

Canadian Lyme  
Disease Research  
Network (CLyDRN)

Pillar 3  
Clinical Science and  
Health Services  
Research



CANADIAN LYME DISEASE  
RESEARCH NETWORK



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RESEARCH NETWORK

# Pillar 3 Leads

## Co-Leads

- Derek Leslie
- Mark Loeb
- Samir Patel
- Beate Sander

## Site Leads

- Elizabeth Stringer; Lunenburg, NS.
- Prameet Sheth, Rob Brison; Kingston, ON

# Current Projects

CLYME Biobank Project: Dr. Samir Patel

Cohort Study: Dr. Loeb

Case-Control Study: Drs. Kulkarni and Zinszer

Economic analysis of Lyme impact: Dr. Sander

# Planned and Potential Lab-Based Research

Sample processing / Storage to permit:

- Borrelia culture
- PCR and other / novel Diagnostic testing
- PBMC assessments (peripheral blood mono. Cells)
  - Measurement of immune Populations (Loeb)
- PAXgene sample collection
- Plasma, serum, urine, CSF
- Punch Biopsy of EM rash
- Designated and Surplus biobank samples

# CLYME biobank

- Multiple biologic samples including blood, tissue, urine and CSF
- Collected at baseline and 1 month
- Additional samples from Cohort study participants at 3, 6, and 12 months

# Cohort Study

## Participant Groups

- early /localized Lyme \*
- early disseminated Lyme
- late disseminated Lyme
- + Lyme / no rash but flu symptoms
- suggestive symptoms / neg. serology
- healthy controls
- Long term follow up of over 2 years
- Physical and mental health outcomes
- Identify predictors of outcomes
- Factors assoc. with delayed recovery.

# Challenges being managed

1. Impact of COVID
2. Staffing of Emergency Department for recruitment and follow up
  - 2021
  - 2022
3. Staffing of Lab to process samples
4. I.T. issues

# Planning for Success

- Staffing plan in place
- Infrastructure tested
- Modification of data collection methodology
- Sharing of experience between sites



# Planning for Success

## Kingston

- Anticipate recruitment of 100 participants
- May through December
- Approvals in place
- Modifications in recruitment / follow up planned
- Research Associates: Nicole Giouridis and Tanya Gilpin



Middleton  
Kingston

Windsor

Enfield

Bridgetown

Mt Uniacke

Halifax

Digby

Chester

Kejimikujik  
N.P.

Bridgewater

Lunenburg- Nova Scotia

Green  
Bay

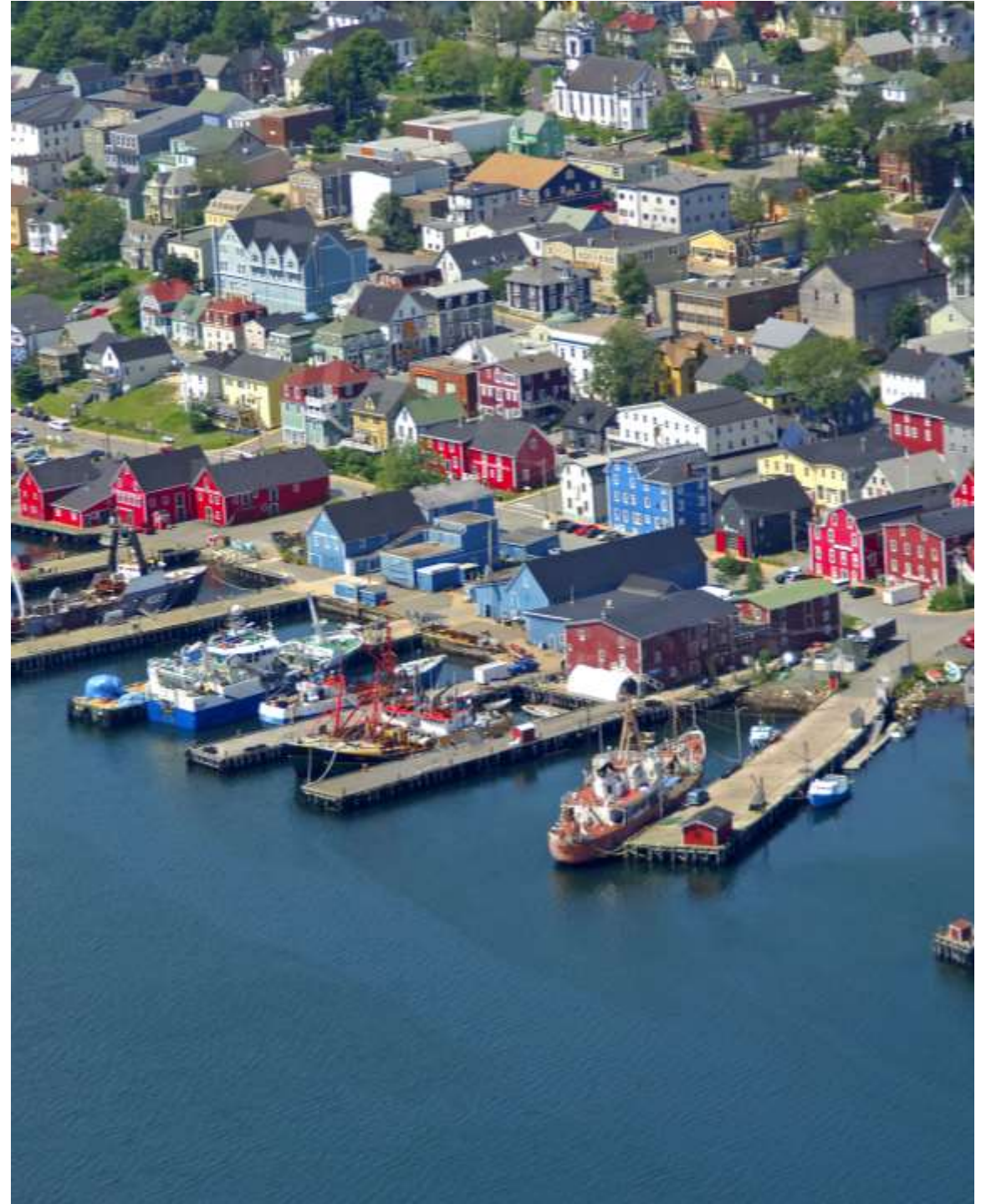
Lake  
Rossignol

Liverpool

outh

# Planning for Success - Lunenburg

- Primary Research Coordinator (Molly Praest) hired Spring 2021
- Research Coordinator Lunenburg (Jamie Mader) hired Fall 2021
- Highly engaged collaborators at Fisherman Memorial Hospital and “South Shore”
- +++ Community Excitement
- Synergy with other Lyme studies (personnel, funding, infrastructure)



# Planning for Success

- Anticipate having REB approvals in place by new year
- Jan-March
  - Borrelia culturing training Dr. Hatchette's lab in Halifax
  - Finalize logistics of research space in Lunenburg, sample transfer SOPs, sample processing in Halifax
  - Continue to work with Kingston site re: the relaunch of Cohort and Case-Control
- April/May
  - Begin recruitment for Biobank, Cohort, Case-Control



## Future Planning and Opportunities

- Ongoing recruitment to biobank
- Identify different target populations
- Identify new investigators
- Recruit new study sites
- Trajectory of Lyme
  - Was 2021 / 2022 incidence expected?
- Optimize 2022 success

Q & A...