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# Merck gets second U.S. Patent for CRISPR Gene-Editing Technology

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**CRISPR-chrom technology improves access to genome for more efficient editing**

Merck, a leading science and technology company has announced that the United States Patent and Trademark Office has granted the company's patent for CRISPR-chrom technology. With this allowance, Merck is the only provider with a patent covering the fusion of chromatin modulating peptides to CRISPR proteins, helping to clear chromatin out of the way, increasing access to the genome.

Udit Batra, member of the Merck Executive Board and CEO, Life Science said, "This award marks our second U.S. CRISPR patent and our 23rd CRISPR-related patent worldwide, and as a leading innovator of CRISPR technology, we will continue to drive innovation and collaborate with scientists around the world to ensure that they have the most advanced gene-editing options."

Because genomic DNA in mammalian cells is wrapped tightly in protein complexes called chromatin, the genomic DNA is often inaccessible to CRISPR. Merck's CRISPR-chrom technology works by fusing chromatin modulating peptides to a CRISPR protein, Cas9 (i.e., CRISPR's DNA scissors), allowing for more efficient gene editing.

The Life Science business of Merck, a leader in genome editing, conducts research and development to drive improvements in gene-editing technologies.

The company's CRISPR patent portfolio includes granted patents for CRISPR-related technologies covering foundational and alternative genome-editing methods. Patents for the company's CRISPR integration technology have been granted in Australia, Canada, China, Europe, Israel, Singapore and South Korea. Patents granted in Europe and pending elsewhere cover plasmid or viral vectors encoding CRISPR systems, which are necessary to perform genome modification in eukaryotic cells. Other European patents and pending applications are for protein-RNA nickase compositions.

Merck received its first U.S. patent in February 2019 for its proxy-CRISPR technology, which makes CRISPR more efficient, flexible and specific. The company has successfully out-licensed its CRISPR patent portfolio and continues to license its entire CRISPR patent portfolio for all fields of use.