

**BIOGRAPHICAL SKETCH**

Provide the following information for the key personnel in the order listed for Form Page 2.  
Follow the sample format on preceding page for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Robert W. Wills		POSITION TITLE Associate Professor, College of Veterinary Medicine	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
University of Missouri – Columbia, MO	B.S.	1978	Animal Husbandry
University of Tennessee – Knoxville, TN	M.S.	1980	Animal Science/Microbiology
University of Missouri – Columbia, MO	D.V.M.	1984	Veterinary Medicine
Iowa State University – Ames, IA	Ph.D.	1996	Vet. Micro./Preventive Medicine
Iowa State University – Ames, IA	Post-Doc	1996	Epidemiology

**A. Positions and Honors.**

Veterinarian\Partner at Fayette Veterinary Clinic, P.C., Fayette, Iowa, 1984-1992  
Assistant Professor, Dept. of Veterinary and Biomedical Sciences, University of Nebraska-Lincoln, 1996-2000  
Associate Professor, Veterinary Epidemiology, Dept. of Pathobiology and Population Medicine, College of Veterinary Medicine, Mississippi State University, 2001-present

Board Certification: Diplomate, American College of Veterinary Preventive Medicine, Certified in Epidemiology.

Gamma Sigma Delta, 1977; Phi Zeta, 1983

Lloyd A. Selby Veterinary Public Health and Epidemiology Award, UMC College of Veterinary Medicine, 1983  
MVES Clinical Proficiency Award in Theriogenology, UMC College of Veterinary Medicine, 1984  
MVES Clinical Proficiency Award in Food Animal Medicine and Surgery, UMC College of Veterinary Medicine, 1984  
Scheidy Prize for Pharmacology, Veterinary Medicine Publishing Co., 1984  
Premium for Academic Excellence Award, Iowa State University Graduate College, 1992

Veterinary licensure in the states of Mississippi, Iowa, Missouri, and Nebraska

Regional Research Technical Committee NC-229 "Porcine Reproductive and Respiratory Syndrome (PRRS): Mechanisms of Disease and Methods for the Detection, Protection and Elimination of the PRRS Virus. Secretary (2001-present)

**B. Peer-reviewed publications (in chronological order).**

- Swenson, S.L., H.T. Hill, J.J. Zimmerman, L.E. Evans, R.W. Wills, K-J. Yoon, K.J. Schwartz, G.C. Althouse, M.J. McGinley and A.K. Brevik. 1994. Artificial insemination of gilts with porcine reproductive and respiratory syndrome (PRRS) virus-contaminated semen. *Swine Health and Production* 2(6):19-23.
- Swenson, S.L., H.T. Hill, J. Zimmerman, L.E. Evans, J.G. Landgraf, R.W. Wills, T.P. Sanderson, M.J. McGinley, A. Brevik, D.K. Ciszewski and M.L. Frey. 1994. Excretion of porcine reproductive and respiratory syndrome (PRRS) virus in semen after experimental infection in boars. *J. Am. Vet. Med. Assoc.* 204:1943-1948.
- Swenson, S.L., H.T. Hill, J.J. Zimmerman, L.E. Evans, R.W. Wills, K-J. Yoon, K.J. Schwartz, G.C. Althouse, M.J. McGinley and A.K. Brevik. 1995. Preliminary assessment of an inactivated PRRS virus vaccine on the excretion of virus in semen. *Swine Health and Production* 3(6):244-247.
- Zimmerman, J., K-J. Yoon, R.W. Wills and S.L. Swenson. 1997. General overview of PRRSV: A perspective from the United States. *Vet. Microbiology* 55:187-196.
- Zimmerman J, K-J. Yoon, E.C. Pirtle, R. Wills, T. Sanderson and M. McGinley. 1997. Studies of porcine reproductive and respiratory syndrome (PRRS) virus in avian species. *Vet. Microbiology* 55:329-336.
- Wills, R., J. Zimmerman, K-J. Yoon, S. Swenson, M. McGinley, H. Hill, K. Platt, J. Christopher-Hennings and E. Nelson. 1997. Porcine reproductive and respiratory syndrome virus - a persistent infection. *Vet. Microbiology* 55:231-240
- Wills, R.W., J.J. Zimmerman, J.J. Yoon, S.L. Swenson, M.J. McGinley, H.T. Hill and K.B. Platt. 1997. Porcine reproductive and respiratory syndrome virus: Routes of Excretion. *Vet. Microbiology* 57:69-81.
- Wills, R.W., J.J. Zimmerman, S.L. Swenson, K-J. Yoon, H.T. Hill, D.S. Bundy and M.J. McGinley. 1997. Transmission of porcine reproductive and respiratory syndrome virus by direct, close, or indirect contact. *Swine Health and Prod.* 5(5):213-218.

