BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
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NAME	POSITION TITLE
WAGNER, G. Gale	Professor

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
Texas Tech University	B.S.	1963	Microbiology
University of Kansas	M.A.	1966	Microbiology
University of Kansas	Ph.D.	1968	Immunochemistry

A. Positions and Honors.

Positions and Employment:

1968-1970 National Science Foundation Postdoctoral Research Associate, Immunological Investigations,
1970-1971 Microbiologist, Immunological Investigations, Plum Island Animal Disease Center, Greenport, N.Y.
1971-1977 Microbiologist and Official-in-Charge, USDA Cooperative Research Division, East African Veterinary Research Organization, Muguga, Kenya.
1977-1986 Associate Professor of Veterinary Microbiology and Parasitology, College of Veterinary Medicine, Texas A&M University.
1986-present Professor of Veterinary Microbiology and Parasitology, College of Veterinary Medicine, Texas A&M University.
1990-1991 Professor and Interim Assistant Department Head for Research, College of Veterinary Medicine, Texas A&M University.
1991-present Professor and Coordinator of International Programs for the College of Veterinary Medicine, Texas A&M University.

Other Experience and Professional Memberships:

Member, American Association of Immunologists, 1971-present
Member, National Research Council, Board on Agriculture, Subcommittee, Long-range Plan for Foreign Animal Disease and Ectoparasite Diagnosis and Research, 1982-1984
Consultant, UNDP review of trypanosomiasis research ILRAD, Nairobi, Kenya, 1984
Texas Agricultural Experiment Station, Team Research Award, 1984
Member USDA Review Panel, Foreign Animal Disease Diagnostic Capability, Plum Island, 1995
Texas A&M University, Vice Chancellor's Award in Excellence for International Involvement, 1998
Inducted into the Mexican Veterinary Academy, 2002
Member, USDA public advisory committee on Bovine Anaplasmosis, 2002
Member, USDA public advisory committee on Equine Piroplasmosis, 2003

B. Selected peer-reviewed publications (in chronological order).

(Publications selected from 133 peer-reviewed publications)

Immunochemical studies of foot-and-mouth disease. VII. Characterization of foot-and-mouth disease virus concentrated by polyethylene glycol precipitation. G. Wagner, J. Card, and K. Cowan. Arch. Ges. Virus-forsch. 30:343-352 (1970).
Immunochemical studies of foot-and-mouth disease VIII. Detection and quantitation of antibodies by radial munodiffusion. K.M. Cowan and G.G. Wagner. J. Immunol. 105:557-566 (1970).
Immunochemical studies of foot-and-mouth disease. IX. Differences in neutralizing activities of guinea pig and bovine 19S and 7S antibodies. G.Wagner and K.Cowan. J. Immunol. 106:656-660 (1971).
The role of specific immunoglobulins in antibody-dependent cell-mediated cytotoxicity assays during *Babesia bovis* infection. W.L. Goff, G.G. Wagner, T.M. Craig and R.F. Long. Vet. Parasitol. 14:117-128 (1984).
Comparative assessment of antibody isotypes to *Brucella abortus* by primary and secondary binding assays. K.N.

Nielsen, F. Heck, G. Wagner, J. Stiller, B. Rosenbaum, R. Pugh and E. Flores. Prev. Vet. Med. 2:197-204 (1984).

13-C-NMR studies of glycolysis in intra- and extra-erythrocytic *Babesia microti*. N.E. Mackenzie, J. Johnson, G. Burton, G.G. Wagner and A.I. Scott. Molec. Biochem. Parasitol. 13:13-20 (1984).

Increased activity of bovine ADCC effector cells during acute *Babesia bovis* infection. W.L. Goff, G.G. Wagner and T.M. Craig. Vet. Parasitol. 16:5-15 (1984).

