



Targeted Genome Editing Using Zinc Finger Nucleases Workshop

Date: July 27-29, 2010

Location: Institute of Medical Biology, Singapore

Module I: Technology, Design and Delivery

Introduction to ZFN Technology

Genome Editing

Delivery

- Overview of Nucleofection
- Lab Practical: Nucleofection Module

Module II: Targeted Genome Editing

Double-strand Break Repair

- Lab Practical: CEL-I Assay
- Quantifying CEL-I Cleavage Activity

Gene Insertion and Tagging

- Donor Plasmid Design
- Lab Practical: Junction PCR
- Lab Practical: RFLP Assay

Module III: Validation and Characterization

Dilution Cloning and Genotyping

Troubleshooting

Module IV: Applications

Therapeutic Applications

Creation of Transgenic Animals