

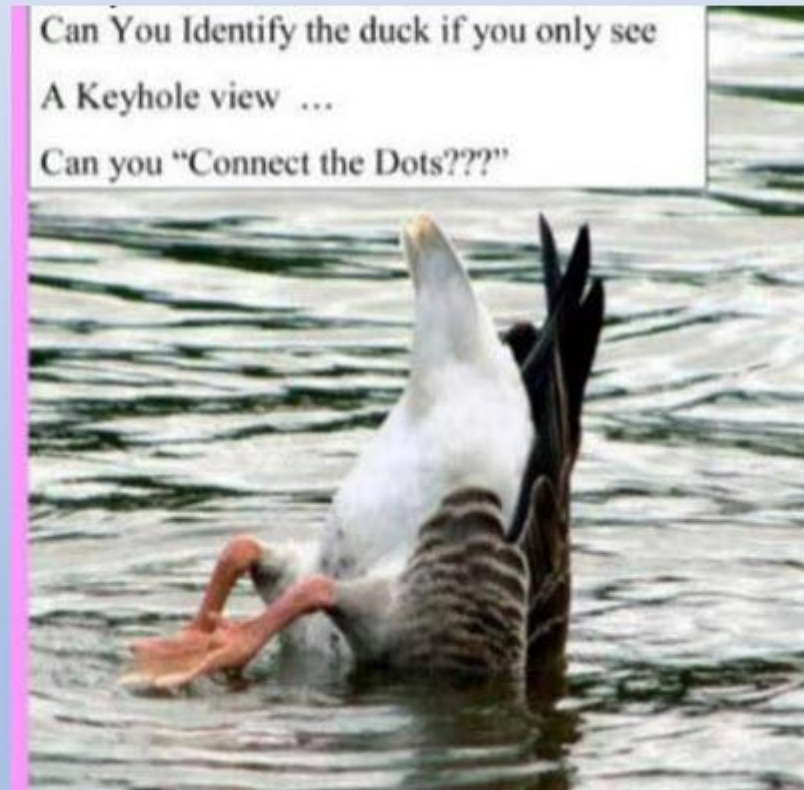
Photographs to Supplement Interview

Tick Boot Camp Podcast

September 4, 2022

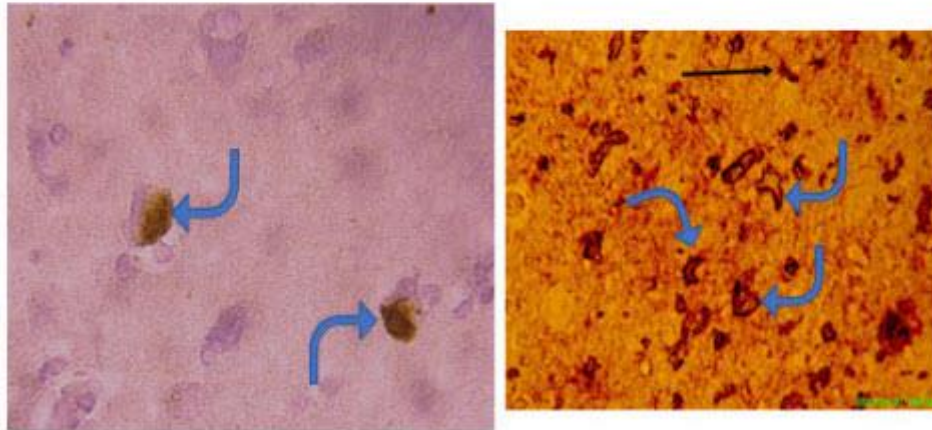
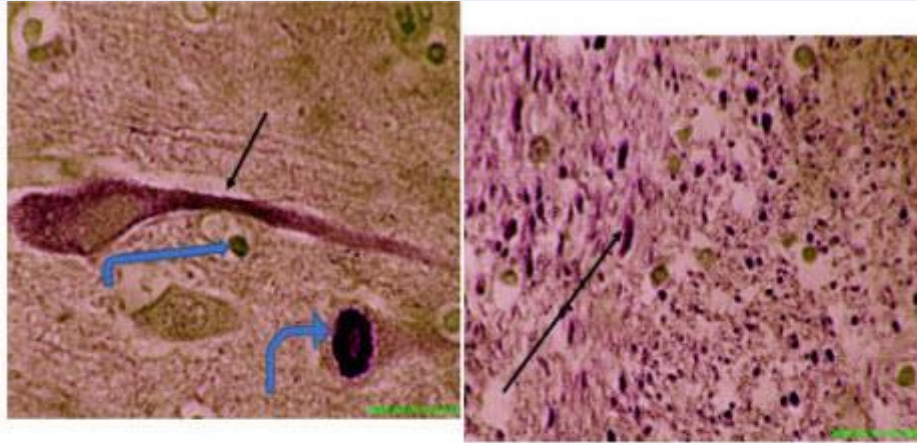
Chance favors the prepared mind

Louis Pasteur

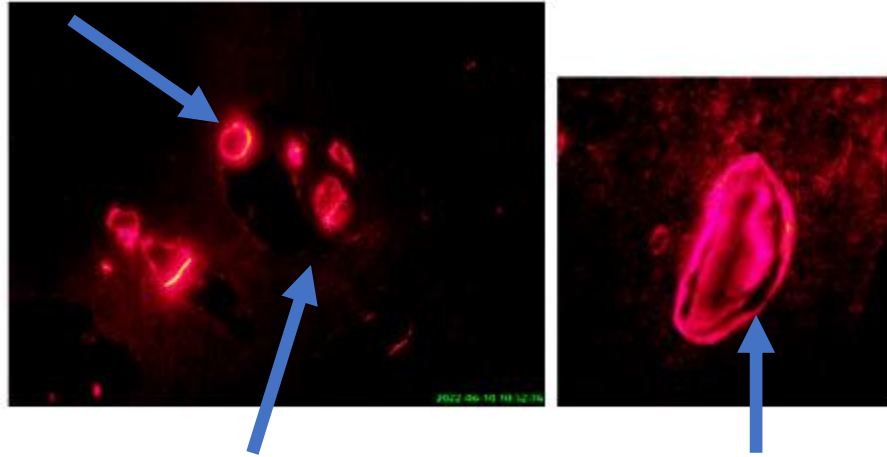


Topic 1

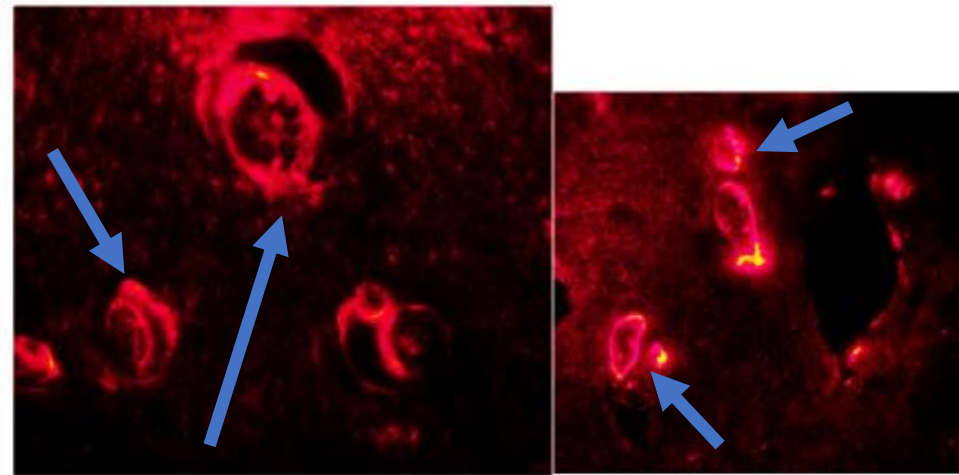
Lewy Body Dementia research update
Lewy bodies contain Borrelia DNA



Lewy bodies and Lewy neurites bind Alpha Synuclein protein -Patients ABCD

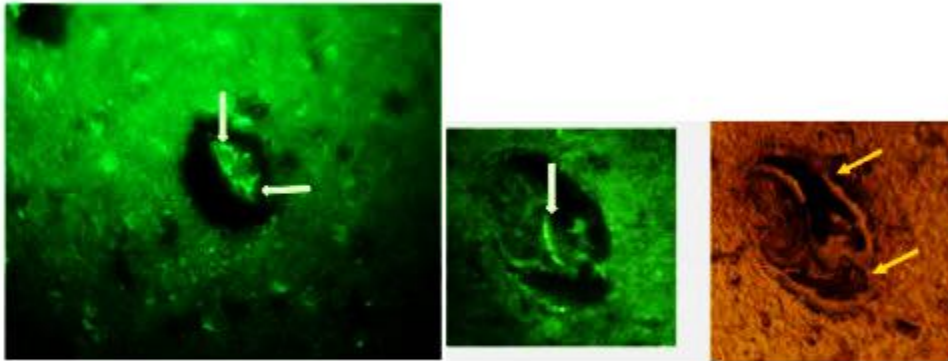
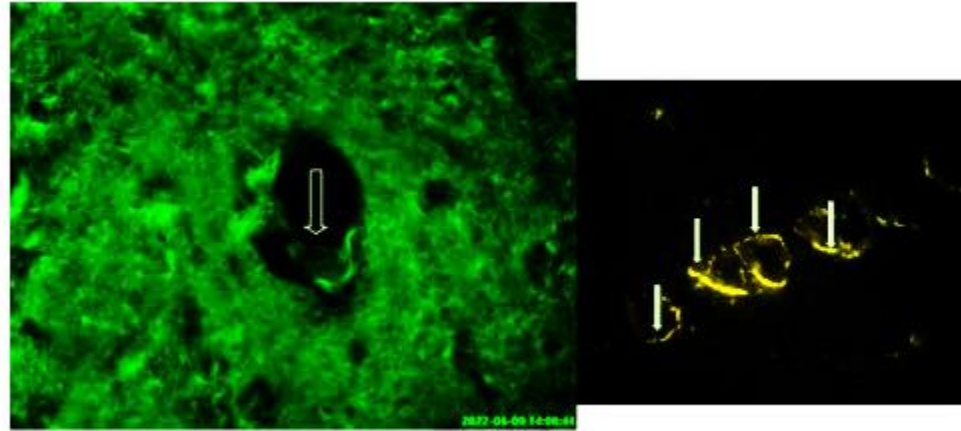


