

Pregnancy, Breastfeeding & Lyme Bibliography

Any woman who has Lyme disease and is considering becoming pregnant or who is pregnant, or who is bitten by a tick during pregnancy, should see a Lyme disease doctor, one who understands the serious medical implications of Lyme during pregnancy. The Lyme bacteria, *Borrelia burgdorferi*, can cross the placenta and can cause death of the fetus. The Lyme Disease Association (LDA) has compiled the following list of articles related to Lyme and pregnancy and Lyme and breastfeeding for informational purposes only, for your review and review by your physician.

Project Lyme & Mothers Against Lyme Webinar – **“Lyme Disease & Pregnancy: State of the Science & Opportunities for Research”** featuring Holly Ahern, MS, MT (ASCP), Sue Faber, RN, BScN, & Representatives from the NIH. (2021)

CDC Focus on Maternal-Fetal Transmission of Lyme Disease (2020)

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Carlomagno G; Luksa V; Candussi G; Rizzi GM; Trevisan G *Acta Eur Fertil* 1988 Sep-Oct;19(5):279-81 Dept. of Obstetrics and Gynecology, University of Trieste School of Medicine. Lyme *Borrelia* positive serology associated with spontaneous abortion in an endemic Italian area.

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Diseases Vol.3 No.3/4 Fall Winter 1996.

Faber S. (2017). "Research findings on Lyme and Pregnancy/Congenital Transmission." YouTube Video Retrieved from

<https://www.lymehope.ca/advocacy-updates/sharing-our-research-findings-on-lyme-and-pregnancycongenital-transmission-with-minister-of-health-and-public-health-agency-of-canada> *The opinions presented in the video are those of the presenter and not necessarily of the Lyme Disease Association.*

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Maraspin, V., Cimperman J., et al. (1999). "Erythema migrans in pregnancy." *Wien Klin Wochenschr* 111(22 23): 933-40.

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Breastfeeding

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Pregnancy & Breastfeeding

Centers for Disease Control & Prevention (CDC) website

During Pregnancy & While Breastfeeding

"Lyme disease acquired during pregnancy may lead to infection of the placenta and possible stillbirth, however, no negative effects on the fetus have been found when the mother receives appropriate antibiotic treatment. There are no reports of Lyme disease transmission from breast milk."

http://www.cdc.gov/ncidod/dvbid/LYME/ld_transmission.htm

Look For: May Guest Blogs for May Lyme Awareness

Each May, the LDA asks experts in the area of Lyme & tick-borne diseases to write a blog to educate the public in an opinion piece on a specific topic or one they choose. One blog is published each week. For Lyme/TBD awareness 2021, LDA will present the following:



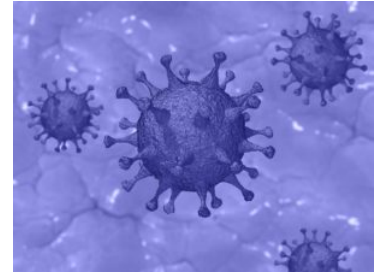
Joseph Burrascano, MD *Lyme Testing*
Adrian Baranchuk, MD *Lyme Carditis 2021 Update*
Kenneth Liegner, MD *Lyme & TBD Where we are 2021*
Sue Faber, RN, BScN *Lyme & Pregnancy*
James Occi, PhD (Cand.) *Ticks*

The opinions expressed by the authors are their own opinions. Check **LDA Guest Blogs page** on our website each week in May to see the new blog or to read past blogs by other guest experts. Go to the **President's Blog page** to read posts by the LDA president.

Year's End May See Pill to

Treat COVID

Pfizer CEO, Albert Bourla, announced yesterday that an antiviral pill to treat Covid-19 may be available by the end of the year. The pill, taken orally at home, would be effective at the first sign of Covid-19 infection or exposure, and is expected to be effective against variants.



Pfizer is testing two antivirals, one intravenous and the other oral, but is focusing on the oral drug, due to its ease of use.

Last month Pfizer started Phase 1 clinical trials of the drug, called PF-07321332, which contains protease inhibitors that bind to viral enzymes, preventing viral replication. Protease inhibitors are used successfully for HIV and hepatitis C. Phase 3 testing is now underway in the U.S. and Belgium for the drug.

