WHY SUPPORT RESEARCH AT NASA?

BOSTON UNIVERSITY

SO YOU CAN HELP SCIENTISTS UNDERSTAND HOW STARS MATURE, SHARPEN CONSERVATION POLICIES, AND CONNECT YOUTH WITH THE WONDERS OF SPACE.

And that's just for starters. Through $10.5 million in research funding from the National Aeronautics and Space Administration (NASA) in FY2022, Boston University has been illuminating the universe, our planet, and our place in both.

A CHILD STAR GROWS UP. BUT HOW?

That familiar orb glowing at the center of our solar system has taken billions of years to mature to supply us with life-sustaining energy. But eons ago, our sun was just a kid. So what did it look like back then? Boston University researcher Catherine Espaillat may be close to an answer. By studying young stars that share similar properties with our sun, the associate professor of astronomy and her colleagues have detected, for the first time, a uniquely shaped spot on a baby star that reveals information about how young stars grow. Their research was published in *Nature* and promises to teach us both about the formation of our solar system and the birth of our own planet.

BRINGING SPACE DOWN TO EARTH

What's it like to drink in orbit? What happens if you lose something in zero gravity? And, of course, how do you become an astronaut? An ongoing educational effort by NASA, along with help from a Boston University professor, meant that a group of young students received answers to those questions. From space. BU engineering professor Sheryl Grace connected hundreds of Boston-area schoolchildren with astronaut Bob Hines (her former BU student) while he was orbiting Earth in the International Space Station. In addition to the live video communication from 250 miles above their heads, the students learned about robots, telescopes, and rockets. As Hines told his rapt audience before signing off, "Keep reaching for the stars."

GLEANING CONSERVATION INSIGHTS FROM ON HIGH

The forest habitat in Colombia's Andes region is one of the most biodiverse—and threatened—places on the planet. The Colombian government has employed an array of tools to protect the area. But it's unclear which voluntary approaches are most effective. That's where Boston University researcher Christoph Nolte comes in. With a grant from NASA, the earth and environment professor will harness remote sensing technology (taking measurements using satellites) to map changes in forest layers and compare that data with public records about the government's methods and policies. This work promises not only to illuminate best practices for conservation efforts in South America but worldwide.

We hope you'll consider supporting research funding for NASA. If you have any questions or would like to discuss the role that NASA research plays in our daily lives, please visit bu.edu/federal.

Boston University Federal Relations

BOSTON UNIVERSITY RESEARCHERS ARE LOOKING TO SPACE TO SOLVE PROBLEMS ON EARTH.

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