

June 13, 2016

Regarding: L-form bacteria

Many of you may have questions about our current research and what L-form bacteria are. In this letter, I will address these questions based on what we know.

The cell wall is a vital structure for virtually all bacteria. It forms a tough outer shell of peptidoglycan that protects the cell against damage and dehydration. The cell wall has long been the target of many antibiotics, such as those in the beta-lactam and glycopeptide classes. L-form bacteria are peptidoglycan-deficient derivatives of common bacteria that have long been studied. However, L-form bacteria are historically difficult to culture, and typically require selective media with antibiotics to kill common walled bacterial forms.

Little is known about L-form bacteria; however, research in this area may lead to a greater understanding of antibiotic resistance and pathogenesis of bacteria. In Soft Cell Biological's laboratory formed in conjunction with Dixie State University, we have developed new methods for the growth of L-form bacteria isolated from synovial, capillary blood, and whole blood samples. Currently, using 16S rRNA sequencing, we have successfully identified several new species of bacteria from humans that appear to act as latent infectors in some populations.

Based on independent research, as little as a single point mutation can predispose some bacteria to grow without walls. We have also discovered that the propagation of L-form bacteria does not require the normal FtsZ-dependent division machine, but instead uses a novel extrusion-resolution mechanism. This form of propagation has been theorized as a possible vestigial form of replication, possibly giving insight into how early forms of cellular life may have proliferated.

This overview comprises only the surface of our research. We hope to continue releasing informative scientific articles as our range of projects are refined. Thank you for being a part of our work.

Sincerely,



John Brent Hunt | JCD SSP
Founder & CEO
Soft Cell Biological Research
435-705-1782