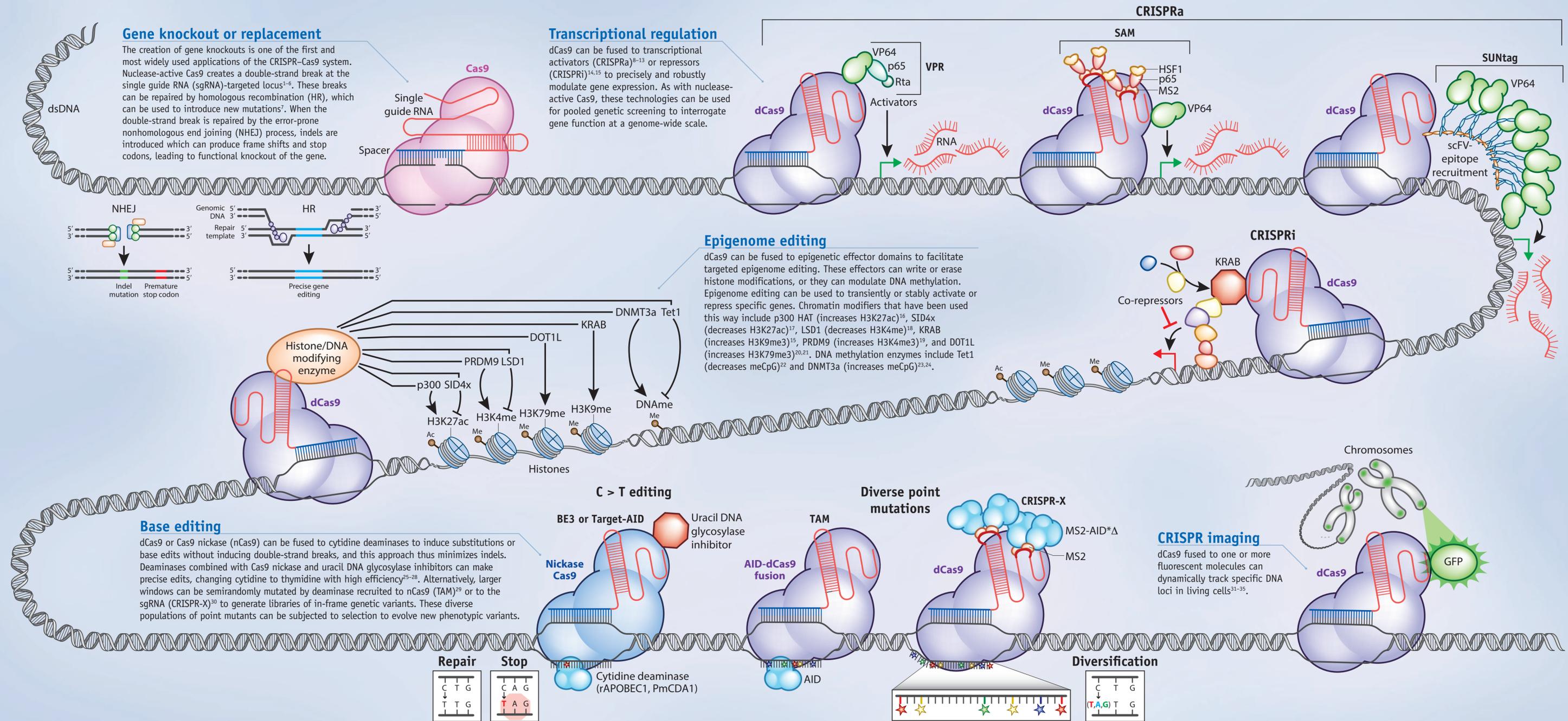


The CRISPR-Cas9 genome-editing system has taken the world of biomedical science by storm. Initially, researchers used nuclease-active CRISPR-Cas9 to knock out or replace genes through either disruptive or precise genome edits. The CRISPR toolbox expanded with the development of nuclease-inactive dCas9, which recruits protein effectors that modulate

gene expression, often by writing or removing epigenetic marks on DNA and histones. Most recently, base editors have increased the efficiency of CRISPR-targeted base substitutions for both precision editing and localized sequence diversification. This expanding toolbox has enabled site-specific genetic and epigenetic manipulation in a wide array of organisms.



Sponsor's message — Dharmacon
Dharmacon revolutionized the field of RNA synthesis in 1995 with the introduction of 2'-ACE synthesis chemistry and has been supporting the RNA and gene modulation research community for over 20 years. Dharmacon was an early participant in the RNA interference field and published key scientific contributions to the biological mechanism and research tool design and established market leadership with our siRNA platform. The acquisition of Open Biosystems strengthened our RNAi portfolio with genome-wide vector-based shRNA and overexpression research tools. Today, our gene modulation research tools have expanded to include CRISPR-Cas9 gene editing reagents. We launched the very first synthetic CRISPR-Cas9 guide RNAs, and now offer one of the most comprehensive CRISPR gene editing portfolios in the industry, including the first arrayed synthetic CRISPR RNA whole human genome library. Our gene editing products include pre-designed genome-wide lentiviral and synthetic guide RNA reagents designed by a validated algorithm, Cas9 nucleases, and design tools & kits for homology-directed repair. We have a well-established history of supporting the global genomics research community and we remain focused on the development and support of innovative, effective tools for the greater research community.
Contact details: Dharmacon, 2650 Crescent Drive, Suite 100, Lafayette, CO 80026, USA. www.dharmacon.com

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