

Biofilms of *Borrelia burgdorferi*:

Communities of *Borrelia* (usually Non-Spiral *Borrelia*)

Which are enveloped by a self-produced Extracellular Matrix layer [slime layer] which is produced from

The outer surface protein layer, glycoproteins,

Lipopolysaccharides, and Extracellular DNA : all of these

Elements once resided inside a once living *Borrelia*

Burgdorferi organism. Death of individual members in

The *borrelia burgdorferi* biofilm community results

In the release of these constituents from once living

but now Dead microbes.

The image below illustrates the structural relationship

Between the “slime layer” [Extracellular Matrix] and

The Specialized non-spiral living forms of *Borrelia*

Burgdorferi which are protected INSIDE the surrounding

Extracellular Matrix.

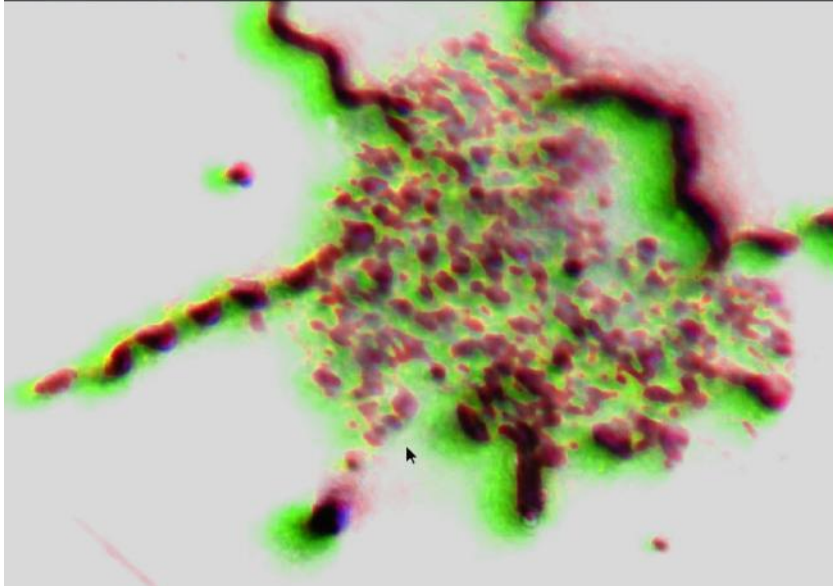
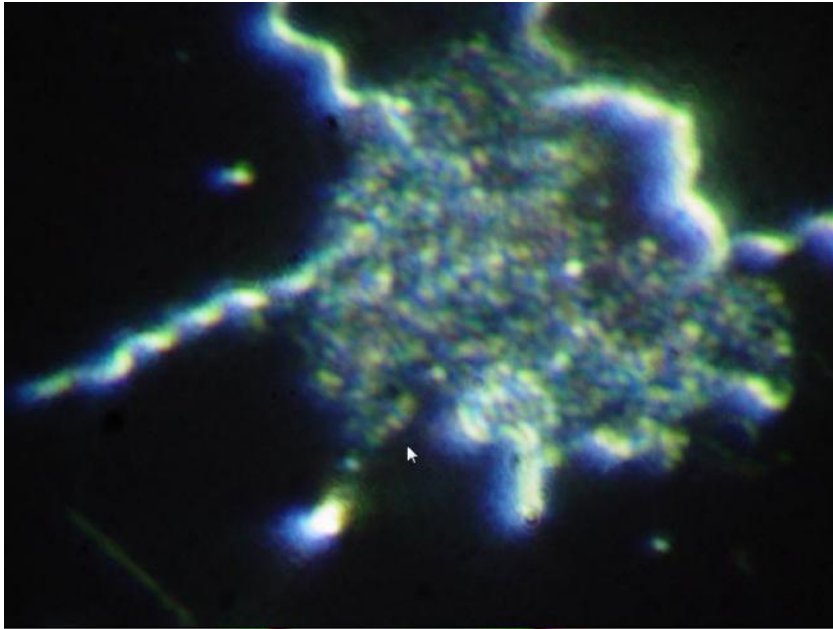


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Biofilm of Borrelia burgdorferi
Granular borrelia forms
predominate in the biofilm
community

--**Extracellular Matrix=green**
Viable organisms=red--

Note: partial segmentation
of spiral borrelia at 7 o'clock.

DNA segmentation is a
precursor to the emergence
of Granular (round/coccoid)

Viable forms of borrelia
burgdorferi

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