



# National Institute of Allergy and Infectious Diseases

Leading research to understand, treat, and prevent infectious, immunologic, and allergic diseases.



U.S. Department of Health and Human Services

**NIH News**

National Institutes of Health

National Institute of Allergy and  
Infectious Diseases (NIAID)  
<http://www.niaid.nih.gov>

## See Also

Media Contact Info

News Releases by Topic

Health & Research Topics

FOR IMMEDIATE RELEASE  
Monday, Oct. 18, 2010

## NIAID MEDIA AVAILABILITY

### NIH-Funded Scientists Sequence Genomes of Lyme Disease Bacteria

#### WHAT:

Scientists supported by the National Institutes of Health (NIH) have determined the complete genetic blueprints for 13 different strains of *Borrelia burgdorferi*, the bacteria that cause Lyme disease. The achievement should lead to a better understanding of how genetic variations among strains may result in different courses of illness in people with Lyme disease, the most common tickborne disease in North America. The wealth of new genetic data will also help scientists develop improved ways to diagnose, treat and prevent Lyme disease.

The first genome of a strain of *B. burgdorferi* was sequenced more than 10 years ago. The 13 newly sequenced strains include ones isolated from humans and ticks and represent a range of geographic origins. Together, the genomes provide a more complete picture of scope of natural variations in the microbe and the disease it causes.

The sequencing and analysis was led by Claire M. Fraser-Liggett, Ph.D., of the University of Maryland School of Medicine, and was performed at a Microbial Sequencing Center funded by the NIH's National Institute of Allergy and Infectious Diseases (NIAID). The research project was initiated by Steven E. Schutzer, M.D., of the University of Medicine and Dentistry of New Jersey-New Jersey Medical School, an NIAID grantee.

Additional support was provided by the National Institute of General Medical Sciences and the National Center for Research Resources, both components of NIH.

#### ARTICLE:

SE Schutzer *et al.* Whole genome sequences of thirteen isolates of *Borrelia burgdorferi*. *J. Bacteriology* DOI: 10.1128/JB.01158-01 (2010).

#### WHO:

Joseph J. Breen, Ph.D., Bacteriology Program Officer, Division of Microbiology and Infectious Diseases, NIAID, is available to comment.

#### CONTACT:

To schedule interviews, please contact Anne A. Oplinger, 301-402-1663, [niaidnews@niaid.nih.gov](mailto:niaidnews@niaid.nih.gov).

---

NIAID conducts and supports research—at NIH, throughout the United States, and worldwide—to study the causes of infectious and immune-mediated diseases, and to develop better means of preventing, diagnosing and treating these illnesses. News releases, fact sheets and other NIAID-related materials are available on the NIAID Web site at