ALAN J. GRANT

***Home Address*:**

56 Fitchburg Street
Watertown, MA 02172
(617) 924-3217
LAAJ@RCN.com
(617) 797-3216 (Cellular)

Department of Immunology and
Infectious Disease
Harvard School of Public Health
665 Huntington Ave.
Boston, MA 02115

Professional Experience:

Visiting Scientist — Department of Immunology and Infectious Disease, Harvard School of Public Health, Boston, MA — 2007-current

Senior Scientist — American Biophysics Corp., 2240 South County Trail, East Greenwich, RI — 1998-2006

Assistant Research Professor — 1998
Department of Physiology
University of Massachusetts Medical School
55 Lake Street
Worcester, MA

Senior Research Associate/ Foundation Scholar — 1990-1997
Worcester Foundation for Biomedical Research
222 Maple Ave.
Shrewsbury, MA

Research Associate — 1983-1990
Worcester Foundation for Experiment Biology
222 Maple Ave.
Shrewsbury, MA

Research Entomologist — 1980-1982
Agricultural Research Service
United States Department of Agriculture
Insects Attractants, Behavior and Basic Biology Laboratory
Gainesville, FL

ALAN J. GRANT

Education:

Post-Doctoral Research Associate; USDA; Agricultural Research Service		1982-84
	Gainesville, Florida	
Ph.D.	College of Environmental Science and Forestry	1982
	State University of New York, Syracuse, New York	
M.S.	College of Environmental Science and Forestry	1980
B.S.	College of Agriculture and Life Sciences	1976
	Cornell University, Ithaca, New York	

Patent:

5,772,983 - ***Method of screening for compounds which modulate insect behavior.*** (with Robert J. O'Connell) Claims allowed: June 1997. Issued June 30, 1998.

Selected Invited Symposia:

- The Ciba Foundation; Mosquito Olfaction and Olfactory-Mediated Mosquito-Host Interactions. Ciba Foundation Symposium No. 200. 1995; London ***Electrophysiological responses from olfactory receptor neurons in the maxillary palps of mosquitos***.

- The Olfactory Basis of Mosquito-Host Interactions. Symposium held at the Association for the Chemoreception Sciences 1998, Sarasota, Florida. ***Responses from sensilla basiconica on mosquito maxillary palps to behaviorally-important chemical cues.***

- "Chemoreception and behavioral modification of vectors" symposium at the International Congress of Vector Ecology. Barcelona, Spain, September 16-21 2001.

Funding:

- **Principal Investigator** - *Small Business Innovation Research (SBIR).* The award title is "Method for the control of biting midges using odor-baited traps" (Agreement No. 00-33610-8884).Phase I. $53,000.

- **Principal Investigator** - *Small Business Innovation Research (SBIR)*. 2001-2006. The award title is "Method for the control of biting midges using odor-baited traps" (Agreement No. 00-33610-8884).Phase II $236,000.

Director 2001-2004, 2005-2006

American Biophysics Shared Data Research Project

A program coordinating and encouraging mosquito-related research between American Biophysics Corporation and academic, governmental, and non-profit organization around the world.

ALAN J. GRANT

Publications:

Grant, A.J. and Lanier, G.N. 1982. Electroantennogram responses of *Scolytus multistriatus* (Coleoptera: Scolytidae) to its pheromone components and associated compounds. *Journal of Chemical Ecology*, **8,** 1333-1344.

O'Connell, R.J., **Grant**, A.J., Mayer, M.S. and Mankin, R.W. 1983. Morphological correlates of differences in pheromone sensitivity in insect sensilla. *Science*, **220**, 1408-1410.

Pignatello, J.J. and **Grant**, A.J. 1983. Structure-activity correlations among analogs of 4-methyl-3-heptanol, a pheromone component of the European Elm Bark Beetle (*Scolytus multistriatus*). *Journal of Chemical Ecology*, **9**, 615-643.

Grant, A.J. and O'Connell, R.J. 1986. Neurophysiological and morphological investigations of pheromone-sensitive sensilla on the antenna of male *Trichoplusia ni*. *Journal of Insect Physiology*, **32,** 503-515.

O'Connell, R.J., Beauchamp, J.T. and **Grant**, A.J. 1986. Insect olfactory receptor responses to components of pheromone blends. *Journal of Chemical Ecology*, **12,** 451-467.

