CURRICULUM VITAE MARK FREDERICK WISER

CONTACT INFORMATION

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New Orleans, LA 70112-2824 wiser@tulane.edu

EDUCATION

1974-1978	Undergraduate training in Biology at Franklin College (Franklin, IN 46131).
	B.A. (magna cum laude) awarded May 1978.
1978-1983	Graduate training in Cell and Developmental Biology (Biochemistry, minor) in the Department
	of Genetics and Cell Biology at the University of Minnesota (St. Paul MN 55108).
	Ph.D. awarded August 1983.
Dissertation Title	Phosphoproteins and protein kinases associated with Plasmodium berghei infected murine
	erythrocytes.
Continuing	New England Biolabs Workshop in Molecular Biology and Biotechnology, Smith College,
Education	Northampton MA, June 18-July 1, 1990.
	Workshop on Web Page Development at Tulane University Innovative Learning Center, August

PROFESSIONAL EXPERIENCE

11-12, 2003.

2014-	Vice-Chair, Department of Tropical Medicine and Parasitology, School of Public Health and
	Tropical Medicine, Tulane University, New Orleans LA.
1995-	Associate Professor, Department of Tropical Medicine and Parasitology, School of Public
	Health and Tropical Medicine, Tulane University, New Orleans, LA.
1989-95	Assistant Professor, Tulane University.
1987-88	Associate Research Scientist (equal in rank to Research Assistant Professor), MacArthur Center
	for Molecular Parasitology and Department of Pharmacology, Yale University School of
	Medicine, New Haven, CT.
1983-86	Postdoctoral Fellowship, Max Planck Institute for Cell Biology, D-6802 Ladenburg bei
	Heidelberg, Germany.
Summer 1983	Postdoctoral Associate, Leukemia Task Force, University of Minnesota.

AWARDS/HONORS

- Adjunct Assistant Professor, Department of Microbiology and Immunology, Tulane University School of Medicine, New Orleans, LA
- Profesor Visitante Ad-Honorem de la Facultad de Medicina de la Sede Bogotá de la Universidad Nacional de Colombia (February 16-March 3, 2006).
- Asesor Cientifico, Grupo de Bioquimica y Biologia Celular, Instituto Nacional de Salud, Bogotá, Colombia (2004-2006)
- Tulane University Health Sciences Center Teaching Scholar (2002)
- Excellence in Teaching Award, presented by the students of the Tulane University School of Public Health and Tropical Medicine (1999)
- Doctoral Dissertation Fellowship, University of Minnesota (1982-83)

- U.S. Public Health Service Predoctoral Fellowship, University of Minnesota (1978-82)
- NSF Undergraduate Research Program, Albion College, Albion MI 49224 (Summer 1978)
- 1978 Outstanding Biology Student, Franklin College