Blue Arrows
Point to
Lewy bodies
Which are Round, Red, and
Globular in configuration

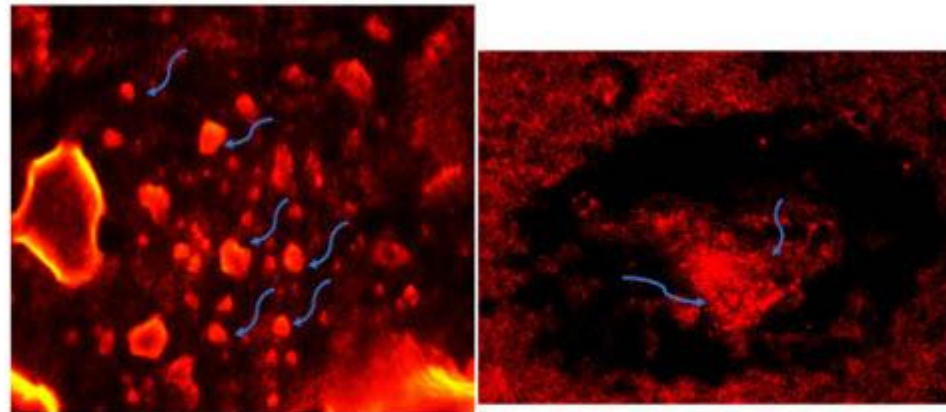
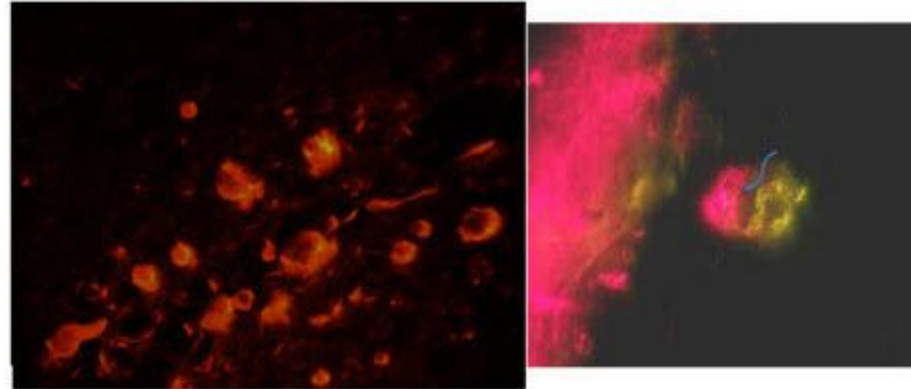


Borrelia DNA deposits inside Lewy bodies - Patients ABCD

Arrows
Point to
Individual borrelia
Spirochetes
Which are
Close to
Or
Inside of
Human Neurons



Borrelia spirochetes invade Neurons - Patients ABCD



Borrelia protein deposits inside Lewy bodies - Patients ABCD

Curved Blue arrows
Point to
Lewy Bodies (Red color,
Round, and inside of
neurons)
which
Bind
Borrelia specific protein
(Outer surface Protein A)
Which
Is attached to the
Lewy body

Monoclonal antibody CB10
Carries a Red color label

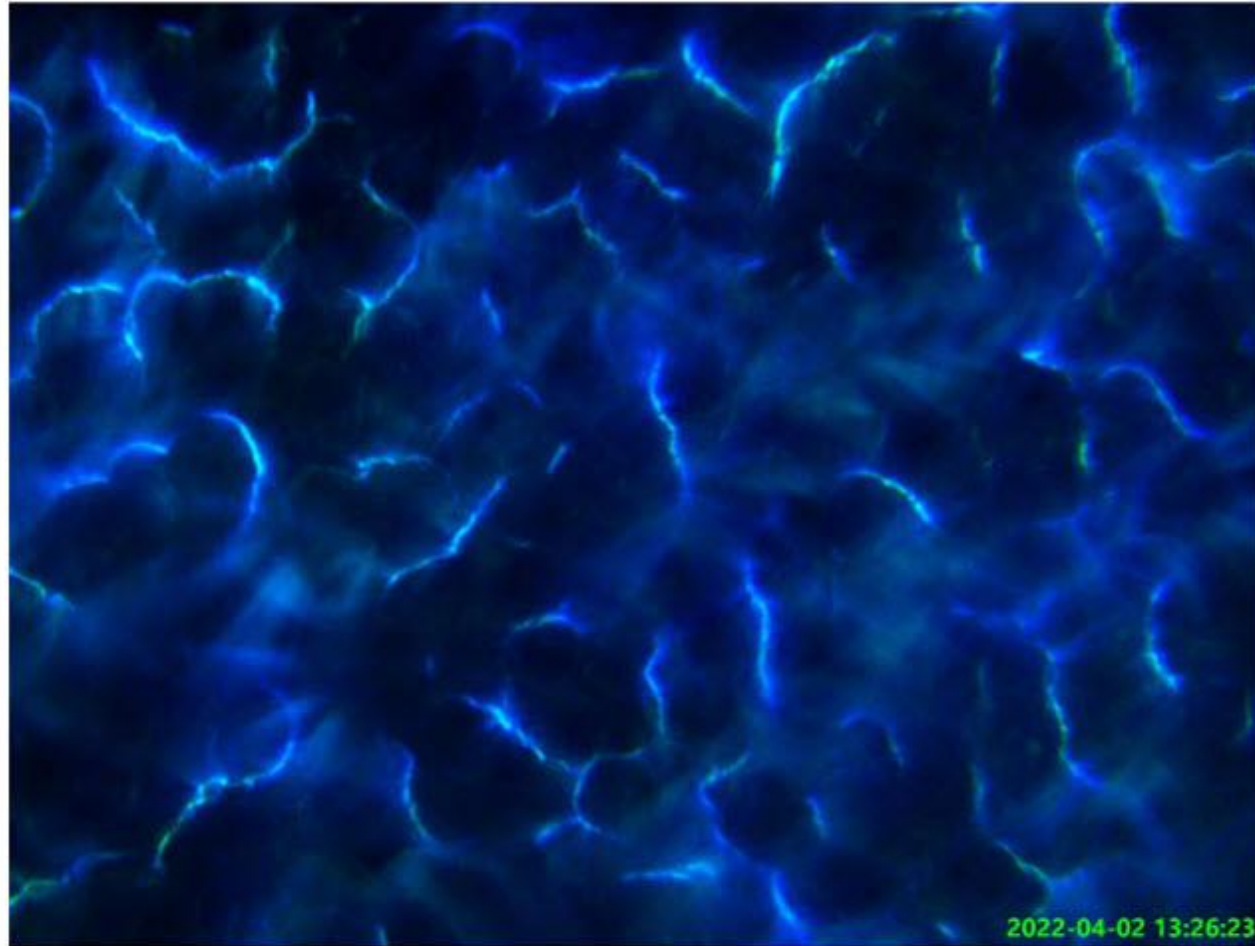
Topic 2

Research discovery

Bloodstream borrelia spirochetes

Are coated with Borrelia antibodies

Host immunoglobulin Coated borrelia spirochetes – MacDonald research (publication pending)



Borrelia spirochetes in high density in blood smear

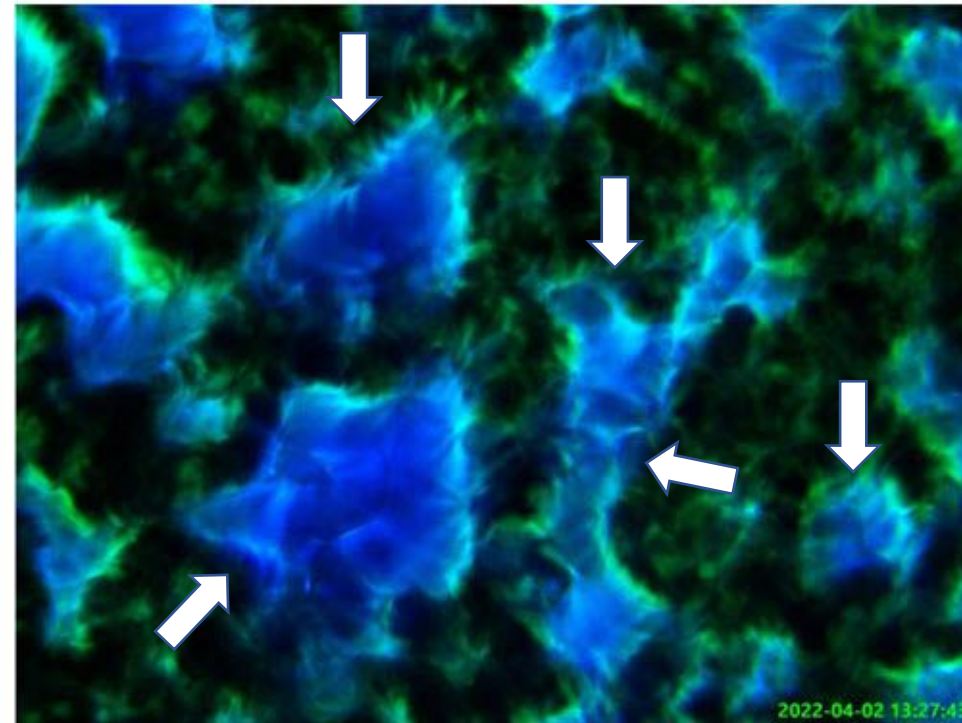
Morphology alone confers diagnosis of Borrelia as opposed to Leptospires or Treponemes.

