

Biographical Sketch

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

NAME Fernando J. Benavides		POSITION TITLE Adjunct Assistant Professor, Veterinary Pathobiology, College of Veterinary Medicine, Texas A&M University	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Buenos Aires, Argentina	DVM	1986	Veterinary Medicine
University of Buenos Aires, Argentina	PhD	1998	Genetics
M.D. Anderson Cancer Center, Smithville, TX	PostDoctoral	1999	Veterinary Medicine

NOTE: The Biographical Sketch may not exceed four pages. Items A and B may not exceed two of the four-page limit.

A. Positions and Honors. List in chronological order previous positions, concluding with your present position. List any honors. Include present membership on any Federal Government public advisory committee.

PROFESSIONAL EXPERIENCE AND ACADEMIC APPOINTMENTS

1989-1997	Head, Animal Care Facility, Experimental Medicine Division, Academia Nacional de Medicina, Buenos Aires, Argentina.
1998-1999	Postdoctoral Fellowship, Department of Carcinogenesis, UT M.D. Anderson Cancer Center, Science Park-Research Division, Smithville, TX.
1999-2000	Research Associate, Department of Carcinogenesis, UT M.D. Anderson Cancer Center, Science Park-Research Division, Smithville, TX.
2002-2003	Instructor, Department of Carcinogenesis, UT M.D. Anderson Cancer Center, Science Park-Research Division, Smithville, TX.
2003-present	Assistant Professor NTRA, Department of Carcinogenesis, UT M.D. Anderson Cancer Center, Science Park-Research Division, Smithville.
2005-present	Adjunct Assistant Professor, Department of Veterinary Pathobiology, College of Veterinary Medicine, Texas A&M University, College Station, TX.
2006-present	Director of Genetic Services, Research Animal Support Facility, Department of Carcinogenesis, UT M.D. Anderson Cancer Center, Science Park-Research Division, Smithville, TX.
2003-present	Veterinarian/Geneticist, Research Animal Support Facility, Department of Carcinogenesis, UT M.D. Anderson Cancer Center, Science Park-Research Division, Smithville, TX.

B. Selected (>180) peer-reviewed publications (in reverse chronological order). Do not include publications submitted or in preparation.

- Benavides F**, Salaverri M, Cazalla D, Pereira P, Pazos P, Fontanals A, Corley E. Six cases of paternity disputes resolved by DNA fingerprinting. *Revista de Medicina Veterinaria* 77: 397-400, 1996.
- Benavides F**, Guénet J-L. Gene mapping in the mouse. *Medicina (B Aires)* 57: 507-510, 1997 (Spanish).
- Benavides F**, Cazalla D, Pereira C, Fontanals A, Salaverri M, Goldman A, Buggiano V, Dran G, Corley E. Evidence of genetic heterogeneity in a BALB/c colony as determined by DNA fingerprinting. *Laboratory Animals* 32: 80-85, 1998.
- Dyzenchouz F, Fontanals A, **Benavides F**. *Experimental Animals in Argentina: species and strains.* *Animales de Experimentación* 3: 23-26, 1998 (Spanish).
- Gorla N, **Benavides F**, Salaverri M, Ludueña R, Grandoli N, Corley E, Larripa I. Application of DNA fingerprinting to determine paternity in cattle with large congenital abdominal wall defect progeny. *Archivos de Medicina Veterinaria* 30 (2): 151-155, 1998.
- Benavides F**, Giordano M, Fiette L, Bueno Brunialti A, Martin Palenzuela N, Vanzulli S, Baldi P, Reiner S, Dosne Pasqualini C, Guénet J-L. *Nackt (nkt): a new hair loss mutation of the mouse with associated CD4 deficiency.* *Immunogenetics* 49: 413-419, 1999.
- Benavides F**. Genetic Contamination in a SJL/J mouse colony: Rapid detection by PCR-based microsatellite markers. *Contemporary Topics in Laboratory Animal Science* 38: 54-55, 1999.

