

## **Precision BioSciences and Durham STEM Students Lead Launch of First Genome Editing Experiment into Space**

### *SpaceX Falcon 9 Delivering ARCUS Gene Editing to the International Space Station*

**CAPE CANAVERAL, FL, USA, December 6<sup>th</sup>, 2018** – Precision BioSciences today announced that the world's first genome editing experiment in space has been launched aboard a SpaceX Dragon cargo spacecraft on a Falcon 9 rocket. The mission was launched from Cape Canaveral Air Force Station and is anticipated to deliver its cargo to the International Space Station (ISS). Astronauts aboard the ISS are expected to perform the first genome editing experiment in space using Precision's proprietary, next-generation genome editing technology, ARCUS.

Precisioners JoAnn Hux and Ginger Tomberlin have been working with Karen Kingera, STEM Director of Immaculata Middle School in Durham, North Carolina, and her dedicated group of 15 students for over a year on this project. The program was made possible by Space Center University at Space Center Houston and the DreamUp program. DreamUp places select student projects on SpaceX ISS payloads, and students whose projects are chosen are also invited to attend the launch and participate in presentations and poster sessions at Cape Canaveral.

Hux, a molecular biologist, said "I have always enjoyed teaching local students about my work at Precision and was honored when they invited me to mentor this Space Center University project. These young scientists have designed a fantastic gene editing experiment for the Space Station, and I could not be prouder of them."

Precision's ARCUS editing technology is particularly well-suited to this type of project because it is based on a single, compact protein. The ARCUS nuclease is stable across a range of temperatures and can be dried down and rehydrated without compromising function. Details of the student-led experiment can be found on the [ARCUS ISS project page at nasa.gov](#).

After viewing the launch, Precision CEO Matt Kane said, "I'm so pleased Precision could be part of this experiment and really admire the Precisioners who have given their time to support these amazing young scientists. As a kid, I dreamed about being an astronaut and even attended Space Camp. Watching SpaceX take our gene editing platform into orbit – it's an absolute thrill. Our hope is that this will be the first of many steps to make ARCUS genome editing a critical component of future scientific endeavors, including space exploration."

### **About Space Center University**

Space Center University is a challenging five-day program offered year-round. The program promotes teamwork, problem solving, communication and engineering solutions to space related situations. It is designed to develop and improve critical thinking skills, fiscal responsibility, creativity and the drive to be successful. For additional information, please visit [www.spacecenter.org/space-center-u](http://www.spacecenter.org/space-center-u)

### **About the DreamUp Space Program**

DreamUp is an educational spinoff company from commercial services provider NanoRacks. Their mission is to realize an educational community where space-based research and space-based projects will be available to all students, from primary to post-doctorate, to the International Space Station and beyond. For additional information about DreamUp, please visit [www.dreamup.org](http://www.dreamup.org)

## **About Precision BioSciences**

Precision BioSciences is dedicated to improving life. Our mission is to cure genetic disease, overcome cancer, and feed the planet. We are striving to achieve this goal with ARCUS, our therapeutic-grade, naturally-derived genome editing platform to help overcome life's greatest genetic challenges. For additional information, please visit [www.precisionbiosciences.com](http://www.precisionbiosciences.com)

## **Contact Precision BioSciences**

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