Adverse effects of antibiotics on the development of gut-associated lymphoid tissues and the serum immunoglobulins in chickens. S.A. Naqi, N. Sahin, G. Wagner and J. Williams. Amer. J. Vet. Res. 45:1425-1429 (1984).

Erythrocyte drug carriers for babesiosis chemotherapy. G.G, Wagner, D.E. Corrier and J.R. DeLoach. J. Cont. Rel. 8:79-83 (1988).

Babesia bovis: Gene isolation and characterization using a mung bean nuclease derived espression library. C.A. Tripp, G.G. Wagner and A.C. Rice-Ficht. Exp. Parasitol. 69:211-225 (1989).

Micowave fixation and polyester wax embedding for *Boophilus microplus* histoanatomy. G. Carranza, K. Waldrup, D. Cruz and G. Wagner. J. Med. Ent. 27:1067-1070 (1990)

Cell-mediated immune responses to *Babesia bovis* merozoite antigens in cattle following infection with tick-derived or cultured parasites. W.C. Brown, K.S. Logan, G.G. Wagner and C.L. Tetzlaff. Inf. Imm. 59:2418-2426 (1991).

Quantitation of *Babesia bigemina* infections in nymphal and adult *Boophilus microplus* using a DNA probe. J.L. Hodgson, D. Stiller, D.P. Jasmer, G.M.Buening, G.G. Wagner and T.C. McGuire. Exp. Parasitol. 74:117-126 (1992).

Culture confirmation of the carrier status of *Babesia caballi* infected horses. P.J. Holman, W. Frerichs, L. Chieves and G. Wagner. J. Clin. Microbiol. 31:698-701 (1993).

Development and validation of an indirect enzyme ummunoassay for detection of antibody to *Anaplasma marginale* in bovine sera. K. Nielsen, P. Smith, D. Gall, S. de Eshaide, G. Wagner and A. Dajer. Vet. Parasitol. 67:133-142 (1996).

In vitro cultivation of *Anaplasma marginale* in bovine erythrocytes co-cultured with endothelial cells. S. Waghela, D. Cruz, R. Droleskey, R. DeLoach and G. Wagner. Vet. Parasitol., 73:43-52 (1997).

Nucleotide Sequence Heterogeneity in the Small Subunit Ribosomal RNA Gene Variable (V4) Region among and within Geographic Isolates of *Theileria* from Cattle, Elk, and White-tailed Deer. J. Chae, J.Lee, O. Kwon, P. Holman, S. Waghela, and G.Wagner. Vet. Parasitol., 75:41-52 (1998).

Sequence Analysis of the Knockdown Resistance-Homologous Region of the Para-type Sodium Channel Gene from Pyrethroid-Resistant *Boophilus microplus* (Acari-Ixodidae). H. He, A. Chen, R. Davey, W. Ivie, G. Wagner and J. George. J. Med. Entomol. 36:539-543 (1999).

Cloning and Sequencing of a Putative Acetylcholinesterase cDNA from *Boophilus microplus* (Acari:Ixodadae). R. Hernandez, H. He, A. Chen, W. Ivie, J. George, and G. Wagner. J. Med. Entomol. 36: 764-770 (1999).

Deteccion de Esterasas en Arthopodos por Medio de Zimogramas. M. Villarino, S. Waghela and G. Wagner. Vet. Mex.31:107-111 (2000).

Identification of a Point Mutation in an Esterase Gene in Different Populations of the Southern Cattle Tick, *Boophilus microplus*. R. Hernandez, H. He, A. Chen, S. Waghela, W. Ivie, J. George, and G. Wagner. Insect Biochem. & Mol. Biol. 30:969-977 (2000).

Antigenic Analysis of *Anaplasma marginale* Grown in Bovine Erythrocytes Co-cultured with Bovine Endothelial Cells. S. Waghela, D. Melendy, D. Cruz and G. Wagner. Vet. Parasitol. 94:133-139 (2000).