Mayer, M.S., Mankin, R.W. and **Grant**, A.J. 1987. Quantitative comparison of behavioral and neurophysiological responses of insects to odorants: Inferences about central nervous system processes. *Journal of Chemical Ecology*, **13,** 509-531.

O'Connell, R.J. and **Grant**, A.J. 1987. Electrophysiological responses of olfactory receptor neurons to stimulation with mixtures of individual pheromone components. *Annals of the N.Y. Academy of Sciences*, **510**, 79-85.

Grant, A.J., O'Connell, R.J. and Hammond, A.M. 1987. Comparative study of the neurophysiological response characteristics of olfactory receptor neurons in two species of Noctuid moths. *Annals of the N.Y. Academy of Sciences*, **510,** 311-314.

Mankin, R.W., **Grant**, A.J. and Mayer, M.S. 1987. Microcomputer-controlled response measurement and analysis system for insect olfactory receptor neurons. *Journal of Neuroscience Methods*, **20**, 307-322.

Grant, A.J., O'Connell, R.J. and Hammond, A.M. 1988. A comparative study of pheromone perception in two species of Noctuid moths. *Journal of Insect Behavior*, **1,** 75-96.

O'Connell, R.J. and **Grant**, A.J. 1988. Response properties of insect olfactory receptor neurons in sympatric species. In: The Beidler Symposium on Taste and Smell, I.J. Miller Jr. (Ed.), Book Service Assoc., Winston-Salem, NC; pp. 159-171.

Grant, A.J, O'Connell, R.J. and Eisner, T. 1989. Pheromone mediated sexual selection in

the moth *Utetheisa ornatrix*: Olfactory receptor neurons responsive to a male-produced pheromone. *Journal of Insect Behavior*, **2,** 371-385.

O'Connell, R.J., Stevens, D.A., Akers, R.P., Coppola D.M. and **Grant**, A.J. 1989. Individual differences in the quantitative and qualitative responses of human subjects to various odors. *Chemical Senses*, **14**, 293-302.

Grant, A.J., Mankin, R.W. and Mayer, M.S. 1989. Neurophysiological responses of pheromone-sensitive receptor neurons on the antenna of *Trichoplusia ni* (Hübner) to pulsed and continuous stimulation regimens. *Chemical Senses*, **14,** 449-462.

Grant, A.J., Mayer, M.S. and Mankin, R.W. 1989. Responses from sensilla of the antenna of male *Heliothis zea* to its major pheromone component and two analogs. *Journal of Chemical Ecology*, **15**, 2625-2634.

Treistman, S.N. and **Grant**, A.J. 1990. Attributes of an alcohol-sensitive and an alcohol-insensitive transient potassium current in *Aplysia* neurons. *Alcoholism: Clinical and Experimental Research*, **14**, 595-599.

Grant, A.J. and Treistman, S.N. 1991. Ethanol sensitivity of post-synaptic receptors in the abdominal ganglion of *Aplysia californica*. *Brain Research*, **546**, 217-221.

Mankin, R.W., Mayer, M.S. and **Grant**, A.J. 1991. Sensitivity of *Trichoplusia ni* (Hübner) pheromone receptor neurons: relationships between neural thresholds and behavioral responses. *Journal of Comparative Physiology* A, **168**, 739-747.

Treistman, S.N., Bayley, H, Lemos, J.R., Wang, X., Nordmann, J.J. and **Grant**, A.J., 1991. Effects of ethanol on calcium channels, potassium channels, and vasopressin release. In: *Molecular and Cellular Mechanisms of Alcohol and Anesthetics*, Eds. E. Rubin, K.W. Miller, and S.H. Roth, New York Academy of Sciences, **625**, pp. 249-263.

Bogner, F., **Grant**, A.J. and O'Connell, R.J. 1992. A potential kairomone signal stimulates pheromone-responsive receptor neurons in *Utetheisa ornatrix* (Lepidoptera: Arctiidae). *Journal of Chemical Ecology*, **18**, 427-439.

Grant, A.J., Koski, G. and Treistman S.N. 1993. Effects of chronic ethanol on calcium currents and calcium uptake in undifferentiated PC12 cells. *Brain Research*, **600**, 280-284.

Treistman, S.N and **Grant**, A.J. 1993. Increase in cell size underlies neuron-specific temperature acclimation in *Aplysia*. *American Journal of Physiolology*, **261** (*Cell Physiol.* **33**), C1061-C1065.

