Motivated by Faith, Catholic Scientists Look Beyond Earth’s Galaxy
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By Wandy Ortiz

This image from NASA’s Hubble Space Telescope has an unusual edge-on galaxy, revealing remarkable details of its warped dusty disc and showing how colliding galaxies trigger the birth of new stars. (Photo: CNS/NASA)

MANHATTAN — After an unexpected 2020, this year began with Jupiter, Pluto, and Saturn’s conjunction — a nighttime view akin to the North Star that led the Magi to the Baby Jesus. For some, the sight was a reminder of just how beautiful God’s creation is, even in the most difficult times.

This year has already been another for unexpected firsts: one of Jupiter’s 79 moons — Ganymede — emitted an FM radio signal strong enough to be picked up by a NASA spacecraft. No radio waves like it have ever been detected from this planet’s moon prior, and perhaps it could be a new step towards communication tools beyond our galaxy.

When we look up at the sky — or even tune in — we can’t help but wonder what else is out there that we can’t see, hear or touch.

Around the world and further, scientists are working around the clock to identify more planets, understand new spatial phenomena, and even investigate the possibilities of life beyond our solar system.

With a longstanding misconception that science and faith exist at odds with one another, one might forget that the Vatican has one of the most elaborate observatories on the planet, or that Catholic scientists like Friar Gregor Mendel founded the field of genetics, or how it was Father Georges Lemaître who proposed the Big Bang theory.

"It's because we (humans) are free and rational that we are capable of love, and that we are spiritual. And so any being elsewhere in the universe to be a spiritual being … that requires a spiritual soul that is a gift from God," Stephen Barr, President and Co-Founder of the Society of Catholic Scientists, explained to Catholic News Agency. "There are a lot of religious scientists out there, including a lot of believing Catholics."

How do the Catholic scientists of today factor their faith in their scientific discoveries, and how does the Church view life beyond humanity?

From the possibility of extraterrestrial life to artificial intelligence’s role in society, it is the faith of these scientists that leaves them inspired and wanting to know more, says Dr. Jonathan Lunine, vice president of SCS and director of the Cornell Center for Astrophysics and Planetary Science.

"I think many of us who are scientists, who have faith as well, feel that our faith gives us a deeper sense of appreciation for what it is that we're discovering about the universe or about biology, or whatever we're
studying in sciences,” he said.

While the Church has not definitively stated whether the possibility of life beyond earth exists, and considering that intelligent extraterrestrials have yet to be discovered, Catholic scientists must instead look to the history of science in the Church to move forward in their studies and act on those curiosities.

“Many theologians have pointed out that these wonderful creatures that we see in the fossil records that have evolved through time, that’s part of the superabundance of God’s creation,” said Lunine. “The same would be true for microbial life elsewhere in the universe.”

SCS member Dr. Karin Öberg, an associate astronomy professor at Harvard University, says she identified as a scientist well before she identified as Christian or Catholic. Now, she wears a cross to let students of faith know that they, too, belong in the field.

For her, the fusion of science and faith “pushes us to think about what it means to be human … when we think about intelligent extraterrestrials. It forces us to think about what makes humans special and to remind ourselves what some of the teachings of the Church are on that as well.”

If faith can be found in the science lab, can it be found in the galaxy?

Dr. Christopher Baglow, a theologian and liaison for the SCS, is the Director of the Science and Religion Initiative of the McGrath Institute for Church Life of the University of Notre Dame.

He wonders: If there is life beyond earth, how would those beings celebrate Mass?

“We could imagine that they’re set in a different environment, a different rational species with a different evolutionary history than ours. Their sacraments might be different,” Baglow told CNA.

He also says that asking these questions shouldn’t give cause for concern “because no matter what new truths we discovered through the use of reason or the use of technology, the truths of the faith will always be greater than them, and able to encompass them in some kind of harmony.”

As we ponder life on earth, the role of science and technology in daily life is only increasing. While perhaps extraterrestrials could possess free will, Dr. Baglow sees AI as a reflection of and under the influence of our own humanity.

“I think that in the case of any AI, you would always have a situation where whatever has the appearance of reason and will would ultimately simply be an extension of the program or of programmers,” he suggests.

Tags: Catholic Scientists, NASA, Society of Catholic Scientists, Space