

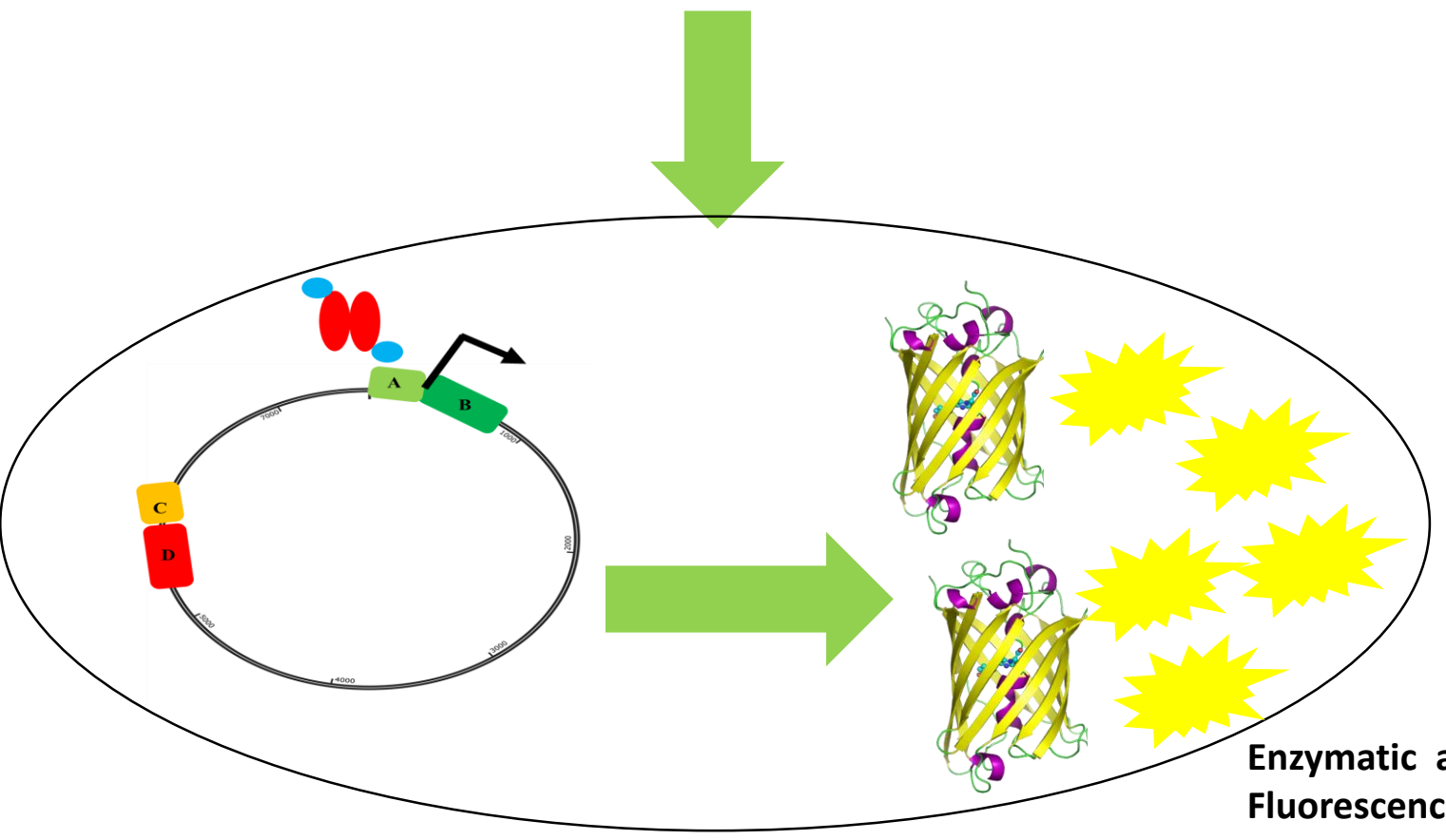
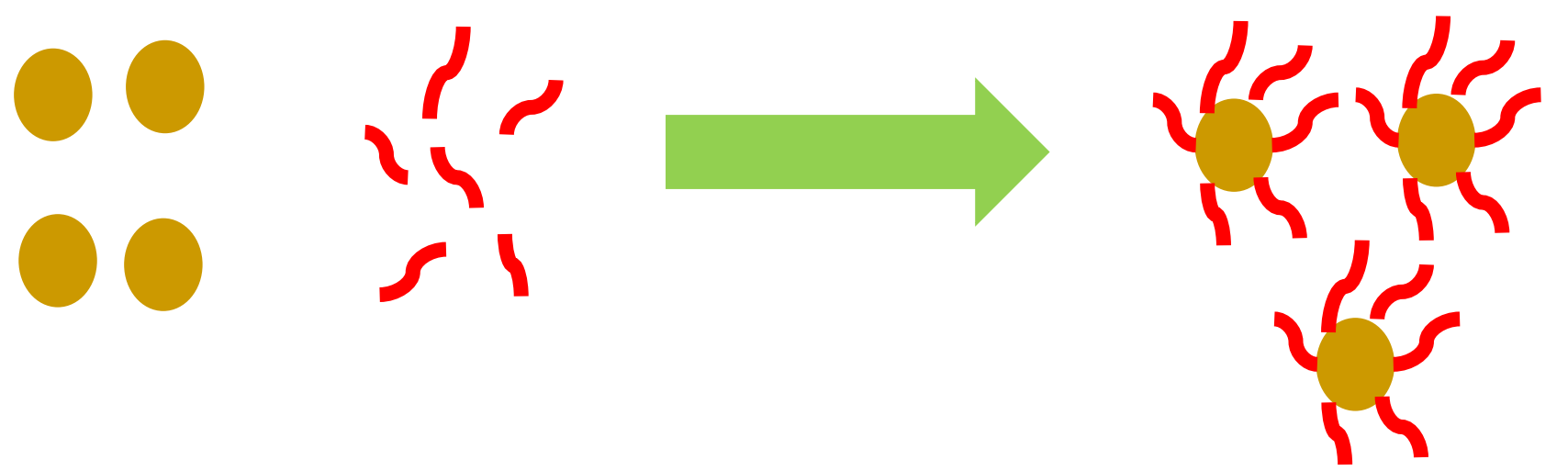
