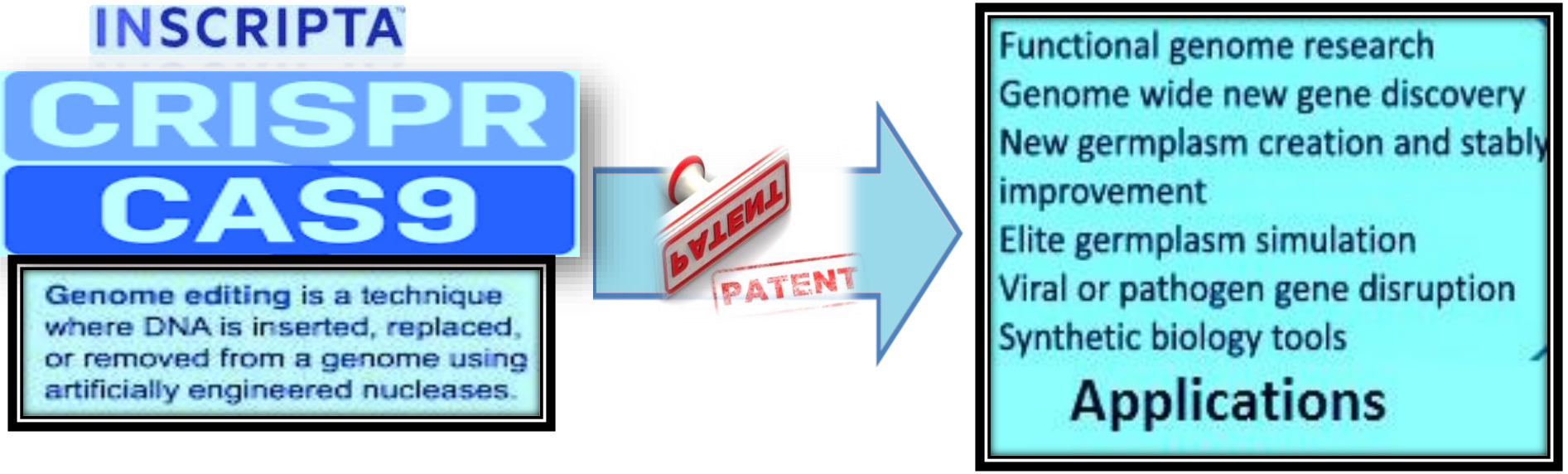
Inscripta's CRISPR gene- editing systems receive US patent approved on 12th July 2018



Inscripta

About Inscripta

- Inscripta is a gene editing technology company **(Biotechnology Company, found in 2015)** dedicated to creating the tools needed to revolutionize how we feed, fuel, and heal humanity. This includes developing a family of CRISPR enzymes (called MADzymes), bespoke nucleases for researchers and commercial partners, and a full suite of gene editing tools (software, instruments, and reagents) that will significantly increase the speed and efficiency of precision gene editing.
- Inscripta has announced two significant milestones. **First**, the **USPTO** (United State Patent and Trademark Office) granted Inscripta its first patent covering systems using MAD7, the company's first free CRISPR enzyme, as well as patent coverage for systems using another MADzyme, MAD2. **Second,** Inscripta released new data run by external partners showing MAD7 can edit mammalian cells.

Why genome editing?

✓ To understand the function of a gene or a protein, one interferes with it in a sequence-specific way and monitors its effects on the organism.

✓ In some organisms, it is difficult or impossible to perform **site-specific mutagenesis**, and therefore more indirect methods must be used, such as silencing the gene of interest by short RNA interference (siRNA).

✓ But sometime gene disruption by siRNA can be variable or incomplete.

✓ Nucleases such as CRISPR can cut any targeted position in the genome and introduce a modification of the endogenous sequences for genes that are impossible to specifically target using conventional RNAi.

