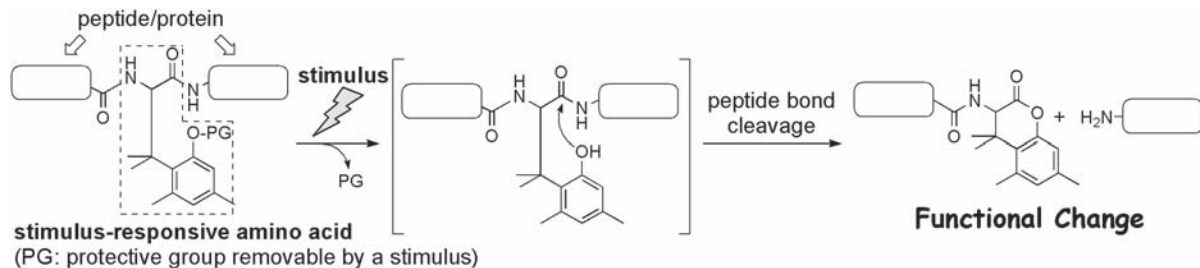


S36-2 Development of a stimulus-responsive amino acid and its application for controlling a function of a peptide

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Methodology to control a function of intracellular peptides/proteins by an extracellular stimulus has received increased attention due to its potential in various fields such as chemical biology and drug delivery. We recently reported a synthesis of a stimulus-responsive amino acid, which induces a peptide bond cleavage after exposure to a stimulus, and its application for controlling an intracellular distribution of the synthetic peptide by using UV irradiation. In this presentation, details of the development of the stimulus-responsive amino acid and its application for controlling the peptidyl function will be discussed.



References: A. Shigenaga and A. Otaka et al. *ChemBioChem* **2007**, 8, 1929-1931. A. Shigenaga and A. Otaka et al. *Tetrahedron* **2009**, 65, 2212-2216.