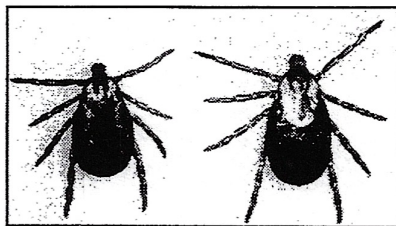


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11TH INTERNATIONAL SCIENTIFIC CONFERENCE ON LYME DISEASE AND OTHER SPIROCHETAL & TICK-BORNE DISORDERS

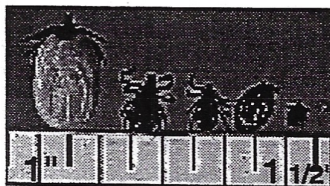
April 25 - 26, 1998

Equitable Conference Center
787 Seventh Avenue (51st & 52nd), New York City



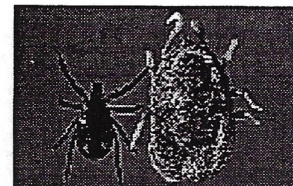
Dog ticks

Dermacentor variabilis L to R: male, female



Black-legged ticks

Ixodes scapularis ticks
L to R: engorged female, female,
male, engorged nymph, nymph,
larva



Hard tick vs soft tick

L to R: female *Ixodes*,
female *Ornithodoros*



LYME DISEASE FOUNDATION

1 Financial Plaza, Hartford, CT 06103

www.Lyme.org Lymefnd@aol.com

860-2000 24-hr Hotline 800-886-Lyme 860-525-TICK (8425)



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LYME DISEASE FOUNDATION

The First & Largest Scientific Nonprofit Dedicated to Finding Solutions to Tick-Borne Disorders

April 25, 1998

Dear Friends:

1998 is the Lyme Disease Foundation's (LDF) 10th Anniversary!

We have made great progress in the understanding of many tick-borne disorders. Ten years ago Lyme disease was considered geographically limited to a small area on the shoreline of Connecticut. The symptoms were swollen joints and a bull's-eye rash. And, since the disease was self-limiting, treatment wasn't always necessary. Today, Lyme disease is recognized as a serious multisystem worldwide threat to public health - Costing society over \$1 billion per year.

The LDF was formed in 1988 at the urging of Drs. Paul Duray, John Post and Ed Bosler. The Lyme Disease Foundation (LDF) was established to provide a place for friendly, vigorous debate of differing scientific information. The LDF is an alliance between scientists, government, the public, and business. These four key groups working together are symbolized in our *Partnership Logo* - showing the stylized four hands working together.

In ten years the LDF has educated millions of people through our 24-hour Hotline, newsletters, website, brochures, videos, peer-reviewed scientific publication *Journal of Spirochetal & Tick-Borne Diseases*, and of course through our scientific conferences. LDF Conferences are recognized as being the primary source of scientifically accurate and balanced information on spirochetal and tick-borne disorders. In 1997 the LDF received an award for its educational efforts from the National Institutes of Health.

I would like to thank all of our supporters and volunteers, and I want to remember those who are not able to be here with us, especially two former board members Dr. Paul Lavoie and Richard Dicker whose advise and support I sorely miss.

Ten years from now my hope is that the threat Lyme and other tick borne diseases currently pose, will be a distant memory and the LDF will stand as a symbol of how people working together toward a common goal can accomplish their dream.

Sincerely,

Thomas E. Forschner,
Executive Director

Working in partnership to find solutions: science, business, government, and the public

PROGRAM COMMITTEE

Sam T. Donta, MD - Program Coordinator, Boston University School of Medicine

Edward M. Bosler, PhD - Stonybrook School of Medicine

James N. Miller, PhD - UCLA School of Medicine

Charles S. Pavia, PhD - New York Medical College

Ron Schell, PhD - University of Wisconsin Medical School

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Ed Bosler, PhD - SUNY at Stony Brook School of Medicine

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Willy Burgdorfer, PhD, MD (Hon) - Discoverer of the Lyme bacterium, National Institutes of Health

Mark Cartwright - Boston University School of Medicine

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Steven Schutzer, MD - University of Medicine and Dentistry of New Jersey

Jon T. Skare, PhD - Texas A & M University Health Science Center

Reinhard K. Straubinger, Dr. vet. med., PhD - Cornell University

Richard Tilton, PhD - BBI Clinical Laboratories, Inc.