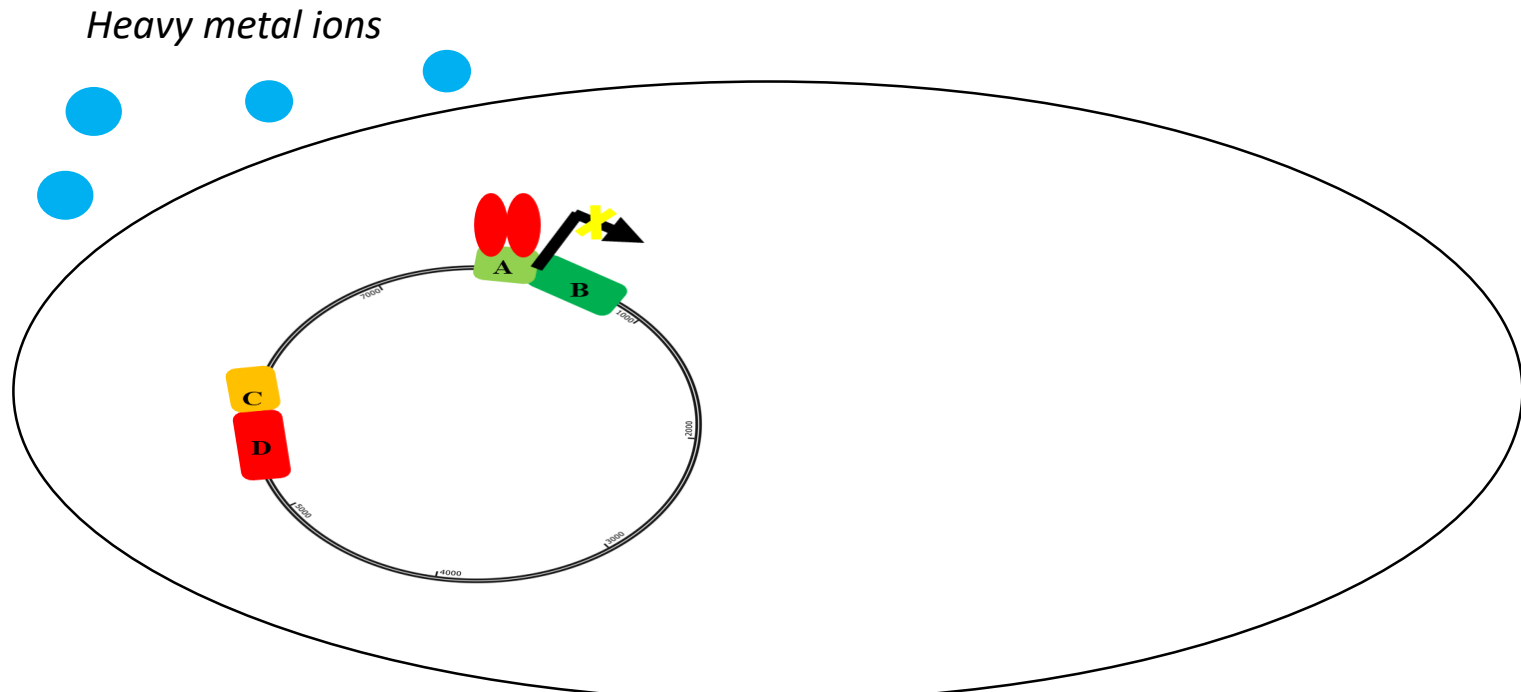


Development of biosensors for monitoring of environmental pollutants.

