In vivo optical imaging for comprehensive understandings of physio-pathology

**Basic Principle**

- Luciferase Reconstitution -

A bioluminescent probe for Caspase-3 activity
- distorted circular luciferase for caspase-3 activity imaging -

An optical probe for deeper lesions in living body

A antigen-dependent optical probe

Basic Principle

- Luciferase Reconstitution -

**An optical probe for deeper lesions in living body**

Luciferase inactive

Luciferase (circular, closed)

Luciferase active

Luciferase (open)

A bioluminescent probe for Caspase-3 activity
- distorted circular luciferase for caspase-3 activity imaging -

Antigen

Antibody A

SNAP tag BG

Antibody B

SNAP tag BG

Luciferase reconstitution and activation

Caspase cleavage site (DEVD)

Luciferase

(circular, closed)