Grant, A.J., Wigton, B., Aghajanian, J.G. and O'Connell, R.J. 1995. Electrophysiological responses of olfactory receptor neurons in mosquito maxillary palp sensilla to carbon dioxide. *Journal of Comparative Physiology, A*; **177**, 389-396.

Grant, A.J. and O'Connell, R.J. 1996. Electrophysiological responses from receptor neurons in mosquito maxillary palp sensilla. In: Olfaction in mosquito-host interactions. Wiley, Chichester (Ciba Foundation Symposium **200**) pp. 233-253.

Grant, A.J., Borroni, P. and O'Connell, R.J. 1996. Different seasonal conditions do not effect pheromone-sensitive receptor neurons of the adult cabbage looper moth, *Trichoplusia ni*. *Physiological Entomology*, **21**, 59-63.

Grant, A.J., Borroni, P. and O'Connell, R.J. 1997. The effects of pulsed stimuli on pheromone-sensitive receptor neurons of the adult cabbage looper moth, *Trichoplusia ni*. *Physiological Entomology*, **22**, 123-130.

Clyne, P., **Grant**, A.J., O'Connell, R., and Carlson, J.R. 1997. Odorant responses of individual sensilla on the *Drosphila* Antenna. *Invertebrate Neuroscience*, **3**, 127-135.

Grant, A.J., Riendeau, C. and O'Connell, R.J. 1998. Spatial organization of olfactory receptor neurons on the antenna of the cabbage looper moth. *J. Comparative Physiology A*, **183**, 433-442.

Grant, A.J.; O'Connell, Robert J. 2000. Responses of olfactory receptor neurons in *Utetheisa ornatrix* to gender-specific odors. *Journal of Comparative Physiology A*, **186**, 535-542.

Grant, Alan J. and Kline, Daniel L. 2003. Electrophysiological responses from *Culicoides* (Diptera: Ceratopogonidae) to stimulation with carbon dioxide *Journal of Medical Entomology*, **40**, 284-293.

Oddo, Scott and **Grant,** Alan J. 2006. Mosquito Magnet® as Part of an Integrated Approach to Control Biting Insects. Symposium paper.

Hoel, D.F., Kline, D.L., Allan, S.A. and **Grant, A.J.** 2006. Evaluation of carbon dioxide, 1-octen-3-ol and lactic acid as baits in Mosquito Magnet ™ Pro traps for *Aedes albopictus* (Skuse) in North Central Florida. *Journal of American Mosquito Control Assoc*.

Grant, A.J. & O'Connell, R.J. 2007. Age-Related Changes in Mosquito Carbon Dioxide Detection. *Journal of Medical Entomology*. *Journal of Medical Entomology*, 44, 617-623.

Grant, A.J. & O'Connell, R.J. 2008. The Detection of Carbon Dioxide and host orientation of Hematophagous Insects. In: **Ecology and Control of Vector-Borne Diseases, Vol. 2: Olfaction in vector-host interactions.** Willem Takken and Bart Knols, editors. (in review).

Reviewer: Served as reviewer for various journals and granting agencies.

References: on request

CURRICULUM VITAE

NAME Sam Rountree Telford III
Associate Professor of Infectious Diseases

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Division of Infectious Diseases
Tufts University School of Veterinary Medicine
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North Grafton, MA 01536
(508) 887-4236
sam.telford@tufts.edu

DATE/PLACE OF BIRTH: 29 August 1961/ Gainesville, Florida USA

EDUCATION

1983	Ecology and Evolution	B.A.	The Johns Hopkins University, Baltimore, MD
1987	Tropical Public Health	S.M.	Harvard School of Public Health, Boston, MA
1990	Parasitology	Sc.D.	Harvard School of Public Health, Boston, MA

ACADEMIC APPOINTMENTS

2004	Graduate Faculty, School of Forestry	University of Massachusetts Amherst
2002-	Associate Professor, Biomedical Sciences	Tufts University School of Veterinary Medicine
2002-	Visiting Scientist	Harvard School of Public Health
2001-2003	Affiliate, Biological Sciences	Idaho State University
2000-2004	Affiliate, University of Alaska Museum	University of Alaska Fairbanks
1999-	Adjunct Assistant Professor of Medicine	Tufts University School of Medicine
1992-2002	Lecturer in Tropical Public Health	Harvard School of Public Health
1990-1992	Research Fellow in Tropical Public Health	Harvard School of Public Health