See article in Forbes.com “Pfizer CEO Says Antiviral Pill To Treat Covid Could Be Ready By The End Of The Year” (4/28/2021)

Read additional LDA posts on COVID here.

Submit 2021 May Awareness Proclamations / Resolutions

2021 May Awareness Proclamations

- Name (optional)

First Last

- County or City Providing Proclamation or Resolution:*

- State*

- Uploaded Picture:

Drop files here or Select files

Accepted file types: jpg, gif, png, pdf, jpeg, Max. file size: 32 MB, Max. files: 3.

- OR Link to Online Image:

- Your Email:*

Enter Email Confirm Email

- CAPTCHA

Educational Grants & Scholarships Given Since 1999

To help increase awareness and education throughout the country, LDA believes it is essential to work with and assist other Lyme organizations.

PURPOSES



Publications – includes (Lyme Times, The Basics, TX Lyme Disease brochure)

Billboard

Curriculum project

Meetings

Websites

Distribution of materials to school nurses

Projects in the schools

Support medical conferences including Continuing Medical Education (CME) credits

Symposia

Click here for Recipients	Click here for Number of Grants per Recipient	Click here for States Awarded
Click here for Lyme Conference Ed Grants Awarded		

RECIPIENTS: 155 EDUCATIONAL GRANTS

1. **Connecticut 2020**– Lyme Connections (NEW)
2. **Kansas 2020** – Lyme Association of Greater Kansas City, Education (NEW)
3. **California 2020** – LymeDisease.org, Education grant, MyLymeData (NEW)
4. **Ohio 2020** – NE Ohio Lyme Foundation, Education (NEW)
5. **Minnesota 2020** – Partnership for Tick-Borne Diseases

- Education, Meeting Presentation (COMPLETED)
6. **Minnesota 2020** – Partnership for Tick-Borne Diseases Education, CME Provider (NEW)
 7. **New York 2020** – Columbia University, Educational grant Fallon (REPURPOSING 2nd part of 2013 grant)
 8. **Rhode Island 2020** – University of Rhode Island Foundation for URI Tick Encounter, Mather (NEW)
 9. **Minnesota 2020** Minnesota Lyme Association, Education grant (New)
 10. **Massachusetts 2020** – Central Mass Lyme Foundation (NEW)
 11. **Maine 2019** – Midcoast Lyme Disease Support & Education Maine (2019 Educational Conference)
 12. **Massachusetts 2019** – Katherine Murray Leisure, MD (2019 CME Dinner Symposium)
 13. **Ohio 2019** – NE Ohio Lyme Disease Foundation
 14. **Vermont 2019** – VT Lyme.org
 15. **Kansas 2019** – Lyme Association of Greater Kansas City
 16. **Connecticut 2019** – Lyme Connections
 17. **Pennsylvania 2019** – Southeastern Pennsylvania Lyme Disease Association
 18. **Colorado 2018** – Colorado Tick-Borne Disease Awareness Association (CONFERENCE COMPLETED)
 19. **Kansas 2018** – Lyme Association of Greater Kansas City (NEW) (COMPLETED)
 20. **Maine 2018** – Midcoast Lyme Disease Education & Support (CONFERENCE COMPLETED)
 21. **Maine 2018** – Midcoast Lyme Disease Education & Support (CONFERENCE COMPLETED)
 22. **New York 2018** – Lyme West NY (NEW) (BILLBOARD COMPLETED)
 23. **Vermont 2018** – VT Lyme.org (NEW)
 24. **Ohio 2018** – NE Ohio Lyme Foundation (CONFERENCE COMPLETED)
 25. **Texas 2017** – University of Texas Dallas online education (ONGOING)
 26. **Pennsylvania 2017** – Allegheny Health CME conference (NEW)
 27. **New York 2017** – Lyme Society conference (CONFERENCE

COMPLETED)

