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**BIOGRAPHICAL SKETCH**

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Provide the following information for the key personnel in the order listed on Form Page 2.  
Photocopy this page or follow this format for each person.

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NAME A. Jerald Ainsworth	POSITION TITLE Assistant Dean for Research and Professor
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EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing and include postdoctoral training.)

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INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Delta State Univ. Cleveland, MS	B.S.	Dec. 1975	Biophysics and Mathematics
University Medical Ctr., Jackson, MS	M.S.	May 1977	Immunopathology
University Medical Ctr., Jackson, MS	Ph.D.	May 1979	Immunology
University Alabama - Birmingham	NIH Postdoctoral	Aug '79 - Aug '80.	Immunology/Rheumatology

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RESEARCH AND PROFESSIONAL EXPERIENCE: Concluding with present position, list, in chronological order, previous employment, experience, and honors. Include present membership on any Federal Government public advisory committee. List, in chronological order, the titles, all authors, and publications in the last three years and to representative earlier publications pertinent to this application. If the list of publications in the last three years exceeds two pages, select the most pertinent publications. **DO NOT EXCEED TWO PAGES.**

**PROFESSIONAL EXPERIENCE**

1980 – 1987 Assistant Professor, College of Veterinary Medicine, Mississippi State University.  
1986 – 1992 Graduate Coordinator, Veterinary Medical Sciences Graduate Program, College of Veterinary Medicine, Mississippi State University.  
1987 – 1994 Associate Professor and Scientific Director Flow Cytometry Center, College of Veterinary Medicine, Mississippi State University.  
1994 - 1998 Professor; Coordinator, Veterinary Medical Sciences Graduate Program; and Scientific Director, Flow Cytometry Center, College of Veterinary Medicine, Mississippi State University.  
1997 – 1998 Administrative Intern, Vice President Office of Research MSU  
1998 – Present Assistant Dean for Research and Professor, College of Veterinary Medicine

**HONORS**

Who's Who in America's Colleges and Universities: 1975 - 1976  
Dean's Pegasus Research Award, College of Veterinary Medicine, Mississippi State, 1984 & 1996  
Sigma Xi Faculty Research Award, Mississippi State University, 1987  
SmithKline Beecham Award for Research Excellence, 1990 and 1992  
NIH (2 proposals - 1993) Asked to serve on the Comparative Biomedical Study Panel (summer 1993-declined because of prior engagement)  
American Institute of Biological Sciences, Panel member for the review of Sea Grants - 1994 & 1997.  
Mississippi State Office of Research Award, 2000

**PUBLICATIONS (out of 55)**

**Ainsworth AJ**, Brown JE. 1991. Detection of *in ovo*-derived idiotypic antibodies. I. A model for maternal-neonatal idotype network studies. *Journal of Immunology*. 147:910-914.  
**Ainsworth AJ**, Dexiang C. 1992. Glucan administration potentiates immune defense mechanisms of channel catfish (*Ictalurus punctatus*) *Journal of Fish Diseases*. 15:295-304.  
Brown JE, **Ainsworth AJ**. 1992. A flow microsphere inhibition immunoassay (FMII) for detecting paratope binding anti-idiotypic antibodies. *Immunological Investigations*. 21:565-580.  
**Ainsworth AJ**. 1993. Carbohydrate and lectin interactions with *Edwardsiella ictaluri* and channel catfish anterior kidney leucocytes and hepatocytes. *Journal of Fish Diseases*. 16:449-459.  
**Ainsworth AJ**. 1994. A ? -glucan inhibitable zymosan receptor on channel catfish neutrophils. *Vet. Immunol. Immunopathol.* 41:141-152.  
Zhang H, **Ainsworth AJ**, Montgomery RD. 1994. Use of a 35.5 kD outer membrane component of *Pasteurella multocida* and an anti-idiotypic antibody in Leghorn chickens to induce protective immune responses to *Pasteurella multocida* (X-73). *Vet. Immunol. Immunopathol.* 41:89-100.

