryos, which are often miscarried.

"Some of the genes that are associated with blocking the mother's immune system are not correctly expressed (when embryos are cloned)," White said. "This provides a very good model to be able to study what are the genes that are important for down regulating the immune system in this localized fashion that allows the pregnancy to continue."

The \$1,073,296 award comes from the National Institute of Child Health and Human Development, a part of the National Institutes of Health that sponsors research on maternal, child and family health, reproductive biology and population issues and medical rehabilitation.

"This NIH grant will permit us to do some exciting things we've wanted to do for a long time," said Davies, who is a veterinarian and reproductive immunologist.

White has a long background in cattle cloning, having worked with the USU team that cloned the first mule in collaboration with the University of Idaho. He is currently department head of the Animal, Dairy and Veterinary Sciences Department and associate director for research at the CIB.

The pair's research involves collaboration among the College of Agriculture; Center for Integrated BioSystems; Department of Animal, Dairy and Veterinary Sciences and the Utah Ag Experiment Station with support from J.R. Simplot Company, an agricultural supplier based in Boise, Idaho.

Teacher symposium at USU

USU's Center for Integrated BioSystems will host a symposium for middle school and high school teachers of science and agriculture.

The CIB's Eighth Annual Biotechnology Teacher Symposium will take place Nov. 10 from 8 a.m. to 4 p.m. and offers educators one-half service credit from the Utah State Office of Education.

The program covers current approaches to biotechnology education. It includes a continental breakfast, lunch and free parking.

"Teachers can take the exercises they learn here and put them to use in their classes," said Dr. Afifa Sabir, symposium director. "Their students will benefit so much from this knowledge."

Steve Scheidell, science chair at Murray High School, will teach a laboratory session on how he started a biotech program at his school.

"It's important that we, as science teachers, help students learn to examine ethical issues in this field and make good decisions," he said.

The deadline for registration is Oct. 28. To register, go to www.biosystems.usu.edu or call 797-2753.