

CURRICULUM VITAE

Name: John B. Dame
Date & Place of Birth: November 20, 1949, Winter Haven, Florida
Marital Status: Married; six children
Present Position: Professor and Chair
Department of Infectious Diseases and Pathology
College of Veterinary Medicine
University of Florida
Gainesville, FL 32611-0880

Education:

University of Washington	Biochemistry	Ph.D. 1977
Florida State University	Chemistry	B.S. 1971

Professional Employment:

07/77 - 07/78 Postdoctoral Research Associate, Department of Pharmacology,
University of North Carolina, Chapel Hill, NC

07/78 - 07/80 NIH Postdoctoral Fellow, Department of Pharmacology, University of North
Carolina, Chapel Hill, NC

07/80 - 08/84 Staff Fellow, Malaria Section, Laboratory of Parasitic Disease, NIAID,
NIH, Bethesda, MD

08/84 - 10/84 Senior Staff Fellow (Malaria Section), Laboratory of Parasitic Diseases,
NIAID, NIH, Bethesda, MD

10/84 - 12/86 Research Microbiologist, GS-13, USDA, Agricultural Research Service,
Animal Parasitology Institute, Beltsville, MD (Permanent Status Attained)

12/86 - 06/92 Assistant Professor, Department of Infectious Diseases, College of
Veterinary Medicine, University of Florida, Gainesville, FL

07/92 - 03/95 Associate Professor, Department of Infectious Diseases, College of
Veterinary Medicine, University of Florida, Gainesville, FL

03/95 – 06/98 Associate Professor, Department of Pathobiology, College of
Veterinary Medicine, University of Florida, Gainesville, FL

07/98 – 06/99 Professor, Department of Pathobiology, College of Veterinary
Medicine, University of Florida, Gainesville, FL

06/99 – pres. Professor and Chair, Department of Pathobiology (renamed Infectious Diseases and Pathology 01/06), College of Veterinary Medicine, University of Florida, Gainesville, FL

Doctoral Dissertation:

Dame, John B. 1977. Assembly of the Membrane of Escherichia coli as Analyzed with Novel Envelope-Altered Mutants, University of Washington, Seattle.

Academic Fraternities and Professional Societies:

Phi Eta Sigma
Phi Beta Kappa
Phi Zeta
American Association for the Advancement of Science
American Society of Tropical Medicine and Hygiene

Honors and Awards:

C.E. Cornelius Faculty Research Award 1992
Pfizer Award for Research Excellence 1997
Distinguished Service Award, Phi Zeta National Organization 2000

Personal Statement:

I have been engaged in basic research on parasitic and vector-borne diseases for the last 36 years with the goal of identifying novel approaches to preventing, diagnosing or treating infections. My passion for making a significant contribution to the control or elimination of parasitic and vector-borne diseases has motivated me to obtain the training and develop the expertise necessary to successfully conduct and manage research projects. Using the tools of molecular biology and biochemistry I have directed my research toward developing novel methods of diagnosing and controlling malaria and several other parasitic infections.

I expanded my leadership and administrative experience by accepting the position as Chair of my academic department, where I have served for over 17 years, while maintaining my laboratory and research interests. In early 2017 I will step down from Department Chair to devote fulltime to my research interests. To make this transition I have obtained intramural funding to do comparative re-sequencing of the genomes of *P. falciparum* isolates from Haiti to study the genetic diversity in this parasite population and to determine the prevalence of asymptomatic malaria infections. In this work I have employed a Pf18S-qRT-PCR assay to detect asymptomatic, submicroscopic *P. falciparum* infections and discovered a surprisingly large reservoir of malaria infections which will be critical to be accounted for during the malaria elimination effort on Hispaniola.

Earlier Contributions to Science:

1. My contribution as a membrane biochemist was in 1980 with the discovery and characterization of the first proton-pumping ATPase having a high energy phosphate intermediate in its catalytic mechanism. Prior to this discovery all proton pumps energizing plasma membranes succeeded in utilizing the energy of ATP to translocate protons without formation of a high energy phosphorylated intermediate. This research was funded by an NIH individual postdoctoral fellowship (F32) awarded in 1978.
 - a. **Dame JB** and Scarborough GA. 1980. Identification of the hydrolytic moiety of the *Neurospora* plasma-membrane H⁺-ATPase and demonstration of a phosphoryl-enzyme intermediate in its catalytic mechanism. *Biochemistry* **19**, 2931-2937.
 - b. **Dame JB** and Scarborough GA. 1981. Identification of the phosphorylated intermediate of the *Neurospora* plasma-membrane H⁺-ATPase as β-aspartyl phosphate. *J Biol Chem* **256**, 724-730.
2. Early in my career in parasitology as a Staff Fellow in the Malaria Section of the Laboratory of Parasitic Diseases at NIAID, I described the family of four non-tandemly arranged ribosomal RNA transcription units of *Plasmodium berghei* and discovered stage specific transcription of those transcription units. This was the first organism described with stage specific ribosomes. It was later discovered that in *Plasmodium falciparum* stage specific ribosomes were present in the asexual stages and in sexual stages and stages in the mosquito.
 - a. **Dame JB** and McCutchan TF. 1983. Cloning and characterization of a ribosomal RNA gene from *Plasmodium berghei*. *Mol Biochem Parasitol* **8**, 263-279.
 - b. **Dame JB** and McCutchan TF. 1983. The four ribosomal DNA units of the malaria parasite *Plasmodium berghei*: Identification, restriction map, and copy number analysis. *J Biol Chem* **258**, 6984-6990.
 - c. **Dame JB** and McCutchan TF. 1984. Identification of 5S and 5.8S ribosomal RNA molecules and their genes in *Plasmodium berghei*. *Mol Biochem Parasitol* **11**, 301-307.
 - d. **Dame JB**, Sullivan M and McCutchan TF. 1984. Two major sequence classes of ribosomal RNA genes in *Plasmodium berghei*. *Nucleic Acids Res* **12**, 5943-5952.
3. Later as a Staff Fellow and Senior Staff Fellow I utilized a novel molecular cloning technique in collaboration with Thomas F. McCutchan to clone and sequence the gene encoding the circumsporozoite protein of *Plasmodium falciparum*. This gene expressed only in the sporozoite stages was cloned from the genomic DNA using mung bean nuclease and formamide at a slightly elevated temperature to fragment the genome and obtain coding regions of genes as gene-sized fragments. Cloned in an expression vector, clones containing this gene were identified by immunoscreening with a pool of monoclonal antibodies prepared against this important surface antigen. The sequence of the circumsporozoite antigen was patented for the purposes of developing a pre-erythrocytic stage, antimalarial vaccine. The

RTS,S vaccine based upon peptides derived from this antigen was approved by European regulators in July 2015 for use in vaccination, and is the world's first malaria vaccine to get approval for use.