- Zhang H, **Ainsworth AJ**. 1994. Investigation of the poultry idiotypic network using *Pasteurella multocida*. *Vet. Immunol. Immunopathol.* 41:73-88.
- May JD, Branton SL, Pruett SB, **Ainsworth AJ**. 1994. Differentiation of two strains of *Mycoplasma gallisepticum* with monoclonal antibodies and flow cytometry. *Avian Diseases.* 38:542-547.
- Ainsworth AJ**, Rice CR, Xue L. 1995. Antibody, bacterial killing, and nonspecific cytotoxic cell responses of channel catfish (*Ictalurus punctatus*) administered particulate or soluble *Edwardsiella ictaluri* antigen orally or intraperitoneally. *Journal of Fish Diseases.* 18:397-409.
- Ainsworth AJ**, Qian Y, Boyd B, Xue L. 1996. Increased adhesion of channel catfish, *Ictalurus punctatus* Rafinesque, neutrophils to substrates following stimulation with phorbol ester. *Fish and Shellfish Immunology.* 6:35-45.
- Ainsworth AJ**, Ye Q, Xue L, Hébert P. 1996. Channel catfish, *Ictalurus punctatus* Rafinesque, neutrophil adhesion to selected extracellular matrix proteins, lipopolysaccharide, and catfish serum. *Developmental and Comparative Immunology.* 20:105-114.
- Rice, CR, Schlenk D, **Ainsworth AJ**, Goksøyr A. 1998 Cross reactivity of monoclonal antibodies against peptide 277-294 of rainbow trout CYP1A1 with hepatic CYP1A1 among fish. *Marine Environmental Research (Special Issue from the Pollutant Responses in Marine Organisms Congress).*
- Ainsworth AJ**, Boyd B. 1998 Intracellular signaling events in superoxide generation and adhesion of channel catfish, *Ictalurus punctatus* Rafinesque, neutrophils to the extracellular matrix protein fibrinogen. *Developmental and Comparative Immunology* 22:173-184
- Xue L, **Ainsworth AJ**, Hanson L, Ye Q, Noya M. 1999. Identification of a channel catfish, *Ictalurus punctatus* Rafinesque, leukocyte specific leucine zipper protein. *Developmental and Comparative Immunology* 23:149-163.
- Erdenlig S, **Ainsworth AJ**, Austin FW. 1999. Production of monoclonal antibodies to *Listeria monocytogenes* and their application to determine virulence of isolates from channel catfish. *Applied and Environmental Microbiology.* 65:2827-2832.
- Ainsworth, AJ**, Qian Y, Noya M. 1999. Adhesion of a lower vertebrate neutrophil: Molecular and functional characterization of channel catfish (*Ictalurus punctatus*) neutrophil adhesion. *Trends in Comparative Biochemistry and Physiology* 5:237-248.
- Noya M, Qian Y, **Ainsworth AJ**. 1999. Molecular and functional characterization of channel catfish (*Ictalurus punctatus*) neutrophil collagenase. *Veterinary Immunology and Immunopathology.* 67:303-316.
- Petrie-Hanson L, **Ainsworth AJ**. 1999. Humoral immune responses of channel catfish fry and fingerlings exposed to *Edwardsiella ictaluri*. *Fish and Shellfish Immunology.* 9:579-589.
- Erdenlig S, **Ainsworth AJ**, Austin FW. 2000. Pathogenicity and production of virulence factors by *Listeria monocytogenes* isolates from channel catfish. *Journal of Food Protection* 63:613-619.
- Qian Y, **Ainsworth AJ**, Noya M. 1999. Identification of a beta 2 (CD18) molecule in a teleost species, *Ictalurus punctatus* Rafinesque. *Developmental and Comparative Immunology.* 23:571-584.
- Petrie-Hanson L, **Ainsworth AJ**. . 2000. Differential cytochemical staining characteristics of channel catfish leukocytes identify cell populations in lymphoid organs. *Journal of Veterinary Immunology and Immunopathology* 73:129-144.
- Qian Y, **Ainsworth AJ**. 2000. Characterization and expression of an EB1-like molecule on neutrophils. *Developmental and Comparative Immunology* 24:741-750.
- Qian Y, **Ainsworth AJ**, Noya, M. 2000. Identification of a beta 1 molecule on channel catfish leukocytes. *Veterinary Immunology and Immunopathology.* 76:61-74.
- Hébert P, **Ainsworth AJ**, Boyd B. 2000. Cholera toxin has adjuvant properties in channel catfish. *Fish and Shellfish Immunology.* 10:469-474.
- Hébert P, **Ainsworth AJ**, Boyd B. 2001. Histological, enzyme, and flow cytometric analysis of channel catfish intestinal tract immune cells. *Developmental and Comparative Immunology.* 26:53-62.
- Petrie-Hanson L, **Ainsworth AJ**. 2001. Ontogeny of channel catfish lymphoid organs. *Journal of Veterinary Immunology and Immunopathology.* 81(1-2):113-127.

