Johns Hopkins Lyme Disease Research Center And Clinical Care Program

Spring 2026 Newsletter

2025 IMPACT REPORT

Our **2025 IMPACT REPORT** marked the Center's 10th anniversary and highlighted a decade of scientific progress and hope for patients and families.

Highlights

- A decade of discovery, reshaping how Lyme disease is understood and treated
- New evidence that Lyme disease has a biological basis, replacing outdated misconceptions with science-based care and greater understanding
- Important insights into why some patients continue to feel unwell after treatment, including research pointing to immune, neurologic, and autonomic system changes that may contribute to lingering symptoms
- Multidisciplinary research and care model, bringing experts together across disciplines to speed discovery and improve treatments
- Advanced brain imaging studies, revealing that Lyme disease can affect brain function in ways that may impact fatigue, "brain fog," and recovery over time

READ THE 2025 IMPACT REPORT

RESEARCH FROM THE CENTER

Sex and Menopause Differences in Early Lyme Disease

A study led by Alison Rebman, MPH, Lyme Disease Research Center Director for Clinical Epidemiological Research, found that early Lyme disease can look different in males and females, and that menopausal status may also affect how the illness presents. In this study of 243 adults, males were more likely than females, especially pre-menopausal females, to have stronger antibody responses, larger rashes, and more objective signs of more severe illness at diagnosis. Post-menopausal females often looked more like males than pre-menopausal females on these measures.

Males and females reported a similar overall number of symptoms, though the specific symptoms differed. Females more often reported heart palpitations, vomiting, and sensitivity to light, while males more often reported sleep problems. Importantly, these differences were not explained by delays in getting diagnosed.

These findings:

- Reveal that biological sex and hormones shape early Lyme disease responses
- May explain why females face higher risks for persistent symptoms after treatment
- Can improve early diagnosis by recognizing different disease patterns in males versus females

Psilocybin Offers Early Hope for Persistent Symptoms

People living with Lyme disease-associated chronic illness can experience ongoing pain, fatigue, brain fog, sleep problems, and mood changes long after treatment.

A first-of-its-kind pilot study explored whether psilocybin-assisted therapy, delivered in a controlled clinical setting, could help ease these symptoms.

The study was led by Albert Garcia-Romeu, PhD, of the Johns Hopkins Center for Psychedelic and Consciousness Research, and

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OUR MISSION is to bridge the gaps in Lyme disease knowledge and translate our research findings into improved patient care.

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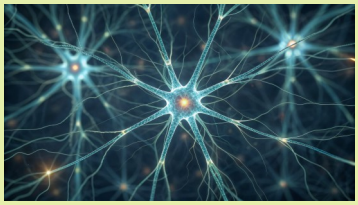
A Multidisciplinary Approach

John Aucott, MD, Director of the Johns Hopkins Lyme Disease Research Center and Clinical Care Program. Their collaborative expertise brings together clinical Lyme disease research with psychedelic neuroscience.



Twenty adults with confirmed post-treatment Lyme disease received two doses of psilocybin, spaced two weeks apart, with trained facilitators supporting each session. Participants were followed for six months. The results were preliminary but encouraging, with symptom severity falling by an average of 40% at six months, and improvements in fatigue, depression, pain, and sleep quality. The study also reported strong completion rates and no serious adverse events.

This research:

- Offers new hope for the severe fatigue, brain fog, and pain that can linger after Lyme disease treatment
- Points to broader potential for Lyme disease patients and other infection-associated chronic illnesses
- Shows how cross-disciplinary science can unlock potential treatments for complex symptoms

RESEARCH SPOTLIGHT

The Center congratulates MD/PhD candidate, **Alex Girgis,** on completing his doctoral thesis as part of our research lab. His research explored how Lyme disease alters metabolism in different immune cell types, advancing our understanding of this complex illness.

Alex's mentoring team brought together expertise in infectious diseases, immunology, molecular biology, oncology, and computational medicine. He is the second trainee supported through the Center's educational training program, established to cultivate the next generation of Lyme disease researchers.

Photo: Alex Girgis (2nd from left) with mentors (left to right): Center Director John Aucott, MD; Elana Fertig, PhD; and Andrea Cox, MD.. Also on his team: Erika Darrah, PhD.

Secure your Spot for Dr. John Aucott's 10th Annual Lyme Disease Update

THE VALUE OF A MULTIDISCIPLINARY APPROACH TO LYME DISEASE

Join us: Thursday, May 7, 2026, 7-9 PM ET

Livestream Webinar by John Aucott, MD

Barbara Townsend Cromwell Professor in Lyme Disease and Tickborne Illness
Director, Lyme Disease Research Center and Clinical Care Program
Associate Professor of Medicine, Johns Hopkins University School of Medicine

REGISTER NOW

Discover how advances in diagnostics, neuroimaging, and dysautonomia research are revealing Lyme disease's biological complexity and driving new approaches to patient care.

Hosted by the Lyme Care Resource Center

SUPPORT THE CENTER

Your support helps make our progress possible and fuels discoveries that bring hope, validation, and better care to patients and families.

GIVE TODAY

THE CENTER EXTENDS ITS DEEPEST GRATITUDE to the Steven & Alexandra Cohen Foundation, Barbara Townsend Cromwell, the Afsaneh & Michael Beschloss family, the Daniell Family Foundation, Bill and Marian Cook Foundation, Global Lyme Alliance, Bay Area Lyme Foundation, Lyme Care Resource Center, our dedicated Board, and the many generous supporters whose commitment sustains and strengthens our work.

We are also thankful for the support of the Kenney Family Foundation, whose dedication to Lyme disease education and outreach make this newsletter—and the impact it represents—possible.

RECOVERING FROM LYME DISEASE can be immensely challenging.

If you are in distress or have suicidal thoughts:

- Call 988, the Suicide & Crisis Lifeline. Available 24 hours/day
- Visit 988lifeline.org for more resources

May is Lyme Disease Awareness Month

To stay abreast of the latest in Lyme Disease, subscribe at HopkinsLyme.org/subscribe

SIGN UP TODAY for our newsletter

Recognize The Rash

Most Lyme disease rashes *don't* look like the classic bull's-eye.
Early recognition can prevent misdiagnosis.
Learn to identify Lyme rashes

Tick Bite Prevention

Spring and summer bring peak risk for for Lyme and other tickborne diseases.
Take protective steps.
See practical prevention tips

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Patient Care Research Education