

J.J. (Jack) Rutledge
Professor of Genetics and of Animal Sciences

Academic and Professional History:

- Awarded Ph.D. (1972) in Quantitative Genetics from North Carolina State University
- Appointed Asst Prof, Assoc Prof and Prof at UW in 1974, 1977 and 1981, respectively
- Visiting Professor, Andalus University, Padang, West Sumatra, Indonesia (1985-1986)
- Chaired Department of Animal Sciences (1988-1999)
- Extensive consultative work in SE Asian and American Tropics
- Since 2002 appointed as Deputy Director (for Production) of the Babcock Institute for International Dairy Research and Development

Research focus: Research in recent years has focused on in vitro embryo production using gametes from three species in the genus *Bos* and uses of such embryos in cattle breeding and production systems, particularly in ecosystems where ordinary cattle (*Bos taurus*) are ill-adapted.

Graduate Training focus: Thesis and dissertation topics have been in areas of gamete and embryo biology involving both wet-lab research and field work with cattle producers, veterinarians, and extension workers. A chief aim has been to develop and extend lab-based methodology to field situations as in the USAID project wherein we are evaluating a production system which uses in vitro methods to produce species hybrids for evaluation as milk cows above 3000 m in the Altiplano of Peru.

Current Research Support:

- USDA - Hatch: "Germ Cell and Embryo Development and Manipulation for the Improvement of Livestock," 1999 – 2003, \$100,000.
- USAID: Evaluation of Yak Crossbreds as High Altitude Milk Cows on the Altiplano, 2001-2003, \$100,000.
- USAID: IFAS Consortium for Dairy Fertility Enhancement During Heat Stress, 2002-2004, \$104,000.

Select Publications

- Agca, Y., R.L. Monson, D.L. Northey, D. E. Peschel, D.L. Schaefer and J.J. Rutledge. 1998. Normal calves from transfer of biopsied, sexed and vitrified IVP bovine embryos. *Theriogenology* 50: 129-145.
- McHugh, J.A. and J.J. Rutledge. 1998. Heterologous fertilization to characterize spermatozoa of the genus *Bos*. *Theriogenology* 50: 185-193
- Ambrose, J.D., M. Drost, R.L. Monson, J.J. Rutledge, M.L. Leibfried-Rutledge, M.J. Thatcher, T. Kassa, M. Binelli, P.J. Hansen, P.J. Chenoweth and W.W. Thatcher. 1999. Efficacy of timed embryo transfer with fresh and frozen in vitro produced embryos to increase pregnancy rates in heat-stressed dairy cattle. *J. Dairy Sci.* 82: 2369-2376.
- Rutledge, J.J. 2001. Greek Temples, tropical kine and recombination load. *Livestk. Prod Sci.* 68: 171-179.
- Rutledge, J.J. 2001. Biotechnology enables matching global genetic resources with local environmental niches in the tribe Bovini (True Cattle). In Proc. Symposium Int'l Conf. On Ag Sci and Technology. Nov 7-9, 2001, Beijing, China