PEER-REVIEWED PUBLICATIONS

- 1. Wehner, J.M., A.M. Malkinson, M.F. WISER, and J.R. Sheppard. 1981. Cyclic AMP-dependent protein kinases from BALB 3T3 cells and other 3T3 derived lines. J. Cell Physiol. 108: 175-184.
- 2. WISER, M.F., P.A. Wood, J.W. Eaton, and J.R. Sheppard. 1983. Membrane associated phosphoproteins in *Plasmodium berghei* infected murine red cells. J. Cell Biol. 97: 196-201.
- WISER, M.F., J.W. Eaton, and J.R. Sheppard. 1983. A *Plasmodium* protein kinase which is developmentally regulated, stimulated by spermine and inhibited by quercetin. J. Cell. Biochem. 21: 305-314.
- 4. WISER, M.F., and H.-G. Schweiger. 1985. Cytosolic protein kinase activity associated with the maturation of the malaria parasite *Plasmodium berghei*. Mol. Biochem. Parasitol. 17: 179-189.
- 5. WISER, M.F., and H.-G. Schweiger. 1986. Increased sensitivity in antigen detection during immunoblot analysis resulting from antigen enrichment via immunoprecipitation. Anal. Biochem. 155: 71-77.
- 6. WISER, M.F. 1986. Characterization of monoclonal antibodies directed against erythrocytic stage antigens of *Plasmodium berghei*. Eur. J. Cell Biol. 42: 45-51.
- 7. WISER, M.F., and B. Plitt. 1987. *Plasmodium berghei*, *P. chabaudi*, *P. falciparum*: Similarities in phosphoproteins and protein kinase activities and their stage specific expression. Exp. Parasitol. 64: 328-335.
- 8. WISER, M.F., M.B. Leible, and B. Plitt. 1988. Acidic phosphoproteins associated with the host erythrocyte membrane of erythrocytes infected with *Plasmodium berghei* and *P. chabaudi*. Mol. Biochem. Parasitol. 27: 11-22.
- 9. WISER, M.F. 1988. Phosphorylation of *Plasmodium berghei* erythrocyte membrane associated proteins by the spectrin kinase. Mol. Cell. Biochem. 84: 51-57.
- 10. Wunderlich, F., M. Helwig, G. Schillinger, V. Speth, and M.F. WISER. 1988. Expression of the parasite protein Pc90 in plasma membranes of erythrocytes infected with *Plasmodium chabaudi*. Eur. J. Cell Biol. 47: 157-164.
- 11. WISER, M.F. 1989. Antigens external to the parasite but within *Plasmodium* infected erythrocytes. Parasitol. Res. 75: 206-211.
- 12. Suhrbier, A., A.A. Holder, M.F. WISER, J. Nicholas, and R.E. Sinden. 1989. Expression of the precursor of the major merozoite surface antigen during the liver stage of malaria. Am. J. Trop. Med. Hyg. 40: 351-355.
- 13. Suhrbier, A., M.F. WISER, L. Winger, P. Harte, M.F. Newton, J. Nicholas, and R.E. Sinden. 1989. Contrasts in antigenic expression in the erythrocytic and exoerythrocytic stages of rodent malaria. Parasitology 99: 171-174.
- 14. WISER, M.F., A.C. Sartorelli, and C.L. Patton. 1990. Association of *Plasmodium berghei* proteins with the host erythrocyte membrane: Binding to inside-out vesicles. Mol. Biochem. Parasitol. 38: 121-134.
- 15. WISER, M.F. 1991. Malarial proteins that interact with the erythrocyte membrane and cytoskeleton. Exp. Parasitol. 73: 515-523.
- 16. WISER, M.F. and H.N. Lanners. 1992. The rapid transport of the acidic phosphoproteins of *Plasmodium berghei* and *P. chabaudi* from the intraerythrocytic parasite to the host membrane using a miniaturized fractionation procedure. Parasitol. Res. 78: 193-200.
- 17. WISER, M.F., L.V.V. Faur, H.N. Lanners, M. Kelly and R.B. Wilson. 1993. Accessibility and distribution of intraerythrocytic antigens of *Plasmodium*-infected erythrocytes following mild glutaraldehyde fixation and detergent extraction. Parasitol. Res. 79: 579-588.
- 18. Shinondo, C.J., H.N. Lanners, R.C. Lowrie, Jr., and M.F. WISER. 1994. Effect of pyrimethamine resistance on sporogony in a *Plasmodium berghei/Anopheles stephensi* model. Exp. Parasitol. 78: 194-202.
- 19. WISER, M.F., G.J. Jennings, J.M. Lockyer, A. van Belkum and L.J. van Doorn. 1995. Chaperonin (HSP60)-like repeats in a *Plasmodium berghei* phosphoprotein. Parasitol. Res. 81: 167-169.
- 20. Gitt, M.A., M.F. WISER, H. Leffler, J. Herrmann, Y.-R. Xia, S.M. Massa, D.N.W. Cooper, A.J. Lusis and S.H. Barondes. 1995. Sequence and mapping of a β-galactoside-binding lectin, galectin-5, found in rat erythrocytes. J. Biol. Chem. 270: 5032-5038.