High number of individual Borrelia spirochetes In Whole blood From a Chronic Lyme Disease patient Whose ELISA test is persistently Negative

The Borrelia antibodies Are “taken out” of the Serum because they have bound to The spirochetes

Host immunoglobulin Coated Biofilm communities (Blood)

Biofilm communities
Of borrelia spirochetes
(Blue “glob like
Solid “particulates”
In whole blood from
A chronic Lyme disease
Patient
With persistently
Negative ELISA test results



Biofilms coated with antibody (blue color) Red blood cells in green color

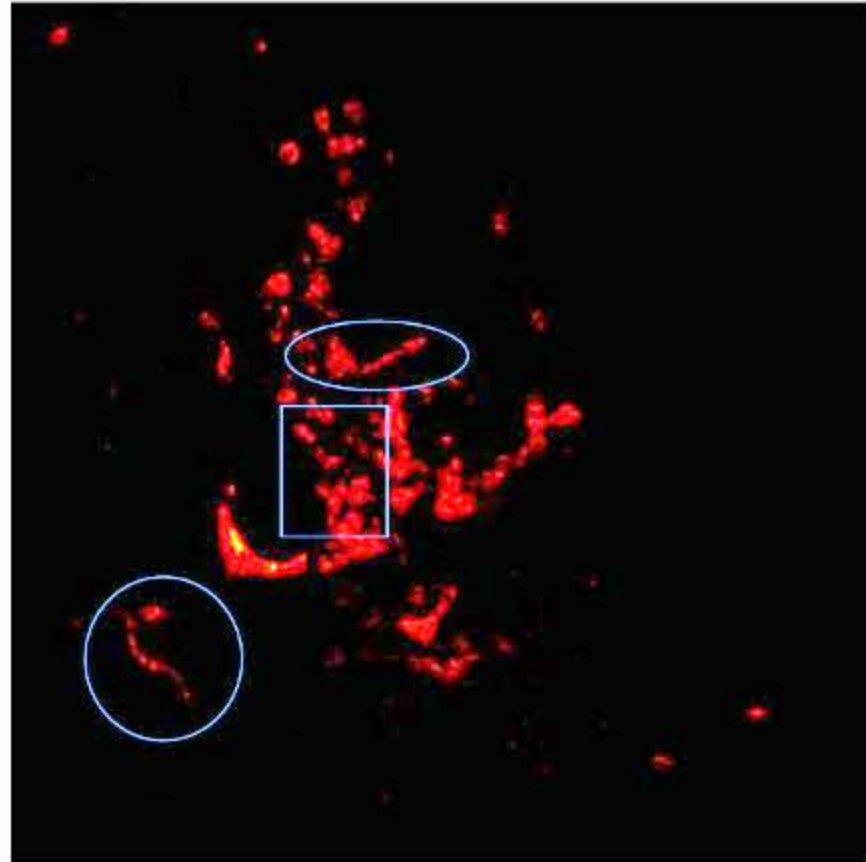
Borrelia antibodies
Are attached to the
Circulating biofilm solid
communities
And are unavailable in the
serum for detection

Topic 3

Research discovery

Borrelia Hepatitis caused by Dual infection Miyamotoi and burgdorferi

Liver Bx Yale s2 19924 DNA probe /30 (y5 red fluor20220812100215799.tif

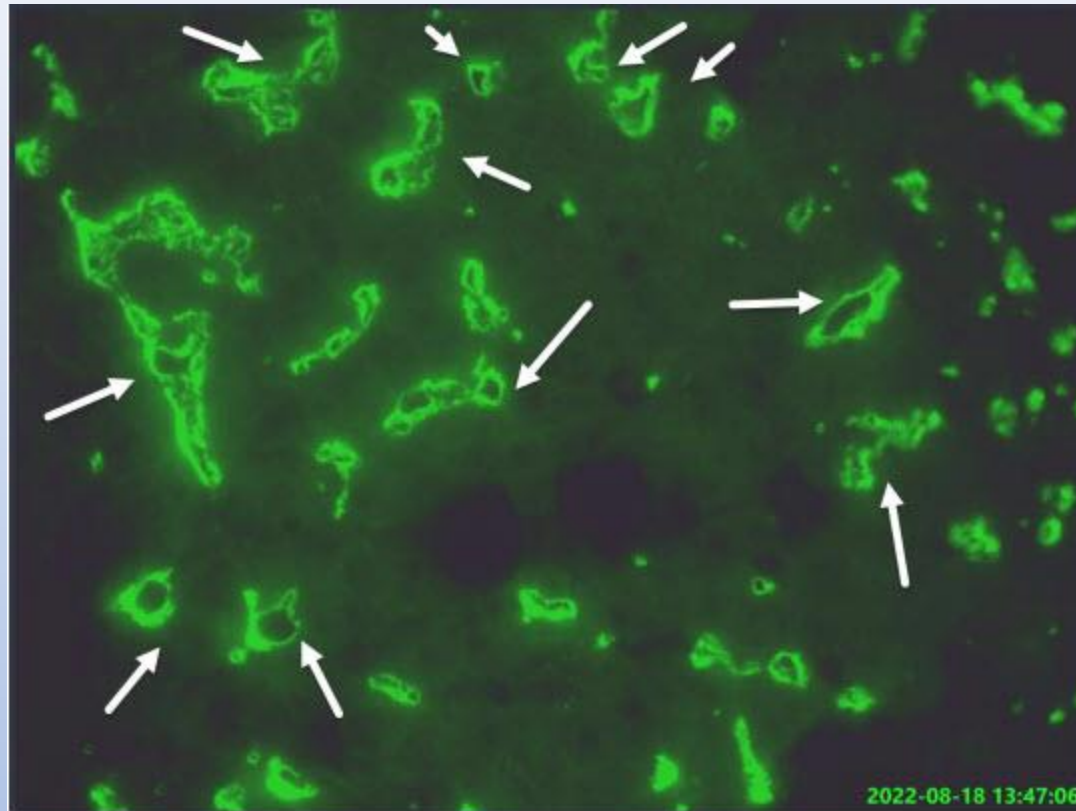


Borrelia burgdorferi DNA probe /30 (y5 red fluor20220812100215799.tif

Liver biopsy
From
Borrelia Hepatitis
Patient

Positive Red color
With FISH hybridization
Detection of
Borrelia burgdorferi Dna
With Red color labeled
DNA probe.

Circled blue areas
Show intact borrelia
spirochetes
And rounded red areas
Show Cystic type (Round
body) borrelia spirochetes



Dilated Biliary Sinusoids in the Liver biopsy (white arrows)
Co-localize with collections of borrelia miyamotoi spirochetes (green
fluorescence with FISH using DNA probe for GLPQ gene)

The Sinusoids of the Healthy Liver are narrow.
Dilated biliary sinusoids are filled with borrelia spirochetes