- a. **Dame JB**, Williams JL, McCutchan TF, Weber JL, Wirtz RA, Hockmeyer WT, Maloy WL, Haynes JD, Schneider I, Roberts D, Sanders GS, Reddy EP, Diggs CL and Miller LH. 1984. Structure of the gene encoding the immunodominant surface-antigen on the sporozoite of the human malaria parasite *Plasmodium falciparum*. *Science* **225**, 593-599.
- b. McCutchan TF, Hansen JL, **Dame JB** and Mullins JA. 1984. Mung bean nuclease cleaves Plasmodium genomic DNA at sites before and after genes. *Science* **225**, 625-628.
4. In my positions at the USDA's Biosystematics Laboratory in the Animal Parasitology Institute and the College of Veterinary Medicine at the University of Florida, I utilized the tools of molecular biology to identify and clone recombinant antigens for antiparasitic vaccines and to pursue knowledge of the population structure and evolutionary relatedness among parasites of various classes including both protozoans and helminths. This research led to several novel discoveries including identification and cloning of surface antigens on *Eimeria acervulina* merozoites and sporozoites and critical evidence to divide *Trichinella spiralis* into multiple species based upon differences in genome structure and reproductive isolation.
 - a. **Dame JB**, Murrell KD, Worley DE and Schad GA. 1987. *Trichinella spiralis*: Genetic-evidence for synanthropic subspecies in sylvatic hosts. *Exp Parasitol* **64**, 195-203.
 - b. Murrell KD, Stringfellow F, **Dame JB**, Leiby DA, Duffy C and Schad GA. 1987. *Trichinella spiralis* in an agricultural ecosystem. II. Evidence for natural transmission of *Trichinella spiralis spiralis* from domestic swine to wildlife. *J Parasitol* **73**, 103-109.
 - c. Jenkins MC and **Dame JB**. 1987. Identification of immunodominant surface-antigens of *Eimeria acervulina* sporozoites and merozoites. *Mol Biochem Parasitol* **25**, 155-164.
 - d. Jenkins MC, Lillehoj HS and **Dame JB**. 1988. *Eimeria acervulina*: DNA cloning and characterization of recombinant sporozoite and merozoite antigens. *Exp Parasitol* **66**, 96-107.
5. From 1991-94 I led a research team at the University of Florida as a part of the international effort to sequence the genome of *P. falciparum*. The practical goal of this and my other projects on malaria have focused on identifying rational drug targets and potential vaccine candidates. Much of my research effort since the sequencing project has been focused on characterizing a family of aspartic proteinases (plasmepsins) as potential drug targets using a gene knockout strategy combined with enzyme kinetic and inhibitor studies of recombinant enzymes.
 - a. Reddy GR, Chakrabarti D, Schuster SM, Ferl RJ, Almira EC and **Dame JB**. 1993. Gene sequence tags from Plasmodium falciparum genomic DNA fragments prepared by the genease activity of mung bean nuclease. *Proc Natl Acad Sci USA* **90**, 9867-9871.
 - b. **Dame JB**, Arnot DE, Bourke PF, Chakrabarti D, Christodoulou Z, Coppel RL, Cowman AF, Craig AG, Fischer K, Foster J, Goodman N, Hinterberg K,

- Holder AA, Holt DC, Kemp DJ, Lanzer M, Lim A, Newbold CI, Ravetch JV, Reddy GR, Rubio J, Schuster SM, Su XZ, Thompson JK, Vital F, Wellems TE and Werner EB. 1996. Current status of the Plasmodium falciparum genome project. *Mol Biochem Parasitol* **79**, 1-12.
- c. Bonilla JA, Bonilla TD, Yowell CA, Fujioka H and **Dame JB**. 2007. Critical roles for the digestive vacuole plasmepsins of Plasmodium falciparum in vacuolar function. *Mol Microbiol* **65**, 64-75.
- d. Spaccapelo R, Janse CJ, Caterbi S, Franke-Fayard B, Bonilla JA, Syphard LM, Di Cristina M, Dottorini T, Savarino A, Cassone A, Bistoni F, Waters AP, **Dame JB** and Crisanti A. 2010. Plasmepsin 4-deficient Plasmodium berghei are virulence attenuated and induce protective immunity against experimental malaria. *Am J Pathol* **176**, 205-17.

Research Interests:

Molecular biology of parasites. My laboratory uses the tools of molecular biology to approach a broad range of problems in parasitology including studies of parasite genome organization, population structure, phylogenetics, identifying targets of rational drug development, utilizing genetically attenuated parasites as tools in immunological studies, and developing novel methods for disease diagnosis.

Publications:

Refereed

1. **Dame JB** and Shapiro BM. 1976. Use of polymyxin B, levallorphan, and tetracaine to isolate novel envelope mutants of *Escherichia coli*. *J Bacteriol* **127**, 961-972.
2. **Dame JB** and Shapiro BM. 1979. Lipid and lipopolysaccharide composition of *Escherichia coli* surface-altered mutants selected for resistance to levallorphan, tetracaine, and polymyxin. *J Bacteriol* **137**, 1043-1047.
3. **Dame JB** and Scarborough GA. 1980. Identification of the hydrolytic moiety of the Neurospora plasma-membrane H⁺-ATPase and demonstration of a phosphoryl-enzyme intermediate in its catalytic mechanism. *Biochemistry* **19**, 2931-2937.
4. **Dame JB** and Scarborough GA. 1981. Identification of the phosphorylated intermediate of the Neurospora plasma-membrane H⁺-ATPase as β -aspartyl phosphate. *J Biol Chem* **256**, 724-730.
5. **Dame JB** and McCutchan TF. 1983. Cloning and characterization of a ribosomal RNA gene from *Plasmodium berghei*. *Mol Biochem Parasitol* **8**, 263-279.
6. **Dame JB** and McCutchan TF. 1983. The four ribosomal DNA units of the malaria parasite *Plasmodium berghei*: Identification, restriction map, and copy number analysis. *J Biol Chem* **258**, 6984-6990.
7. **Dame JB** and McCutchan TF. 1984. Identification of 5S and 5.8S ribosomal RNA molecules and their genes in *Plasmodium berghei*. *Mol Biochem Parasitol* **11**, 301-307.
8. **Dame JB**, Sullivan M and McCutchan TF. 1984. Two major sequence classes of

