FOR IMMEDIATE RELEASE

San Diego Space Institute Selected by NASA California Space Grant

to Advance Student-Built Space Mission

San Diego, CA — October 14, 2025

The **San Diego Space Institute (SDSI)**, in collaboration with **San José State University (SJSU)** and **San Diego State University (SDSU)**, has been selected by the **NASA California Space Grant Consortium (CaSGC)** under NASA's **2025 Workforce Development Program**. The awards support **Sentinel-Bio+**, a student-driven CubeSat initiative that trains future aerospace engineers while advancing NASA's goals in human spaceflight and heliophysics.

Two Awards, One Mission

CaSGC's recognition supports two complementary university-led projects within the Sentinel-Bio+ program—spacecraft bus development at SJSU and payload integration at SDSU—united under SDSI's nonprofit coordination and mentorship.

At **San José State University**, **Professor Periklis Papadopoulos** leads the spacecraft bus development effort, drawing on SJSU's partnership with **NASA Ames Research Center** and its legacy of TechEdSat missions. **Sean Casey**, Co-Investigator and President of SDSI, supports mission-level coordination and systems integration.

At **San Diego State University**, **Professor Ahmad Bani Younes** directs payload development, guiding students in building a compact suite of sensors—including radiation detectors, MEMS accelerometers, and fluxgate magnetometers—designed to study atmospheric drag and radiation exposure in low Earth orbit.

Training the Next Generation

Through Sentinel-Bio+, students gain direct experience following NASA's *Systems Engineering Handbook*, advancing through design reviews (SRR, PDR, and CDR), prototyping, and environmental testing. Each team works closely with NASA mentors and industry professionals to develop flight-ready subsystems for a 2027 mission launch.

> *"These NASA Space Grant awards recognize California's leadership in hands-on aerospace education. Sentinel-Bio+ is more than a satellite project—it's a workforce pipeline. We're training the engineers, scientists, and innovators who will power the next era of human spaceflight."*
>
> — **Sean Casey**, President, San Diego Space Institute

Understanding Space Risk

The mission targets two invisible yet critical spaceflight hazards: **radiation** and **atmospheric drag**. By deploying a student-built constellation of CubeSats, Sentinel-Bio+ will measure how solar activity affects spacecraft performance and astronaut safety in low Earth orbit. The resulting data will help NASA model environmental risks for Artemis and commercial space operations.

Next Steps

With NASA CaSGC funding secured, both university teams will begin prototype development in late 2025, while SDSI raises additional donor support for the 2027 multi-satellite launch and operations phase.

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