UC SANTA BARBARA

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# Early Honors

UC Santa Barbara undergraduate student Dolev Bluvstein has been awarded a five-year fellowship from the Fannie and John Hertz Foundation to pursue his Ph.D. Bluvstein is among 10 students selected nationally by the organization from a pool of 840 applicants.

“I would say that I couldn't quite believe it when I first heard, but the truth is that I still can't quite believe it,” said Bluvstein, a senior physics major in the College of Creative Studies. “Being selected for the Hertz Fellowship is a tremendous honor.”

Hertz Foundation fellows receive five years of tuition, nine months of stipend support per year and even a childcare stipend for those with young children. What’s more, the fellowship is the only one in the country that allows for total research freedom. Funding is not contingent on factors such as school choice, field selection or research advisor.

“This will allow me to take risks and pursue difficult projects without any risk of losing financial funding,” Bluvstein explained. The financial security will allow him to embark on high-risk, high-reward projects that his colleagues may be reluctant to take on.

“With Hertz I can also more easily move between research advisors and projects, as I won't be financially tied to any project-specific funding, and this will allow me to always pursue what I think is most interesting and impactful,” Bluvstein added. “Similarly, it's also easier for me to be co-advised by multiple professors, and this

possibility could lead to unique collaborations and outcomes that would otherwise be hard to achieve.”

Bruce Tiffney, interim dean of the College of Creative Studies, offered his profound congratulations to Bluvstein. “A Hertz Fellow brings distinction to the campus, and is a fitting recognition of Dolev’s research success,” he said. The award also affirms Bluvstein’s ability to communicate his research to the public, added Tiffney. In fact, the Office of Admissions showed a video of Bluvstein’s research presentation to admitted students at the Chancellor’s Regional Receptions this spring as an as an example of undergraduate research at UC Santa Barbara.

Bluvstein studies color centers in diamond crystals, impurities that give diamonds unique colors when exposed to light. Some of these defects behave like atomic-size magnets that researchers can control and measure using quantum mechanics. He uses these defects as quantum sensors to detect the magnetic fields from things as small as other atomic-size magnets. This capability could revolutionize how scientists image the structure of molecules. Bluvstein plans to pursue a doctorate at Harvard, where he will continue his research in experimental quantum physics.

“I really cannot say enough about Dolev,” said Professor Ania Jayich, Bluvstein’s research advisor. “He is a once-in-20-year, or more likely a once-in-a-lifetime, student. The Hertz Fellowship is arguably the most prestigious award for an undergraduate physics student, and I cannot think of anyone more deserving than Dolev.

“In my interactions with him, he is no longer a student — he is a peer,” Jayich added. “I expect we will hear a lot more about Dolev in the future, and I eagerly await his impending successes.”

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## About UC Santa Barbara

The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.