28. **Maine 2017** – Midcoast Lyme Disease Education & Support (CONFERENCE COMPLETED)
29. **Colorado 2017** – Colorado Tick-Borne Disease Awareness Association (CONFERENCE COMPLETED)
30. **Kansas 2017** – Lyme Association of Greater Kansas City, for schools and other educational programs (NEW)
31. **Minnesota 2017** – Partnership for Tick-Borne Diseases Education, CME Provider (COMPLETED)
32. **Maine 2017** – Midcoast Lyme Disease Education & Support (CONFERENCE COMPLETED)
33. **California 2017** – LymeDisease.org, Education grant (COMPLETED)
34. **Connecticut 2017** – Lyme Connections, formerly Ridgefield LD Task Force, Education grant (NEW)
35. **Colorado 2017** – Colorado Tick-Borne Disease Awareness Association (CONFERENCE COMPLETED)
36. **Kansas 2017**– Lyme Association of greater Kansas City, for schools and other educational programs (NEW)
37. **Maine 2016** – Midcoast Lyme Disease Education & Support (CONFERENCE COMPLETED)
38. **Colorado 2016** – Colorado Tick-Borne Disease Awareness Association, Tick-borne disease forum (COMPLETED)
39. **Kansas 2016** – Lyme Association of Greater Kansas City (COMPLETED)
40. **Minnesota 2016** – Partnership for Tick-Borne Diseases Education, for CME Provider for 1000 brochure printing (COMPLETED)
41. **Maryland 2015** – Harford Cnty Lyme Disease Support Grp, Inc., Education grant (COMPLETED)
42. **Maine 2015** – Mountain Valley Lyme Disease Awareness Coalition, Education grant (COMPLETED)
43. **Maine 2015** – Mid-Coast Lyme Disease Support & Ed., Education grant for Lyme Conference (COMPLETED)
44. **Maine 2015** – Mid-Coast Lyme Disease Support & Ed., Education grant for Lyme Conference (COMPLETED)
45. **Kansas 2015** – Lyme Association of Greater Kansas City, Educational projects in the schools in Kansas and Missouri (COMPLETED)
46. **California 2015** – LymeDisease.org, Education grant (COMPLETED)

47. **New York 2015** – LDA Dr. Referral and Website grant (COMPLETED)
48. **New York 2015** – LDA Dr. Referral and Website grant (COMPLETED)
49. **Connecticut 2015** – Lyme Connections, formerly Ridgefield LD Task Force, Education programs (COMPLETED)
50. **Maryland 2015** – Information and Support Group of Maryland, Education grant (COMPLETED)
51. **New Jersey 2015** – Central Jersey Lyme Support (Kahn) (SEMINAR COMPLETED)
52. **Illinois 2015** – Macon County Soil and Water Conservation District, tick awareness program (COMPLETED)
53. **Iowa 2014** – Lyme Disease United Coalition, Education grant (COMPLETED)
54. **California 2014** – LymeDisease.org, Education grant (COMPLETED)
55. **Connecticut 2014** – Lyme Connections, formerly Ridgefield LD Task Force, Education grant (COMPLETED)
56. **Illinois 2014** – Macon County Soil and Water Conservation District, Education Grant (COMPLETED)
57. **Kansas 2014** – Lyme Association of Greater Kansas City. Educational projects in the schools in Kansas and Missouri (COMPLETED)
58. **Maryland 2014** – Harford County Lyme Disease Support Group, Education grant (COMPLETED)
59. **Massachusetts 2014** – Patricia McCleary, SLAM, Education grant (COMPLETED, BILLBOARD)
60. **New York 2014** – LDA Dr. Referral grant (COMPLETED)
61. **New York 2014** – LDA Dr. Referral and Website grant (COMPLETED)
62. **New York 2014** – LDA Dr. Referral and Website grant (COMPLETED)
63. **Virginia 2014** – Western Tidewater Medical Reserve Group, Educational material grant (COMPLETED)
64. **Maryland 2014** – Lucy Barnes, Maryland Lyme Information and Support Group for Education purposes (COMPLETED)
65. **California 2013** – LymeDisease.org, formerly CALDA, Education grant (COMPLETED, PUBLISHED)
66. **Kansas 2013** – Lyme Association of Greater Kansas City, Educational grant (COMPLETED)
67. **Maine 2013** – Maine Lyme, Educational grant (COMPLETED)
68. **Maryland 2013** – Maryland Lyme Information and Support Group, Education grant (COMPLETED)
69. **Massachusetts 2013** – Patricia McCleary, Sturbridge Lyme Awareness Education

(SLAM), Education (COMPLETED)

