

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.

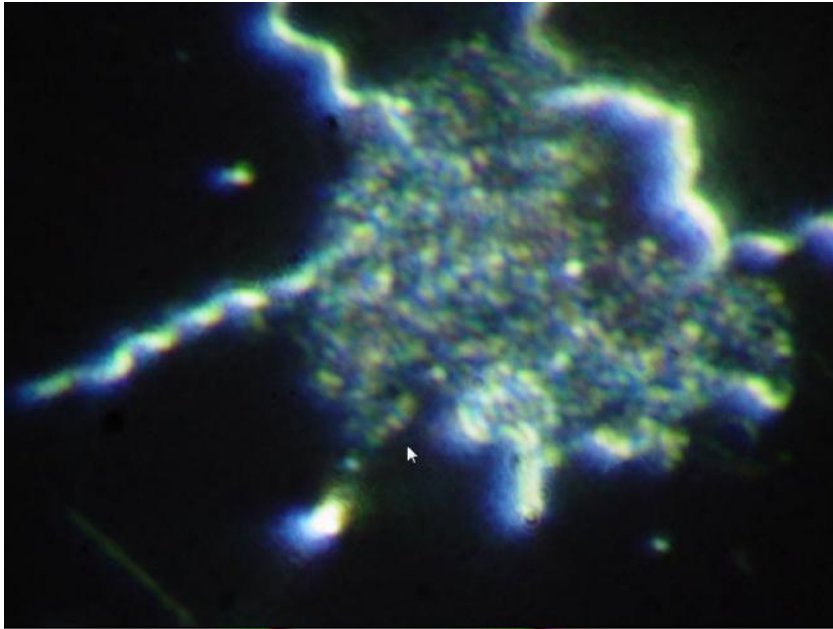


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**Biofilm of Borrelia burgdorferi**  
**Granular borrelia forms**  
**predominate in the biofilm**  
**community**

--**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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