Histochemical Localization of Esterases in the Integument of the Female *Boophilus microplus* (Acari:Ixodidae) Tick. M. Villarino, S. Waghela, and G. Wagner. J. Med. Entomol. 38:780-782 (2001).

Basal Cellular Alterations of Esterase, Glutathione, Glutathione S-Transferase, Intracellular Calcium and Membrane Potentials in Coumaphos Resistant *Boophilus microplus* (Acari: Ixodidae) Cell Lines. R. Cossio-Bayugar, R. Barhoumi, R. Burghardt, G. Wagner, and P. Holman. Pest. Biochem. Physiol. 72:1-9 (2002).

A Cathepsin L-like Cysteine Protease is Conserved among *Babesia equi* Isolates. P. Holman, M. Hsieh, J. Nix, K. Bendele, G. Wagner, and J. Ball. Mol. Biochem. Parasitol. 119:295-300 (2002).

In vitro generation of organophosphate resistant *Boophilus microplus* (Acari:Ixodidae) cell lines. R. Cossio-Bayugar, G. Wagner and P. Holman. J. Med Entomol. 39: 278-284 (2002).

Genotypically Unique *Babesia* spp. Isolated from Reindeer (*Rangifer tarandus tarandus*) in the United States. P. Holman, P. Swift, R. Frey, J. Bennet, D. Cruz and G.Wagner. Parasitol. Res. 88:405-411 (2002).

Allele Frequency and Gene Expression of a Putative Carboxylesterase-encoding Gene in a Pyrethroid Resistant Strain of the Tick *Boophilus microplus*. R. Hernandez, F. Guerrero, J. George and G. Wagner. Insect Biochem. Mol. Biochem. 32:1009-1016 (2002).

Evaluation of an Enzyme-Linked Immunosorbant Assay with Recombinant Rhoptry-Associated Protein 1 Antigen against *Babesia bovis* for the Detection of Specific Antibodies in Cattle. S. Boonchit, X. Xuan, N. Yokoyama, W. Goff, G. Wagner and I. Igarashi. J. Clin. Microbiol. 40:3771-3775 (2002).

Evaluation of an ELISA with Recombinant Rhoptry-Associated Protein-1 Antigen against *Babesia bovis* for the Detection of Specific Antibodies in Cattle. S. Boonchit, X. Xuan, N. Yokoyama, W. Goff, G. Wagner and I. Igarashi. J. Clin. Micro. 40:3771-3775 (2002).

A cathepsin L-like cysteine protease is conserved among *Babesia equi* isolates. P. Holman, M. Hsieh, J. Nix, K. Bendele, G. Wagner and J. Ball. Mol. Biochem. Parasitol. 119:295-300 (2002).

C. Research Support.

1998-2000 Government of Texas, Advanced Research Program: Monoclonal antibodies for treatment of colibacillosis in calves. This study resulted in a panel of monoclonal antibodies specific for E. coli 0157:H7. Role: CoI

1999-2001 Government of Egypt, Egyptian National Agricultural Research Program: Recombinant hemoparasite vaccines. Research training for a Government of Egypt scientist on molecular approaches to vaccine design. Role: PI

2000-2001 NASA, Jet Propulsion Laboratory: Internal monitors of animal health. Development of a biosensor (using specific plasmon resonance) for early detection of infection of food animals. Role: PI

2000-2001 Texas A&M University, College of Veterinary Medicine Signature Programs. Control of avian coccidiosis. Preparation of molecular probes to aid in early diagnosis. Role: CoI

2000-2002 Government of Texas, Advanced Research Program: Molecular diagnosis of *Babesia equi* infections of horses. This study compared conventional serology with newer molecular techniques. Role: CoI

2000-2002 USDA, Agricultural Research Service: Mechanisms of acaricide resistance in ticks. Molecular approaches to the detection of acaricide resistant ticks in Mexico. Role: PI

1999-2003 USDA, Cooperative State Research, Education and Extension Service: Development of a digital library of animal diseases. Role: PI