- ribosomal RNA genes in *Plasmodium berghei*. *Nucleic Acids Res* **12**, 5943-5952.
9. **Dame JB**, Williams JL, McCutchan TF, Weber JL, Wirtz RA, Hockmeyer WT, Maloy WL, Haynes JD, Schneider I, Roberts D, Sanders GS, Reddy EP, Diggs CL and Miller LH. 1984. Structure of the gene encoding the immunodominant surface-antigen on the sporozoite of the human malaria parasite *Plasmodium falciparum*. *Science* **225**, 593-599.
 10. McCutchan TF, **Dame JB**, Miller LH and Barnwell J. 1984. Evolutionary relatedness of *Plasmodium* species as determined by the structure of DNA. *Science* **225**, 808-811.
 11. McCutchan TF, Hansen JL, **Dame JB** and Mullins JA. 1984. Mung bean nuclease cleaves *Plasmodium* genomic DNA at sites before and after genes. *Science* **225**, 625-628.
 12. McCutchan TF, Welsh JA, **Dame JB**, Quakyi IA, Graves PM, Drake JC and Allegra CJ. 1984. Mechanism of pyrimethamine resistance in recent isolates of *Plasmodium falciparum*. *Antimicrob Agents Chemother* **26**, 656-659.
 13. Simpson JG, **Dame JB**, Lewis FA and McCutchan TF. 1984. The arrangement of ribosomal RNA genes in *Schistosoma mansoni*. Identification of polymorphic structural variants. *Eur J Biochem* **139**, 41-45.
 14. Nash TE, McCutchan T, Keister D, **Dame JB**, Conrad JD and Gillin FD. 1985. Restriction-endonuclease analysis of DNA from 15 giardia isolates obtained from humans and animals. *J Infect Dis* **152**, 64-73.
 15. Johnson AM, Dubey JP and **Dame JB**. 1986. Purification and characterization of *Toxoplasma gondii* tachyzoite DNA. *Aust J Exp Biol Med* **64**, 351-355.
 16. **Dame JB** and McCutchan TF. 1987. *Plasmodium falciparum*: Hoechst dye 33258-CsCl ultracentrifugation for separating parasite and host DNAs. *Exp Parasitol* **64**, 264-266.
 17. **Dame JB**, Murrell KD, Worley DE and Schad GA. 1987. *Trichinella spiralis*: Genetic-evidence for synanthropic subspecies in sylvatic hosts. *Exp Parasitol* **64**, 195-203.
 18. Jenkins MC and **Dame JB**. 1987. Identification of immunodominant surface-antigens of *Eimeria acervulina* sporozoites and merozoites. *Mol Biochem Parasitol* **25**, 155-164.
 19. Johnson AM, Illana S, Dubey JP and **Dame JB**. 1987. *Toxoplasma gondii* and *Hammondia hammondi*: DNA comparison using cloned ribosomal RNA gene probes. *Exp Parasitol* **63**, 272-278.
 20. Murrell KD, Stringfellow F, **Dame JB**, Leiby DA, Duffy C and Schad GA. 1987. *Trichinella spiralis* in an agricultural ecosystem. II. Evidence for natural transmission of *Trichinella spiralis spiralis* from domestic swine to wildlife. *J Parasitol* **73**, 103-109.
 21. Jenkins MC, Lillehoj HS and **Dame JB**. 1988. *Eimeria acervulina*: DNA cloning and characterization of recombinant sporozoite and merozoite antigens. *Exp Parasitol* **66**, 96-107.
 22. McCutchan TF, **Dame JB**, Gwadz RW and Vernick KD. 1988. The genome of *Plasmodium cynomolgi* is partitioned into separable domains which appear to differ in sequence stability. *Nucleic Acids Res* **16**, 4499-4510.

23. Dame JB, Yowell CA, Courtney CH and Lindgren WG. 1991. Cloning and characterization of the ribosomal RNA gene repeat from *Ostertagia ostertagi*. *Mol Biochem Parasitol* **45**, 275-280.
24. Mishra VS, Stephens EB, Dame JB, Perryman LE, McGuire TC and McElwain TF. 1991. Immunogenicity and sequence-analysis of recombinant p58: A neutralization-sensitive, antigenically conserved *Babesia bigemina* merozoite surface protein. *Mol Biochem Parasitol* **47**, 207-212.
25. Reddy GR, Chakrabarti D, Yowell CA and Dame JB. 1991. Sequence microheterogeneity of the three small subunit ribosomal RNA genes of *Babesia bigemina*: Expression in erythrocyte culture. *Nucleic Acids Res* **19**, 3641-3645.
26. Blouin MS, Dame JB, Tarrant CA and Courtney CH. 1992. Unusual population genetics of a parasitic nematode: mtDNA variation within and among populations. *Evolution* **46**, 470-476.
27. Chakrabarti D, Dame JB, Gutell RR and Yowell CA. 1992. Characterization of the rDNA unit and sequence-analysis of the small subunit ribosomal RNA and 5.8S ribosomal RNA genes from *Trichostrongylus axei*. *Mol Biochem Parasitol* **52**, 75-84.
28. Dame JB, Mahan SM and Yowell CA. 1992. Phylogenetic relationship of *Cowdria ruminantium*, agent of heartwater, to *Anaplasma marginale* and other members of the order Rickettsiales determined on the basis of 16S ribosomal RNA sequence. *Int J Syst Bacteriol* **42**, 270-274.
29. Mishra VS, McElwain TF, Dame JB and Stephens EB. 1992. Isolation, sequence and differential expression of the p58 gene family of *Babesia bigemina*. *Mol Biochem Parasitol* **53**, 149-158.
30. Reddy GR and Dame JB. 1992. Ribosomal RNA-based method for sensitive detection of *Babesia bigemina* in bovine blood. *J Clin Microbiol* **30**, 1811-1814.
31. Tarrant CA, Blouin MS, Yowell CA and Dame JB. 1992. Suitability of mitochondrial DNA for assaying interindividual genetic-variation in small helminths. *J Parasitol* **78**, 374-378.
32. van der Leek ML, Dame JB, Adams CL, Gillis KD and Littell RC. 1992. Evaluation of an enzyme-linked immunosorbent assay for diagnosis of trichinellosis in swine. *Am J Vet Res* **53**, 877-882.
33. van der Leek ML, Dame JB and Littell RC. 1992. Minimizing ELISA background in the diagnosis of swine trichinosis. *J Parasitol* **78**, 822-829.
34. Zarlenga DS and Dame JB. 1992. The identification and characterization of a break within the large subunit ribosomal RNA of *Trichinella spiralis*: Comparison of gap sequences within the genus. *Mol Biochem Parasitol* **51**, 281-289.
35. Dame JB, Blouin MS and Courtney CH. 1993. Genetic-structure of populations of *Ostertagia ostertagi*. *Vet Parasitol* **46**, 55-62.
36. Reddy GR, Chakrabarti D, Schuster SM, Ferl RJ, Almira EC and Dame JB. 1993. Gene sequence tags from *Plasmodium falciparum* genomic DNA fragments prepared by the genease activity of mung bean nuclease. *Proc Natl Acad Sci USA* **90**, 9867-9871.
37. van der Leek ML, Dame JB, Littell RC and Shin SS. 1993. Seroepidemiology of trichinosis in Florida swine. *Preventive Veterinary Medicine* **16**, 279-293.
38. Chakrabarti D, Reddy GR, Dame JB, Almira EC, Laipis PJ, Ferl RJ, Yang TP,