70. **Minnesota 2013** – Minnesota Lyme Association, Education grant (COMPLETED)
71. **New York 2013** – Columbia University, Educational grant for Lyme & Tick-Borne Diseases Research Center Rash Poster (COMPLETED poster available)
72. **New York 2013**– LDA Dr. Referral grant (COMPLETED)
73. **Pennsylvania 2013** –H. Holtry, Education grant (COMPLETED)
74. **Texas 2013** – Texas Lyme Disease Association, Education grant (COMPLETED)
75. **Virginia 2013** – Western Tidewater Medical Reserve, Education grant (COMPLETED)
76. **Connecticut 2013** – Jennifer Reid, Poster presentation on research at the International Lyme Conference in Boston (COMPLETED, POSTER PRESENTED)
77. **California 2012** – LymeDisease.org, formerly CALDA, Education grant (COMPLETED, PUBLISHED)
78. **California 2012** – S.W. Barthold, Education Hearing (COMPLETED)
79. **Florida 2012** – Clinic of Angels, Adult patient support (COMPLETED)
80. **Kansas & Missouri 2012**– Lyme Association of Greater Kansas City. Educational projects in the schools in Kansas and Missouri (COMPLETED)
81. **Maryland 2012** – Lyme Information and Support Group, Education (COMPLETED)
82. **Massachusetts 2012** – Sturbridge Lyme Awareness Education (SLAM), Education billboard grant (COMPLETED)
83. **Massachusetts 2012** – Sturbridge Lyme Awareness Education (SLAM), Education (COMPLETED)
84. **Minnesota 2012** – Minnesota Lyme Association (formerly MLAS)Education grant (COMPLETED)
85. **New Jersey 2012** – Wendy Inglis PT,Lyme Disease Educational Awareness ForumgrantHolmdel High School (COMPLETED)
86. **New York 2012 Spring** –LDA Dr. Referral grant (COMPLETED)
87. **New York 2012 Fall**– LDA Dr. Referral grant (COMPLETED)
88. **Pennsylvania 2012** –Lyme Disease Association of Southeastern Pennsylvania, Inc., Education/Publication grant (COMPLETED, TEXTBOOK PUBLISHED)
89. **Pennsylvania 2012** –H. Holtry, Education grant (COMPLETED)
90. **Texas 2012** – North Texas Lyme Group, Lyme Education Seminar (COMPLETED)
91. **Virginia 2012** – Western Tidewater Medical Reserve Group, Lyme Information Packet (COMPLETED)
92. **California 2011** – California Lyme Disease Association, Education grant (COMPLETED)
93. **Georgia 2011** – Georgia Lyme Disease Association,Educational grant (MONIES

RETURNED)

94. **Missouri 2011** – Mineral Area College, *Cross-Disciplinary Vector-Borne Diseases Symposium Tick-Sampling Workshop*, Education grant (COMPLETED)
95. **New York 2011 Spring** – LDA Dr. Referral grant (COMPLETED)
96. **New York 2011 Fall** – LDA Dr. Referral grant (COMPLETED)
97. **Minnesota 2011** – Minnesota Lyme Association (formerly MLAS) Education grant (COMPLETED)
98. **Massachusetts 2011** – Sturbridge Lyme Awareness Education (SLAM) (COMPLETED)
99. **Kansas & Missouri 2011** – Lyme Association of Greater Kansas City. Educational projects in the schools in Kansas and Missouri (COMPLETED)
100. **Maryland 2010 (& Jan 2011)** – Maryland Lyme Information and Support Group Education grant (COMPLETED)
101. **Connecticut 2010** – Friends of Ridgefield Community Programs (Education grant Returned by grantee)
102. **New York 2010** – Jenifer Stollow-Berdard, For continued upkeep of LymeDiseaseAssociation.org websites. Education grant (COMPLETED)
103. **Minnesota 2010** – Minnesota Lyme Action Support, Education grant (COMPLETED)
104. **Kansas & Missouri 2010** – Lyme Association of Greater Kansas City. Educational projects in the schools in Kansas and Missouri (COMPLETED)
105. **Pennsylvania 2010** – Lyme Disease Association of Southeastern Pennsylvania, Inc., Education grant (COMPLETED)
106. **California 2010** – California Lyme Disease Association, Education grant (COMPLETED)
107. **Massachusetts 2010** – Sturbridge Lyme Awareness Education (SLAM), Educational grant (COMPLETED)
108. **Connecticut 2009** – Sandy Berenbaum, CSW-R, BCD, Judith Leventhal, PhD, Pat Exman, Education seminar presentations (COMPLETED)
109. **Georgia 2009** – Georgia Lyme Disease Association, Education (COMPLETED)
110. **New Jersey 2009** – Lyme Disease Network of NJ, East Brunswick. For continued upkeep of Lymenet.org and LymeDiseaseAssociation.org websites. (COMPLETED)
111. **California 2009** – California Lyme Disease Association, Educational sponsorships (COMPLETED)
112. **Louisiana 2009** – Karan Arrant, MSN, University of LA Monroe, *Lyme Disease and Other Tick-Borne Diseases in the South*, Education (COMPLETED)
113. **Pennsylvania 2009 winter** – Lyme Disease Association of Southeastern Pennsylvania, Inc., Education grant for educational booklets, *The Basics*