- 21. WISER, M.F. 1995. Proteolysis of a 34 kDa phosphoprotein coincident with a decrease in protein kinase activity during the erythrocytic schizont stage of the malaria parasite. J. Euk. Microbiol. 42: 659-664.
- 22. WISER, M.F., G.J. Jennings, P. Uparanukraw, A. van Belkum, L.J. van Doorn and N. Kumar. 1996. Further characterization of a 58 kDa *Plasmodium berghei* phosphoprotein as a cochaperone. Mol. Biochem. Parasitol. 83: 25-33.
- 23. Toebe, C.S., J.D. Clements, L. Cardenas, G.J. Jennings, and M.F. WISER. 1997. Evaluation of immunogenicity of an oral *Salmonella* vaccine expressing recombinant *Plasmodium berghei* merozoite surface protein-1. Am. J. Trop. Med. Hyg. 56: 192-199.
- 24. WISER, M.F., L.E. Giraldo, H.P. Schmitt-Wrede and F. Wunderlich. 1997. *Plasmodium chabaudi*: Immunogenicity of a highly antigenic glutamate-rich protein. Exp. Parasitol. 85: 43-54.
- 25. WISER, M.F., C.S. Toebe and G.J. Jennings. 1997. An additional primary proteolytic processing site in merozoite surface protein-1 of *Plasmodium berghei*. Mol. Biochem. Parasitol. 85: 125-129.
- 26. WISER, M.F., H.N. Lanners, R.A. Bafford and J.M. Favaloro. 1997. A novel alternate secretory pathway for exported *Plasmodium* proteins. Proc. Natl. Acad. Sci. 94: 9108-9113.
- WISER, M.F., J.D. Lonsdale-Eccles, A. D'Alessandro and D.J. Grab. 1997. A cryptic protease from *Trypanosoma cruzi* revealed by preincubation with kininogen at low temperatures. Biochem. Biophys. Res. Commun. 240: 540-544
- 28. Jennings, G.J., C.S. Toebe, A. van Belkum, and M.F. WISER. 1998. The complete sequence of *Plasmodium berghei* merozoite surface protein-1 and its inter- and intraspecies variability. Mol. Biochem. Parasitol. 93: 43-55.
- 29. Giraldo, L.E., D.J. Grab and M.F. WISER. 1998. Molecular characterization of a *Plasmodium chabaudi* erythrocyte membrane-associated protein with glutamate-rich tandem repeats. J. Euk. Microbiol. 45: 528-534.
- 30. Gor, D.O., A.C. Li, M.F. WISER and P.J. Rosenthal. 1998. Plasmodial serine repeat antigen homologues with properties of schizont cysteine proteases. Mol. Biochem. Parasitol. 95, 153-158.
- 31. Giraldo, L.E., G.J. Jennings, W. Deleersnijder, C. Hamers-Casterman, and M.F. WISER. 1999. Characterization of a *Plasmodium chabaudi* gene encoding a protein with glutamate-rich repeats. Parasitol. Res. 85: 41-46.
- 32. Lanners, H.N, R.A. Bafford and M.F. WISER. 1999. Characterization of the parasitophorous vacuole membrane from *Plasmodium chabaudi* and implications about its role in the export of parasite proteins. Parasitol. Res. 85: 349-355.
- 33. WISER, M.F., H.N. Lanners and R.A. Bafford. 1999. Export of *Plasmodium* proteins via a novel alternate secretory pathway. Parasitology Today 15: 194-198.
- 34. WISER, M.F. 2003. A *Plasmodium* homologue of cochaperone p23 and its differential expression during the replicative cycle of the malaria parasite. Parasitol. Res. 90, 166-170.
- 35. Cortés, G.T., E. Winograd and M.F. WISER. 2003. Characterization of proteins localized to a novel subcellular compartment and alternate secretory pathway within the malaria parasite. Mol. Biochem. Parasitol.129: 127-135.
- 36. Kwara, A., R. Schiro, L.S. Cowan, N.E. Hyslop, M.F. WISER, S.R. Harrison, P. Kissinger, L. Diem and J.T. Crawford. 2003. Evaluation of the epidemiologic utility of secondary typing methods for differentiation of *Mycobacterium tuberculosis* isolates. J. Clin. Microbiol. 41: 2683-2685.
- 37. WISER, M.F. 2007. Export and trafficking of *Plasmodium* proteins into the host erythrocyte. Acta Biológica Colombiana 12: 3-18.
- 38. Cortés G.T., M.F. WISER, C.J. Gómez-Alegría (2020) Identification of *Plasmodium falciparum* HSP70-2 as a resident of the *Plasmodium* export compartment. Heliyon 6:e04037. https://doi.org/10.1016/j.heliyon.2020.e04037.
- 39. Cortés, G.T., MM Gonzalez Beltran, C.J. Gómez-Alegría and M.F. WISER (2021) Identification of a protein unique to the genus *Plasmodium* that contains a WD40 repeat domain and extensive low complexity sequence. Parasitology Research 120, 2617-2629. https://doi.org/10.1007/s00436-021-07190-z
- 40. WISER, MF (2021) Unique endomembrane systems and virulence in pathogenic protozoa. Life. 2021; 11(8):822. https://doi.org/10.3390/life11080822.
- 41. WISER, MF (2023) Knobs, adhesion, and severe falciparum malaria. Tropical Medicine and Infectious Disease 8(7):353. https://doi.org/10.3390/tropicalmed8070353.
- 42. WISER, MF (2024) The digestive vacuole of the malaria parasite: a specialized lysosome. Pathogens, submitted.
- 43. WISER, MF (2024) Feeding mechanisms of pathogenic protozoa with a focus on endocytosis and the digestive vacuole. Parasitologia, in preparation.

