

Research for Lyme Infection-Associated Chronic Illnesses Treatment: Broadening the Lens



BRIDGING BETWEEN FUNDER AND PATIENT PRIORITIES

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Chief Scientific Officer
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GLOBAL LYME ALLIANCE IN A SNAPSHOT

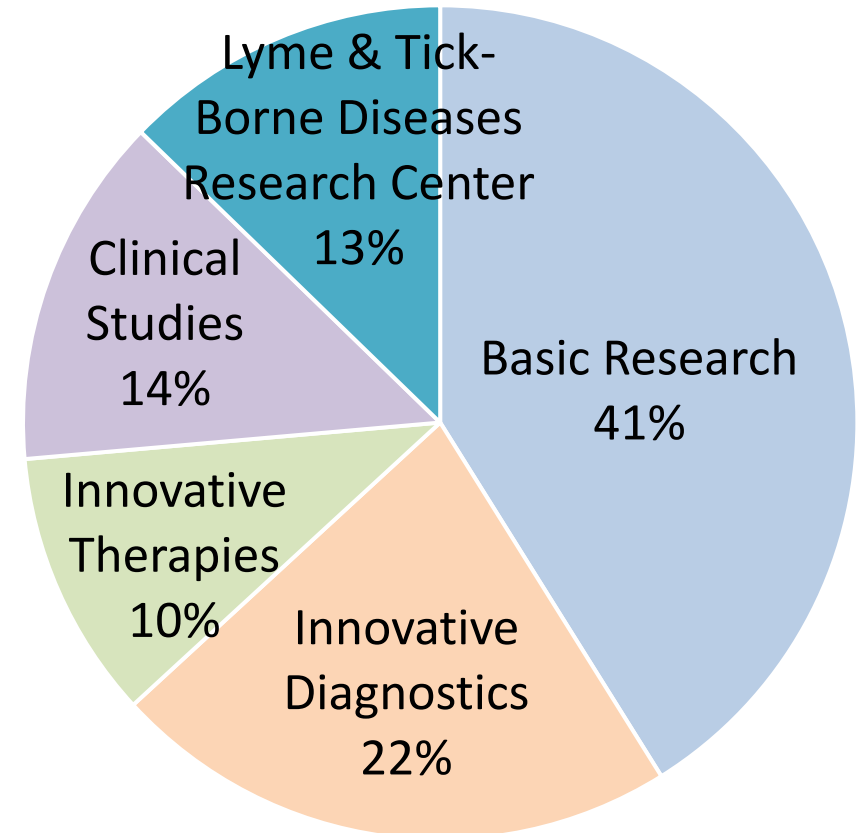
- Entirely donor-supported 501(c)3 non-profit dedicated to curing Lyme and other tick-borne diseases through innovative research, awareness, and empowering the patient voice
- Committed **\$19 million** to support Lyme and other tick-borne disease research around the world!
- Funded more than **70 different research projects** at top academic institutions and hospitals!
- **171 publications** in over 90 different peer-reviewed medical and scientific journals!
- Supporting research to drive development of better diagnostic tools and alternative treatment options to help PTLDS/chronic Lyme patients