PHARMA STATE

SOURCE: https://www.inscripta.com/news/2018/07/12/inscripta-granted-patents-for-crispr-gene-editing-systems/

About MAD7 and MADzyme

About the MAD7

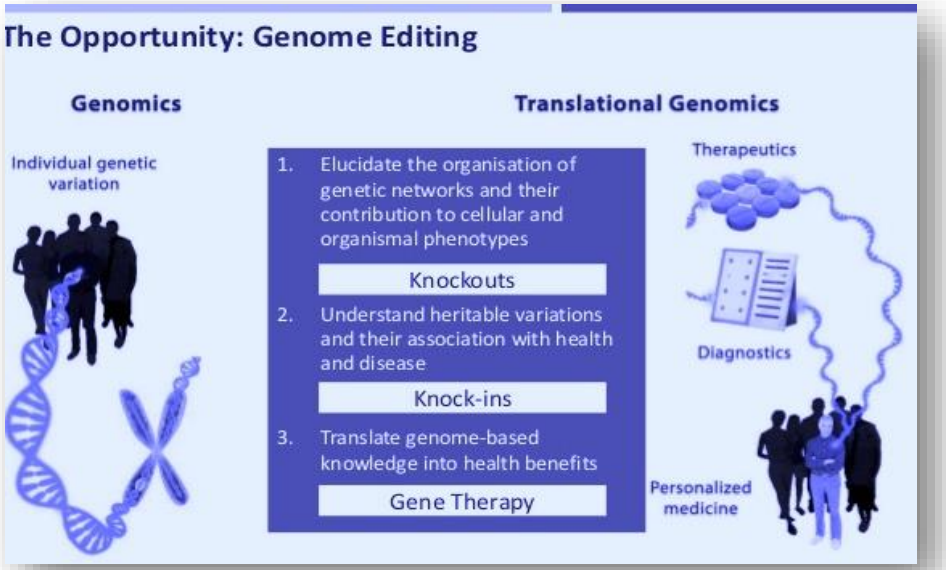
MAD7 activity in mammalian cells: MAD7 is able to be expressed as an active protein in human HEK293T cells, and when combined with chemically synthesized guide RNAs targeting multiple genes, can edit several genes at multiple loci.

MAD7 has shown robust editing activities in both prokaryotic and eukaryotic microbes, it has also been shown to have DNA editing activity in mammalian cells.

About MADzyme

MADzymes are a family of novel CRISPR nucleases that have improved features such as:

- Different PAM recognition sequences
- Different cut efficiencies
- Reduced sizes and
- Different enzyme kinetics than other CRISPR nucleases.



:Source: https://www.inscripta.com/madzymes/mammalian/

About CRISPR

➢CRISPR Therapeutics, Intellia Therapeutics and Caribou Biosciences Announce Grant of U.S. Patent for CRISPR/Cas9 Genome Editing

➢**About Intellia Therapeutics**

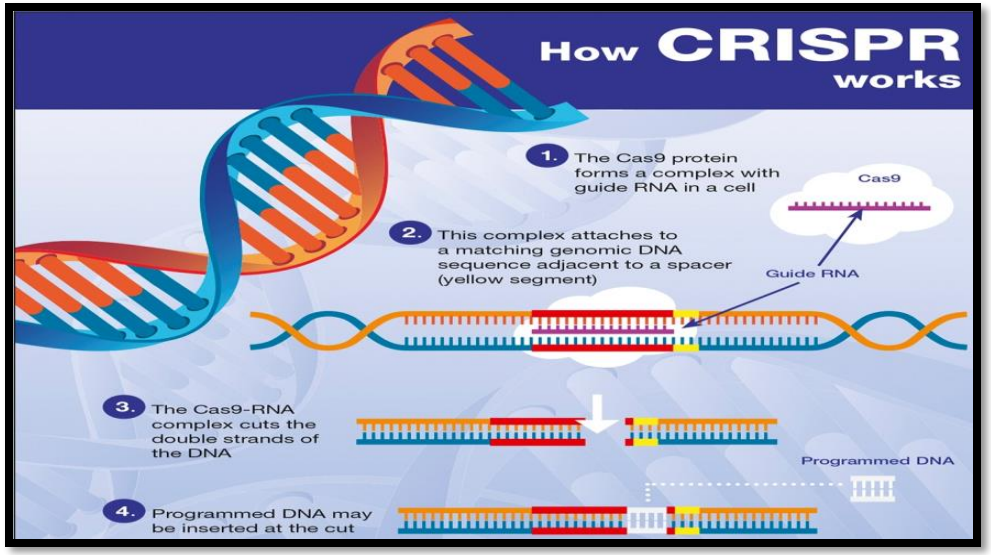
Intellia Therapeutics is a leading genome editing company focused on developing proprietary, curative therapeutics using the CRISPR/Cas9 system. Intellia believes the CRISPR/Cas9 technology has the potential to transform medicine by permanently editing disease-associated genes in the human body with a single treatment course, and through improved cell therapies that can treat cancer and immunological diseases by replacing patients' diseased cells.

