2nd Opinion: Mars and beyond—expanding our theology of God's universe

January 15, 2015

We now have definitive evidence for organic molecules, both in the atmosphere and in the rocks of Mars.

On Earth, organic molecules are the stuff of life. This could mean life—microbial life, that is—exists now on Mars, or it could be related to past or ancient life. Or a possible alternative explanation is that living organisms did not produce these molecules, which instead were produced by chemical and geological processes. More work remains to be done. It will require the specialized tools of the next Mars rover mission, tentatively planned for 2020 by NASA, to provide us with an answer to these questions.

Rick L. HammerIt's very likely we will have an answer to the Mars question within a decade or two at most. If the new science of astrobiology—which is beginning to explore these questions—provides definitive evidence of life on Mars, this will alter the scientific understanding of the origin and evolution of life on Earth, in our solar system and maybe the universe.

For the sake of discussion, let's assume we confirm the existence of microscopic bacteria, or microbes, beneath the Martian surface. The big scientific question will be whether these Martian microbes are related genetically to those on Earth. Assuming the Martian bacteria are composed of DNA molecules like those of living organisms on Earth, scientists would be able to determine the genetic or evolutionary relationship of Martian and Earth microbes.

It is possible all life originated on Earth and ancient Earth microbes were transported to Mars as the result of asteroid impacts—which we know happened—millions of years ago. A second plausible hypothesis is that microscopic life, and thus all life, originated on Mars and was brought to Earth by ancient asteroids.

Life in distant galaxies?

A third and possibly troubling hypothesis for some Christians is that microscopic life originated and evolved independently on both Earth and Mars: However you believe God initiated life, he did it separately on both Earth and Mars. An even bigger question starts to come into view, which concerns the possibility of life beyond Mars, and this includes the possibility that intelligent life could have evolved in a distant galaxy.

Scientific discoveries involving the origins and the evolution of life have serious implications for us Christians, and this has been the source of an ongoing tension between science and religion since before the time of Galileo. If science confirms the existence of life on Mars and eventually beyond, what will be required is that our biblical and theological understanding of God's creative activity of life will have to be extended beyond Earth to our solar system and possibly beyond. This may be difficult for some Christians, particularly Evangelical conservatives.

Unfortunately for some Christians, the science of astrobiology will provide

many upcoming challenges to our biblical understanding of our place in God's universe. Scientific discovery proceeds not with the goal of challenging our faith but understanding the extent and workings of God's universe, no matter the faith tradition, if any, of the scientists carrying out the studies. To deny this is to misunderstand or refuse to acknowledge the nature and objectivity of the post-Renaissance scientific enterprise.

Science and religion must not be viewed as separate realms of endeavor but instead as overlapping magisteria, one providing explanations of the "how, when, and where" of the physical world and the other seeking to explain the "who and why" regarding the phenomena we observe in the physical world, solar system and universe we inhabit.

'Created through and by him'

In Colossians 1:15-16, the Apostle Paul says, "… Christ is the image of the invisible God … for in him all things in heaven and on earth were created, things visible and invisible … all things have been created through him and for him …." Therefore, it seems that when we scientifically observe, study, analyze, experiment, hypothesize and theorize about the physical world created and sustained by Jesus Christ, we are in effect learning about the nature of God. God has given us the intellect, curiosity and tools for this quest. So, it must be a God-honoring endeavor, no matter what knowledge we uncover.

Ultimately, and most comforting for all Christians, is the knowledge that our God took human form and chose to reveal himself as our Savior, Jesus Christ. In all of the immensity of a 13.8 billion-year-old universe—with its billions of galaxies, billions of stars and the growing knowledge that there likely are billions of earth-size planets orbiting the billions of stars—God chose to reveal himself in flesh and blood form on our planet. He came to us to offer atonement and salvation for human sin and to offer a way forward. We are therefore special in God's eyes.

As special as we are, the question remaining to be answered is whether or not we are alone in God's universe. I am excited both as a Christian and as a scientist that we soon will be able to begin answering this question.

Rick L. Hammer teaches biology, ecology, and astrobiology at Hardin-Simmons University in Abilene. He and his family worship at First Baptist Church in Abilene, where he serves as a deacon.