- Rowe TC and Schuster SM. 1994. Analysis of expressed sequence tags from *Plasmodium falciparum*. *Mol Biochem Parasitol* **66**, 97-104.
39. **Dame JB**, Reddy GR, Yowell CA, Dunn BM, Kay J and Berry C. 1994. Sequence, expression and modeled structure of an aspartic proteinase from the human malaria parasite *Plasmodium falciparum*. *Mol Biochem Parasitol* **64**, 177-190.
40. Blouin MS, Yowell CA, Courtney CH and **Dame JB**. 1995. Host movement and the genetic structure of populations of parasitic nematodes. *Genetics* **141**, 1007-1014.
41. **Dame JB**, MacKay RJ, Yowell CA, Cutler TJ, Marsh A and Greiner EC. 1995. *Sarcocystis falcatula* from passerine and psittacine birds: Synonymy with *Sarcocystis neurona*, agent of equine protozoal myeloencephalitis. *J Parasitol* **81**, 930-935.
42. Kaplan RM, **Dame JB**, Reddy GR and Courtney CH. 1995. A repetitive DNA-probe for the sensitive detection of *Fasciola hepatica* infected snails. *Int J Parasitol* **25**, 601-610.
43. Calder JAM, Reddy GR, Chieves L, Courtney CH, Littell R, Livengood JR, Norval RAI, Smith C and **Dame JB**. 1996. Monitoring *Babesia bovis* infections in cattle by using PCR-based tests. *J Clin Microbiol* **34**, 2748-2755.
44. **Dame JB**, Arnot DE, Bourke PF, Chakrabarti D, Christodoulou Z, Coppel RL, Cowman AF, Craig AG, Fischer K, Foster J, Goodman N, Hinterberg K, Holder AA, Holt DC, Kemp DJ, Lanzer M, Lim A, Newbold CI, Ravetch JV, Reddy GR, Rubio J, Schuster SM, Su XZ, Thompson JK, Vital F, Wellems TE and Werner EB. 1996. Current status of the *Plasmodium falciparum* genome project. *Mol Biochem Parasitol* **79**, 1-12.
45. Blouin MS, Yowell CA, Courtney CH and **Dame JB**. 1997. *Haemonchus placei* and *Haemonchus contortus* are distinct species based on mtDNA evidence. *Int J Parasitol* **27**, 1383-1387.
46. Kaplan RM, **Dame JB**, Reddy GR and Courtney CH. 1997. The prevalence of *Fasciola hepatica* in its snail intermediate host determined by DNA probe assay. *Int J Parasitol* **27**, 1585-1593.
47. Marsh AE, Barr BC, Tell L, Koski M, Greiner E, **Dame J** and Conrad PA. 1997. In vitro cultivation and experimental inoculation of *Sarcocystis falcatula* and *Sarcocystis neurona* merozoites into budgerigars (*Melopsittacus undulatus*). *J Parasitol* **83**, 1189-1192.
48. Westling J, Yowell CA, Majer P, Erickson JW, **Dame JB** and Dunn BM. 1997. *Plasmodium falciparum*, *P. vivax*, and *P. malariae*: A comparison of the active site properties of plasmepsins cloned and expressed from three different species of the malaria parasite. *Exp Parasitol* **87**, 185-193.
49. Bhisutthibhan J, Pan XQ, Hossler PA, Walker DJ, Yowell CA, Carlton J, **Dame JB** and Meshnick SR. 1998. The *Plasmodium falciparum* translationally controlled tumor protein homolog and its reaction with the antimalarial drug artemisinin. *J Biol Chem* **273**, 16192-16198.
50. Blouin MS, Yowell CA, Courtney CH and **Dame JB**. 1998. Substitution bias, rapid saturation, and the use of mtDNA for nematode systematics. *Mol Biol Evol* **15**, 1719-1727.
51. Carlton JMR, Galinski MR, Barnwell JW and **Dame JB**. 1999. Karyotype and synteny among the chromosomes of all four species of human malaria parasite. *Mol*

- Biochem Parasitol* **101**, 23-32.
52. Cutler TJ, MacKay RJ, Ginn PE, Greiner EC, Porter R, Yowell CA and **Dame JB**. 1999. Are *Sarcocystis neurona* and *Sarcocystis falcatula* synonymous? A horse infection challenge. *J Parasitol* **85**, 301-305.
 53. Salem GH, Liu XJ, Johnsrude JD, **Dame JB** and Reddy GR. 1999. Development and evaluation of an extra chromosomal DNA-based PCR test for diagnosing *Bovine babesiosis*. *Mol Cell Probes* **13**, 107-113.
 54. Tanhauser SM, Yowell CA, Cutler TJ, Greiner EC, MacKay RJ and **Dame JB**. 1999. Multiple DNA markers differentiate *Sarcocystis neurona* and *Sarcocystis falcatula*. *J Parasitol* **85**, 221-228.
 55. Westling J, Cipullo P, Hung SH, Saft H, **Dame JB** and Dunn BM. 1999. Active site specificity of plasmepsin II. *Protein Sci* **8**, 2001-2009.
 56. Ben Mamoun C, Gluzman IY, Hott C, MacMillan SK, Amarakone AS, Anderson DL, Carlton JM, **Dame JB**, Chakrabarti D, Martin RK, Brownstein BH and Goldberg DE. 2001. Co-ordinated programme of gene expression during asexual intraerythrocytic development of the human malaria parasite *Plasmodium falciparum* revealed by microarray analysis. *Mol Microbiol* **39**, 26-36.
 57. Carlton JMR, Muller R, Yowell CA, Fluegge MR, Sturrock KA, Pritt JR, Vargas-Serrato E, Galinski MR, Barnwell JW, Mulder N, Kanapin A, Cawley SE, Hide WA and **Dame JB**. 2001. Profiling the malaria genome: A gene survey of three species of malaria parasite with comparison to other Apicomplexan species. *Mol Biochem Parasitol* **118**, 201-210.
 58. Carlton JMR, Yowell CA, Sturrock KA and **Dame JB**. 2001. Biomagnetic separation of contaminating host leukocytes from Plasmodium-infected erythrocytes. *Exp Parasitol* **97**, 111-114.
 59. Cheadle MA, **Dame JB** and Greiner EC. 2001. Sporocyst size of isolates of sarcocystis shed by the Virginia opossum (*Didelphis virginiana*). *Vet Parasitol* **95**, 305-311.
 60. Cheadle MA, Tanhauser SM, **Dame JB**, Sellon DC, Hines M, Ginn PE, MacKay RJ and Greiner EC. 2001. The nine-banded armadillo (*Dasypus novemcinctus*) is an intermediate host for *Sarcocystis neurona*. *Int J Parasitol* **31**, 330-335.
 61. Cheadle MA, Tanhauser SM, Scase TJ, **Dame JB**, Mackay RJ, Ginn PE and Greiner EC. 2001. Viability of *Sarcocystis neurona* sporocysts and dose titration in gamma-interferon knockout mice. *Vet Parasitol* **95**, 223-231.
 62. Cheadle MA, Yowell CA, Sellon DC, Hines M, Ginn PE, Marsh AE, **Dame JB** and Greiner EC. 2001. The striped skunk (*Mephitis mephitis*) is an intermediate host for *Sarcocystis neurona*. *Int J Parasitol* **31**, 843-849.
 63. Cheadle MA, Yowell CA, Sellon DC, Hines M, Ginn PE, Marsh AE, MacKay RJ, **Dame JB** and Greiner EC. 2001. The striped skunk (*Mephitis mephitis*) is an intermediate host for *Sarcocystis neurona* *Int J Parasitol* **31**, 1719-1719.
 64. Cutler TJ, MacKay RJ, Ginn PE, Gillis K, Tanhauser SM, LeRay EV, **Dame JB** and Greiner EC. 2001. Immunoconversion against *Sarcocystis neurona* in normal and dexamethasone-treated horses challenged with *S neurona* sporocysts. *Vet Parasitol* **95**, 197-210.
 65. Ellison SP, Greiner E and **Dame JB**. 2001. In vitro culture and synchronous release

