



## **Caribou Biosciences Announces Presentation of New Research Highlighting Progress of its CRISPR-Cas9 Genome Editing Platform**

January 15, 2015

- **DATA PRESENTED AT KEYSTONE SYMPOSIUM FOR PRECISION GENOME ENGINEERING AND SYNTHETIC BIOLOGY**

Caribou Biosciences, a developer of technology-based solutions for cellular engineering, today announced the presentation of new findings demonstrating the advancement of its proprietary CRISPR-Cas9 gene editing and repair technology platform. These findings were presented this week in two poster sessions at The Keystone Symposium for Precision Genome Engineering and Synthetic Biology in Big Sky, Montana.

In the first presentation, entitled "Modulation of Cas9 Activity Through Single Guide RNA Engineering," researchers demonstrated that single guide RNA (sgRNA) can be engineered to modify the activity and improve the specificity of Cas9 for genome editing. The presentation expands upon findings previously published by Caribou and collaborators in the journal *Molecular Cell* in October 2014. The presentation findings were also the basis of a talk given at the Advances in Genome Editing workshop at the Symposium.

In the second presentation, entitled "Pre-assembled Cas9-sgRNA Complexes Enable High-Efficiency Cellular Engineering in Mammalian Cells," researchers detailed Caribou's ongoing work utilizing pre-assembled protein-RNA complexes for Cas9-sgRNA genome editing. The presentation highlighted the potential of using sgRNA and Cas9 protein directly to engineer calls. sgRNA-protein complexes can improve the efficiency and robustness of targeted genome editing and overcome the limitations of vector and viral systems related to random integration in the genome.

"The findings from these presentations are indicative of the rapid progress we are making in improving our CRISPR-Cas9 cell-engineering platform and its deployment in multiple applications," said Andrew May, D.Phil, Chief Scientific Officer at Caribou Biosciences. "We are excited to continue to advance the use of the technology in promising areas in the therapeutic space, research use, agricultural biotechnology and industry biotechnology through collaborations with established market leaders."

Caribou's technologies are based on research into the biology of CRISPR systems carried out by the Doudna Lab at the University of California, Berkeley, and their collaborators. At the core of Caribou's extensive CRISPR technologies IP portfolio is an exclusive license to the foundational CRISPR-Cas9 work from the University of California and the University of Vienna. This work was recently recognized by the award of a Breakthrough Prize to Caribou co-founder Jennifer Doudna, Investigator, Howard Hughes Medical Institute and Professor, U.C. Berkeley and her collaborator Emmanuelle Charpentier, Helmholtz Center for Infection Research and Umeå University. Caribou recently cofounded Intellia Therapeutics for the development of human gene and cell therapies based on their proprietary CRISPR-Cas9 technology platform.

### **About Caribou Biosciences**

Caribou Biosciences is a developer of technology-based solutions for cellular engineering and analysis based on CRISPR-Cas9 biology. Caribou's tools and technologies provide transformative capabilities to basic and applied biological research, therapeutic development, agricultural biotechnology, and industrial biotechnology.

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