



Seminar Announcement

Superglues from Nature

Date: 21 February 2020
Time: 4 p.m.
Venue: Classroom 1, SBS

Over the past 25 years, major advances are ligation chemistries to form peptide or non-peptide bonds between molecules. These advances are made possible by the development of novel chemical ligation methods and expansion of genetic codons as well as the discovery of inteins and peptide ligases. Of particular interest to our laboratory are the discoveries of plant-derived and stand-alone ligases, which do not require a cofactor such as ATP. These superglues from nature enable bonding, with exquisite selectivity between peptides, peptide-to-protein, and protein-to-protein, without protecting groups, activating agents and under aqueous conditions. Here, I will present our body of work on ligation chemistry to form new compounds under physiological conditions. In particular, I will discuss our work on the Asx-specific peptide ligases such as the butelases, which were discovered in NTU campus and which act as superglues for labeling proteins and live cells as well as precision biomanufacturing industrial enzymes and therapeutics under environmental friendly conditions.



Speaker:

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