- of *Sarcocystis neurona* merozoites from host cells. *Vet Parasitol* **95**, 251-261.
66. Hemenway MP, Avery ML, Ginn PE, Schaack S, **Dame JB** and Greiner EC. 2001. Influence of size of sporocyst inoculum upon the size and number of sarcocysts of *Sarcocystis falcatula* which develop in the brown-headed cowbird. *Vet Parasitol* **95**, 321-326.
67. Jiang SP, Prigge ST, Wei L, Gao YE, Hudson TH, Gerena L, **Dame JB** and Kyle DE. 2001. New class of small nonpeptidyl compounds blocks *Plasmodium falciparum* development in vitro by inhibiting plasmepsins. *Antimicrob Agents Chemother* **45**, 2577-2584.
68. Luznar SL, Avery ML, **Dame JB**, MacKay RJ and Greiner EC. 2001. Development of *Sarcocystis falcatula* in its intermediate host, the brown-headed cowbird (*Molothrus ater*). *Vet Parasitol* **95**, 327-334.
69. Porter RA, Ginn PE, **Dame JB** and Greiner EC. 2001. Evaluation of the shedding of *Sarcocystis falcatula* sporocysts in experimentally infected Virginia opossums (*Didelphis virginiana*). *Vet Parasitol* **95**, 313-319.
70. Tanhauser SM, Cheadle MA, Massey ET, Mayer BA, Schroedter DE, **Dame JB**, Greiner EC and MacKay RJ. 2001. The nine-banded armadillo (*Dasypus novemcinctus*) is naturally infected with *Sarcocystis neurona*. *Int J Parasitol* **31**, 325-329.
71. Ellison SP, Omara-Opyene AL, Yowell CA, Marsh AE and **Dame JB**. 2002. Molecular characterisation of a major 29 kDa surface antigen of *Sarcocystis neurona*. *Int J Parasitol* **32**, 217-225.
72. Long MT, Mines MT, Knowles DP, Tanhauser SM, **Dame JB**, Cutler TJ, MacKay RJ and Sellon DC. 2002. *Sarcocystis neurona*: Parasitemia in a severe combined immunodeficient (SCID) horse fed sporocysts. *Exp Parasitol* **100**, 150-154.
73. Spalding MG, Yowell CA, Lindsay DS, Greiner EC and **Dame JB**. 2002. Sarcocystis meningoencephalitis in a northern gannet (*Morus bassanus*). *J Wildl Dis* **38**, 432-437.
74. Bernstein NK, Cherney MM, Yowell CA, **Dame JB** and James MNG. 2003. Structural insights into the activation of *P. vivax* plasmepsin. *J Mol Biol* **329**, 505-524.
75. **Dame JB**, Yowell CA, Omara-Opyene L, Carlton JM, Cooper RA and Li T. 2003. Plasmepsin 4, the food vacuole aspartic proteinase found in all *Plasmodium spp.* infecting man. *Mol Biochem Parasitol* **130**, 1-12.
76. Gillis KD, MacKay RJ, Yowell CA, Levy JK, Greiner EC, **Dame JB**, Cheadle MA, HeRNandez J and Massey ET. 2003. Naturally occurring sarcocystis infection in domestic cats (*Felis catus*). *Int J Parasitol* **33**, 877-883.
77. Brown WM, Yowell CA, Hoard A, Jagt TAV, Hunsaker LA, Deck LM, Royer RE, Piper RC, **Dame JB**, Makler MT and Jagt DLV. 2004. Comparative structural analysis and kinetic properties of lactate dehydrogenases from the four species of human malarial parasites. *Biochemistry* **43**, 6219-6229.
78. Li T, Yowell CA, Beyer BB, Hung SH, Westling J, Lam MT, Dunn BM and **Dame JB**. 2004. Recombinant expression and enzymatic subsite characterization of plasmepsin 4 from the four Plasmodium species infecting man. *Mol Biochem Parasitol* **135**, 101-109.
79. Omara-Opyene AL, Moura PA, Sulsona CR, Bonilla JA, Yowell CA, Fujioka H,