- Sur, J-H., A.R. Doster, J.S. Christian, J.A. Galeota, R.W. Wills, J.J. Zimmerman and F.A. Osorio. 1997. Porcine reproductive and respiratory syndrome virus replicates in testicular germ cells, alters spermatogenesis, and induces germ cell death by apoptosis. *Journal of Virology* 71(12):9170-9179.
- Hill, R.E., J.J. Zimmerman, R.W. Wills, S. Patton and W.R. Clark. 1998. Seroprevalence of antibodies against *Toxoplasma gondii* in free-ranging mammals from Iowa, USA. *J. Wildlife Dis.* 34(4):811-815.
- Wills, R.W. 2000. Diarrhea in Growing-Finishing Swine, in *Diagnosis of Diseases of the Digestive Tract. The Veterinary Clinics of North America-Food Animal Practice*, ed. R. G. Helman, Saunders. 16(1) pp. 135-161.
- Wills, R.W., J.T. Gray, P.J. Fedorka-Cray, K-J. Yoon, S. Ladely and J.J. Zimmerman. 2000. Synergism between *Salmonella choleraesuis* and Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) in Swine. *Veterinary Microbiology* 71:177-192.
- Allende, R., W.W. Laegreid, G.F. Kutish, J.A. Galeota, R.W. Wills and F.A. Osorio. 2000. Porcine Reproductive and Respiratory Syndrome Virus: a description of persistence in individual pigs upon experimental infection. *Journal of Virology* 74:10834-10837.
- Hurd, H.S., E.J. Bush, W. Losinger, B. Corso, J.J. Zimmerman, R. Wills, S. Swenson, D. Pyburn, P. Yeske and T. Burkgren. 2001. Outbreaks of porcine reproductive failure: Report on a collaborative field investigation. *Swine Health Prod.* 3:103.
- Brumm, M.C., A.K. Baysinger, R.W. Wills, E.T. Clemens and R.C. Thaler. 2002. Effect of Wean-to-Finish Management on Pig Performance. *Journal of Animal Science* 80:309-315.

### C. Research Support

“Relationship of Distributions of Serological Responses to Occurrence of Respiratory Disease in Finisher Pigs”

Principal Investigators: Robert W. Wills, DVM, PhD (Jeffery Gray, PhD)      Period: 7/01/2000 – 10/31/2002

Agency: National Pork Producers Council, Des Moines, IA.

Type: Competitive Grant

This project is a field study investigating the usefulness of serological profiles to develop mathematical models that can be used to predict respiratory disease in commercial swine operations.

“Characterization of the distribution and development of antimicrobial resistance patterns in resident microbial flora of swine”

Principal Investigators: Robert W. Wills, DVM, PhD (Jeffery Gray, PhD)      Period: 4/01/2000 – 4/01/2001

Agency: National Pork Producers Council, Des Moines, IA.

Type: Competitive Grant

This project characterizes the variation in antimicrobial resistance patterns among *Enterobacteria* including *E. coli* and *Salmonella spp.* from pigs raised under the same and different production conditions and determine how the variation in antimicrobial resistance patterns of enteric bacteria from individual pigs, from pigs on the same farm, and pigs from different farms are related.

“Transmission of Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) to Age-Matched Sentinel Pigs”

Principal Investigator: Robert W. Wills, DVM, PhD

Period: 6/30/1998 – 9/30/1999

Agency: National Pork Producers Council, Des Moines, IA

Type: Competitive Grant

This project systematically investigated how long a group of PRRSV infected pigs remained contagious to age-matched sentinel pigs.