(COMPLETED)

114. **Pennsylvania 2009 spring** – Lyme Disease Association of Southeastern Pennsylvania, Inc., Education grant for educational booklets, *The Basics* (COMPLETED)
115. **California 2008** – California Lyme Disease Association. Educational projects and sponsorships (Lyme Times). (COMPLETED)
116. **Florida 2008** – Florida Lyme Advocacy, Inc., Education website. (COMPLETED)
117. **New York 2008** – Lyme Rights. (COMPLETED)
118. **Kansas 2008** Lyme Association of Greater Kansas City. Educational projects in the schools in Kansas and Missouri (COMPLETED)
119. **Pennsylvania 2008** – Lyme Disease Association of Southeastern Pennsylvania, Inc., Education grant for educational booklets, *The Basics*. (COMPLETED)
120. **Maryland 2008** – Harford County LDSG, Inc. Education grant. (COMPLETED)
121. **Pennsylvania 2007** – Lynn Seybold BSN, RN: University of Pittsburg School of Nursing, Materials grant (COMPLETED)
122. **Oregon 2007** – Oregon Lyme Disease Network, Website upkeep (COMPLETED)
123. **North Carolina 2007** – North Carolina Lyme Disease Foundation. Educational projects (COMPLETED)
124. **Kansas 2007** – Lyme Association of Greater Kansas City. Educational projects in the schools in Kansas and Missouri. (COMPLETED)
125. **California 2007** – California Lyme Disease Association. Educational projects and sponsorships (Lyme Times). (COMPLETED)
126. **New Jersey 2007** – Lyme Disease Network of NJ, East Brunswick. For continued upkeep of Lymenet.org and LymeDiseaseAssociation.org websites. (COMPLETED)
127. **Pennsylvania 2007** – Lyme Disease Association of Southeastern Pennsylvania, Inc., Education grant for educational booklets, *The Basics*. (COMPLETED)
128. **Texas 2007** – Texas Lyme Disease Association. Educational grant for Texas Lyme disease brochure publication (COMPLETED PUBLISHED)
129. **New York 2007** – David Younger, MD, NYU Neuromuscular Center. Lyme Disease educational coordinator. (COMPLETED)
130. **New Jersey 2006** – Lyme Disease Network of NJ, East Brunswick. For continued upkeep of the Lymenet.org and LymeDiseaseAssociation.org websites (COMPLETED)
131. **Maryland 2006** – International Lyme & Associated Diseases Society, Bethesda. For CME scientific meeting in Philadelphia. (COMPLETED)
132. **Maryland 2006** – Mid-Shore Lyme Disease Association – for an education symposium. (COMPLETED)