Topic 4

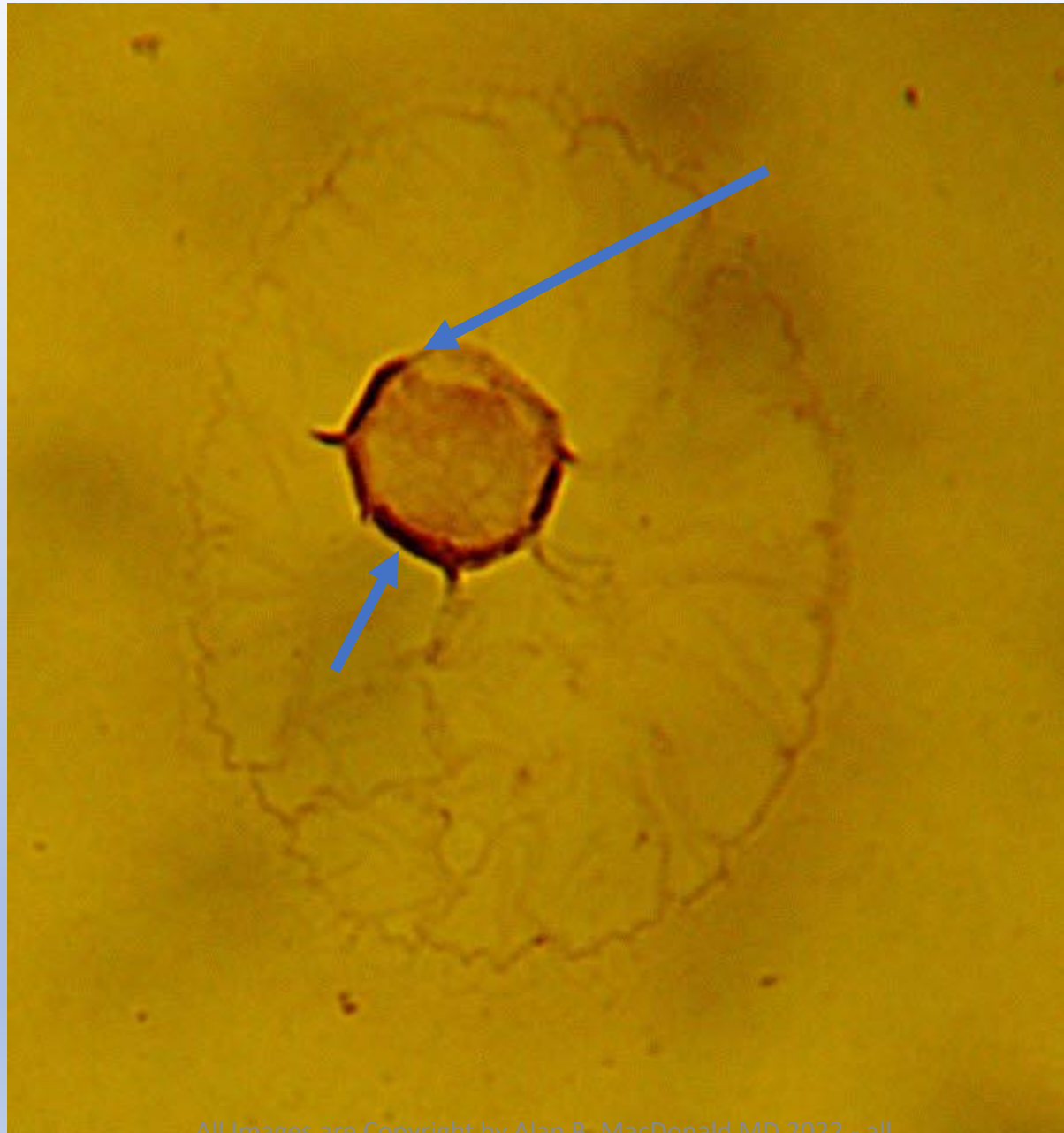
Research discovery

Chronic Lymphocytic Leukemia single case

Demonstrates

Borrelia spirochetes

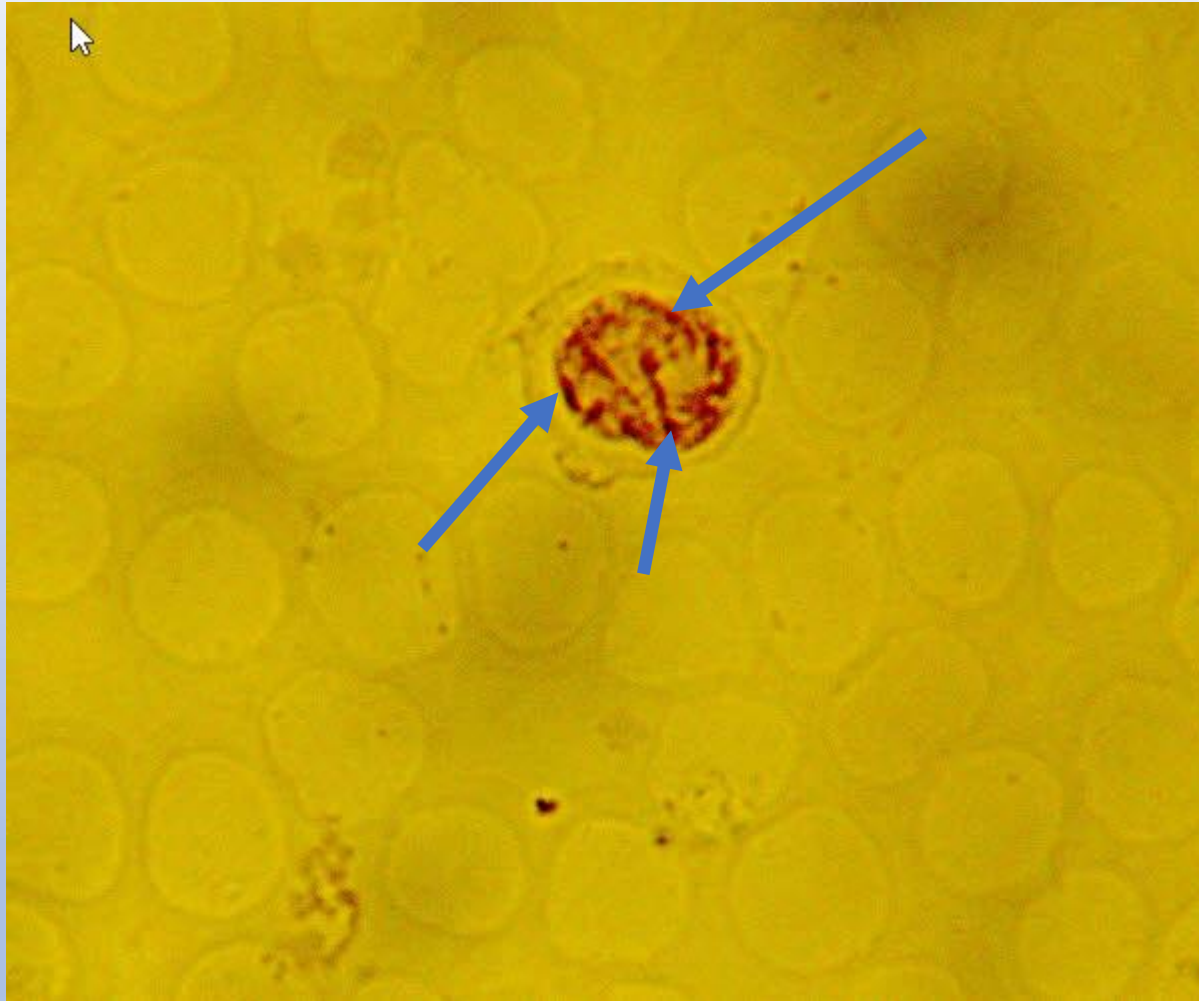
Inside Leukemic Cells in blood



One Lymphocyte Shows Attached Dark brown color Borrelia spirochetes Attached to the surface Of the cell membrane of the lymphocyte.

The nucleus of the Lymphocyte stains pale brown and shows The profile of A stimulated “immune reaction pattern in the Nuclear chromatin”

Red blood cells Encircle (rosette pattern) Around the lymphocyte



One Lymphocyte
With
Several borrelia
spirochetes
INSIDE the nucleus
[red-brown color]
Blue arrows

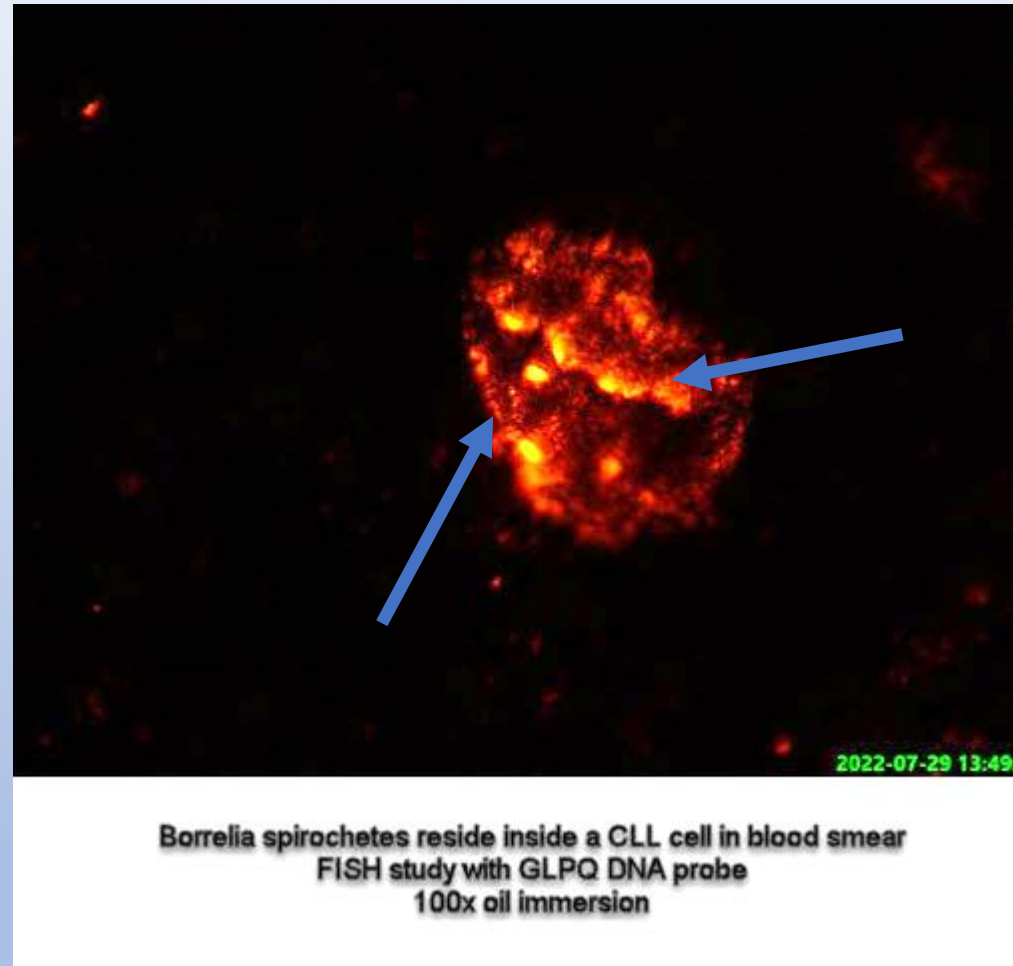
Note that the spirochetes
Which were formerly
attached to the outside of
the previously shown
Lymphocyte

Have moved INSIDE the
Nucleus

Chronic Lymphocytic Leukemia patient

One Lymphocyte in
bloodstream contains
Miyamotoi borrelia whole
spirochetes (yellow color)
and granule form spirochete
Granulars.