MAJOR PROFESSIONAL SERVICE/CONSULTING

2009	Program Committee, 6tth International Conference on Tularemia
2009	Opponent, PhD thesis examination, University of Umea, Sweden
2009	Special Emphasis Panel, COBRE/INBRE Program, NIH/NCRR
2009	Ad Hoc Reviewer, Israel Science Foundation
2008-	Commissioner, Central Massachusetts Mosquito Control Project
2008	Program Committee, 5th International Conference on Rickettsiology and Rickettsial Diseases
2008	Special Emphasis Panel, Cooperative Research Partnerships for Biodefense, NIAID/NIH
2007	Ad Hoc Reviewer, Biological Research Collections Program, NSF
2007	Ad Hoc Reviewer, National Research Foundation of South Africa
2006	Ad Hoc Reviewer, Tularemia guidelines, World Health Organization
2006	Organizing Committee, 5th International Conference on Tularemia
2005-	CRADA, tularemia detection, Diagnostic Systems Division, USAMRIID
2006-	Institutional Biosafety Committee, Acambis Inc.

2005-	Institutional Biosafety Committee, Tufts Cummings School of Veterinary Medicine	
2005	Ad Hoc Reviewer, Vector Biology Study Section	NIAID/NIH
2004	Ad Hoc Reviewer, Intramural Research Program	Uniformed Services University of Health Sciences
2004	West Nile Virus Special Emphasis Panel	Centers for Disease Control
2004	Special Emphasis Panel, Underrepresented Minority Scientist Competition	NIAID/NIH
2004	Ad Hoc Reviewer	American Kennel Club
2004-2009	Institutional Biosafety Committee, Tufts University School of Medicine	
2004-2006	Ad Hoc Reviewer, U.S. Civilian Research and Development Foundation	U.S. State Department
2003-2006	External Advisory Committee, National Biocontainment Laboratory, Boston University	
2003-2004	Reference Malaria Microscopist, NIH Malaria Research Repository	Hydas Inc.
2003	Special Emphasis Panel, Biodefense & Emerging Infectious Diseases	NIAID/NIH
2002	Special Emphasis Panel, Partnerships in Therapeutics/Diagnostics	Fogarty/NIH
2001, 2003, 2006	Ecology of Infectious Diseases Study Section	Fogarty/NSF/NIH
2001-	Member, Massachusetts Tickborne Disease Advisory Board	
1999-	Senior Research Scientist	Imugen, Norwood MA
1998-	Consultant, Tickborne disease diagnostics	Immunetics, Cambridge MA
1997	Special Emphasis Panel, Tropical Medicine and Parasitology	NIAID/NIH
1997	Ad Hoc Reviewer, Special Grants	NIDDK/NIAID
1997	Consultant, Tickborne Diseases	Saatchi&Saatchi Business Communications
1996-2004	Ad Hoc Reviewer, Infection and Immunity Programme	Wellcome Institute,London, UK
1995-	Scientific Program Committee	American Society of Tropical Medicine and Hygiene
1993-1998	Consultant, Lyme Disease Vaccine Program	SmithKline Beecham Biologicals, Rixensart Belgium
1988-1992	Consultant, Tropical Disease Diagnostics	Becton-Dickinson Company

PROFESSIONAL SOCIETIES (member since)

Entomological Society of America (2007)
American Society for Microbiology (1997)
American Society for Rickettsiology (1996)
American Society of Mammalogists (1989)
American Society of Parasitologists (1989)
American Society of Tropical Medicine and Hygiene (1987)

Editorial Board, Journal of Clinical Microbiology (1998-2006)

Reviewer, The Journal of Parasitology
American Journal of Tropical Medicine and Hygiene
Infection and Immunity
Applied and Environmental Microbiology
American Journal of Epidemiology
Journal of Infectious Diseases
Biochimica et Biophysica Acta
Medical and Veterinary Entomology
New England Journal of Medicine
Parasitology
Folia Parasitologica
American Journal of Public Health
Annals of Internal Medicine

Lancet
Science
Memorias do Instituto Oswaldo Cruz
Clinical Infectious Diseases
Emerging Infectious Diseases
Journal of Medical Entomology

RESEARCH INTERESTS

- Biology of tickborne zoonoses
- Evolutionary ecology of parasites and their hosts

RESEARCH SUPPORT

Past

Gibson Island Corporation, Principal Investigator
Epidemiology of tickborne disease in coastal Maryland
1994-1996 ($25,000)

