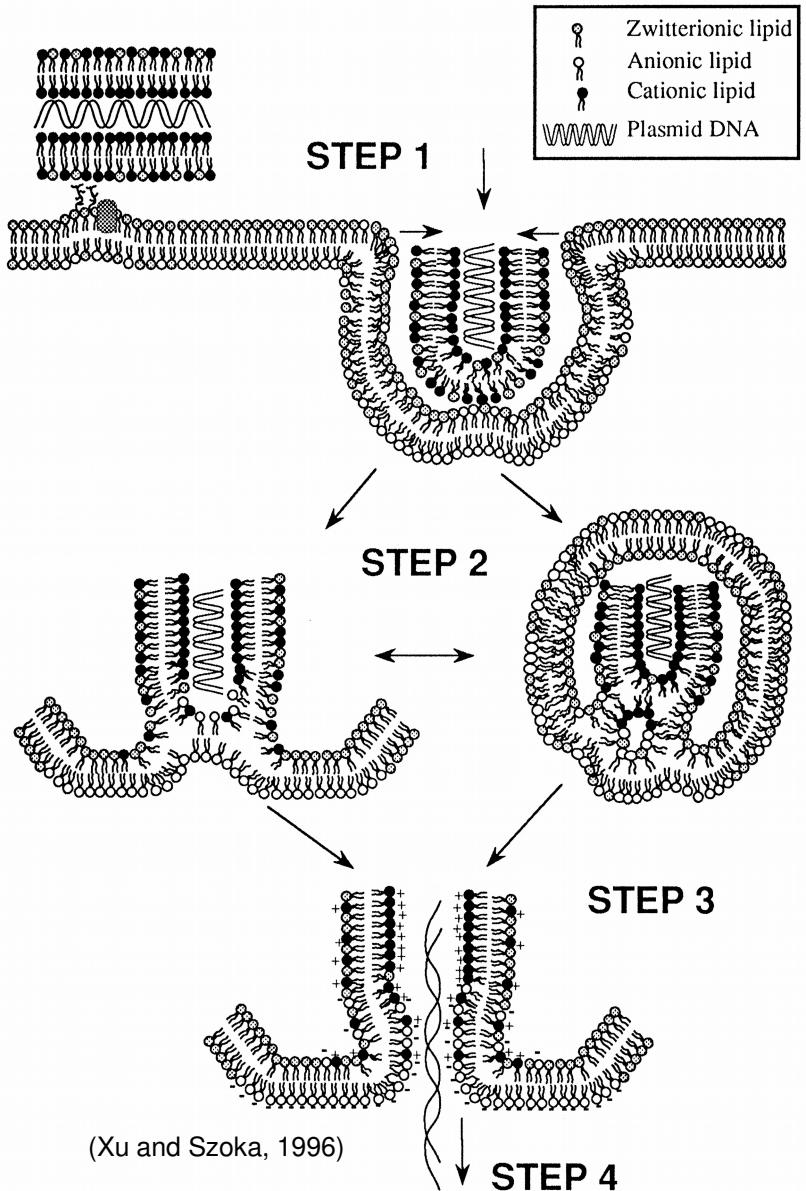


Exp5: Cell Transfection

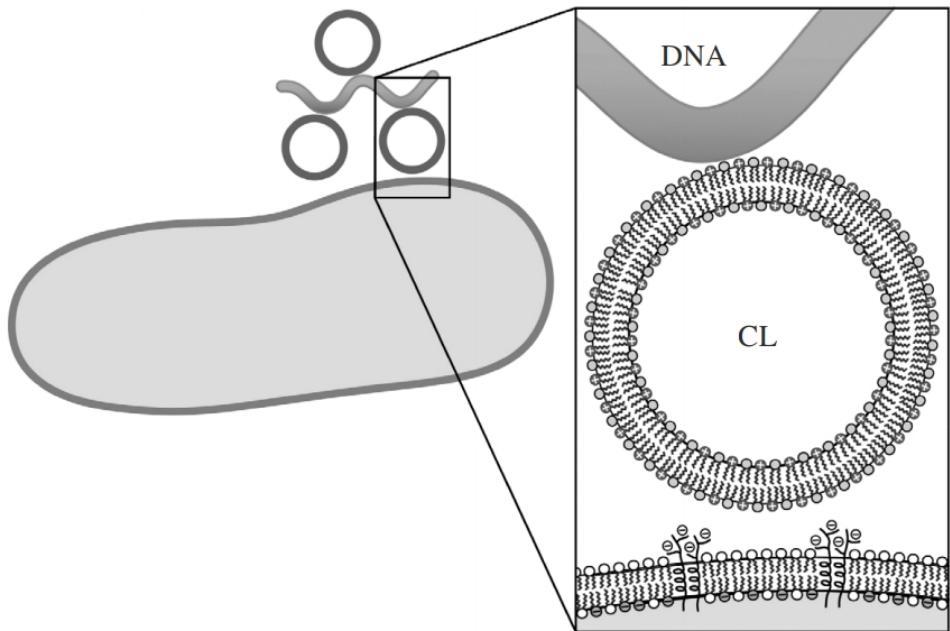