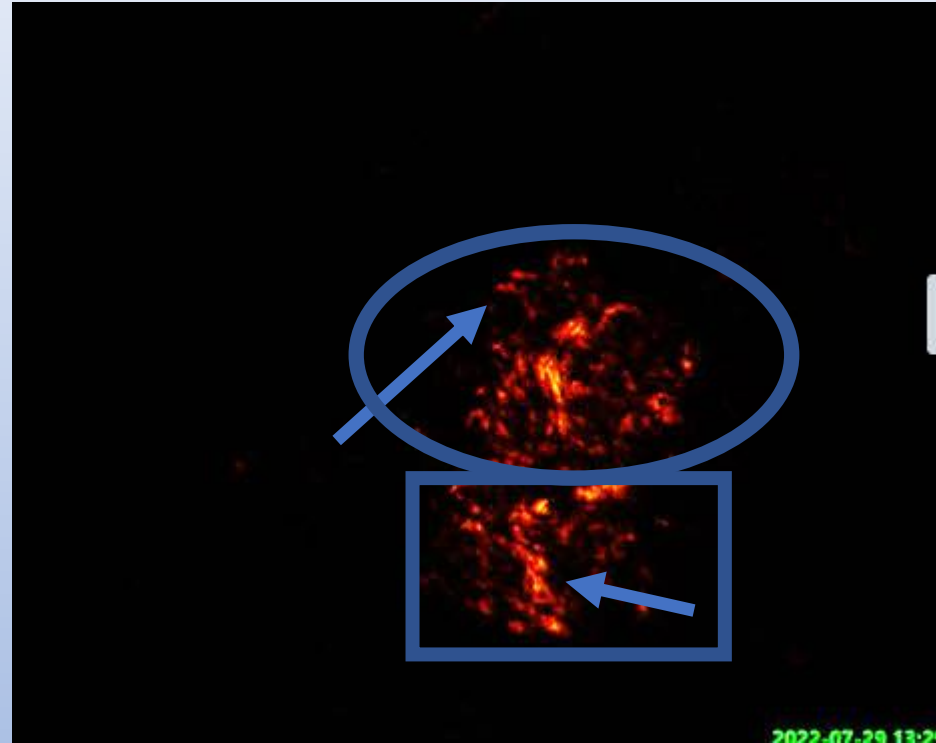
DNA probe for Miyamotoi
gene GLPQ (Yellow color in
Fluorescence in situ
Hybridization – FISH)



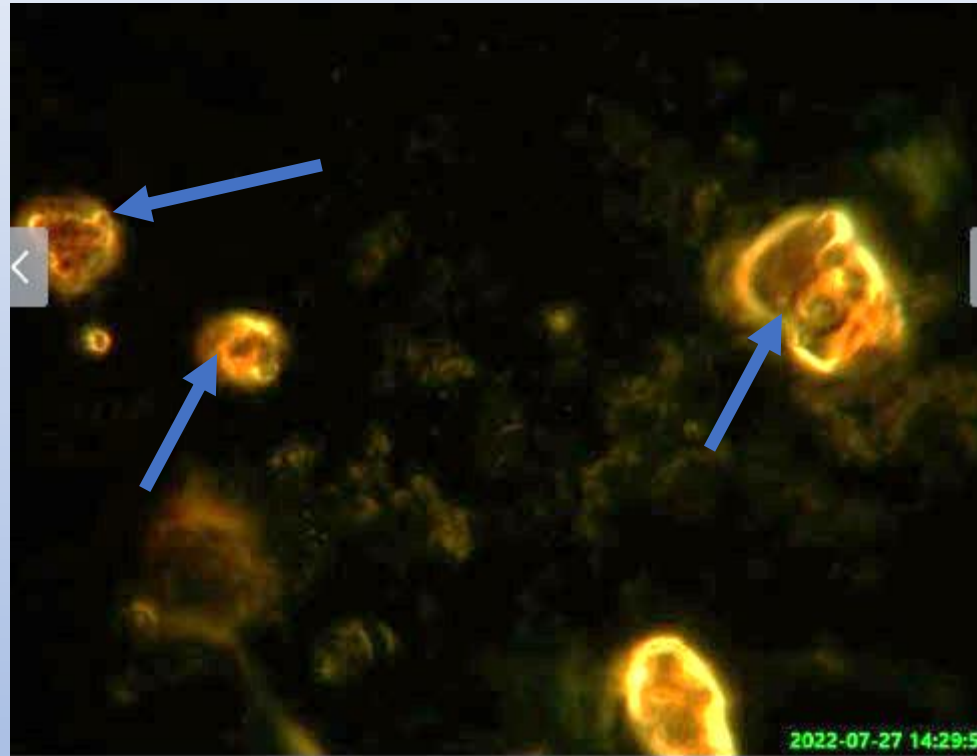
Chronic Lymphocytic Leukemia patient

Two Leukemic Cells
[Oval and Square markers]

With visible
Single separate borrelia
spirochetes
Inside the cytoplasm and
Inside the nucleus of the
Leukemic cells
(Blue Arrows)



Chronic Lymphocytic
Leukemia patient
With
Borrelia miyamotoi
spirochetes
(yellow color)
Attached to surfaces of
And invading the cytoplasm
And the nucleus
Of the Leukemic cells

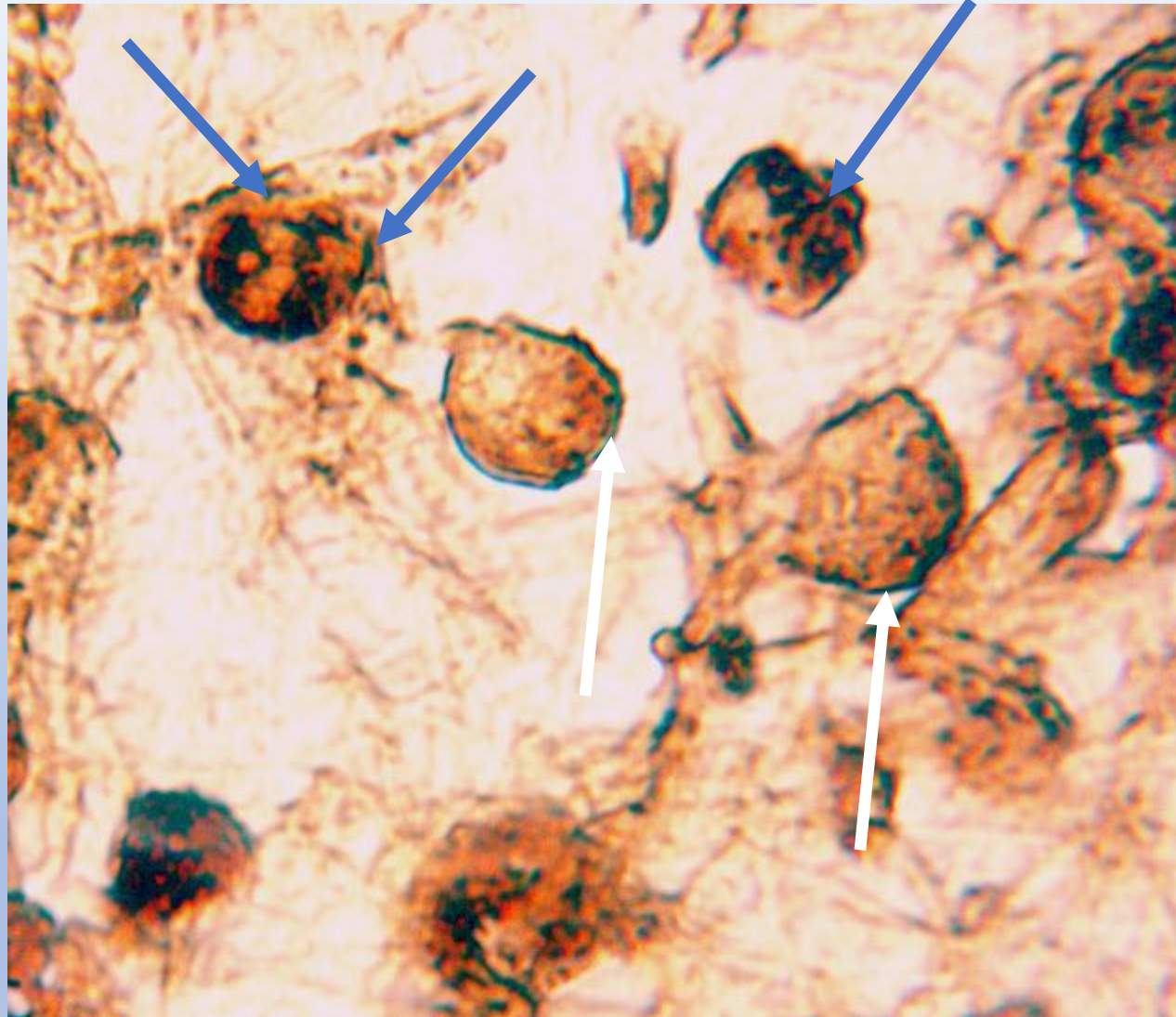


Topic 5

Glioblastoma brain tumors (5 cases)