SmithKline Beecham Pharmaceuticals, Coinvestigator (with A. Spielman)
A Phase II trial for a candidate Lyme disease vaccine
1993-1994 ($250,000 direct costs)

National Institutes of Health, Principal Investigator
Reservoir immunity in Lyme disease vector competence (R29 AI 37993)
1995-2000 ($350,000 direct costs)

National Institutes of Health, Consultant
Babesiosis as a paradigm for aging (RO3 grant)
(P.I. Jeffrey Gelfand, New England Medical Center)
1999-2000 ($5,000 direct costs)

National Institutes of Health, Principal Investigator
Transmission of human granulocytic ehrlichiosis (RO1 AI 39002)
1996-2001 ($988,445 direct costs)

United States Army Medical Research, Consultant
Fever in northern Thailand border villages
(P.I. Chansuda Wongsrichanalai, AFRIMS Bangkok)
1999-2002 ($25,000 direct costs)

National Institutes of Health, Subcontract Project Director
Immunopathogenesis of human granulocytic ehrlichiosis
(RO1 AI 41440, P.I. Erol Fikrig, Yale University)

1997-2003 ($45,588 direct costs)

National Science Foundation, Co-Investigator
The Beringian co-evolution project: mammals and associated parasites
(NSF DEB 9981915, P.I. Joseph Cook, Idaho State University)
1999-2003 (nominal costs)

National Institutes of Health, Consultant
Surface antigen gene expression by HGE agent (AI 47407)
(RO1 AI 47407, P.I. Yasuko Rikihisa, Ohio State University)
2001-2005 ($25,000 direct costs)

Centers for Disease Control, Principal Investigator
Perpetuation of Borrelia lonestari (U50/CCU119560)
2001-2004 ($117,384 direct costs)

National Institutes of Health, Principal Investigator
Proximal determinants of risk for tularemia
R21 AI 53411
2003-2005 ($300,000 direct costs)

National Institutes of Health, subcontract Principal Investigator
Babesiosis as a paradigm of aging (P.I. Henry Wortis, Tufts University)
2002-2006 ($150,000 direct costs)

National Institutes of Health, subcontract Principal Investigator
A murine vaccine for Lyme disease (P.I. Linden Hu, New England Medical Center)
2003-2006 ($90,000 direct costs).

National Institutes of Health, subcontract Principal Investigator
Food and Waterborne Diseases Integrated Research Network
Microbiology Research Unit (Director, Saul Tzipori, TUSVM)
Sensitive detection of tularemia in clinical samples
2004-2008 ($180,000 direct costs)

<u>Current</u>
National Institutes of Health, subcontract Principal Investigator
Closed-tube nucleic acid diagnostic system for use at sentinel laboratories of the LRN
(P.I. Bertrand Lemieux, Iquum Inc.)
2006-2007 ($70,000 direct costs)

National Institutes of Health, Principal Investigator
Perpetuation of Francisella tularensis
RO1 AI 064218
2006-2011 ($1,250,000 direct costs)

Evelyn Lilly Lutz Foundation, Principal Investigator
Nontarget effects of ultralow volume spraying for mosquitos
2007-2009 ($60,000 direct costs)

Massachusetts Department of Agricultural Resources, Principal Investigator
Generic Environmental Impact Statement Update for Mosquito Control
2009 ($50,000 direct costs)

National Institutes of Health, subcontract Principal Investigator
Delivery system development for a reservoir targeted Lyme disease vaccine
SBIR/STTR R41AI078631 (PI Linden Hu, Tufts Medical Center)
2008-2010 ($36,000 direct costs)

Pending
National Institutes of Health, co-Principal Investigator
Emergence of Powassan virus in North America
2009-2012 ($1,250,000 direct costs)

National Institutes of Health, subcontract Principal Investigator
Xenodiagnosis of Lyme disease
(PI Linden Hu, Tufts Medical Center)
2009-2011 ($30,000 direct costs)

National Institutes of Health, Principal Investigator
Dead bugs on tape as an antivector vaccine
2009-2011 ($200,000 direct costs)

TEACHING EXPERIENCE

2006. 2008 Course Director *Principles of Biodefense* Tufts University School of Veterinary Medicine
2005, 2007, 2009 Course Director *Epidemiology of Zoonoses* Tufts University School of Veterinary Medicine
2006 Lecturer *Microbial Pathogenesis* Tufts University School of Veterinary Medicine