Transfer DsRed and EGFP to CHO-K1 cell

11510511 Yuejian Mo

11612218 Wenhao Zhang

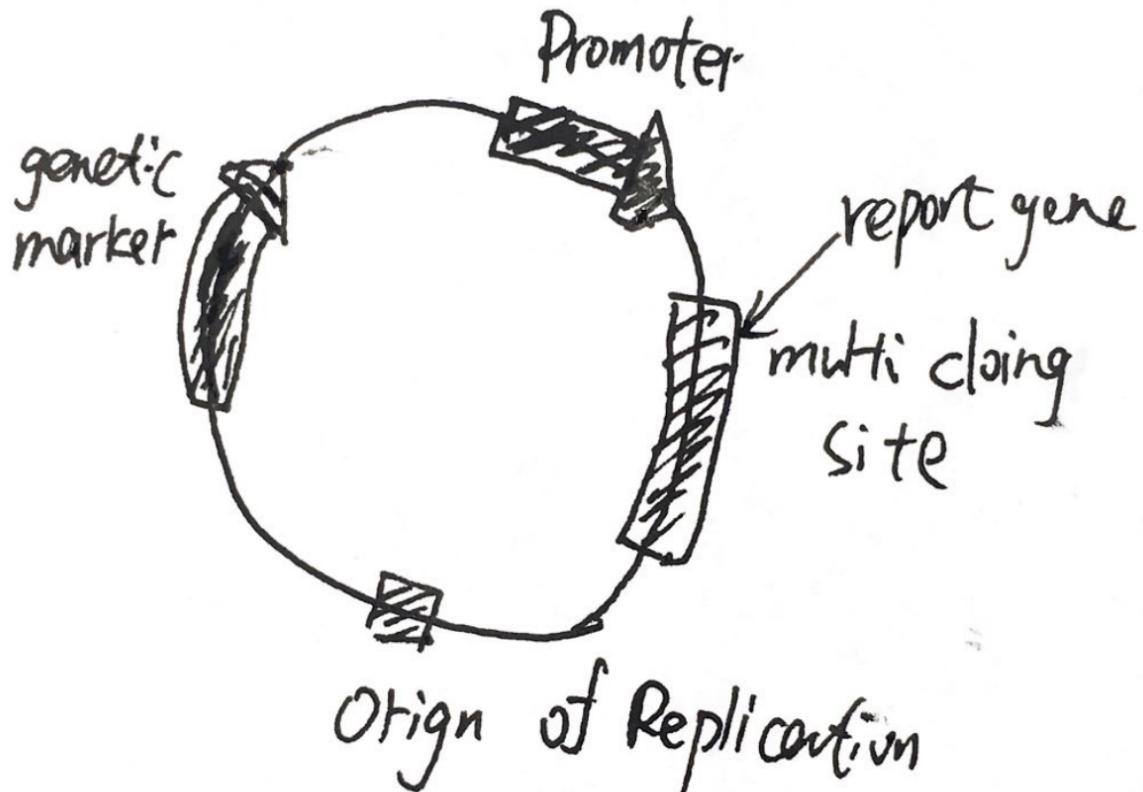