BOOK CHAPTERS/CONFERENCE PROCEEDINGS/OTHER

- WISER, M.F., J.W. Eaton, and J.R. Sheppard. 1984. A *Plasmodium* protein kinase which is developmentally regulated, stimulated by spermine and inhibited by quercetin. Pages 7-16 in N. Agabian and H. Eisen, eds., Molecular Biology of Host-Parasite Interactions. (UCLA Symposium on Molecular and Cellular Biology, New Series, Volume 13.) Alan R. Liss, Inc., New York.
- WISER, M.F. 1987. Phosphoproteins associated with the host erythrocyte membrane during *Plasmodium chabaudi* infection. Pages 315-320 in K.-P. Chang and D. Snary, eds., <u>Host-Parasite Cellular and Molecular Interactions in Protozoal Infections</u>. (NATO ASI Series H: Cell Biology, Volume 11.) Springer-Verlag, Heidelberg.
- 3. WISER, M.F and S.A. Blakley. 1993. Academic peer review in investigating plagiarism: a case study. Pages 73-79 in A.R. Price, ed., ORI/AAAS Conference on Plagiarism and Theft of Ideas (June 21-22, 1993), Bethesda, MD.
- 4. WISER, M.F., D.J. Grab and H.N. Lanners. 1999. An alternate secretory pathway in *Plasmodium*: more questions than answers. Pages 199-214 in <u>Transport and Trafficking in the Malaria-Infected Erythrocyte</u>. Wiley, Chichester (Novartis Foundation Symposium No. 226).
- 5. WISER, M.F. 2000. Drug design strategies for the control of parasitic infections. ID Weekly highlights 47: 29-31. (November 2000) Electronic newsletter
- 6. WISER, M.F. 2001. Drug design strategies. Idrugs 4:53-55.
- 7. WISER, M.F. 2008. Leishmaniasis. Page 509 in A. Hildyard and J. Goddard, eds., <u>Diseases and Disorders</u>, Volume 2. Marshall Cavendish, Tarrytown, New York.
- 8. WISER, M.F. 2011. Protozoa and Human Disease. Garland Science (Taylor & Francis Group), ISBN 978-0-8153-6500-6, 218 pages.
- 9. WISER, MF (2021) Nutrition and Protozoan Pathogens of Humans: A Primer. In: Humphries DL, Scott ME, Vermund SH (eds) Nutrition and Infectious Diseases: Shifting the Clinical Paradigm (Nutrition and Health Book Series). Humana Press. Pages 165-187. https://doi.org/10.1007/978-3-030-56913-6
- 10. WISER, MF (2021) Cellular Interactions between Protozoan Pathogens and Hosts (Guest Editor). Special issue published in Life and Tropical Medicine and Infectious Disease.
- 11. WISER, MF (2023) Biology for the Health Sciences: Mechanisms of Disease. CRC Press (Taylor Francis Group) ISBN: 978-1-032-35726-3, 516 pages. DOI: 10.1201/9781003328209.
- 12. WISER, MF (2024) Chapter 64. Protozoa. In: Scheiner Samuel M. (eds.) Encyclopedia of Biodiversity 3rd edition, vol. 2, pp. 802–817. Oxford: Elsevier. https://doi.org/10.1016/B978-0-12-822562-2.00064-5.