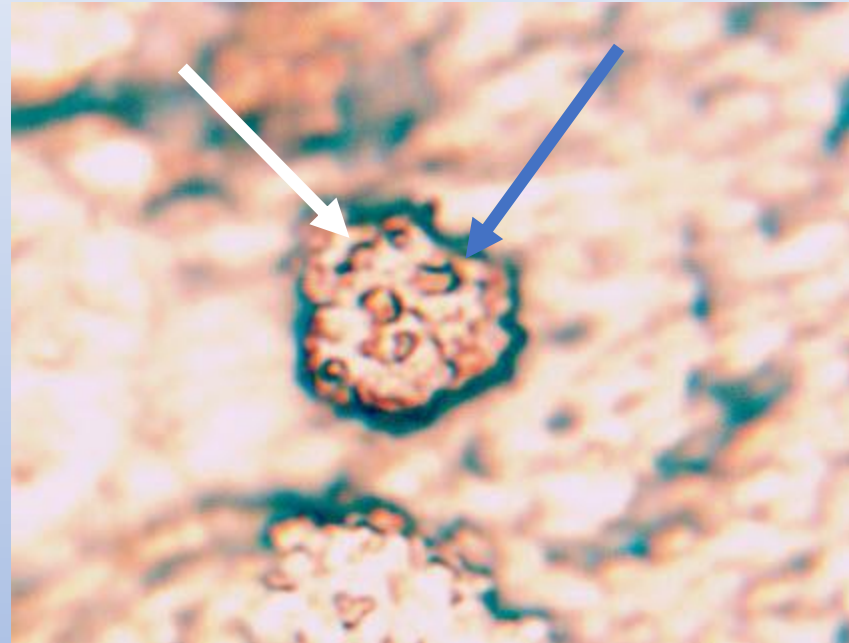
Contain borrelia spirochetes

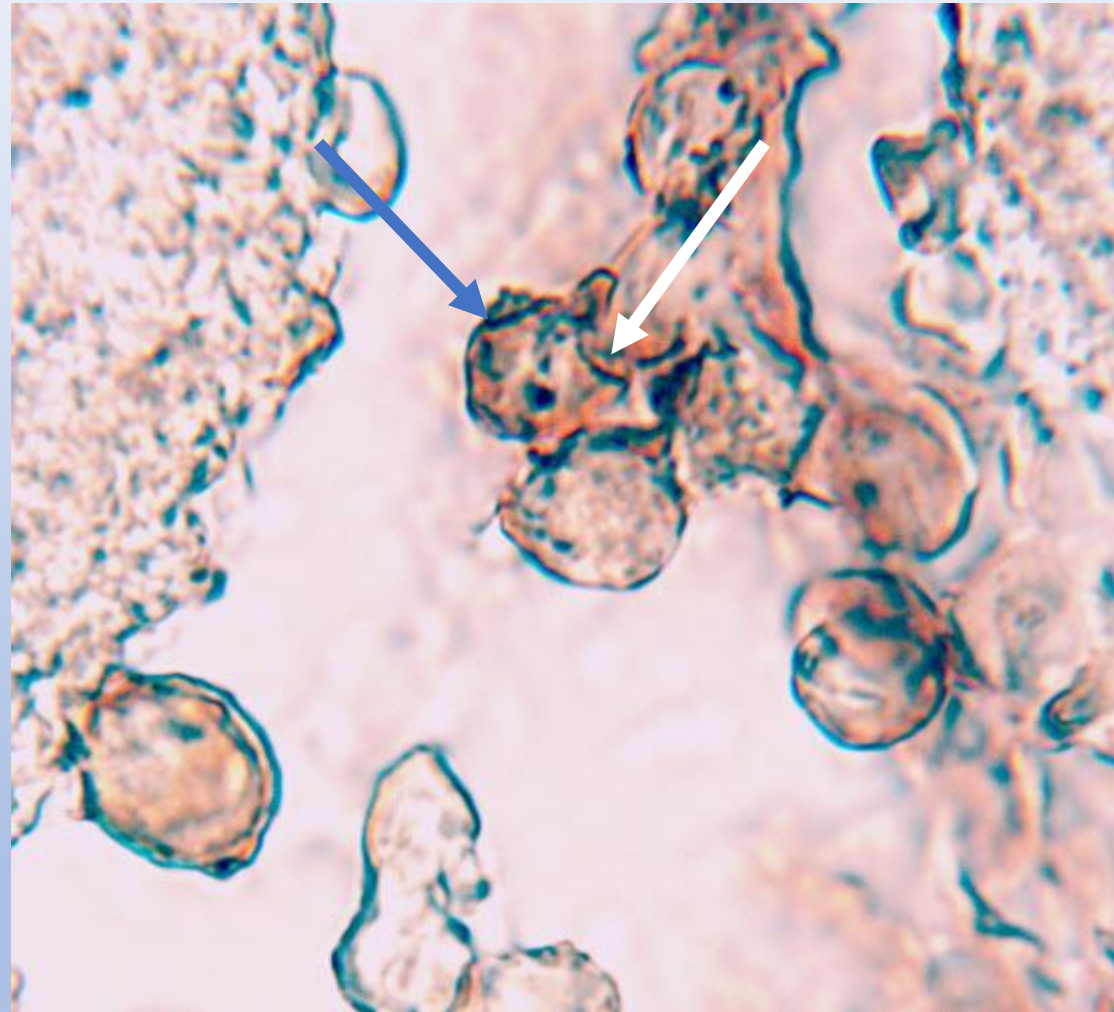
INSIDE Individual Tumor cells



Glioblastoma tumor cells
(brown color)
Containing
Borrelia spirochetes
Which are attached to
The surfaces of tumor
cells (black color –blue
arrows)
And invading the nucleus
of individual tumor cells
(Black color – White
arrow)

Glioblastoma tumor cell
With
Attached black color borrelia
spirochete (Blue arrow)
And
With Black color borrelia
Spirochetes which have
penetrated the nucleus of the
tumor cell (White arrow)





Glioblastoma tumor cells
With black color borrelia
spirochetes attached to cell
surfaces of individual tumor
cells (blue arrow)
and
With black color borrelia
spirochetes penetrating the
Nucleus of a tumor
cell(White arrow)