8. Stern MC, **Benavides F**, Klingelberger EA, Conti CJ. Allelotype analysis of chemically induced squamous cell carcinomas in F1 hybrids of two inbred mouse strains with different susceptibility to tumor progression: frequent loss of heterozygosity on chromosomes 4, 6, 7, 9, 10, 16 and 19. *Carcinogenesis* 21: 1297-1301, 2000.
9. **Benavides F**, Stern MC, Glasscock E, DiGiovanni J, Coghlan LG, Conti CJ. Microsatellite DNA variants between the inbred SENCAR mouse strains. *Molecular Carcinogenesis* 28: 191-195, 2000.
10. **Benavides F**, Glasscock E, Coghlan LG, Stern MC, Weiss DA, Conti CJ. PCR-based microsatellite analysis for differentiation and genetic monitoring of nine inbred SENCAR mouse strains. *Laboratory Animals* 35: 157-162, 2001.
11. **Benavides F**, Venables A, Poetschke H, Glasscock E, Rudensky A, Gómez M, Martin Palenzuela N, Guénet J-L, Richie ER, Conti CJ. The CD4 T cell deficient mouse mutation *nackt* (*nkt*) involves a deletion in the cathepsin L gene (*Ctsl*). *Immunogenetics* 53: 233-242, 2001.
12. **Benavides F**, Guénet J-L. Mouse models of human diseases. *Medicina (B Aires)* 6: 215-231, 2001.
13. Starost MF, **Benavides F**, Conti CJ. A variant of pulmonary alveolar microlithiasis in *nackt* mice. *Veterinary Pathology* 39: 390-392, 2002.
14. Vanzulli S, Efeyan A, **Benavides F**, Helguero L, Peters G, Shen J, Conti CJ, Lanari C, Molinolo A. p21, p27 and p53 in estrogen and antiprogesterin-induced tumor regression of experimental mouse mammary ductal carcinomas. *Carcinogenesis* 23: 749-758, 2002.
15. **Benavides F**, Starost MF, Flores M, Gimenez-Conti IB, Guénet J-L, Conti CJ. Impaired hair follicle morphogenesis and cycling with abnormal epidermal differentiation in *nackt* mice, a cathepsin L deficient mutation. *American Journal of Pathology* 161: 693-703, 2002.
16. Stern MC, **Benavides F**, LaCava M, Conti CJ. Genetic analysis of mouse skin tumor progression susceptibility in SENCAR inbred derived strains. *Molecular Carcinogenesis* 35: 13-20, 2002.
17. **Benavides F**, Zamisch M, Flores M, Campbell MR, Andrew SE, Angel JM, Licchesi J, Sternik G, Richie ER, Conti CJ. Application of inter-simple sequence repeat PCR to mouse models: assessment of genetic alterations in carcinogenesis. *Genes, Chromosomes & Cancer* 35: 299-310, 2002.
18. Lopes EC, García M, **Benavides F**, Shen J, Conti CJ, Alvarez E, Hajos SE. Multidrug resistance modulators PSC 833 and CsA show differential capacity to induce apoptosis in lymphoid leukemia cell lines independently of their MDR phenotype. *Leukemia Research* 27: 413-423, 2003.
19. **Benavides F**, Conti CJ, Lacava M, Flores M, Glasscock E, Sternik G, Gimenez-Conti IB, Johnston DA, Dunsford HA, Goldstein LS, Rodriguez LV. Loss of Heterozygosity Analysis of Mouse Pulmonary Adenomas Induced by Coal Tar. *Environmental and Molecular Mutagenesis* 41: 300-308, 2003.
20. Amornphimoltham P, Sriuranpong V, Patel V, **Benavides F**, Conti CJ, Sauk J, Sausville EA, Molinolo AA, Gutkind JS. Persistent Activation of the Akt Pathway in Head and Neck Squamous Cell Carcinoma: A Potential Target for UCN-01. *Clinical Cancer Research* 10: 4029-4037, 2004.
21. Bourgade F, Montagutelli X, Bigbee C, Weiss A, Rigottier-Gois L, Conti CJ, **Benavides F**. Simple duplex fecal PCR assay that allows identification of false-negative results in *Helicobacter sp.*-infected mice. *Comparative Medicine* 54: 528-532, 2004.
22. Kim E, Rundhaug JE, **Benavides F**, Yang P, Newman RA, Fischer SM. An antitumorigenic role for murine 8S-lipoxygenase in skin carcinogenesis. *Oncogene* 24: 1174-1187, 2005.
23. Fabris VT, **Benavides F**, Conti CJ, Merani S, Lanari C. Cytogenetic findings, *Trp53* mutations, and hormone responsiveness in a medroxyprogesterone acetate induced murine breast cancer model. *Cancer Genetics and Cytogenetics* 161: 130-139, 2005.
24. Gonzalez-Guerrico AM, Meshki J, Xiao L, **Benavides F**, Conti CJ, Kazanietz MG. Molecular mechanisms of protein kinase C-induced apoptosis in prostate cancer cells. *Journal of Biochemistry and Molecular Biology* 38: 639-645, 2005.
25. **Benavides F**, Gomez G, Venables-Griffith A, Lambert I, Flores M, Angel JM, Fuchs-Young R, Richie ER, Conti CJ. Differential susceptibility to chemically-induced thymic lymphomas in SENCARB and SSIN inbred mice. *Molecular Carcinogenesis* 45: 543-548, 2006.
26. Rojas P, Cadenas MB, Lin PC, **Benavides F**, Conti CJ, Rodriguez-Puebla ML. Cyclin D2 and cyclin D3 play opposite roles in mouse skin carcinogenesis. *Oncogene* 26: 1723-1730, 2007.
27. Montero Girard G, Vanzulli SI, Cerliani JP, Bottino MC, Bolado J, Vela J, Becu-Villalobos D, **Benavides F**, Gutkind S, Patel V, Molinolo A, Lanari C. Association of estrogen receptor-alpha and progesterone receptor A expression with hormonal mammary carcinogenesis: role of the host microenvironment. *Breast Cancer Res.* 9:R22, 2007.

Principal Investigator/Program Director (Last, first, middle): Benavides, Fernando J.

C. Research Support. List selected ongoing or completed (during the last three years) research projects (federal and non-federal support). Begin with the projects that are most relevant to the research proposed in this application. Briefly indicate the overall goals of the projects and responsibilities of principal investigator identified above.

Co-director, DHHS/NCI Cancer Center Support Grant (CCSG)-Core Grant. PI: John Mendelsohn, 07/2003 - 06/2008.

Co-PI, Cattlemen for Cancer Research (CCR) Grant. Bacterial associated Chronic Diarrhea as a risk factor for cecal carcinoma in the rhesus monkey. 09/2007-09/2008.