

Theme :

Molecular mechanisms of gamete recognition in Ascidian

Purpose :

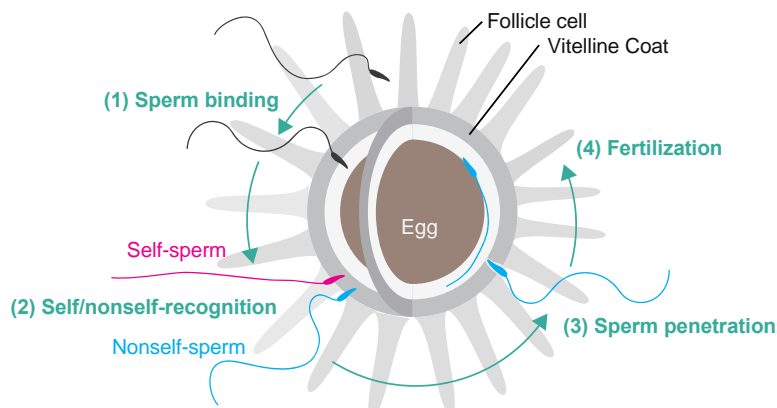
- (1) Study of self/nonself-recognition mechanism between the egg and sperm
- (2) Investigation into the molecular mechanisms of fertilization
- (3) Application of genome editing technology

Achievement:

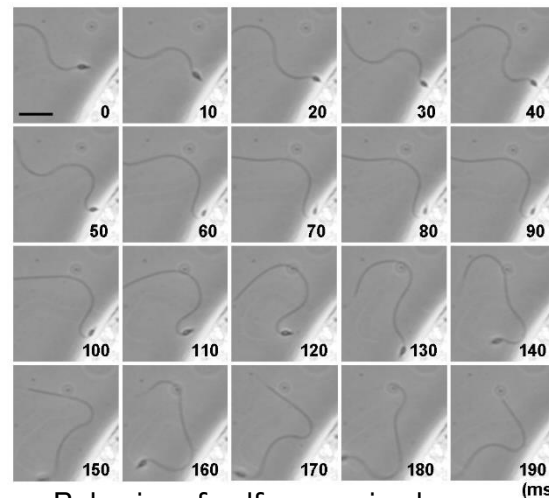
- (1) Novel findings of self and nonself-recognition
- (2) Discovery of universal mechanisms of fertilization and cell-cell recognition
- (3) Generalization and application of genome editing technology for marine organisms



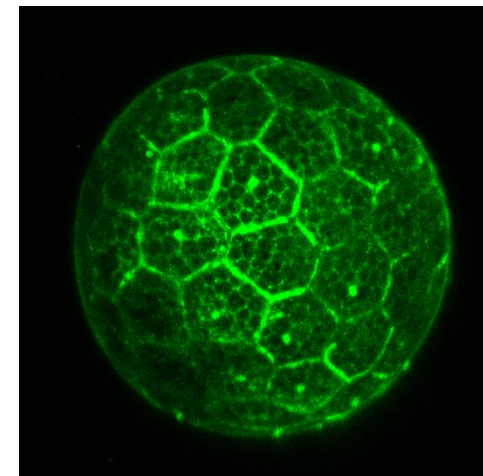
Ciona Intestinalis TypeA



Fertilization of ascidian



Behavior of self-recognized sperm



Sperm receptor on the vitelline coat