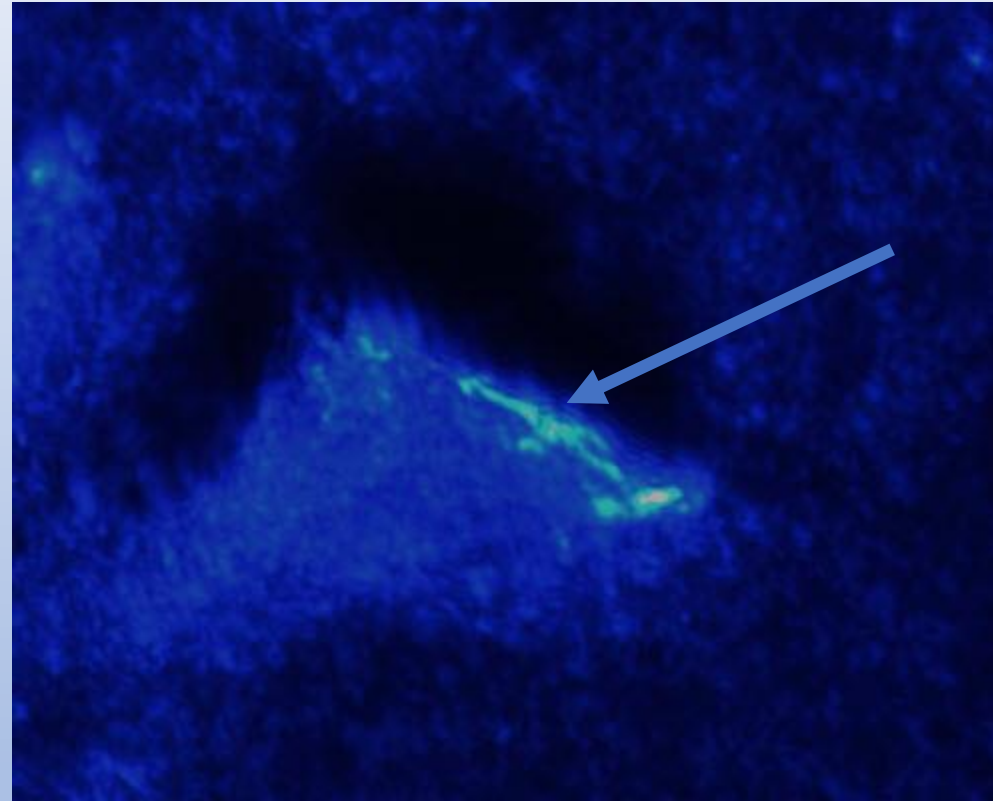
Topic 6

Lyme disease Suicide patient

With borrelia spirochetes

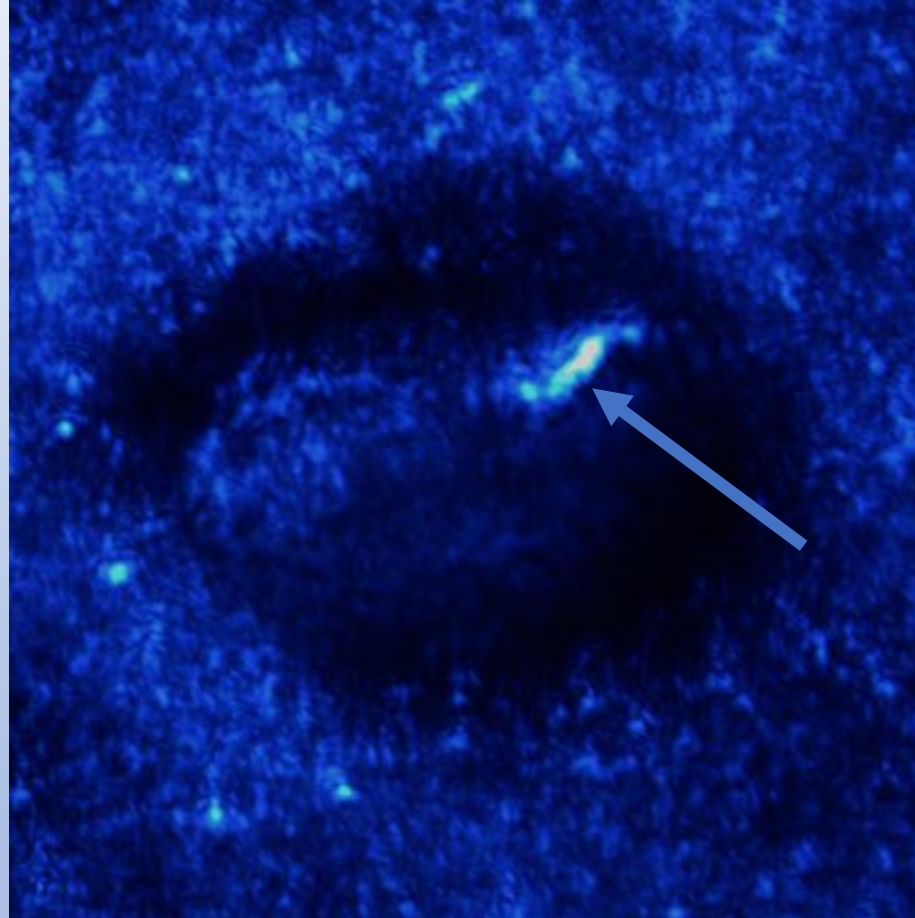
Inside Brain Neurons in Autopsy Brain

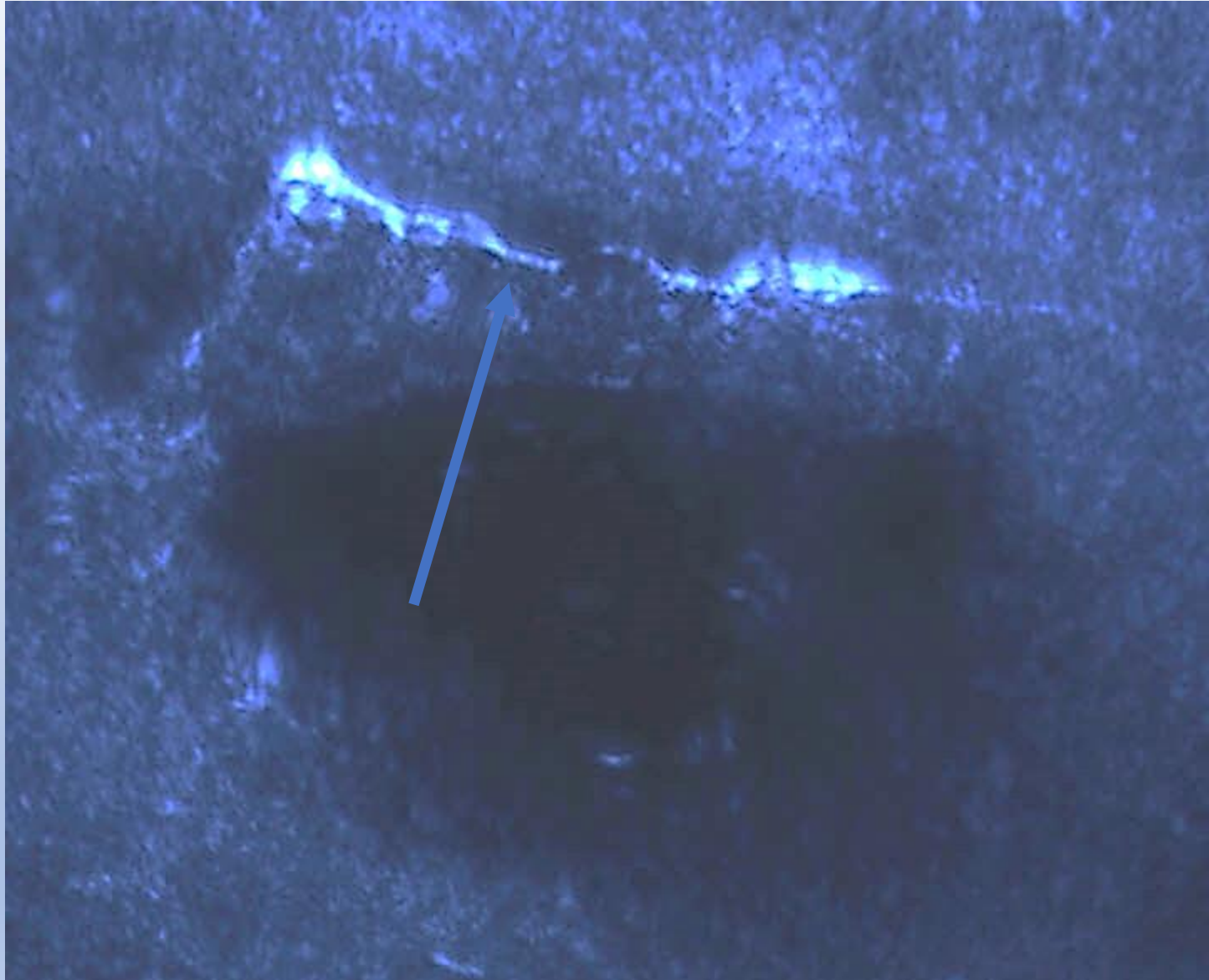
Suicide patient with chronic
Lyme disease
Autopsy brain tissue

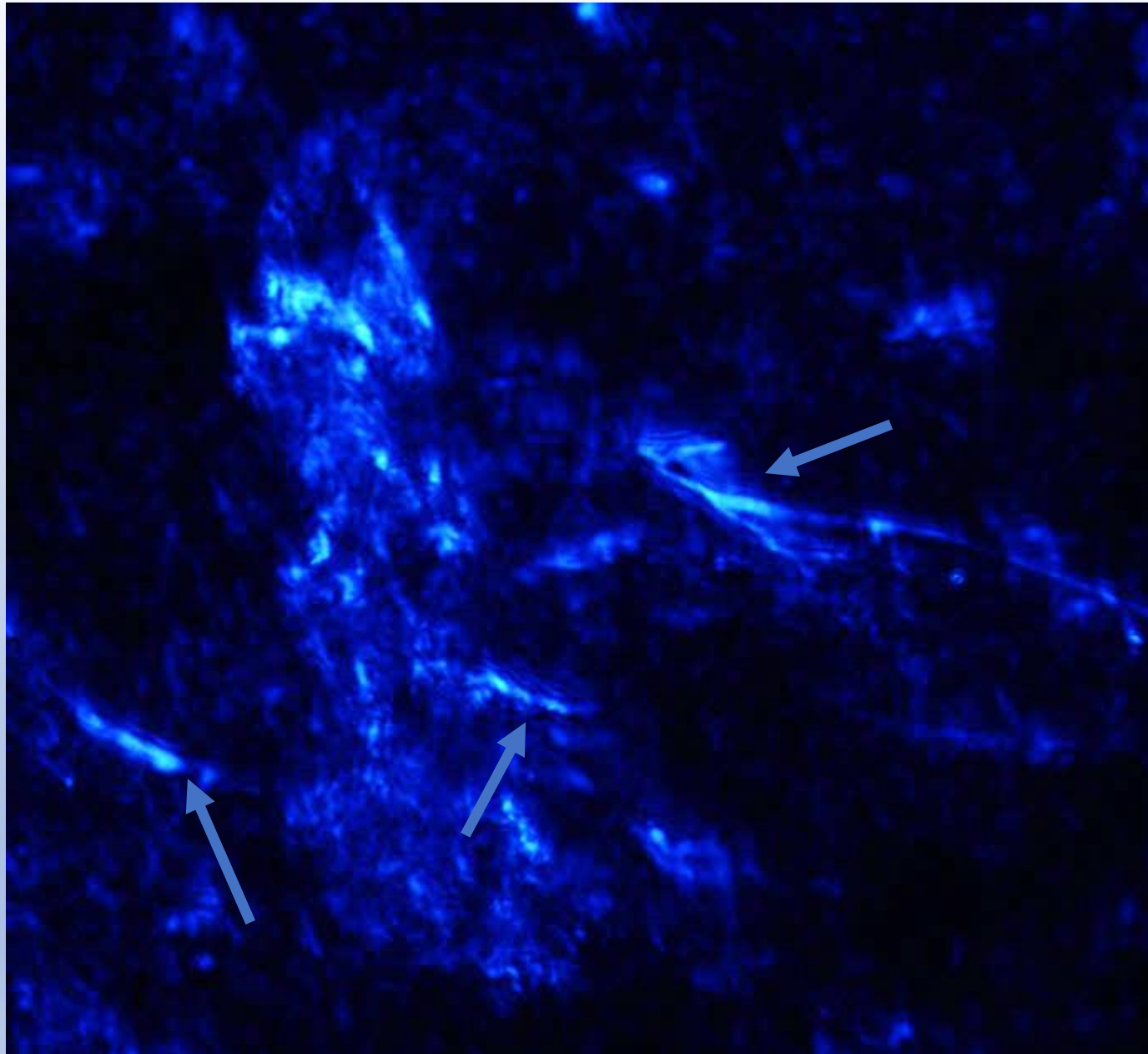


Spirochete inside a
Triangular shaped
PYRAMIDAL neuron
In the brain (Blue arrow)

