

# Merck's 23 CRISPR Patents

## Leading the way in genome-editing technology

### CRISPR Integration:

CRISPR/Cas9 System for insertion in eukaryotic cells

Compositions and use of CRISPR/Cas9 to integrate a new sequence of DNA after cutting genomic DNA

#### Patents Received

● 2017 ○ 2018 ▲ 2019

#### Patents Pending

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### CRISPR-chrom:

Improves access to the genome so that CRISPR-driven edits can be done more efficiently

Fuses chromatin-modulating peptides to the CRISPR/Cas9 protein (the DNA scissors of CRISPR), thereby increasing access to the genome

#### Patents Received

■ 2020

### proxy-CRISPR:

New genome-editing technique that makes CRISPR more efficient, flexible and specific

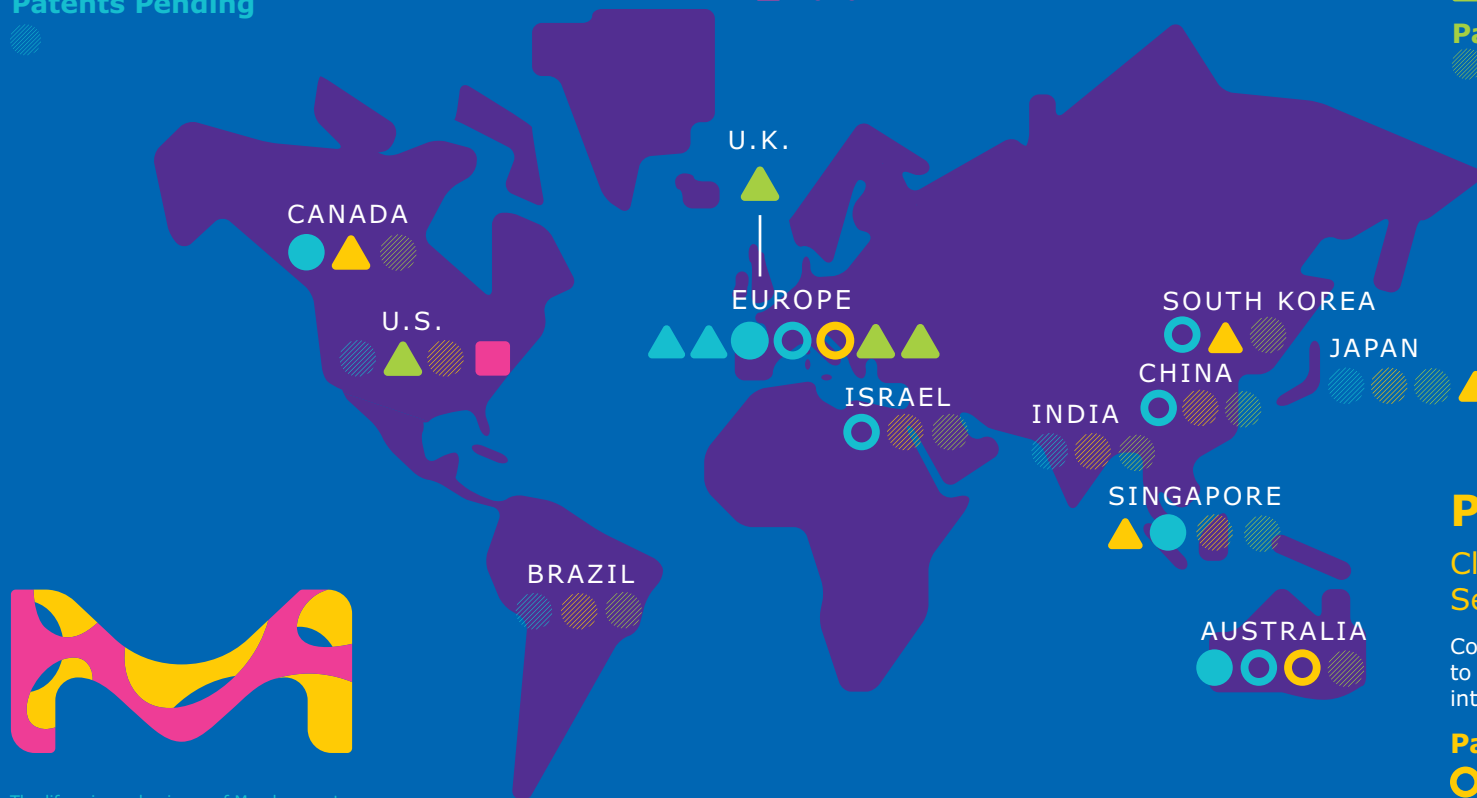
Opens up the genome for modification of DNA, providing more experimental options, faster results

#### Patents Received

▲ 2019

#### Patents Pending

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The life science business of Merck operates as MilliporeSigma in the U.S. and Canada.

### Paired Nickase:

Cleavage of Chromosomal Sequences using Dual Nickases

Compositions and use of two Cas9 nickases to cut genomic DNA, optionally followed by integration of new DNA sequence

#### Patents Received

○ 2018 ▲ 2019

#### Patents Pending

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