FUNDING HISTORY

- BRSG (Tulane University), "Alteration of the erythrocyte membrane by the malarial parasite," 1/1/89-3/31/90.
- Louisiana Board of Regents LEQSF(1990-91)-RD-A-23, "Alteration of the erythrocyte membrane by the malarial parasite," 6/1/90-6/30/91.
- BRSG (Tulane University), "Protein kinases and phosphoproteins of the malarial parasite," 9/1/90-2/28/92.
- Louisiana Board of Regents LEQSF(1991-92)-ENH-84, "Enhancement of basic biomedical research capabilities in the Department of Tropical Medicine," 7/1/91-6/30/92.
- Interdisciplinary Proposal in Molecular and Cellular Biology (Grant-in-Aid), "Expression of *Plasmodium berghei* blood-stage antigens in *Salmonella*," 3/1/92-12/31/93.
- USAID, "Salmonella vectors for merozoite surface protein-1," (PI, Donald J. Krogstad), 9/1/93-8/30/96.
- NIH 1R01AI31083-01A3, "Alteration of the erythrocyte membrane during malaria," 3/1/93-2/28/97.

TEACHING EXPERIENCE

Current Courses of Primary Responsibility

- Medical Protozoology (TRMD 6070), 3 credits. This is a comprehensive course covering all aspects of medically important protozoa. Topics covered include: life cycles, morphological features, host-parasite interactions, geographical distribution, reservoir hosts, methods of transmission and control, pathology and pathogenesis, immunological aspects, and laboratory and clinical diagnosis. The course also includes a substantial amount cellular and molecular biology, especially as it relates to host parasite-interactions and the pathogenesis of disease. (www.tulane.edu/~wiser/protozoology/) Laboratory sessions included in the course
- Infectious Disease Seminar (TRMD 7020), 1 credit. Coordinate student presentations on current papers dealing with all aspects of infectious disease. (www.tulane.edu/~wiser/seminar/)
- Biological Basis of Disease (SPHU 3560), 3 credits. A core course in Public Health covering basic cell and molecular biology, the etiology and pathophysiology of disease, and the applications of biotechnology to public health.