133. **Connecticut 2006** – Time for Lyme (TFL), Greenwich. Education/curriculum project. (COMPLETED)
134. **California 2006** – California Lyme Disease Association, Inc. (CALDA), Ukiah. Educational grant. (COMPLETED)
135. **California 2006** – California Lyme Disease Association, Inc. (CALDA), Ukiah. Educational grant for Lyme Times Children’s Education issue. (COMPLETED)
136. **California 2006** – California Lyme Disease Association, Inc. (CALDA), Ukiah. Educational grant. (COMPLETED)
137. **Florida 2005** – Florida Lyme Advocacy Network for expenses relating to educational meetings. (COMPLETED)
138. **Kansas (and Missouri) 2005** – Lyme Association of Greater Kansas City (LAGKC), Overland Park. To continue to prepare educational packets including *Handbook for Prevention of Lyme & Other Tick-Borne Diseases* to school nurses in the Kansas and Missouri schools. (COMPLETED)
139. **California 2005** – California Lyme Disease Association, Inc. (CALDA), Ukiah. For 500 original reprints of medical journal article, *Treatment of Lyme Disease: a medicolegal assessment*, in Expert Review of Anti-Infective Therapy (2) (2004) for redistribution to patients and physicians. (COMPLETED)
140. **California 2005** – California Lyme Disease Association, Inc. CALDA, Ukiah. For the revamping of the most widely distributed lay journal for Lyme disease, *Lyme Times*. Supported the publishing of the special issue, *Lyme Times: Children’s Issue* (summer 2005) by the non-profit California Lyme Disease Association, Inc. (CALDA). (PUBLISHED)
141. **Maryland 2005** – International Lyme & Associated Diseases Society (ILADS). Educational grant to help sponsor fully accredited CME medical conference in Philadelphia 2005. (CME’s AWARDED)
142. **New Jersey 2005** – Lyme Disease Network of New Jersey, Inc. (Lymenet) Upkeep of www.Lymenet.org and LymeDiseaseAssociation.org websites. (COMPLETED)
143. **New Jersey 2005** – Harjit Singh, MD, FAAP, Hackettstown Regional Medical Center to support Grand Rounds: Update on Lyme Disease with Special Reference to “Chronic Lyme Disease. 1 category 1 AMA-PRA CME (COMPLETED)
144. **Maryland 2004** – International Lyme & Associated Diseases Society, Inc. (ILADS). Educational grant for physicians to receive original reprints of peer reviewed guidelines for management of Lyme disease. (PRINTED & DISTRIBUTED)
145. **California 2004** – California Lyme Disease Association (CALDA); LDA provided

grant for revamping & patient issue (2004) of the lay journal, *Lyme Times*.
(COMPLETED – PUBLISHED)

146. **New Jersey 2004** – Lyme Disease Network of New Jersey, Inc. (Lymenet), Upgrading www.Lymenet.org, support of LymeDiseaseAssociation.org.
(COMPLETED)
147. **Pennsylvania 2004** – Lyme Disease Association of Southeastern Pennsylvania, Inc. (LDASEPA), educational grant to print 50,000 of its revised 4th edition educational booklet, *The Basics*. (PUBLISHED)
148. **Pennsylvania 2003** – Lyme Disease Association of Southeastern Pennsylvania, Inc. (LDASEPA), educational grant to print 50,000 of its revised 4th edition educational booklet, *The Basics*. (PUBLISHED)
149. **England 2003** – Lyme Society of the UK. 2003 Lyme disease conference for physicians (CONFERENCE HELD)
150. **Kansas 2003** – Lyme Association of Greater Kansas City, packets for school nurses; LDA provided grant for material and additional printed LDA materials. (COMPLETED – DISTRIBUTED)
151. **Maryland 2003** – ILADS, Education grant (COMPLETED)
152. **New Jersey 2003** – Lyme Disease Network of New Jersey, Inc. Bill Stolow, Director. Maintaining Lymenet.org. (COMPLETED)
153. **Maryland 2003** – International Lyme & Associated Diseases Society (ILADS), Education. (COMPLETED)
154. **New Jersey 2001** – Lyme Disease Network of New Jersey, Inc., Bill Stolow, Director. Maintaining Lymenet.org. (COMPLETED)
155. **New York 1999** – Armand Manasar, DDS *Lyme Disease & Other Spirochetal and Tick-borne Disease: A Two Day Discussion of the Most Recent Developments in Research and Clinical Management*. Bard/LDA Conference (COMPLETED)

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NUMBER of GRANTS PER RECIPIENT:

