



More than 38 million US adults binge drink. [Learn the facts.](#)



# DISCOVER<sup>®</sup>

M A G A Z I N E

Subscribe Today »

RENEW GIVE A GIFT ARCHIVES CUSTOMER SERVICE

SEARCH

GO >>



CURRENT ISSUE

Health & Medicine | Mind & Brain | Technology | Space | Human Origins | Living World | Environment | Physics & Math | Video | Photos | Podcast | RSS

## Health & Medicine / Infectious Diseases

### Top 100 Stories of 2011 #90: Chronic Lyme Patients Validated

A new study uncovered biomarkers for Lyme disease symptoms that persist even after treatment.

by Katie Palmer

From the [January-February special issue](#); published online January 5, 2012



Patients with chronic fatigue syndrome and post-treatment Lyme disease syndrome (in which symptoms persist after antibiotic treatment) have spent decades fending off charges that their debilitating exhaustion and cognitive problems were simply imagined. But a study released last February provides tangible evidence that their conditions are real and distinct entities.

Immunologist Steven Schutzer of the University of Medicine and Dentistry of New Jersey examined samples of cerebrospinal fluid, the clear liquid that surrounds the brain and spinal cord, from patients with each syndrome. In identifying the contents of that fluid, he documented different sets of proteins for each group of patients, potential biomarkers that distinguish between the two conditions and healthy controls. [Schutzer revealed the marker proteins](#) by removing common, unrelated proteins like albumin and immunoglobulin from the spinal fluid before his analysis. "That lets the smaller proteins—the potential biomarkers—not get obscured," he says. "At least now we know we're not just speculating about the differences between chronic fatigue syndrome and post-treatment Lyme."



iStockphoto

[Back to the Top Stories of 2011 Gallery.](#)

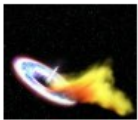
### Related Articles



**Top 100 Stories of 2011 #1: Faster than the Speed of Light**

Runaway subatomic particles seem to be breaking the cosmic speed limit. If the results hold up, physicists have some explaining to do.

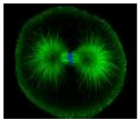
January 09, 2012



**Top 100 Stories of 2011 #14: Astronomers Watch Black Hole Devour Star**

Researchers luck out, getting a front row seat for stellar annihilation.

January 09, 2012



**Top 100 Stories of 2011 #17: Quantum Weirdness Enters the Larger World**

Eight-legged molecule may be the strangest—and biggest—new quantum phenom on the block.

January 09, 2012



**Top 100 Stories of 2011 #20: Helium's Antimatter Twin Created**

Scientists catch particle only created once every 28 billion times nuclei are smashed together.

January 09, 2012



**Top 100 Stories of 2011 #26: The New Physics of Bicycles**

Why do riderless bikes stay upright? What we thought was wrong.

January 09, 2012

**We Can Help.**  
Alcohol and Drug Addiction Treatment



**Retreat** at Lancaster County  
Call Our Helpline:  
**1-717-859-8000**

Latest News | Blogs | Most Popular

- In the Milky Way, There Are As Many Planets As Stars
- Why This Winter is So Crazy Warm
- Preserving the Moon Landings for Posterity
- Captive Cheese Fungus Gobbles Up Spills, Forming a Living, Self-Cleaning ...
- Global Warming May Have Delayed the Next Ice Age
- Baby Monkeys Have Cells From Up to Six Parents
- How Could the #1 Story of the Year Be Something That Might Not Even Be ...
- How Stephen Hawking Has Survived to Age 70
- How Well Do Drugs Work? Hidden Research Sometimes Makes It Hard to Tell
- Ohio Christmas Quakes Likely Caused By Fracking Operation

Discover Magazine on Facebook

 Like

35,330 people like Discover Magazine.



Facebook social plugin

**SIGN UP FOR OUR Free Newsletters**

**General** (every Thursday)  
The best science news from around the world

- Technology** *(1st Tuesday)*  
Computers, Gadgets, Nanotech,  
Weapons & Security
- Health & Medicine** *(2nd Tuesday)*  
Stem Cells, Cancer, Infectious Diseases,  
Health Policy
- Living World** *(3rd Tuesday)*  
Climate Change, Evolution, Endangered  
Species, Strange Animals
- Physical Science** *(4th Tuesday)*  
Exoplanets, Dark Matter, Private  
Spaceflight, the LHC

**Email**

By signing up you will also receive occasional surveys and special offers via email. We will not sell your email address.