#### RESEARCH SUPPORT:

“Acquisition of an Integrated Image Analysis System”

Principal Investigator: A. Jerald Ainsworth, Ph.D. Period: 10/98 – 9/99.

Agency: USDA-NRICGP

Type: Competitive Grant, Equipment Grant #98-35208-6908, \$28,686.

Goal: To purchase an integrated image analysis system and establish an image acquisition, processing and analysis center at the College of Veterinary Medicine, Mississippi State University.

“Mississippi State University Biotechnology Institute”

Principal Investigator: Dawn Luthe, A. Jerald Ainsworth (Contributor) Period: 1/99 – 12/00.

Agency: Hearin Foundation

Type: Planning grant \$400,000

Goal: To determine the feasibility of developing a Life Sciences and Biotechnology Institute at Mississippi State University. Dr. Ainsworth was a member of the planning and implementation committee.

“The role of *Edwardsiella ictaluri* lipopolysaccharide in disease resistance”

Co-Investigator: A. Jerald Ainsworth Period: 10/99 – 9/02

Agency: USDA-NRICGP

Type: Standard Competitive Grant, #99-35204-7679. \$185,000.

Goal: To investigate enteric septicemia of catfish using *Edwardsiella ictaluri* mutants expressing some portion of the lipopolysaccharide molecule or with no lipopolysaccharide expression.

“Acquisition of a Modern Cryostat for Agri-Research”

Principal Investigator: A. Jerald Ainsworth Period: 10/99 – 9/00.

Agency: USDA-NRICGP

Type: Competitive Grant, Equipment Grant #99-35208-8198, \$7,995.

Goal: To purchase a modern cryostat for cutting frozen sections for use in research.

“Research Experience Program For Veterinary Students”

Principal Investigator: A. Jerald Ainsworth Period: Summer 2000

Agency: Merck-Merial Animal Health Grants Program,

Type: Competitive Grant, Student training, \$28,494.

Goal: To provide an opportunity for veterinary students to be involved in ongoing research as a means to encourage students to consider biomedical research as a career option.

“Research Experience Program For Veterinary Students - Meeting”

Principal Investigator: A. Jerald Ainsworth

Agency: Merck-Merial Animal Health Grants Program

Type: Meeting Support, \$8,000.

Goal: To provide a forum for student participants in the summer research program to present the findings of their research.

Planned and hosted a one day meeting for MSU, Auburn and LSU Colleges of Veterinary Medicine.

“Research Experience Program For Veterinary Students”

Principal Investigator: A. Jerald Ainsworth Period: Summer 2001

Agency: Merck-Merial Animal Health Grants Program,

Type: Competitive Grant, Student training, \$28,494.

Goal: To provide an opportunity for veterinary students to be involved in ongoing research as a means to encourage students to consider biomedical research as a career option.

“Summer Research Experience for Veterinary Students”

Principal Investigator: A. Jerald Ainsworth Period: 8/01/01 – 7/31/06.

Agency: NIH-NCRR

Type: Competitive Grant (T35) RR07071 \$194,805.

Goal: To provide an opportunity for veterinary students to be involved in ongoing research as a means to encourage students to consider biomedical research as a career option.

“Genetic basis for variation of virulence factor expression in *Listeria monocytogenes*”

Co-investigator: A. Jerald Ainsworth Period: 9/2001 – 8/2004

Agency: Agricultural Research Service

Type: \$187,390.

Goal: To begin to identify some of the factors that determine virulence factor expression of *Listeria monocytogenes* and to investigate methods of altering virulence factor expression.