Principle: Cationic Liposome



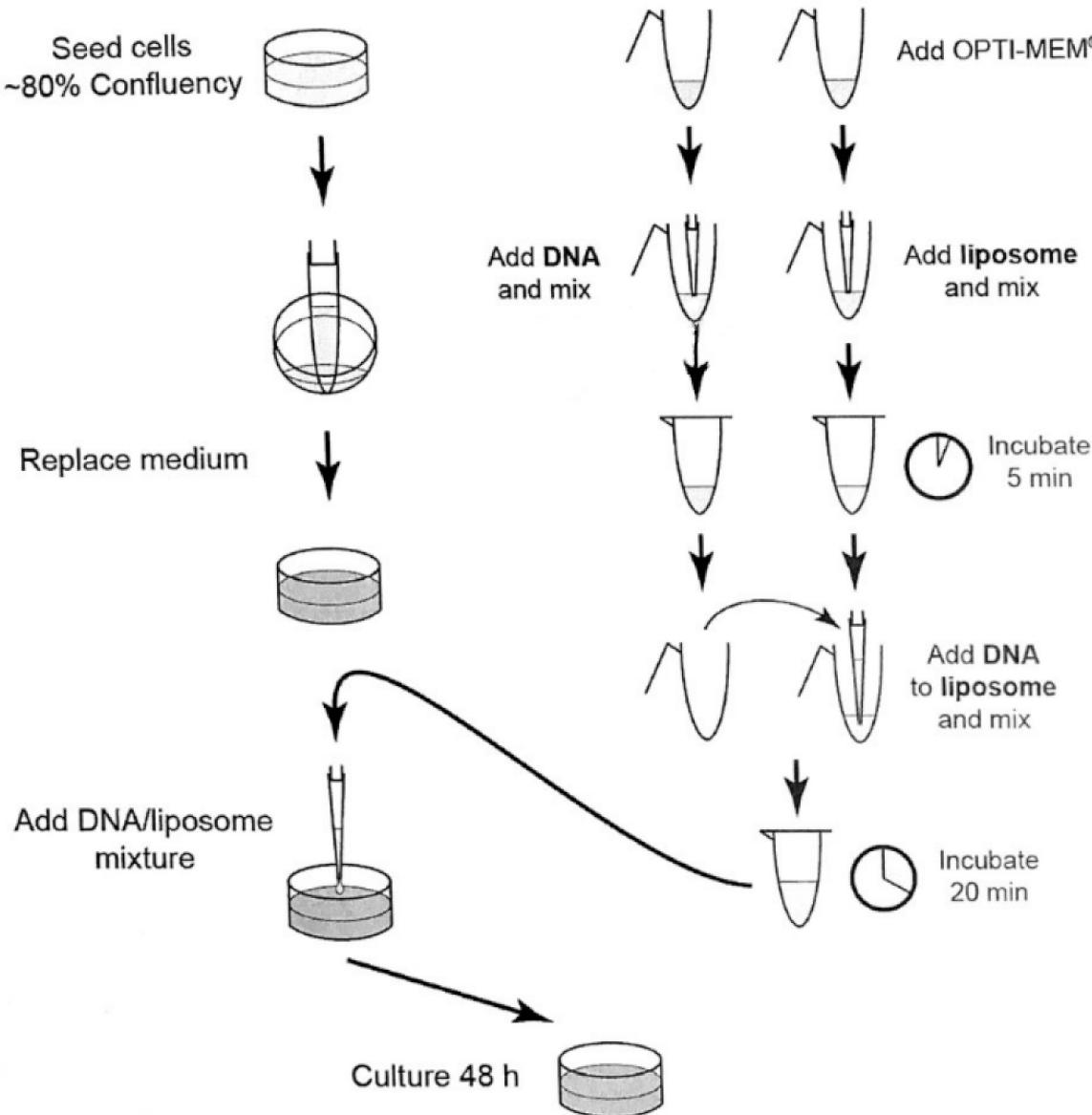
(Safinya et al., 2006)

