

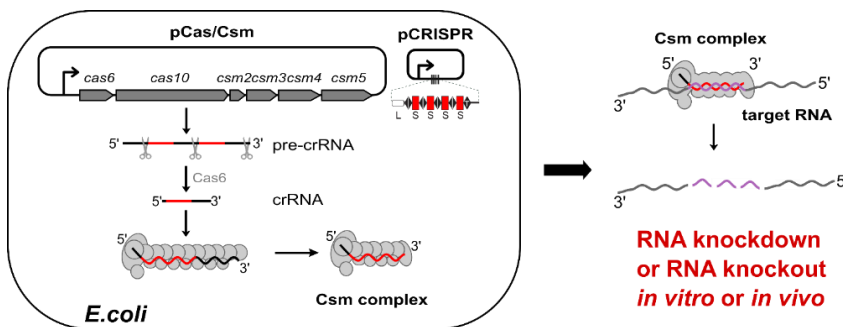
Programmable RNA shredding by the type III-A CRISPR-Cas system of *Streptococcus thermophilus*



Vilnius
University

BRIEF DESCRIPTION OF A TECHNOLOGY

A type III-A CRISPR-Cas Csm complex, comprising crRNA, Csm3, Csm4 or any other subunits, usage for the cleavage of target RNA containing a nucleotide sequence complementary to the crRNA bound in the complex. Provides methods for site-specific cleavage of target RNA molecules and RNA knock-down or RNA knock-out, *in vitro* or *in vivo*.



PURPOSE

Programmable RNA cleavage *in vitro* and RNA knock-down or RNA knock-out *in vivo*.

FIELDS OF APPLICATION

Functional gene analysis, RNA interference, transcriptomic analysis.

TECHNOLOGY READINESS LEVEL

Technology validated in lab.

INTELLECTUAL PROPERTY

Patents: EP3189140 (B1), US10385336 (B2).

Applicant: Vilnius University (Lithuania).

INVENTORS

- Virginijus SIKSNYS
- Migle KAZLAUSKIENE
- Gintautas TAMULAITIS

PUBLICATIONS

Tamulaitis et al. (2014) *Molecular Cell*, doi:

10.1016/j.molcel.2014.09.027

Kazlauskienė et al. (2016) *Molecular Cell*, doi:

10.1016/j.molcel.2016.03.024

Tamulaitis et al. (2017) *Trends in Microbiology*, doi:

10.1016/j.tim.2016.09.012

Mogila et al. (2019) *Cell Reports*, doi: 10.1016/j.celrep.2019.02.029

CONTACTS

Dr. Ramūnas Grigonis

Innovation Office, Department
for Research and Innovation,
Vilnius University

E-mail:

ramunas.grigonis@cr.vu.lt

Phone: +370 5 268 7006