- Fidock DA and **Dame JB**. 2004. Genetic disruption of the *Plasmodium falciparum* digestive vacuole plasmepsins demonstrates their functional redundancy. *J Biol Chem* **279**, 54088-54096.
80. Sellon DC, Knowles DP, Greiner EC, Long MT, Hines MT, Hochstatter T, Hasel KM, Ueti M, Gillis K and **Dame JB**. 2004. Depletion of natural killer cells does not result in neurologic disease due to *Sarcocystis neurona* in mice with severe combined immunodeficiency. *J Parasitol* **90**, 782-788.
81. Sellon DC, Knowles DP, Greiner EC, Long MT, Hines MT, Hochstatter T, Tibary A and **Dame JB**. 2004. Infection of immunodeficient horses with *Sarcocystis neurona* does not result in neurologic disease. *Clin Diagn Lab Immunol* **11**, 1134-1139.
82. Beyer BB, Johnson JV, Chung AY, Li T, Madabushi A, Agbandje-Mckenna M, McKenna R, **Dame JB** and Dunn BM. 2005. Active-site specificity of digestive aspartic peptidases from the four species of Plasmodium that infect humans using chromogenic combinatorial peptide libraries. *Biochemistry* **44**, 1768-1779.
83. Khor V, Yowell C, **Dame JB** and Rowe TC. 2005. Expression and characterization of the ATP-binding domain of a malarial *Plasmodium vivax* gene homologous to the B-subunit of the bacterial topoisomerase DNA gyrase. *Mol Biochem Parasitol* **140**, 107-117.
84. Madabushi A, Chakraborty S, Fisher SZ, Clemente JC, Yowell C, Agbandje-McKenna M, **Dame JB**, Dunn BM and McKenna R. 2005. Crystallization and preliminary x-ray analysis of the aspartic protease plasmepsin 4 from the malarial parasite *Plasmodium malariae*. *Acta Crystallogr F* **61**, 228-231.
85. Clemente JC, Govindasamy L, Madabushi A, Fisher SZ, Moose RE, Yowell CA, Hidaka K, Kimura T, Hayashi Y, Kiso Y, Agbandje-McKenna M, **Dame JB**, Dunn BM and McKenna R. 2006. Structure of the aspartic protease plasmepsin 4 from the malarial parasite *Plasmodium malariae* bound to an allophenylborstatine-based inhibitor. *Acta Crystallogr D* **62**, 246-252.
86. Bonilla JA, Moura PA, Bonilla TD, Yowell CA, Fidock DA and **Dame JB**. 2007. Effects on growth, hemoglobin metabolism and paralogous gene expression resulting from disruption of genes encoding the digestive vacuole plasmepsins of *Plasmodium falciparum*. *Int J Parasitol* **37**, 317-327.
87. Bonilla JA, Bonilla TD, Yowell CA, Fujioka H and **Dame JB**. 2007. Critical roles for the digestive vacuole plasmepsins of *Plasmodium falciparum* in vacuolar function. *Mol Microbiol* **65**, 64-75.
88. Moose RE, Clemente JC, Jackson LR, Ngo M, Wooten K, Chang R, Bennett A, Chakraborty S, Yowell CA, **Dame JB**, Agbandje-McKenna M and Dunn BM. 2007. Analysis of binding interactions of pepsin inhibitor-3 to mammalian and malarial aspartic proteases. *Biochemistry* **46**, 14198-14205.
89. Liu P, Marzahn MR, Robbins A, Gutiérrez de Teran H, Åqvist J, Yowell CA, McClung SH, Stevens SM, Jr., **Dame JB** and Dunn BM. 2009. Recombinant plasmepsin 1 from the human malaria parasite *Plasmodium falciparum*: Enzymatic characterization, active site inhibitor design, and structural analysis. *Biochemistry* **48**, 4086-4099.
90. Moura PA, **Dame JB** and Fidock DA. 2009. Role of Plasmodium falciparum digestive vacuole plasmepsins in the specificity and antimalarial mode of action of cysteine and aspartic protease inhibitors. *Antimicrob Agents Chemother* **53**, 4968-

- 4978.
91. Spaccapelo R, Janse CJ, Caterbi S, Franke-Fayard B, Bonilla JA, Syphard LM, Di Cristina M, Dottorini T, Savarino A, Cassone A, Bistoni F, Waters AP, **Dame JB** and Crisanti A. 2010. Plasmepsin 4-deficient *Plasmodium berghei* are virulence attenuated and induce protective immunity against experimental malaria. *Am J Pathol* **176**, 205-217.
 92. Li F, Patra KP, Yowell CA, Dame JB, Chin K and Vinetz JM. 2010. Apical surface expression of aspartic protease plasmepsin 4, a potential transmission-blocking target of the Plasmodium ookinete. *J Biol Chem* **285**, 8076-8083. (Epub 2010 Jan 7, 2010)
 93. Kelly P, Lucas H, Beati L, Yowell C, Mahan S and Dame J. 2011. *Rickettsia africae* in *Amblyomma variegatum* and domestic ruminants on eight Caribbean islands. *J Parasitol* **96**, 1086-1088.
 94. Kelly P, Lucas H, Yowell C, Beati L, Dame J, Urdaz-Rodriguez J and Mahan S. 2011. *Ehrlichia ruminantium* in *Amblyomma variegatum* and domestic ruminants in the Caribbean. *J Med Entomol* **48**, 485-488.
 95. Elbadry MA, Existe A, Victor YS, Memnon G, Fukuda M, **Dame JB**, Okech BA. 2013. Survey of *Plasmodium falciparum* multidrug resistance-1 and chloroquine resistance transporter alleles in Haiti. *Malar J* **12**, 426.
 96. Liu P, Robbins AH, Marzahn MR, McClung SH, Yowell CA, Stevens SM, Jr., Dame JB, and Dunn BM. 2015. Enzymatic Characterization of Recombinant Food Vacuole Plasmepsin 4 from the Rodent Malaria Parasite *Plasmodium berghei*. PLoS ONE **10**(10):e0141758.
 97. Elbadry MA, Al-Khedery B, Tagliamonte MS, Yowell, CA, Raccurt CP, Existe A, Boncy J, Weppelmann TA, Beau de Rochars VM, Lemoine JF, Okech BA, Dame JB. High Prevalence of Asymptomatic Malaria Infections: A Cross Sectional Study in Rural Areas in Six Departments in Haiti. 2015. *Malar J* **14**, 510 DOI: 10.1186/s12936-015-1051-2

Non-refereed

1. Stroobant P, **Dame JB** and Scarborough GA. 1980. The Neurospora plasma-membrane Ca²⁺ pump. *Fed Proc* **39**, 2437-2441.
2. **Dame JB**, McCutchan TF, Miller LH, Williams JL and Hockmeyer WT. Structure of the gene encoding the immunodominant surface antigen on the sporozoite of the human malaria parasite *Plasmodium falciparum*. In *Vaccines 85: Molecular and Chemical Basis of Resistance to Parasitic, Bacterial, and Viral Diseases*, Lerner, RA, et al. (ed.) Cold Spring Harbor, N.Y. Cold Spring Harbor Laboratory, p. 7-11.
3. Hockmeyer WT and **Dame JB**. 1985. Recent efforts in the development of a sporozoite vaccine against human malaria. *Adv Exp Med Biol* **185**, 233-245.
4. McCutchan WT, Altaf AL, Gross M, **Dame JB** and Welsh JA. 1985. Discussant: The Circumsporozoite Protein of *Plasmodium falciparum*. In *Proceedings of the Asia and Pacific Conference of Malaria*. Siddiqui, WA (ed.), Department of Tropical Medicine and Medical Microbiology, John A. Burns School of Medicine, University of Hawaii, Honolulu, p.153-158.
5. Wahlgren M, Berzins K, Perlmann H, Wahlin B, Carlsson J, Bjorkman A, Perlmann

