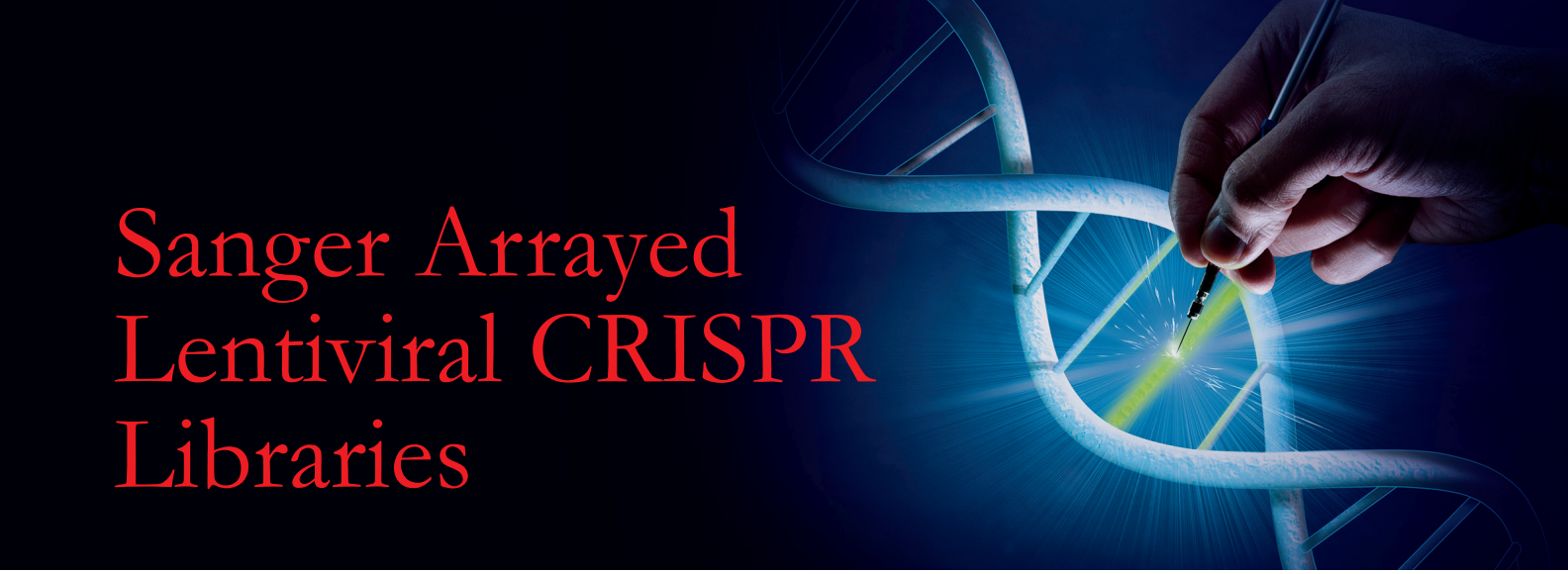

Sanger Arrayed Lentiviral CRISPR Libraries

The Next Generation of Screening Tools has Arrived

Two leaders in genome editing, Sigma-Aldrich® and the Wellcome Trust Sanger Institute, have joined forces to make the first ever arrayed lentiviral CRISPR knockout libraries. Based upon validated techniques published in the literature, the Sanger CRISPR libraries will put your lab at the forefront of the race to make the next big discovery.

Content

- 2 knockout clones for every **human** protein-coding gene
- Around 38,000 clones per species library

gRNA Design

- Sanger clones maximize gene knockout by targeting the first half of the protein coding region while avoiding the first 90 bp
- Genomic target sequences are chosen from highly conserved regions to ensure they work in multiple cell lines by avoiding SNPs
- Stringent design rules are used to reduce or eliminate the potential for off-targeting

Vector

- A lentiviral vector that expresses gRNA from the human U6 promoter
- Puromycin resistance and blue fluorescence (BFP) selection markers driven from the human PGK promoter
- Flip the expression components into and out of the genome using transposase

Additional Features

- Better, not bigger: two optimized clones per gene reduces the time, cost, and scale of screening experiments
- Ready-to-screen: clones are arrayed in a robotics-friendly 96-well format for high throughput screening
- Sigma-Aldrich and the Sanger Institute plan to validate this library over time and to make this information available to users