Continuing Medical Education and Workshops

- Annual Update: Tropical Health (Dr. A. D'Alessandro, course director). A two week certificate course intended for physicians and medical personnel planning to spend time in the tropics offered the last two weeks of May from 1990-96. I taught a laboratory session on the diagnosis and identification of protozoan parasites.
- Current Techniques in Malaria Research: A Practical Course. A course was given at the Instituto Nacional de Salud in Bogotá Colombia (August 3-15, 1998). I taught a laboratory on the analysis of subcellular compartments in *P. berghei*-infected erythrocytes.
- Children's Hospital and the New Orleans Citywide Infectious Disease Group (lecture given on 07/13/01),
 "Molecular diagnosis in parasitology."
- Bioinformatics for Entomologists Workshop (Drs. John Beier and Fran Mather, directors). April 2002. Gave computer laboratory session on genomic analyses (4 contact hours).
- Medical Protozoology (October 12-14, 2010; June 11-17, 2013; October 14-16, 2016) Course given at the Universidad de Cartagena in the Doctorado en Medicina Tropical Program sponsored by El Sistem de las seite Universidades Estatales del Cariba (SUE).
- Applications of Molecular Methods to Public Health (July 4-8, 2011 and August 1-4, 2012) Course given at the Universidad de Cartagena in the Doctorado en Medicina Tropical Program sponsored by El Sistem de las seite Universidades Estatales del Cariba (SUE).
- Biology of Medically Important Protozoa (July 24-29, 2023) Course given at the Universidad de Cartagena in the Doctorado en Medicina Tropical Program sponsored by El Sistem de las seite Universidades Estatales del Cariba (SUE).

MENTORING AND RESEARCH ADVISING

Student Thesis Committees, Chair

- Lynn van Valer, M.S. Thesis Defense, 'The localization of *Plasmodium berghei* 31 and 13 kilodalton antigens by immunoelectron microscopy' (May 1991).
- Gregory J. Jennings, Ph.D. Prospectus Defense, 'Cloning, sequencing and assessment of variability in the gene encoding the major merozoite surface protein-1 of *Plasmodium berghei*' (November 1993).
- Carole S. Toebe, Ph.D. Dissertation Defense, 'Recombinant *Plasmodium berghei* merozoite surface protein-1

- expressed in Salmonella: evaluation of immunogenicity in a rodent model' (July 1994).
- Luis E. Giraldo, Ph.D. Prospectus Defense, 'Cloning and sequencing of the Pc(em)93 gene: a *Plasmodium chabaudi* acidic phosphoprotein associated with the erythrocyte membrane' (September 1994).
- Luis E. Giraldo, Ph.D. Dissertation Defense, 'Cloning and sequencing the genes of glutamate-rich proteins from *Plasmodium chabaudi*' (September 1996).
- Gregory J. Jennings, Ph.D. Dissertation Defense, 'The cloning sequencing and analysis of variability of merozoite surface protein-1 of *Plasmodium berghei*' (March 1998).

Student Thesis Committees, Other

- Frank Ross Albano, Ph.D. Outside Thesis Examiner, La Trobe University, Bundoora, Victoria, Australia (October 2000). Identification and characterization of a homologue of a small GTPase, Sar1p, that localises to a novel trafficking pathway in *Plasmodium falciparum*-infected erythrocytes.
- Varsha Singh, Ph.D. Examiner, Indian Institute of Science, Bangalore, India (June 2005). Heat Shock Protein 70 of Plasmodium falciparum: Proteomic analysis of its complexes and cellular functions.
- Juan Javier García Bustos, Doctoral Prospectus Defense Universidad de Cartagena SUE Caribe (December 2020). Busqueda de plantas con potencial actividad giardicida aplicando la zoofarmacognosia.