2004 Lecturer *Topics in Parasitology* Tufts University School of Veterinary Medicine
2004 Course Director *Epidemiology of Zoonotic Infections* Tufts University School of Medicine

2002 Lecturer *Issues in Biodefense* Harvard School of Public Health

2002-2003 Lecturer *Tropical Medicine and Parasitology* Harvard Medical School

2000-2004 Lecturer *Epidemiology* Tufts University School of Medicine

1994-2004; 2007 Lecturer *Veterinary Public Health* Tufts University School of Veterinary Medicine

1993-1997 Course Director *Techniques for the Investigation of Parasitic Infections* Harvard School of Public Health

1990-1992 Lecturer *Techniques for the Investigation of Parasitic Infections* Harvard School of Public Health

1988-1996; 2000-2002 Lecturer *Biology, Economics, Epidemiology and Policy of Malaria* Harvard School of Public Health

1986-2002; 2007-2009 Lecturer/Lab Instructor *Principles of Public Health Entomology* Harvard School of Public Health

1987-2001 Laboratory Instructor *Tropical Medicine and Parasitology* Harvard Medical School

1995-1999 Lecturer *Immunology of Parasitic Infections* Harvard School of Public Health

1986-1988 Laboratory Instructor *Biology of Parasitism* Marine Biological Laboratory, Woods Hole

1986-1988 Lab Instructor *Veterinary Parasitology* Tufts University School of Veterinary Medicine

BIBLIOGRAPHY

Original reports

1. Telford SR III. Notes on *Agkistrodon himalayanus* from Pakistan's Kaghan Valley. *Copeia* 1980; 1:154-155.

2. Piesman J, Mather TN, Telford SR III, Spielman A. Concurrent *Borrelia burgdorferi* and *Babesia microti* infection in nymphal *Ixodes dammini*. *J. Clin. Microbiol*. 1986; 24:446-447.

3. Piesman J, Mather TN, Dammin GJ, Telford SR III, Lastavica CC, Spielman A. Seasonal variation of risk of infection by *Borrelia burgdorferi* and *Babesia microti*. *Am. J. Epidemiol*. 1987; 126:1187-1189.

4. Telford SR III, Mather TN, Moore SI, Wilson ML, Spielman A. Incompetence of deer as reservoirs of the Lyme disease spirochete. *Am. J. Trop. Med. Hyg*. 1988; 39:105-109.

5. Wilson ML, Telford SR III, Piesman J, Spielman A. Reduced abundance of immature *Ixodes dammini* (Acari: Ixodidae) following elimination of deer. *J. Med. Entomol*. 1988; 25:224-228.

6. Mather TN, Telford SR III, MacLachlan AB, Spielman A. Incompetence of catbirds as reservoirs of the Lyme disease spirochete. *J. Parasitol*. 1989; 75:66-69.

7. Telford SR III, Spielman A. Competence of a rabbit-feeding *Ixodes* (Acari:Ixodidae) as a vector of the Lyme disease spirochete. *J. Med. Entomol*. 1989; 26:118-121.

8. Zung JL, Lewengrub S, Rudzinska MA, Spielman A, Telford SR III, Piesman J. Fine structural evidence for the penetration of the Lyme disease spirochete *Borrelia burgdorferi* through the gut tissues and salivary glands in *Ixodes dammini*. *Can. J. Zool*. 1989; 67:1737-1748.

9. Telford SR III, Spielman A. Enzootic transmission of the agent of Lyme disease in rabbits. *Am. J. Trop. Med. Hyg*. 1989; 41:482-490.

10. Persing DH, Telford SR III, Spielman A, Barthold SW. Use of the polymerase chain reaction to detect *Borrelia burgdorferi* infection in *Ixodes dammini* ticks. *J. Clin. Microbiol*. 1989;28:566-572.

11. Mather TN, Telford SR III, Moore SI, Spielman A. *Borrelia burgdorferi* and *Babesia microti:* efficiency of transmission from reservoirs to vector ticks (*Ixodes dammini*). *Exp. Parasitol.* 1990; 70:55-61.

12. Ribeiro JMC, Weis J, Telford SR III. Saliva of the tick *Ixodes dammini* inhibits neutrophil function. *Exp. Parasitol*. 1990; 70:382-388

13. Telford SR III, Mather TN, Adler GH, Spielman A. Short-tailed shrews as reservoirs of the agents of Lyme disease and human babesiosis. *J. Parasitol*. 1990; 76:681-683.

