

# Lyme Tragedies are AVOIDABLE

## *Help us End Them*

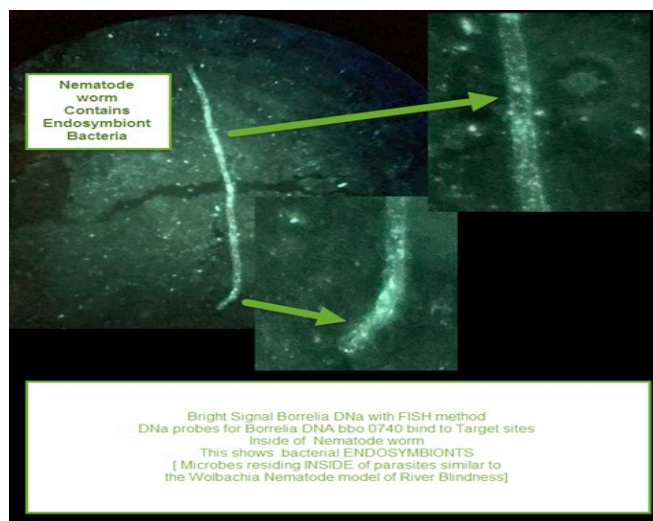
For decades our public health agencies have insisted that current antibody testing and short courses of antibiotics for Lyme disease are adequate.

This view now needs to be discarded.

At the Dr. Paul Duray Research Fellowship Endowment Inc., pathologist Alan MacDonald MD, FCAP, FASCP, has been using highly specific Molecular Beacon DNA probes to investigate the role of *Borrelia* in neurological diseases. The results have been no less than astonishing.

Using the technique of Fluorescent in situ hybridization (FISH), *Borrelia* biofilms (both *Borrelia burgorferi* and relapsing-fever type—*miyamotoi*) have been repeatedly detected in antibody-negative patients, as well as in patients treated with antibiotics.

***In May 2016, the Duray foundation discovered that *Borrelia* endosymbionts dwell inside parasitic nematode worms which invade brain tissue, trampling neurons, and leaving a trail of destruction in their wake.***



Endosymbionts live in harmony with their nematode host, but cause devastation once released into the brain.

*(Left: Parasitic nematodes in tissue from brain tumor Glioblastoma multiforme (GBM) fluoresce, revealing the DNA of Borrelia endosymbionts. Copyright Dr. Alan MacDonald.)*

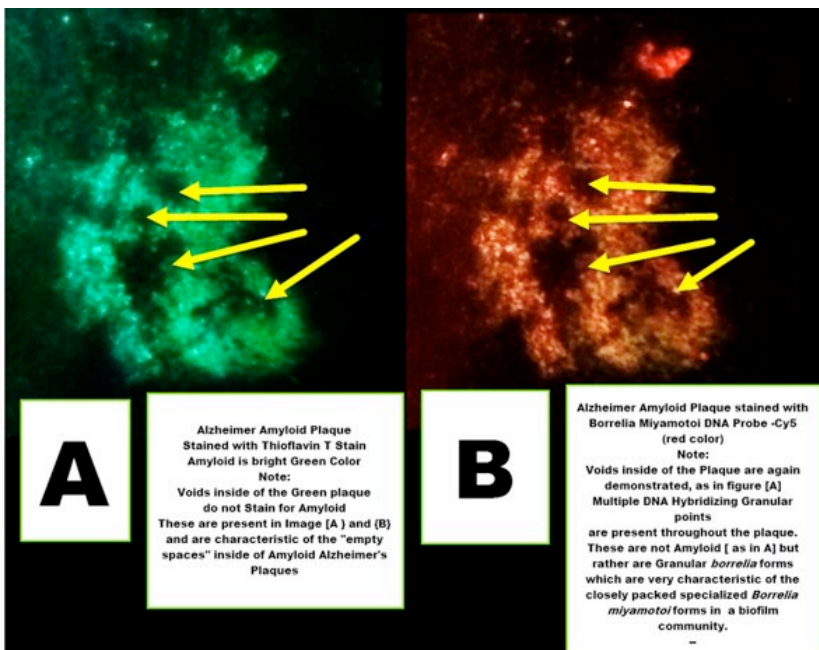
<https://durayresearch.wordpress.com/image-gallery/dna-of-borrelia-in-glioblastoma-multiforme/>

In 2015, Dr. MacDonald identified *Borrelia* biofilms in 1000 consecutive amyloid plaques from five different autopsy Alzheimer brain tissue specimens. The plaques are a hallmark of this disease, which affects tens of millions worldwide.

While mainstream medical opinion believes that aberrant beta-amyloid protein and/or tau protein cause dementia, the micrographs tell a different story.

Alzheimer brain plaques stained for beta-amyloid stain **IDENTICALLY** when the DNA fluorescent probes for *Borrelia* are applied: the entire plaque appears to be filled with *Borrelia* biofilm! (continued overleaf)

## Alzheimer's Disease



Left: An Alzheimer plaque stains equally for beta-amyloid and Borrelia DNA. Many researchers now believe that the amyloid is not a cause of dementia, but an anti-microbial peptide defending the body by coating the infecting organisms.

<http://durayresearch.wordpress.com/our-work/alzheimers-disease-and-borrelia/>

The Duray foundation has found Borrelia endosymbionts inside parasitic nematode worms in the brain tissue of victims of Diffuse Cortical Lewy Body Dementia.

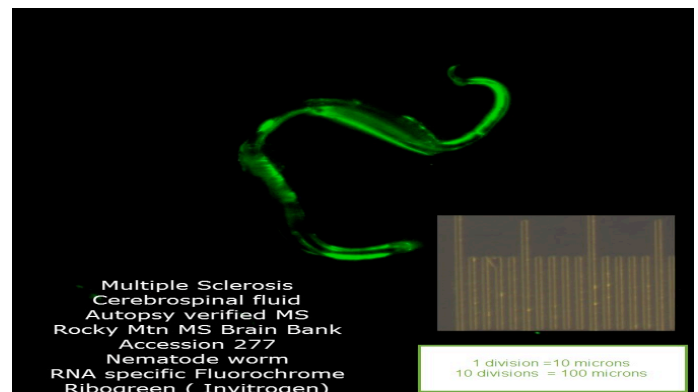
<http://f1000research.com/posters/5-127>

Specific DNA probes have detected Borrelia in patients with psychiatric syndromes, and in the organs of a baby who tragically died of "unknown causes".

## Multiple Sclerosis

In 2016, the Foundation detected Borrelia endosymbionts inside parasitic nematodes in the autopsy cerebrospinal fluid (CSF) of patients who suffered from multiple sclerosis (MS).

<http://durayresearch.wordpress.com/our-work/multiple-sclerosis-2/>



These exciting discoveries you are now reading about can potentially lead to prevention and cure of brain diseases previously considered incurable. But to achieve this, we need your help.

Please support the Dr Paul Duray Research Fellowship Endowment Inc., a tax-exempt 501c 3b non-profit foundation founded and directed by Alan Macdonald MD.

[www.durayresearch.wordpress.com/donate](http://www.durayresearch.wordpress.com/donate)