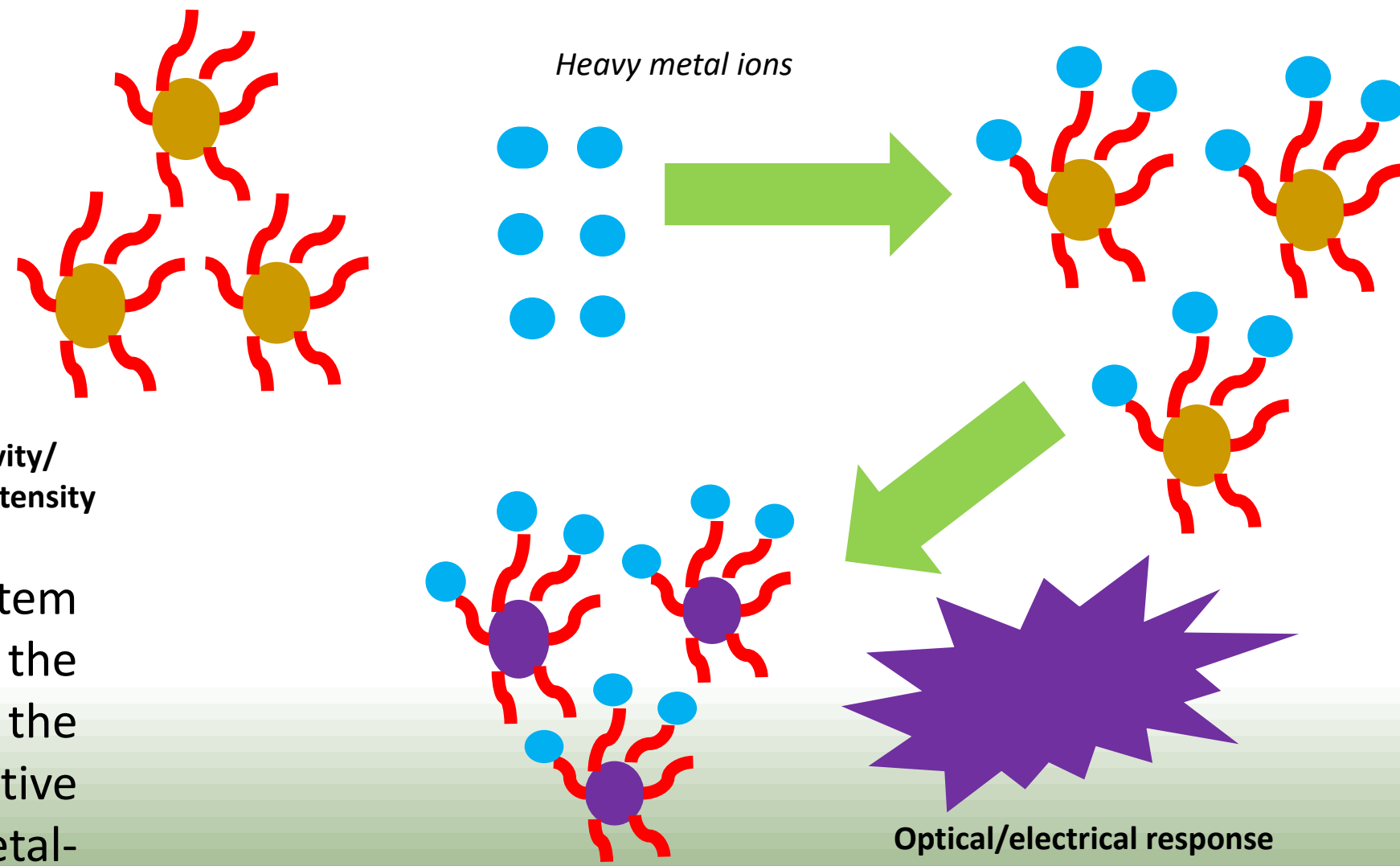


Whole-cell biosensors

Protein based biosensors



The metal sensor protein can be immobilized on different nanomaterials, and when it captures the metals, the signal can be transduced into an optical or electrical response.



The metals enter into the cells and activate a reporter system made of a metal responsive promoter (A), that controls the expression of a reporter gene (B). The system also expresses the gene for the metal sensor protein (D) under a constitutive promoter (C), in order to produce suitable amounts of metal-sensor protein.