

## HD



HD

Mr. Shawn Minnig 2016 11 07  
 Dr Jeff Carroll ; Xi Cao  
 2016 10 31

*zinc finger nucleases*

*CRISPR/Cas9*

ASOs

ASO

**CRISPR**

DNA

DNA

DNA

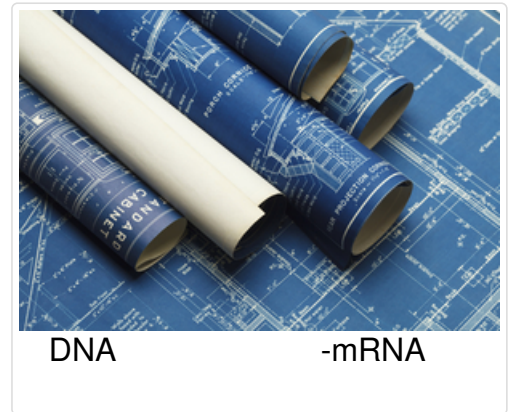
-

DNA

HD

...

DNA



DNA

-mRNA

**RNA mRNA DNA**

DNA

mRNA

DNA -> mRNA ->

**ASO**

**CRISPR**

**ASO CRISP**

DNA HD

mRNA HD

ASO  
mRNA

ASO

mRNA DNA

ASO

mRNA

ASO  
mRNA

ASO  
ASO

“ ”

HD DNA HD

DNA

ASO

**CRISPR/Cas9**

HD

DNA

DNA

HD

HD

mRNA

ASO ASO

mRNA

CRISPR/Cas9                      CRISPR/Cas9                      DNA                      DNA  
CRISPR                      DNA                      CRISPR                      DNA                      CRISPR                      HD                      HD  
mRNA

ASO    ASOS  
CRISPR    “  
DNA    ”  
HD    ”  
HDbuzz  
Mark Isalan    AAV  
Isalan    HD  
HD

## CRISPR HD

CRISPR  
CRISPR HD                      Jong Min Lee                      CRISPR                      HD                      CRISPR  
HD                      HD  
CRISPR                      CRISPR                      –                      1000                      HD  
CRISPR                      DNA                      ASO ASO                      ASO  
HD                      HD                      HD  
CRISPR  
HD    CRISPR  
HD  
—Sangamo                      Shire                      HD

---

HDBuzz2011-2018. HDBuzz

HDBuzz [hdbuzz.net](http://hdbuzz.net)

2018 1 20 — <https://zh.hdbuzz.net/228>