- P, McNicol LA, **Dame JB** and McCutchan TF. 1985. Pf155 a vaccine candidate for protection against asexual bloodstages of the malaria parasite *Plasmodium falciparum*. In *Vaccines 85: Molecular and Chemical Basis of Resistance to Parasitic, Bacterial, and Viral Diseases*, Lerner, RA, et al. (ed.), Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, p. 51-56.
6. **Dame J** and Blouin MS. 1993. Migration, selection and population size in *Ostertagia ostertagi*: Reply. *Parasitol Today* **9**, 55; author reply 55-6.
 7. Berry C, **Dame JB**, Dunn BM and Kay J. 1995. Aspartic proteinases from the human malaria parasite *Plasmodium falciparum*. *Aspartic Proteinases* **362**, 511-518.
 8. Foster J, Christodoulou Z, Craig A, Newbold C, Thompson J, Rubio J, Lim A, Cowman A, Axelrod N, Ravetch J, Holder T, Bourke P, Holt D, Kemp D, Chakrabarti D, Coppel R, **Dame J**, Lanzer M, Arnot D, Walliker D, Lehrach H and Wellems T. 1995. The *Plasmodium falciparum* genome project: A resource for researchers. *Parasitol Today* **11**, 1-4.
 9. **Dame JB**. 1998. Formulation of cloning strategies, In *Recombinant DNA principles and methodologies*, Greene, JJ, (ed.), Marcel Dekker, New York, NY, p. 193-270.
 10. Carlton J and **Dame J**. 2000. The *Plasmodium vivax* and *P berghei* gene sequence tag projects. *Parasitol Today* **16**, 409-409.
 11. Dunn B, Westling J, Meze M, Nagar S, Gootjes J, Cipullo P, Saft H, Mathur A, Lee T, Lam M, **Dame J**, Majer P, Erickson J and Hung SH. 2000. Selectivity in inhibition of proteolytic enzymes from *Plasmodium falciparum*. *Peptides for the New Millennium*, 445-447.
 12. Roberts CW, Roberts F, Lyons RE, Kirisits MJ, Mui EJ, Finnerty J, Johnson JJ, Ferguson DJP, Coggins JR, Krell T, Coombs GH, Milhous WK, Kyle DE, Tzipori S, Barnwell J, **Dame JB**, Carlton J and McLeod R. 2002. The shikimate pathway and its branches in apicomplexan parasites. *J Infect Dis* **185**, S25-S36.
 13. Janka L, Jeung J, Beyer BB, Chung A, Yowell C, Madabushi A, McKenna R, Agbandje-McKenna M, Liu P, Moose B, Clemente JC, Ersmark K, Hallberg A, **Dame JB** and Dunn BM. 2005. Inhibition of nine plasmepsins by peptidomimetic compounds. *Peptides 2004, Proceedings*, 621-622.
 14. Boncy PJ, Adrien P, Lemoine JF, Existe A, Henry PJ, Raccurt C, Bresseur P, Fenelon N, Dame JB, Okech BA, Kaljee L, Baxa D, Prieur E, El Badry MA, Tagliamonte MS, Mulligan CJ, Carter TE, Beau de Rochars VM, Lutz C, Parke DM, Zervos MJ. 2015. Malaria elimination in Haiti by the year 2020: an achievable goal?. *Malar J.* **14**, 237

Published Abstracts

1. Scarborough GA and **Dame JB**. 1978. Protein bound acyl phosphates in plasma-membrane of *Neurospora*. *Fed Proc* **37**, 1727-1727.
2. **Dame JB** and Scarborough GA. 1980. A phosphoryl enzyme intermediate in the catalytic mechanism of an electrogenic proton translocating ATPase. *Fed Proc* **39**, ABSTRACT 2867.
3. Scarborough GA and **Dame JB**. 1980. An electrogenic proton translocating ATPase with a phosphoryl enzyme intermediate. *J Supramol Struct* **9**, 81.
4. **Dame JB** and Murrell KD. 1986. Correlation of trichinella DNA-structure with pig

- infectivity. *J Cell Biochem*, 129-129.
5. Johnson AM, Dubey JP and **Dame JB**. 1986. Purification and cloning of *Toxoplasma gondii* tachyzoite DNA. *J Cell Biochem*, 133-133.
 6. Jenkins MC and **Dame JB**. 1987. Identification and recombinant-DNA cloning of immunodominant surface-antigens of *Eimeria acervulina* sporozoites and merozoites. *Fed Proc* **46**, 778-778.
 7. van der Leek ML, Becker HN, **Dame JB** and Gillis KD. 1988. Application of an enzyme-linked immunosorbant assay for diagnosis of swine trichinosis. *Proc Int Pig Vet Soc*, 259.
 8. Zarlenga D and **Dame J**. 1988. Molecular-cloning and characterization of ribosomal RNA genes from *Trichinella spiralis*. *FASEB J* **2**, A1028-A1028.
 9. Reddy GR and **Dame JB**. 1991. Sequence-analysis of the three small ribosomal RNA units of the protozoan hemoparasite, *Babesia bigemina*. *FASEB J* **5**, A1533-A1533.
 10. **Dame JB**, Chakrabarti D and Yowell CA. 1992. Sequence analysis of *Tritrichomonas foetus* rDNA unit to design oligonucleotide probes to detect parasites in preputial samples. *J Cell Biochem Supp*, 122.
 11. Reddy GR and **Dame JB**. 1992. Characterization of *Babesia bigemina* rRNA genes and utilization of oligonucleotide probes complementary to the small subunit rRNA for its detection in bovine blood. *J Cell Biochem Supp*, 129.
 12. Chakrabarti D, Schuster SM, Chakrabarti R and **Dame JB**. 1993. Cloning and expression of the ribonucleotide reductase from *Plasmodium falciparum*. *FASEB J* **7**, A1299-A1299.
 13. Berry C, **Dame JB**, Dunn BM and Kay J. 1994. Aspartic proteinases from the human malarial parasite *Plasmodium falciparum*. *Biochem Soc Trans* **22**, S305-S305.
 14. Berry C, **Dame JB**, Dunn BM and Kay J. 1994. Aspartic proteinases from the human malarial parasite *Plasmodium falciparum*. *J Cell Biochem*, 165-165.
 15. Carlton JMR, Yowell CA, Fluegge MR and **Dame JB**. 1999. A gene sequence tag project in the rodent malaria *Plasmodium berghei*. *Am J Trop Med Hyg* **61**, 195.
 16. Hung SH, Westling J, Cipullo P, **Dame J** and Dunn BM. 1999. Characterization of the Met15Glu, Ile290Glu and Met15Glu/Ile 290Glu mutants within the active site of plasmepsin II in determining the S2, S3 and S4 subsite specificity. *FASEB J* **13**, A1535-A1535.
 17. Jiang S, Gao Y, Gerena L, Prigge S, **Dame JB** and Kyle DE. 1999. A new class of small non-peptidyl Walter Reed compounds kill *Plasmodium falciparum* in vitro by inhibiting plasmepsin II. *Am J Trop Med Hyg* **61**, 277.
 18. Li T, Yowell CA, Hung SH, Westling J, Dunn BM and **Dame JB**. 1999. Recombinant expression, refolding and characterization of three plasmepsins from human malaria parasites. *Am J Trop Med Hyg* **61**, 297-298.
 19. Jiang S, Prigge ST, Wei L, Hudson TH, Gerena L, **Dame JB** and Kyle DE. 2000. Characteristics of diphenylurea compounds identified as a new class of plasmepsin inhibitors. *Am J Trop Med Hyg* **62**, 313.
 20. Sellon DC, Long MT, **Dame J**, Greiner E, Cutler T, Hines MT, Tannhauser S and MacKay R. 2000. *Sarcocystis neurona* parasitemia in an experimentally infected Arabian foal with severe combined immune deficiency. *J Vet Intern Med* **14**, 365.

