

Astrobiology, Thy Name Is Synergy

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Astrobiology is spectacularly interdisciplinary by its very nature, encompassing biology, astronomy, planetary science, and many more fields of study. But besides the disciplines already folded into astrobiology as we currently understand it, there are many other aspects of astrobiology where its interests and content overlap with intellectual inquiries much farther afield. Of course, these overlaps include classical SETI considerations, our burgeoning understanding of exoplanets and the potential for truly statistical treatments of life-bearing planets on a galaxy-wide basis, and the very nature of what we construe to be intelligence at all. Always in the back of the mind, against a backdrop of astrobiological investigation, dances the elusive question of the existence of beings more cognitively akin to ourselves than a microbial biosphere. But how much of our intelligence is due to our own personal microbial symbionts inside us, outside of us, and in our very cells? How can we view the rise of Artificial Intelligence, Machine Learning, even internalized micro-cybermachines? I argue that these developments are simply the next episode of evolutionary change on Earth, epistemologically consistent with organic evolution to date. Further, such developments may be phenomena to be expected on other planets.