The spirochetal fragments
(Turquoise color)
Blue arrow
Have penetrated the neuron
And the neuron is
“labelled for death”





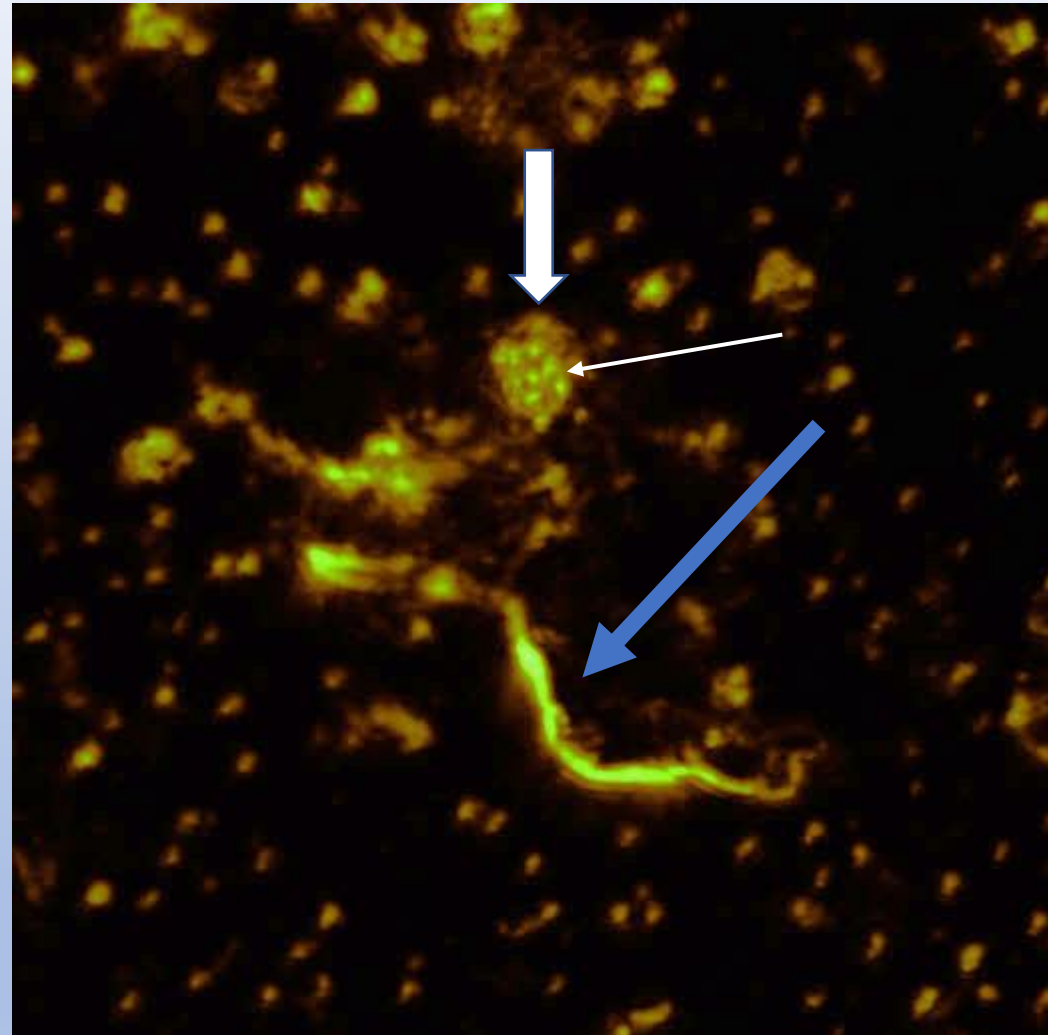


Lyme disease
Suicide patient

Autopsy brain
tissue

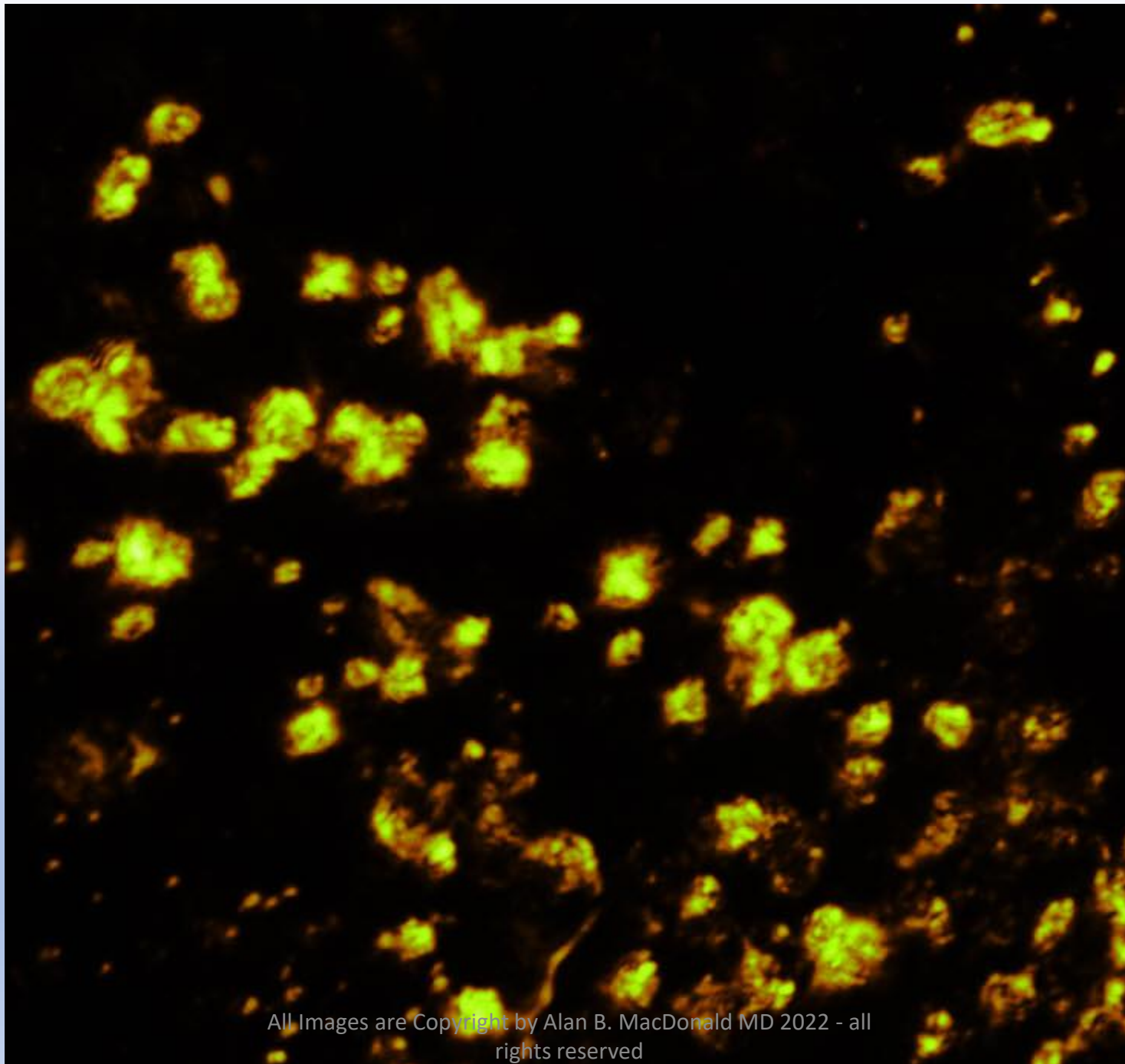
A group of borrelia
spirochetes
In the brain

Lyme disease suicide patient



Autopsy brain
Demonstrates Yellow color
Borrelia miyamotoi spirochetes
With
Both spiral /cylinder form
(blue arrow)
And
With Circular round body form.
(White arrow)

Granular borrelia forms are
present inside one Round body
form) (white arrow)



Suicide Lyme
patient with

Round body
borrelia Miyamotoi
forms in autopsy
brain tissue

Yellow color Dna
probe for
Borrelia miyamotoi
Gene GLPQ
In Fluorescence in
situ DNA
Hybridization
(FISH method)

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