



## LET'S TALK CREATION

### EPISODE 46: Thank God for Microbes! Featuring Dr. Joe Francis

Todd and Paul are joined by Dr. Joe Francis, Chairman of Biological and Physical Sciences at The Master's University in Santa Clarita, CA. Dr. Francis talks about what microbes are and how we interact with them on a daily basis. Microbes are everywhere and while there are really bad ones, there are also microbes that we and other creatures need to survive. They introduce the idea of symbiosis why we should be thankful for microbes.

Books and articles mentioned in the podcast:

- Lynn Margulis: This 1967 paper introduced what Margulis called endosymbiosis.
  - [http://coleoguy.github.io/reading.group/Sagan\\_1967.pdf](http://coleoguy.github.io/reading.group/Sagan_1967.pdf) Note: Lynn Margulis was married to Carl Sagan, but later remarried and went by the name Lynn Margulis.
- Cristina Sánchez-Porro; Bhavleen Kaur; Henrietta Mann; Antonio Ventosa (2010). "*Halomonas titanicae* sp. nov., a halophilic bacterium isolated from the RMS Titanic"
  - <https://www.microbiologyresearch.org/docserver/fulltext/ijsem/60/12/2768.pdf?expires=1668973483&id=id&accname=guest&checksum=B71CD9BAE4A7E3CC09D6EB34240183F9>

Articles by Dr. Joe Francis

- The Organosubstrate of Life: A Creationist Perspective of Microbes and Viruses
  - [https://digitalcommons.cedarville.edu/icc\\_proceedings/vol5/iss1/40](https://digitalcommons.cedarville.edu/icc_proceedings/vol5/iss1/40)

L

- The Matrix—Life's Support System
  - <https://assets.answersingenesis.org/doc/articles/pdf-versions/matrix.pdf>
- Volvox—Single-celled Synchronized Swimmers
  - <https://answersingenesis.org/biology/microbiology/volvox-single-celled-synchronized-swimmers/>
- Bioluminescent Sea Creatures
  - <https://answersingenesis.org/aquatic-animals/beacons-of-the-deep/>
- COVID-19, Coronavirus, and Creation Virology
  - <https://answersingenesis.org/coronavirus/covid19-coronavirus-and-creation-virology/>
- Bacteriophages as beneficial regulators of the mammalian microbiome
  - [https://www.researchgate.net/publication/329764459\\_Bacteriophages\\_as\\_beneficial\\_regulators\\_of\\_the\\_mammalian\\_microbiome](https://www.researchgate.net/publication/329764459_Bacteriophages_as_beneficial_regulators_of_the_mammalian_microbiome)

Donate to Core Academy at <https://coresci.org/donate>

Donate to Biblical Creation Trust at:

[https://www.paypal.com/donate?token=XQhAUAaopLFEGls1aTiU1YltTqIRJ2SuBgrGZt-b\\_Z4ZQuvm8kN3tLB82CDpIxFE\\_Q--aiVB7PyF0cf1](https://www.paypal.com/donate?token=XQhAUAaopLFEGls1aTiU1YltTqIRJ2SuBgrGZt-b_Z4ZQuvm8kN3tLB82CDpIxFE_Q--aiVB7PyF0cf1)

Email us with comments or questions at: [podcast@coresci.org](mailto:podcast@coresci.org)

Check us out on social media and consider donating to support this podcast

Core Academy of Science

Facebook: <https://www.facebook.com/coresci.org>

Instagram: <https://www.instagram.com/coreacademyofscience/>

Twitter: <https://twitter.com/CoreacadInfo>

Website: <https://coresci.org/>

Biblical Creation Trust

Facebook: <https://www.facebook.com/biblicalcreationtrust>

Twitter: [https://twitter.com/bct\\_origins](https://twitter.com/bct_origins)

Website: <https://www.biblicalcreationtrust.org/>

For questions and comments email [podcast@coresci.org](mailto:podcast@coresci.org)

Please consider supporting this work by going to <https://coresci.org/connect> or

<https://biblicalcreationtrust.org>

\*Disclaimer: Things mentioned in the Show Notes are not endorsements of people, places, or things discussed in the podcast, but rather a record of what was spoken about and helpful links to material for our listeners.