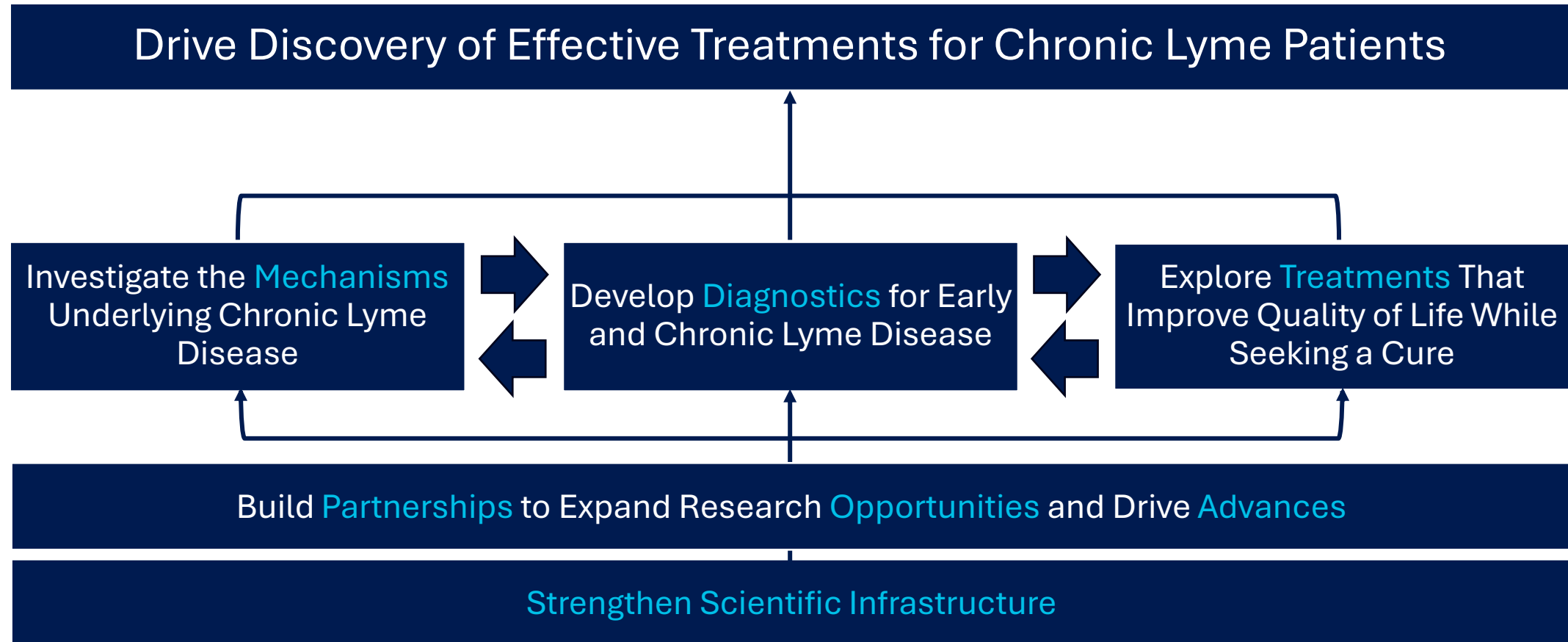
Laura MacNeill
CEO, GLA



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THREE-YEAR RESEARCH STRATEGIC PLAN



DRIVE DISCOVERY OF EFFECTIVE TREATMENTS FOR CHRONIC LYME

STEPS TO ACHIEVING THIS GOAL:

1. Identify and support development of **Innovative Diagnostics**
2. Determine How To Accurately Diagnose Chronic Lyme Patients, Potentially In The Absence Of:
 - a. History Of A Tick Bite
 - b. History Of An Erythema Migrans Lesion
 - c. Specific Symptoms Consistent with Lyme disease
 - d. Strict Serological (Antibody) Evidence Of *Borrelia burgdorferi* Infection.
3. Recruit Chronic Lyme Patients Into Clinical Studies
4. Identify and support development of **Innovative Treatments** To Be Evaluated
5. Recruit Chronic Lyme Patients Into Clinical Trials

LOOKING FOR SEVERAL DIFFERENT EGGS IN ONE BASKET

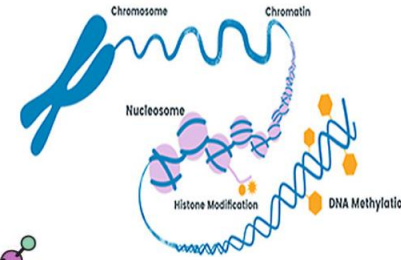
CHALLENGE: Determine Whether A Patient Has Lyme Disease Despite The Absence Of Current Consensus Clinical And Diagnostic Evidence

EMPLOY COMPOSITE DIAGNOSTIC TESTING FOR:

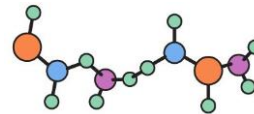
1. Unique Borrelial Signatures (e.g., Protein, DNA, RNA, Metabolites)