21. Beyer BB, Rubin JE, Chung AY, Johnson JV, **Dame JB** and Dunn BM. 2002. Comparison of the active site specificities of Plasmodial aspartic proteinases using targeted chromogenic combinatorial peptide libraries. *FASEB J* **16**, A1193-A1193.
22. Beyer B, Rubin J, Chung A, **Dame J** and Dunn B. 2003. Design of inhibitors based on results from studies of combinatorial substrate libraries. *Biopolymers* **71**, P447.
23. Dunn BM, Beyer BB, Rubin J, Goldfarb NE and **Dame JB**. 2003. Substrate specificity profiles and the design of aspartyl peptidase inhibitors. *Abstr Paper Am Chem Soc* **226**, 46.
24. Vanderjagt TA, Brown WM, Hoard A, Hunsaker LA, Deck LM, Royer RE, Piper R, **Dame J**, Makler M and Vanderjagt DJ. 2003. Structure and kinetic properties of lactate dehydrogenases from four species of human malarial parasites. *FASEB J* **17**, A981-A981.
25. Janka LK, Clemente JC, Liu P, Jeung J, Kabadi CJ, Yowell CA, Romeo S, Dell'Agli M, Bosisio E, **Dame JB** and Dunn BM. 2005. Targeting the PM4 orthologs of *Plasmodium* sp. *FASEB J* **19**, A863-A863.
26. Liu P, Madabushi A, Jeung J, Kabadi CJ, Janka LK, Clemente JC, Yowell CA, **Dame JB**, McKenna R, Romeo S, Dell'Agli M, Bosisio E and Dunn BM. 2005. Production of active recombinant PfPM1 and PbPM4 and inhibition analysis with a series of statine-based compounds. *FASEB J* **19**, A863-A863.
27. Liu P, Clemente JC, Beyer BB, Chung A, Yowell CA, **Dame JB** and Dunn BM. 2006. Production and characterization of recombinant PbPM4 and inhibition analysis of combinatorial chemistry derived compounds against PbPM4. *FASEB J* **20**, A47-A47.

Patents

1. **Dame JB**, Williams JL, McCutchan TF and Schneider I. 1987. Immunologically active peptides capable of inducing immunization against malaria and genes encoding therefor US patent-4707357. November 17 1987 Patent US 4707357 1987.
2. McCutchan TF and **Dame JB**. 1987. Intact gene and method of excising and cloning same US patent-4707445. November 17 1987 Patent US 4707445 1987.
3. **Dame JB**, Ellison SP and Yowell CA. 2004. Detection of *Sarcocystis neurona* Patent US 6808714 2004.
4. **Dame JB**, Ellison SP and Yowell CA. 2007. Detection of *Sarcocystis neurona* Patent US 07273709 2007.

Extramural Contracts and Grants:

Active

1 R43 AI127037-01 (Benner)	07/01/2016 -12/31/2016	NIH
Eliminating Malaria from Haiti. Reinventing DNA to Eradicate Endemic Parasites		
UF Subcontract (Dame)	\$48,465	0.6 mos

The goal of this project is to target ribosomal RNA (rRNA) in *P. falciparum* rather than genomic DNA to improve pathogen detection, and provide parasites and parasite nucleic acids to assess the feasibility of using self-avoiding molecular recognition systems (SAMRS) in primers (not natural DNA) to improve testing to identify asymptomatic, submicroscopic malaria infections.

Pending

Regional Center of Excellence (Dinglasan) 12/31/2016-12/30/2021 CDC
Southeast Regional Center of Excellence in Vector Borne Diseases: The Gateway
Program \$9,999.628
Role: Co-Investigator 0.6 mos

This is a proposal to establish a Regional Center of Excellence in Vector Borne Disease (VBD), with the following objectives: (1) develop novel control interventions and discover insecticide-resistance-breaking compounds; (2) expand the level of inter-institute/inter-agency coordination and partnership in the exchange of research and operational information in the Southeast; (3) establish a comprehensive, four-tiered training program for public health entomologists and students throughout the Southeast, and (4) provide an evidence-based set of recommendations for a locally-tailored surveillance-response program in the form of a decision-making tool. Achieving these goals would effectively lay down the integrated framework and template for a long-standing regional center geared towards the effective control and prevention of vector borne disease threats in the US.

GRANT12276053 03/01/2017-02/26/2020 DoD MMRD
DoD Peer Reviewed Medical Investigator-Initiated Research Award
Low Resource Environment Assays to Detect Low Levels of Malaria in Asymptomatic
Carriers: Eliminating Malaria from Haiti
UF Subcontract (Dame) \$274,500 1.8 mos

The overall goal of this project is to establish a highly sensitive and reliable diagnostic test based upon detecting the presence of the ribosomal RNA (rRNA) of the malaria parasite in human blood. The published method employed by the Dame Laboratory is able to detect parasites in blood at a level of less than one ring stage parasite per milliliter. The hypothesis is that this ultrasensitive detection can be done more simply and with less expense using Firebird's novel reagents. The programmatic arrangement between Firebird LLC and the University of Florida is made to facilitate transition to this new methodology. This will be done through paired, comparative testing of human blood samples containing defined numbers of Plasmodium falciparum ring stage parasites using the method employed by the Dame Laboratory and various formulations of the novel test underdevelopment at Firebird LLC.