

## Exploiting Molecular Conformation

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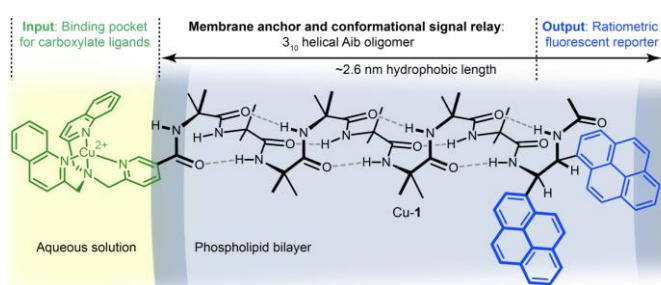
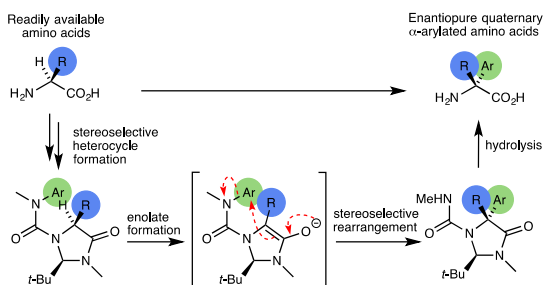
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### ABSTRACT

Nature uses ingenious mechanisms to solve challenges of molecular reactivity and molecular communication, many of them making use of exquisite control of molecular conformation. The lecture will explore the use of synthetic molecules with well defined conformations to solve problems in synthesis (for example, the transition-metal-free arylation and vinylation of enolates<sup>[1,2]</sup> or amines<sup>[3]</sup>, and the synthesis of medium rings<sup>[4,5]</sup>) and function (the design and construction of artificial membrane-bound receptors<sup>[6,7]</sup>).

### GRAPHICAL ABSTRACT

(a) Conformational control directs enolate arylation (b) Conformational control communicates information in a membrane



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