2. Genetic And/Or Epigenetic Signatures



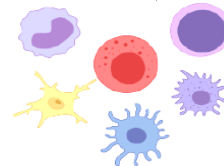
3. Host Metabolomic Signatures



4. Inflammation Signatures



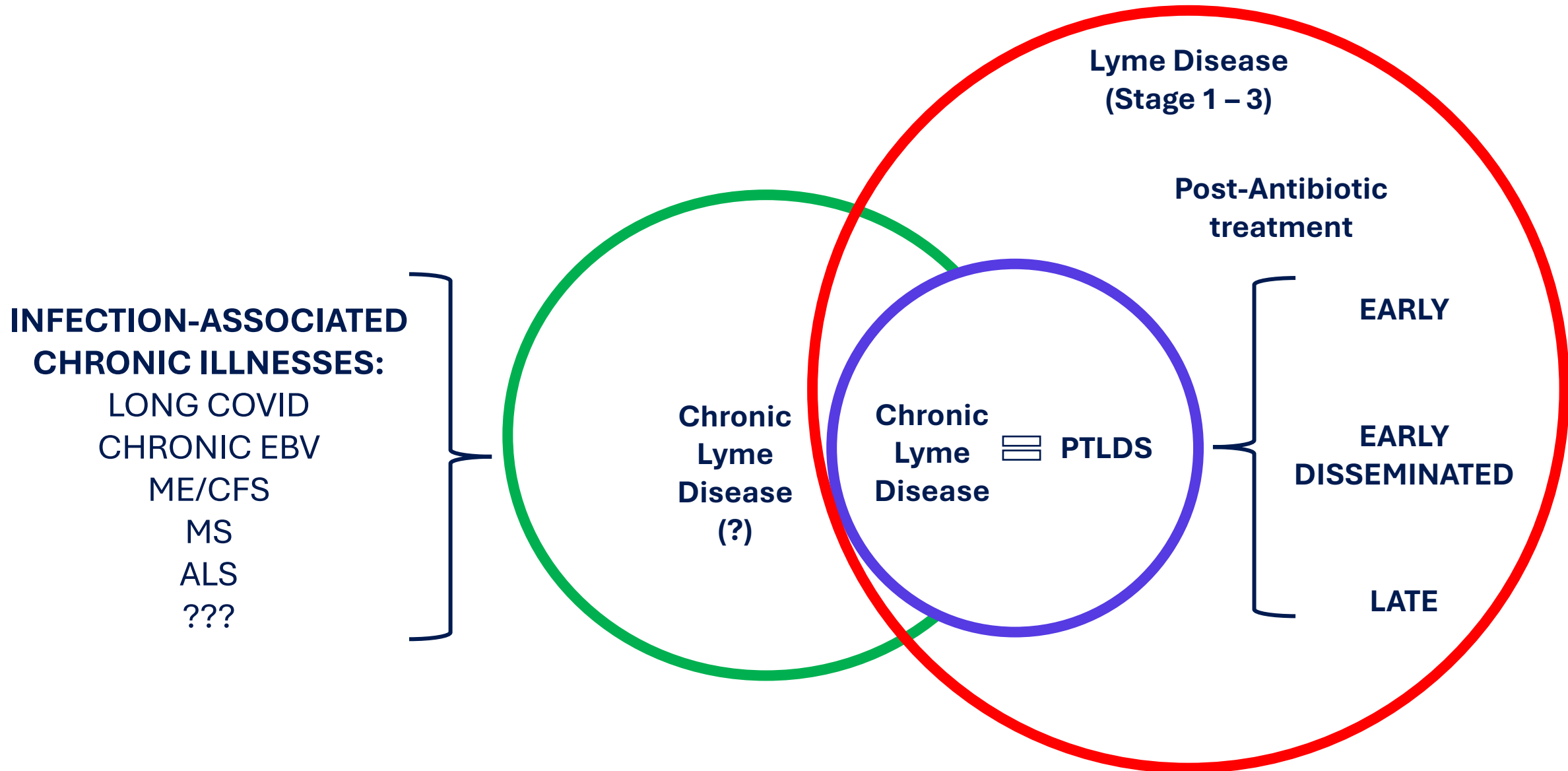
5. Cellular Signatures



6. T cell-Independent Antibody Signatures



THE LYME DISEASE PATIENT LANDSCAPE



SUCCESS IN WINNING THE WAR AGAINST CHRONIC LYME DISEASE REQUIRES:

- ✓ Bridging the gap between IDSA and ILADS
- ✓ Providing critical resources to advance science
- ✓ Leveraging partnerships between:
 1. Lyme-treating physicians
 2. Academia
 3. Industry
 4. Government