➢ **About Caribou Biosciences, Inc.** C

Caribou's tools and technologies provide transformative capabilities to therapeutic development, agricultural biotechnology, industrial biotechnology, and basic and applied biological research.

"**CRISPR**" stands for **C**lustered **R**egularly **I**nterspaced **S**hort **P**alindromic Repeats, which are the hallmark of a bacterial defense system that forms the basis for**CRISPR**-Cas9 genome editing technology.

➢**What is Crispr technology? CRISPR technology** is a simple yet powerful tool for editing genomes. It allows researchers to easily alter DNA sequences and modify gene function. The protein Cas9 is an enzyme that acts like a pair of molecular scissors, capable of cutting strands of DNA.



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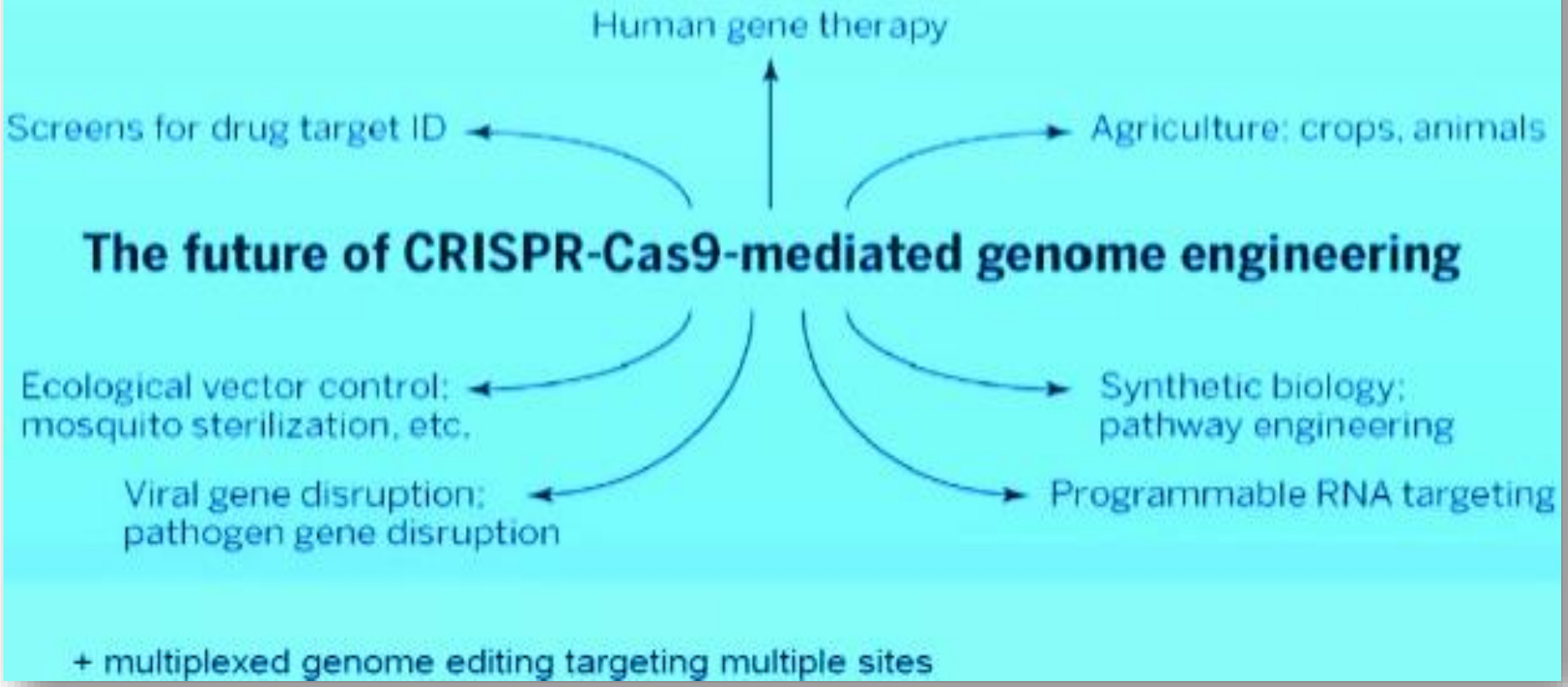
The future of CRISPR/Cas9



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