Principle: Vector Design



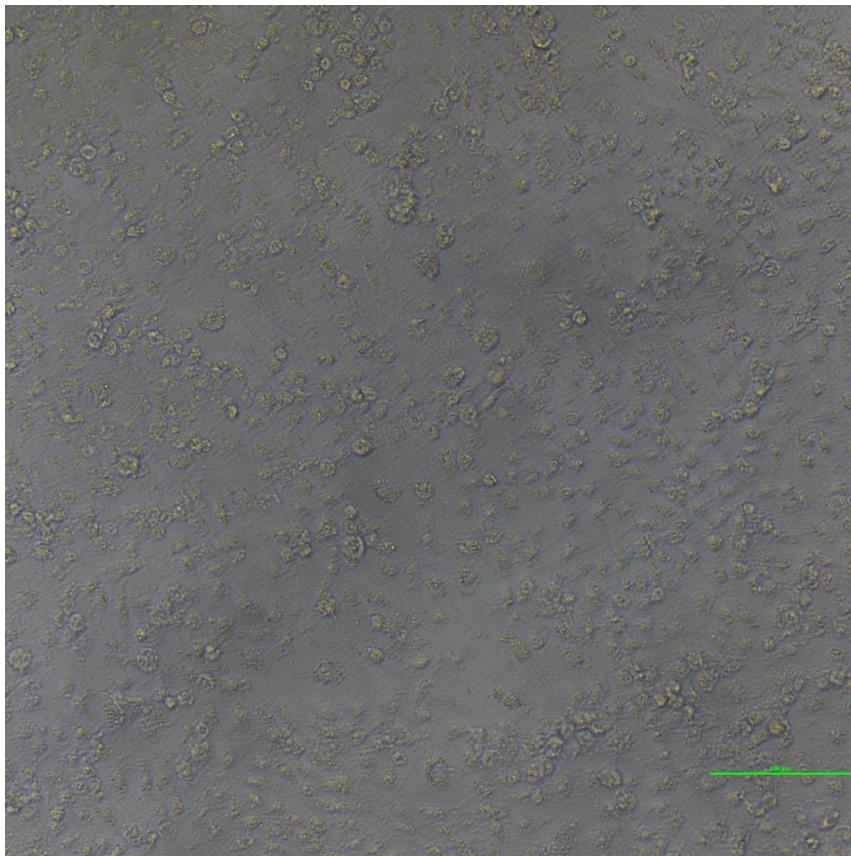
- Reporter Gene vs Marker
- Fluorescence Protein
- Nuclear Localization Signal or Sequence (NLS)