14. Persing DH, Telford SR III, Rhys PN, Dodge DE, White TJ, Malawista SE, Spielman A. Detection of *Borrelia burgdorferi* DNA in museum specimens of *Ixodes dammini* ticks. *Science* 1990; 249:1420-1423.

15. Krause PJ, Telford SR III, Ryan R, Hurta AB, Kwasnik I, Luger S, Niederman J, Gerber M, Spielman A. Geographical and temporal distribution of babesial infection in Connecticut. *J. Clin. Microbiol*. 1991; 29:1-4.

16. Mather TN, Telford SR III, Adler GH. Absence of transplacental transmission of Lyme

disease spirochetes from reservoir mice (*Peromyscus leucopus*) to their offspring. *J. Infect. Dis*. 1991; 164:564-567.

17. Pollack RJ, Telford SR III, Spielman A. Rectal infusion and aspiration of material from the guts of ixodid ticks. *J. Med. Entomol*. 1991; 28:809-815.

18. Eberhard ML, Telford SR III, Spielman A. Report of a *Brugia* sp. in rabbits from northeastern North America. *J. Parasitol*. 1991; 77:796-798.

19. Conrad PA, Thomford J, Marsh A, Telford SR III, Anderson J, Spielman A, Sabin EA, Yamane I, Persing DH. Ribosomal DNA probe used to differentiate *Babesia microti* and *B. gibsoni* isolates. *J. Clin. Microbiol*. 1992; 30:1210-1215.

20. Krause PJ, Telford SR III, Pollack RJ, Ryan R, Zemel L, Brassard P, Spielman A. Babesiosis -- an underdiagnosed disease of children. *Pediatrics* 1992; 89:1045-1048.

21. Telford SR III, Urioste SS, Spielman A. Clustering of host-seeking nymphal deer ticks (*Ixodes dammini*) infected by Lyme disease spirochetes. *Am. J. Trop. Med. Hyg*. 1992; 47:55-60.

22. Adler GH, Telford SR III, Wilson ML, Spielman A. Vegetation structure influences the burden of immature *Ixodes dammini* on *Peromyscus leucopus*. *Parasitology* 1992; 105:105-110.

23. Fikrig E*, Telford SR III*, Barthold SW, Kantor F,. Spielman A, Flavell RA. Elimination of Lyme disease spirochetes from vector ticks feeding on Osp-A immunised mice. *Proc. Nat. Acad. Sci. (USA)* 1992; 89:5418-5421. (* equal contribution)

24. Shih CM, Pollack RJ, Telford SR III, Spielman A. Protection of mice against Lyme disease infection by ear punch biopsy. *J. Infect. Dis*. 1992; 166:827-831.

25. Persing DH, Mathieson D, Marshall WF, Telford SR III, Spielman A, Thomford J, Conrad PA. Detection of *Babesia microti* by polymerase chain reaction. *J. Clin. Microbiol*. 1992; 30:2097-2103.

26. Telford SR III, Spielman A. Reservoir competence of white footed mice for *Babesia microti*. *J. Med. Entomol*. 1993; 30:223-227.

27. Pollack RJ, Telford SR III, Spielman A. Standardisation of a complex medium for the growth of *Borrelia burgdorferi*. *J. Clin. Microbiol*. 1993; 31:1251-1255

28. Shih CM, Telford SR III, Pollack RJ, Spielman A. Rapid dissemination by the agent of Lyme disease in hosts that permit fulminating infection. *Infect. Immun*. 1993; 61:2396-2399.

29. Smith RP, Rand PW, LaCombe E, Telford SR III, Rich SM, Piesman J, Spielman A.

Norway rats as reservoirs for Lyme disease spirochetes on Monhegan Island, Maine. *J. Infect. Dis.* 1993; 168:687-691.

30. Quick RE, Herwaldt BL, Thomford JW, Garnett M, Eberhard M, Wilson M, Spach DH, Dickerson DW, Telford SR III, Steingart KR, Pollock R, Persing DH, Kobayashi JM, Juranek DD, Conrad PA. Babesiosis in Washington: a new species of *Babesia*? *Ann. Int. Med*. 1993; 119:284-290.

31. Telford SR III, Fikrig E, Barthold SW, Rosa Brunet L, Spielman A, Flavell RA. Protection against antigenically variable Lyme disease spirochetes conferred by recombinant vaccine. *J. Exp. Med.* 1993; 178:755-758.

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