



The targeted mutation is integrated

## **APPLICATIONS**

## 1. Research and medicine

- disease models
- basic research and knowledge gains
- gene therapy for hereditary diseases, infectious diseases and cancer

## 2. Biotechnology

- seeds
- livestock
- gene drive against malaria mosquitoes (defective genes are rapidly spread through the population by the gene drive system)

## 3. Designer organisms

Adaptation of human embryos, sperm and eggs against genetic disorders – can babies be designed with the desired characteristics in the future? Can scientific amateurs also use the procedure to design organisms on a whim?

