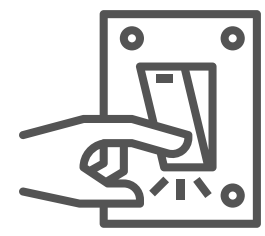
A LOOK INSIDE THE CRISPR TOOLBOX

CRISPR PROVIDES YOU WITH INCREASED PRECISION AND CONTROL OVER YOUR REGION OF INTEREST. UTILIZING CRISPR YOU CAN...

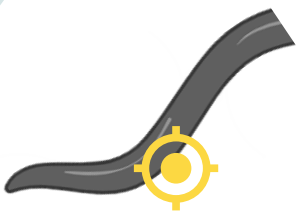


TURN IT ON/OFF/ON/OFF

Heat-shock promoters allow **YOU** to **CONTROL** gene expression through external temperature changes. Cre-recombinase can be placed behind one of these promoters, for **ACTIVATION** to occur only when the organism is subjected to heat.

GET THE TIMING RIGHT

Introduction of promoters allows **YOU** to **CONTROL** when a gene region is expressed. This is appealing for allele floxing in which Cre-recombinase can cause a time-specific or developmental-stage **DELETION** event.



CHOOSE THE TISSUE TYPE

Site-specific promoters can be inserted to only activate genes within a specified cell or tisuse type.This means **YOU CONTROL WHERE** expression of the gene occurs.

LIGHT IT UP

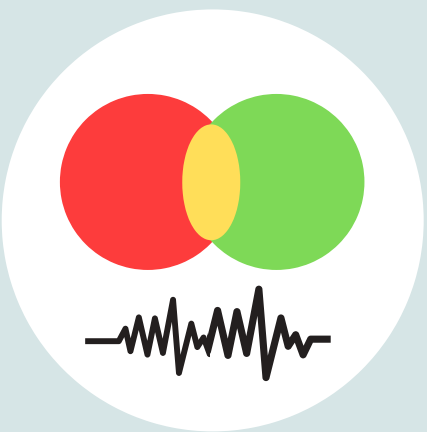
Fluorescent tags are often thought of as indicating **WHERE** a protein is expressed. However, fluorescence also uncovers **WHEN** a protein is assembled and **HOW MUCH** of the protein exists.

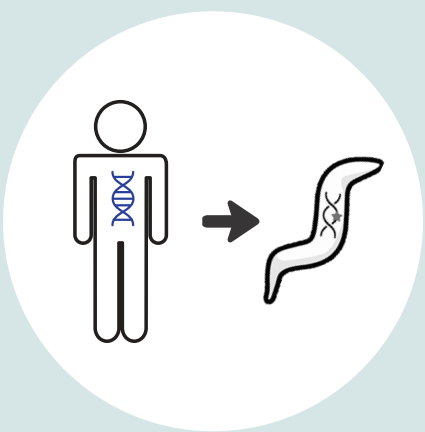
ADD IT ALL TOGETHER

Differentially-activated promoters and tags provide **YOU** with the **MOST CONTROL POSSIBLE**. These options allow control over **WHEN** expression occurs, or precisely **WHERE** modifications are made.

IDENTIFY INTERACTIONS

Different colored fluorescent tags can be used to tag separate genes, giving insights into **MULTIPLE PROTEINS** as well as **PROTEIN INTERACTIONS**.





HUMANIZE IT

Using the power of gene replacement, customized animal models can be created using genes from other organisms – even humans. This allows simple animal models to become a platform for **DISEASE DISCOVERY** and **COMPOUND SCREENING**.