Procedures

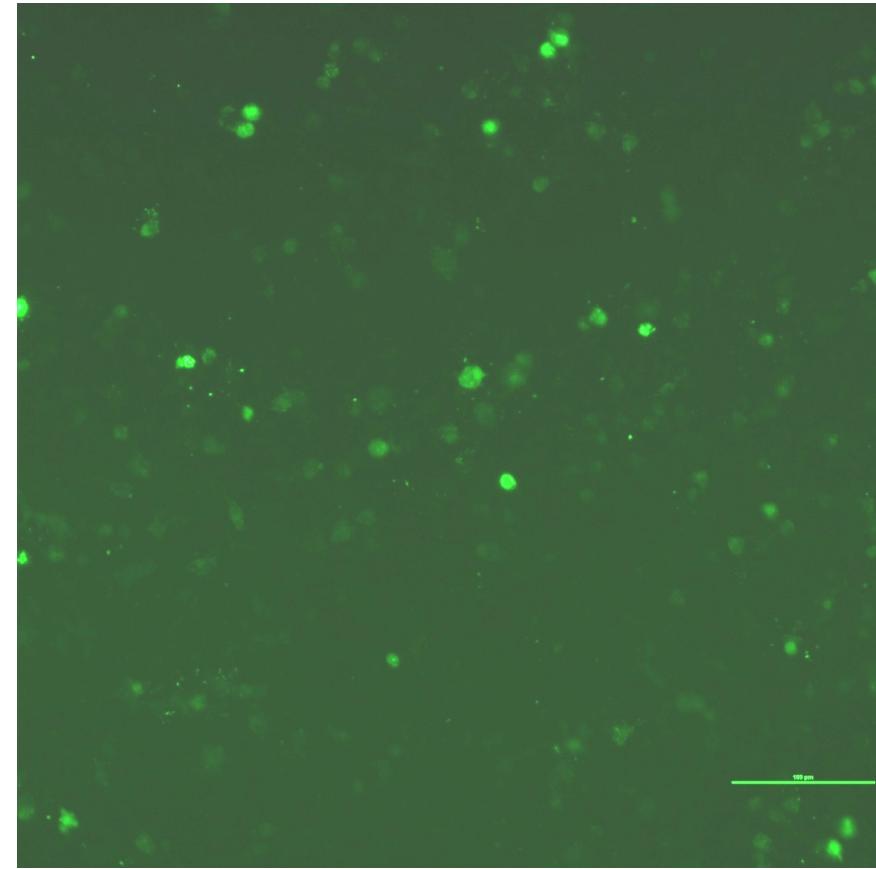


| pDsRed-2-Nuc | pEGFP-Actin | Double Transfection |
|--------------|-------------|---------------------|
| 0.25μl | 0.25μl | 0.125μl+0.125μl |
| 0.5μl | 0.5μl | 0.25μl + 0.25μl |