Postdoctoral/Medical Fellow Advisees

- Lucy Goh, M.D. Antimalarial effects of garlic and garlic derivatives against Plasmodium berghei. 1/95-6/95.
- Awewura Kwara, M.D. Molecular epidemiology of tuberculosis in New Orleans. 6/2001-2002

REVIEWING AND CONSULTING ACTIVITY

Editorial Boards

- Editor (Protozoology Section), Open Life Sciences (previously Central European Journal of Biology), 2007-
- Editorial Board Member, The Open Parasitology Journal (Bentham Science Publishers), 2007-2010

Study Sections and Site Visits

- NIH/NHL&BI Site Visit, Membrane skeleton of normal and abnormal red cells, St. Elizabeth's Hospital, Boston, April 1991.
- VA/DoD Collaborative Research Subcommittee for Emerging Pathogens (September 1997).
- Consumer reviewer for Department of Defense (DOD) Congressionally Directed Medical Research Programs (CDMRP) Peer Reviewed Medical Research Program (PRMRP) 2013-2018

COMMITTEES/SERVICE

Department of Tropical Medicine

- Combined Search Committee for Molecular Entomologist and Joint Position with Tulane Primate Research Center (1992-93).
- Departmental Curriculum Committee (1996).
- Masters Admission Committee (2010-2019)
- Director of MSPH Program (2010-2015)
- Director of MPHTM Program (2015-)

School of Public Health and Tropical Medicine

- Grievance Committee (1990-93), Secretary (1990-93). Interim chair for one case (1991).
- Secretary, General Faculty (1991-92).
- Doctoral Programs Committee (1991-99), Chair (1997-98).
- Committee on Faculty Evaluation and Development (1992-94).
- Elected Grievance Committee Member-at-Large (1994-95)
- Committee on Core Competency Attainment (2006)
- Committee on Culminating Exam (2006)
- Committee to Review Teaching Awards (2008)
- Vice-President Elect of General Faculty (2008-2009)
- President Elect of General Faculty (2009-2010)
- Chair, Nominating Committee (2010-2011)
- Curriculum Committee (2010-2017)
- Doctoral Curriculum Taskforce (2010)
- Core Course Task Force (2013-2014)
- CEPH Accreditation Committee (2015-2017)
- Admission Committee (2019-)
- FY22 Budget Committee Meeting (2020-21)
- MPH/MSPH Program Directors (2021-)
- Academic Standards Committee (2022-)

Tulane University Health Sciences Center

- Research Vision Group of the Information Systems Planning Structure (1997).
- Judge 11th Annual Tulane Health Research Day (April 1999)
- Vice President's Teaching Scholar Award Selection Committee (2003-04)

Tulane University

- Steering Committee for Proposed Doctoral Program in Molecular and Cellular Biology (1989-90).
- Cell and Molecular Biology Program Committee (Spring 1991), responsible for developing strategic plan to enhance Tulane's program in cell and molecular biology.
- Steering Committee, Interdisciplinary Graduate Program in Molecular and Cellular Biology (1991-93).
- Curriculum Subcommittee of the Interdisciplinary Graduate Program in Molecular and Cellular Biology (1993-94, 1999-2005).
- Senate Committee on Educational Policy (1993-96)
- Committee on Less-Studied Languages (1993-96)
- Senate Committee on Physical Facilities (1998-2001)
- Senate Committee on Faculty Tenure, Freedom and Responsibility (1999-2002)
- Senate Committee on Committees (2014-2017)
- NTC Curriculum Committee (2022-)

Outside of Tulane University

- Member of ASTM&H Local Steering Committee for 1990 Annual Meeting (Chair, Audio-Visual Subcommittee).
- Science-by-Mail Program (1994-95)
- Co-chair of scientific session on malaria vaccines at the 49th Annual Meeting of the American Society of Tropical Medicine and Hygiene (Houston, TX; Oct. 29-Nov. 2, 2000)
- Nominating Committee for Society of Protozoologists 2002-03.
- Member of Formal Investigation Committee of Plagiarism Allegations at Bloomsburg University (Bloomsburg,

PA), 2002.

- Expert witness in litigation involving hepatitis A outbreaks in Tennessee and Pennsylvania during the fall of 2003 (2004-2006).
- Expert witness in litigation involving malaria (2022-2023)