

# CLEAVE-seq: technology for determination of on- and off-target sites for DNA endonucleases



Vilnius  
University

## BRIEF DESCRIPTION OF A TECHNOLOGY

The CLEAVE-seq technology enables increased sensitivity, speed, scale and cost effectiveness in the detection of DNA double strand breaks induced by DNA endonucleases.

## PURPOSE

Determination of on- and off-targets for DNA endonucleases (e.g. CRISPR-Cas9).

Selection of the most specific Cas9-gRNA candidate for *in vitro*, *ex vivo* and *in vivo* genome editing.

## FIELDS OF APPLICATION

Genome editing; gene therapy; genetic engineering in plant or animal systems for industrial application; tools for fundamental research.

## TECHNOLOGY READINESS

Technology validated in lab (TRL 4).

## INTELLECTUAL PROPERTY

Patent application:  
WO2019217816 (A1).

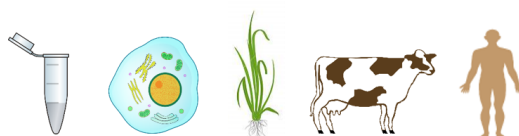
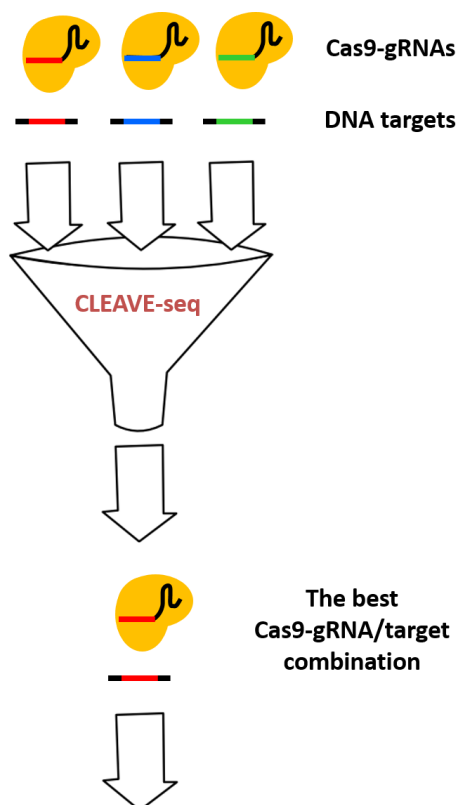
Applicants: Pioneer Hi-Bred International, Inc. (United States); Vilnius University (Lithuania).

## INVENTORS

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## RELEVANT PUBLICATIONS

Young et al. (2019) *Scientific Reports*, doi: 10.1038/s41598-019-43141-6.



*In vitro*, *ex vivo* and *in vivo* genome editing

## CONTACTS

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