Allegheny Health (1)	Maine Lyme (1)
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Arrant, Karan MSN, Univ of Louisiana, Monroe (1)	Manasar, Armand, DDS, Bard Conf, NY (1)
Berenbaum, Sandy, CSW-R, BCD, Leventhal, Judith PhD, Exman, Pat, (CT) (1)	Maryland Lyme Information & Support Grp (5)
CALDA/LymeDisease.org (17)	Mid-Coast Lyme Disease Support & Ed., ME (8)
Central Jersey Lyme Support (Kahn) (1)	Mid-Shore Lyme Disease Assoc., Inc., MD (1)
Central Mass Lyme Foundation (1)	Mineral Area College (MO) (Conference) (1)
Clinic of Angels, FL (1)	Minnesota Lyme Association/Minnesota Lyme Action Support (5)
Colorado Tick-Borne Disease Awareness Assn. (4)	Mountain Valley Lyme Disease Awareness Coalition (1)
Columbia University Lyme and Tick-Borne Diseases Research Center (NY)(2)	Mountain Valley Lyme Disease Support & Ed, ME (1)
Florida Lyme Advocacy, Inc. (2)	NE Ohio Lyme Foundation (3)
Friends of Ridgefield Community Programs/Lyme Connections, CT (5)	New York University, David Younger, MD (1)
Georgia Lyme Disease Association (2)	North Carolina Lyme Disease Foundation (1)
H. Holtry (PA) (2)	North Texas Lyme Group (1)
Harford Cnty Lyme Disease Support Grp, Inc., MD (3)	Oregon Lyme Disease Network, Inc. (1)
Inglis, Wendy PT, NJ (1)	Partnership for Tick-Borne Diseases Education (MN) (4)
Int'l Lyme & Assoc. Diseases Society, ILADS, MD (5)	Patricia McCleary, SLAM, Sturbridge LymeAwareness (6)

Karl Ford, PhD (1)	Reid, Jennifer CT (1)
Leisure, Katherine Murray, MD (1)	S.W. Barthold, DVM, PhD (CA) (1)
LDA Dr. Referral Prog. Grant and/or Website (NY)(10)	Seybold, Lynn, BSN, RN Univ. of Pittsburg, School of Nursing (PA) (1)
Lyme Association of Greater Kansas City, Inc. (16)	Singh, Harjit, MD Hackettstown Regional Medical Ctr (NJ) (1)
Lyme Disease Assoc. of Southeastern PA, Inc. (9)	Stolow-Bedard, Jen, NY (1)
Lyme Disease Network of NJ, Inc., Lymenet.org (7)	Texas Lyme Disease Association, Inc. (2)
Lyme Disease United Coalition IA (1)	Time For Lyme, Inc., CT (1)
Lyme Rights, NY (1)	University of Rhode Island Foundation for URI Tick Encounter (1)
Lyme Society (1)	University of Texas Dallas (1)
Lyme Society of the UK (England) (1)	VTLyme.org (2)
Lyme West NY (1)	Western Tide Water Med Reserve Grp, VA (3)
Macon County Soil & Water Conservation District, IL (2)	

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PLACES: 24 STATES / 2 COUNTRIES

CA, CO, CT, FL, IA, IL, KS, LA, MA, ME, MO, MD, MN, NJ, NY, NC, OH, OR, PA, RI, TX, GA, VA, VT/ UK

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107 LYME CONFERENCE EDUCATIONAL GRANTS AWARDED SINCE 2015/ Number of Recipients per State:

2021 CO (2), GA (1), MA (2), MN (1), NH (1), NJ (1), NY (1), PA (2), UT (1)

Total \$3,140.00

2019 CA (1), CT (3), CO (1), GA (2), ME (1), MA (2), MN (3), MO (1), NH (1), NJ (2), NY (1), OH (3), P (3), RI (2), VT (1), VA (2), WA (1)

Total \$26,998.16

2018 NH (4), MA (2) ME, AZ, FL (2), VT (2), OH, NY GA, CO, ME
Total \$12, 217

2017 NY (4), OH, NJ (2), MA (2), ME, PA, CO, VT, MD, CA
Total \$11,372.32

2016 CA, CO, ME, MD, MN (2), MO, NJ (2), NY (3), OH, VT, WA (2), WI
Total: \$18,141.19

2015 NC, AZ, PA (2), MD, OH, CA, NJ (3), NY (3), MA (3)
Total: \$10,712.98

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History of Lyme Disease Association name changes

Lyme Disease Association of Central Jersey, Inc. (LDACJ) 1992

Lyme Disease Association of New Jersey, Inc. (LDANJ) 1993

NOTE: This document is a work in progress. Grants are awarded based on application submission, process of expert review when required, & subject to LDA Board of Directors' approval (all grants may not be listed).