Irwin T. Vanderhoof, PhD - Stern School of Business, Society of Actuaries

LEARNING OBJECTIVES

The purpose of this conference is to present the current status of clinical and basic sciences with regards to several aspects of Lyme disease (LD); the basic science about the Lyme disease pathogen *Borrelia burgdorferi*; coinfection; patient diagnosis (including differential diagnosis, coinfections), treatment, and management; and prevention.

Upon completion of this program, participants should be able to:

- Recognize the complex nature of *Borrelia burgdorferi* in relation to host response to infection
- Determine criteria for diagnosis and treatment of the various presentations of LD
- Identify various approaches to and role of the laboratory testing of LD and coinfections
- Diagnose neurologic LD and its many complex manifestations
- Identify the spectrum of problems associated with the etiology of chronic LD, e.g. animal models and clinical data
- Assess the implications of genetic diversity of the LD spirochete on the development of new diagnostic tests and vaccines.

TARGET AUDIENCE

- Primary Care Physicians
- Nurse Practitioners
- Researchers
- Medical Specialists
- Public Health Officials
- Veterinarians

15 CME CREDITS

This activity has been planned and implemented in accordance with the Essentials and Standards of the Accreditation Council for Continuing Medical Education through the joint sponsorship of Boston University School of Medicine and the Lyme Disease Foundation. Boston University School of Medicine is accredited by the ACCME to provide continuing medical education for physicians.

Boston University School of Medicine designates this educational activity for a maximum of 15 hours in Category 1 credit towards the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that he/she actually spent in the educational activity.

DISCLOSURE

Only one product, *cefuroxime*, is approved for use in Lyme disease. And, the product is FDA approved for use only in *Early Lyme Disease*. Discussion about any other product involves "off-label" use.

UNRESTRICTED EDUCATIONAL CONFERENCE GRANT SUPPORT

SmithKline Beecham Pharmaceuticals
Pasteur Merieux Connaught, Equitable Foundation,
Glaxo Wellcome Inc., BBI- North American Labs, Igenex, Homed

11TH INTERNATIONAL SCIENTIFIC CONFERENCE ON LYME DISEASE AND *OTHER* SPIROCHETAL & TICK-BORNE DISORDERS

Program Agenda

Saturday, April 25, 1998

8:00 Welcome - Thomas E. Forschner, CPA, MBA

Increased Evidence of Mosquito / Spirochete Associations

Willy Burgdorfer, PhD, MD (Hon) - Discoverer of the Lyme bacterium, National Institutes of Health

BASIC SCIENCES

CHAIRMAN: DAVE DORWARD, PhD (8:30AM - 11:00AM)

Complete Genome Sequence of *Borrelia burgdorferi*

Claire M. Fraser, PhD - The Institute For Genomic Research

Identification and Characterization of Virulent Strain Associated Outer Membrane Proteins of *Borrelia burgdorferi*

Jon T. Skare, PhD - Texas A & M University Health Science Center

Survey for *Borrelia* Species among Reservoir Animals Captured in Forested Areas of Greater Metropolitan Chicago

Maria M. Picken, MD, PhD - Loyola University Medical Center

Toxins of *Borrelia burgdorferi*

Mark Cartwright, Suzanne Martin, Sam T. Donta, MD - Boston University School of Medicine

9:50 am - 10:05 am Morning Refreshment Break

In Vitro Evidence for Lymphocytic Membrane Cloaking by *Borrelia burgdorferi*

David W. Dorward, PhD - NIAID, National Institutes of Health

TICKS VECTORS AND ANIMAL MODELS

CHAIRMAN: EDWARD BOSLER, PhD (11:00AM - 1:50PM)

Tick Vectors of *Borrelia burgdorferi*

John Anderson, PhD - Connecticut Agriculture Experiment Station

Coinfections in Mammals and Ticks with Emerging Tick-Borne Pathogens

Edward Bosler, PhD - SUNY at Stony Brook School of Medicine

Laboratory and Clinical Characterization of the Canine Monocytic Ehrlichiosis Syndrome

Ibulaimu Kakoma, DVM, PhD - College of Veterinary Medicine, University of Illinois

10³⁵ - 11⁰⁰ - Questions of the Panel
Noon - 1:00 pm Lunch

Lyme Disease in Dairy Cattle

Sandra L. Bushmich, MS, DVM - University of Connecticut

Oral Corticosteroid Treatment of Dogs Infected with *Borrelia burgdorferi*

Reinhard K. Straubinger, Dr. med. vet., PhD - Cornell University

LABORATORY TESTING

CHAIRMEN: RON SCHELL, PhD (1:50PM - 4:00PM)