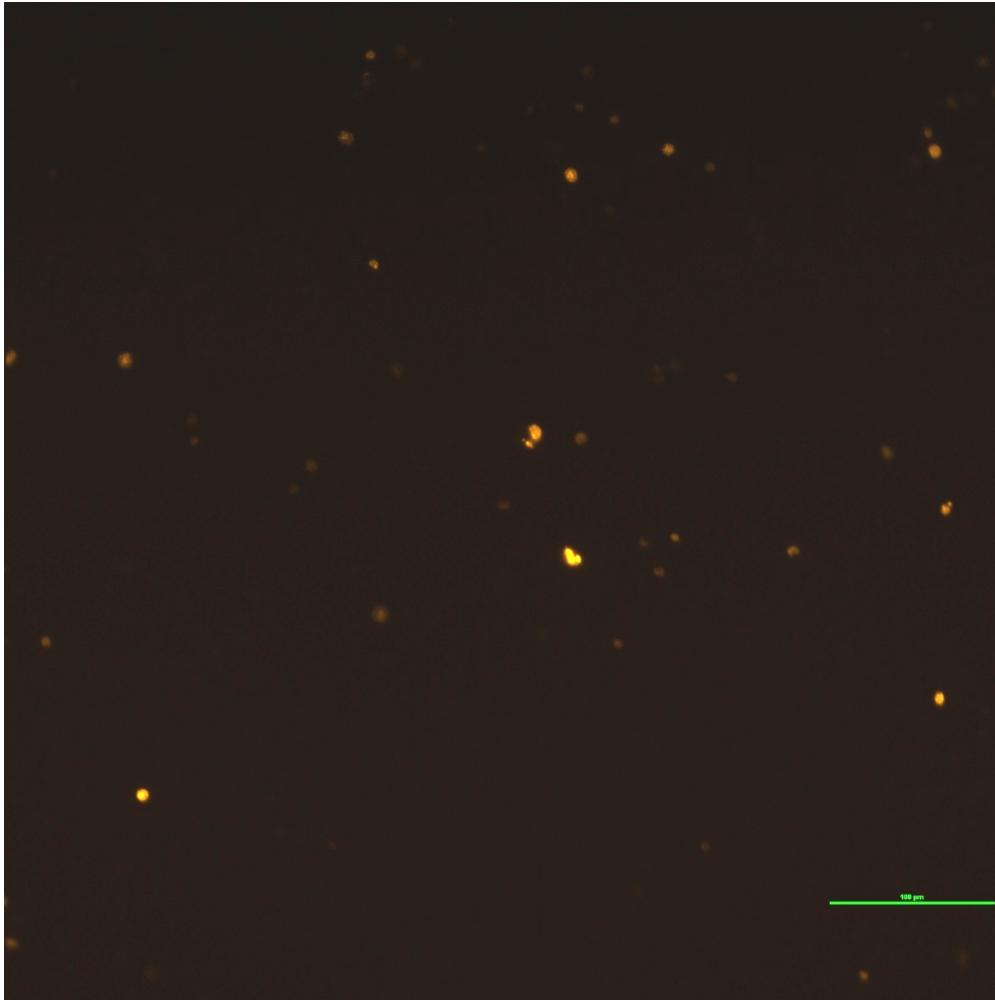
Result: Cotransfection CHOK1



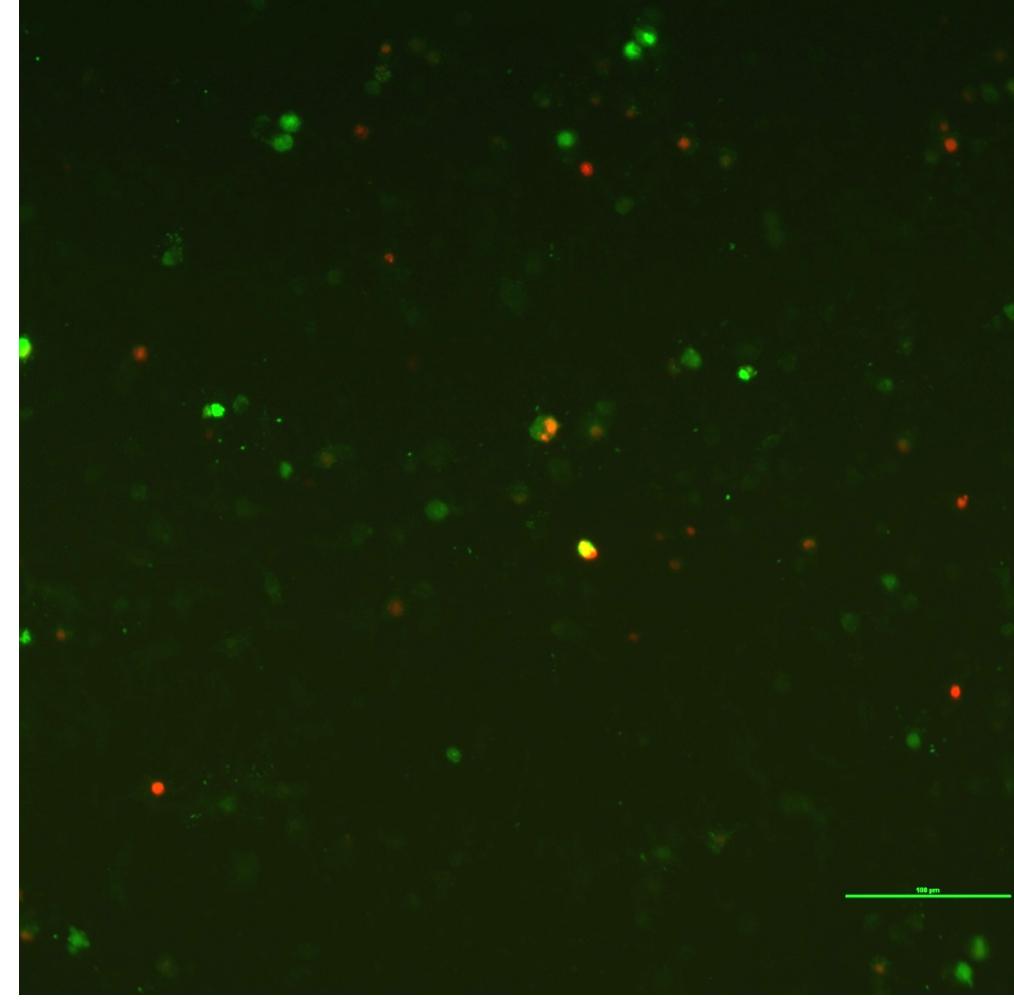
BF(Scale Bar 100micron)



Green Fluorescence



Red Fluorescence



Merged Green and Red Fluorescence

Notice

- Incubate mixture for 20 min
- Add mixture drop by drop
- Mix well

Efficiency factors

- Cell condition
- DNA quality
- Avoid serum and antibiotics
- Time exposed to transfection reagent

Other methods

- Stable transfection
- Viral transduction