[Click here for Education Grant Application](#)

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COVID Testing Gone to the Dogs

An April 14, 2021 *PLoS 1* study, Cynthia Otto et al., 2021, suggests that specially trained dogs can sniff out COVID-19 samples with 96% accuracy.



The study, "Discrimination of SARS-CoV-2 infected patient samples by detection dogs: A proof of concept study," comes out of the University of Pennsylvania School of Veterinary Medicine Working Dog Center. Detection dogs were used to determine if SARS-CoV-2 positive urine and saliva patient samples had a unique "odor signature," the volatile organic compound signature (VOC) of SARS-CoV-2 infection. Nine dogs were trained. The results of the study could lead to development of odor-based screening by electronic, chemical, or biological sensing methods.

[Read Penn Today Press Release](#)

Read study

U of Maine Seeks Citizen Scientists

As a follow-up to its 2020 report from its 2020 citizen science project, the Maine Forest Tick Survey at the University of Maine is recruiting forest landowners in nine southern and coastal Maine counties to begin sampling for ticks in July 2021 when tick nymphs become active. The 2020 project collected 1643 ticks, and 445 of those blacklegged nymphs were tested for pathogens. 25+% were carrying *Borrelia burgdorferi*, 7% *anaplasma phagocytophilum*, and 5% *Babesia microti*. Information on the Survey and how to volunteer can be found <https://umaine.edu/forestticksurvey/> or by contacting citizen science coordinator elissa.ballman@maine.edu



For more information

Read full article here

Forest Tick Survey Here

Study: Ticks at the Beach

A new study was published April 23, 2021, in *Applied and Environmental Microbiology*, "Examining prevalence and diversity of tick-borne pathogens in questing *Ixodes pacificus* ticks in California," by Daniel Salkeld, et al. This is the first study to characterize bacteria carried by ticks in the chaparral in beach areas.



The findings were unexpected: black-legged ticks (*Ixodes pacificus*) infected with *Borrelia burgdorferi* (the bacterium that causes Lyme disease) were found in grass and scrub areas leading to the beach at equal rates to the woodland habitats in parts of northwestern California. The researchers found *Borrelia burgdorferi* in 4.1 percent of adult ticks in coastal scrub and in 3.9 percent of adult ticks in woodland areas.

The grey squirrel, which does not live in coastal areas, has been the main tick host and source for Lyme in northwestern California, so it was not expected to find infected ticks at the coast. It is currently unknown how the ticks are being infected, perhaps rabbits, voles and/or the white-footed mouse.

Researchers conducted tick drags of public and private areas including California State Parks (SP), County and Regional Parks, and National Parks in Marin, Mendocino, Monterey, Napa, Santa Clara, Santa Cruz and Sonoma Counties. The prevalence of *Borrelia burgdorferi*, *Borrelia americana*, *Borrelia bissettiae*, *Borrelia miyamotoi* and *Anaplasma phagocytophilum* in black-legged ticks was measured across these multiple habitats, which included woodlands and grasslands as well as coastal chaparral, which was never studied before. The collective infection rate of all the

species was as high as 31% in one area. Previous research, up until this study, only tested for single species of bacteria in a specific area. Researching all the tick-borne pathogens simultaneously may be more accurate in presenting risk.

Beach goers have to be cautious, although the ticks aren't found on the beach itself.

Although the study was based in California, the black-legged ticks are also found in shrubby areas and coastal grasslands on the East Coast.

Click here for journal article

Ticks Carrying Disease Found to Be Abundant in Beach Areas, Similar to Woodlands, According to New Study – *prnewswire.com* (4/23/21)

Ticks that cause Lyme disease as plentiful near beaches as in the woods – *nbcnews.com* (4/23/21)

What Every Parent Needs to Know About Educating Their Child With CLD

Note: 2 pages total. Scroll or Hover at bottom to Click page numbers.

Tagliabue_What Every Parent Needs to Know

Notification of Field Trip – Tick Alert



Below is an example of a possible field trip form that could be developed by your school to send home when children are going on a trip where they could encounter ticks.

(NOTE: The Lyme Disease Association Inc. does not make recommendations to use or not use repellents. It is an individual decision. Check the EPA website for information on repellents.)

LDA Notification of Field Trip Form 2021