Overview of Testing in Lyme Disease

Ron Schell, PhD - University of Wisconsin Medical School

***In Vivo* Expressed Antigens**

Steven Schutzer, MD - University of Medicine and Dentistry of New Jersey

Antigen Detection of *Borrelia burgdorferi* in Urine

Nick S. Harris, PhD - IGeneX Reference Laboratory

2:50 pm - 3:05 pm Afternoon Refreshment Break

New System for *Borrelia In Vitro* Cultivation

Paul H. Duray, MD - National Institutes of Health, National Cancer Institute

Improving Culturing and Sensitivity to Antibiotics of *Borrelia burgdorferi* Isolated from Patients with Early Lyme Disease

Charles S. Pavia, PhD - New York Medical College

DIAGNOSIS AND TREATMENT

CHAIRMEN: SAM DONTA, MD AND RON SCHELL, PhD (4:00PM - 5:00PM)

Non-Lyme Disease Tick-Borne Disorders

Julie Rawlings, MPH - Texas Department of Health

Coinfections in Patients on Long Island

Bill Golde, PhD - SUNY at Stony Brook School of Medicine

Confirmatory Testing for Non-Lyme Disease Tick-borne Diseases

Richard Tilton, PhD - BBI Clinical Laboratories, Inc.

5 pm Close of the program for the day

6 pm - 8 pm Reception at the Equitable Center

Dress - Your choice from casual to formal. Children under 8 may attend for free.

Sunday, April 26, 1998

DIAGNOSIS AND TREATMENT

CHAIRMAN: SAM DONTA, MD (8:00AM - 2:30PM)

Host and Mammalian Histopathology in Borreliosis

Paul H. Duray, MD - National Institutes of Health, National Cancer Institute

Early Disease

Anthony Lionetti, MD - Lyme Disease Diagnostic Center

New Epidemiologic Findings of the EM Rash and Lyme Disease Serology

Dennis Parenti, MD - SmithKline Beecham Biologicals

Overview of Disseminated Lyme Disease

Kenneth Liegner, MD - Internal Medicine, Private Practice

Eye Findings in Disseminated Lyme Disease

Robert L. Lesser, MD - Yale University School of Medicine

Neuropsychiatric Manifestations of Lyme Disease in Children

Brian A. Fallon, MD - Columbia School of Medicine, NYS Psychiatric Institute

10:20 am - 10:35 am Morning Refreshment Break

Clinical Characterization and Serological Data on 200 Patients PCR Positive for Lyme Disease

Anthony Lionetti, MD - Lyme Disease Diagnostic Center

Clinical Borreliosis in Missouri

Edwin J. Masters, MD - Regional Primary Care Physician

Chronic Lyme Disease

Sam Donta, MD - Boston University School of Medicine

Noon - 1:00 pm Lunch

Update on the NIH Intramural Chronic Lyme Disease Study

Adriana R. Marques, MD - National Institutes of Health

Clinical Use of Macrolide Antibiotics in Treatment of Lyme Disease

Sam T. Donta, MD - Boston University School of Medicine

Designing Better Therapies - Panel discussion by the presenters.

2:30 pm - 2:45 pm Afternoon Refreshment Break

LYME DISEASE COSTS-TO-SOCIETY

(2:45PM - 3:05PM)

Lyme Disease Cost-to-Society: A Catalogue of Symptoms

Irwin T. Vanderhoof, PhD - Stern School of Business, Society of Actuaries

VACCINES

CHAIRMAN: JAMES N. MILLER, PhD (3:05PM - 5:00PM)

Potential Limitations of the OspA Vaccine for Humans Based Upon Experimental Studies in Animals

James N. Miller, PhD - UCLA School of Medicine

Denise M. Foley, PhD - Chapman University

Successful Results of Phase III Efficacy Trial of a Lipoprotein OspA Vaccine

Dennis L. Parenti, MD - SmithKline Beecham Biologicals

Strategies for a Vaccine against European *Borrelia*

Robert C. Huebner, PhD - Pasteur Merieux Connaught

***Borrelia burgdorferi* Decorin Binding Protein A (DbPA) as a Second generation Lyme Disease Vaccine Candidate**

David R. Cassatt, PhD - MedImmune

5 pm Conference Close