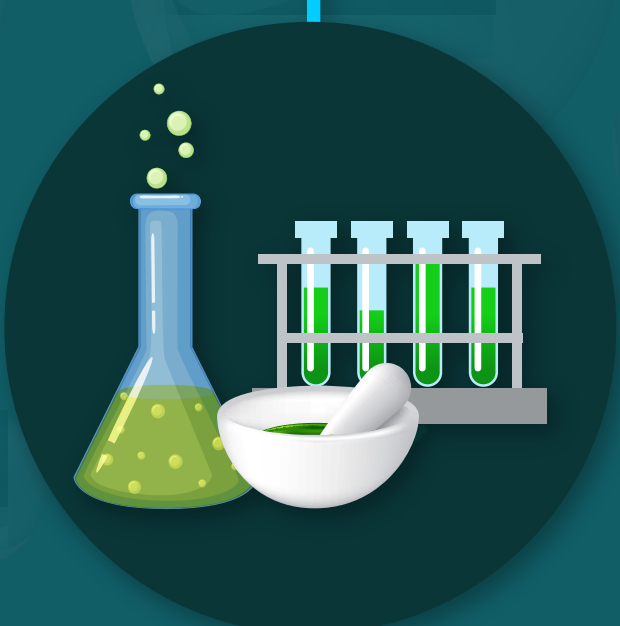
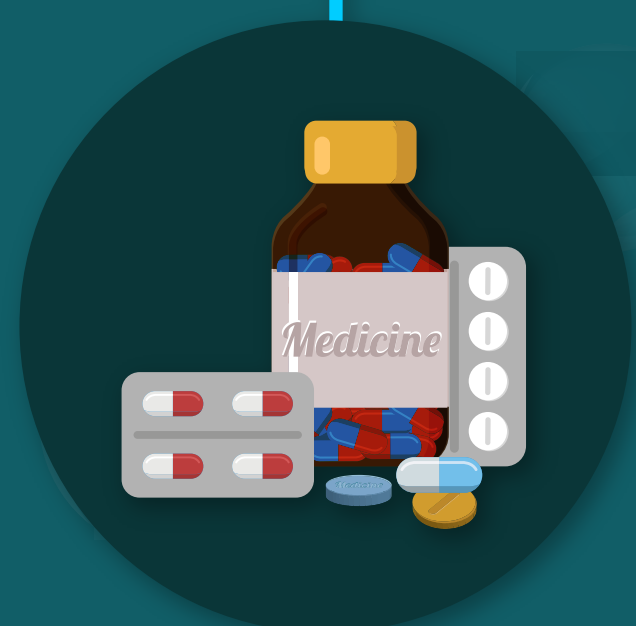
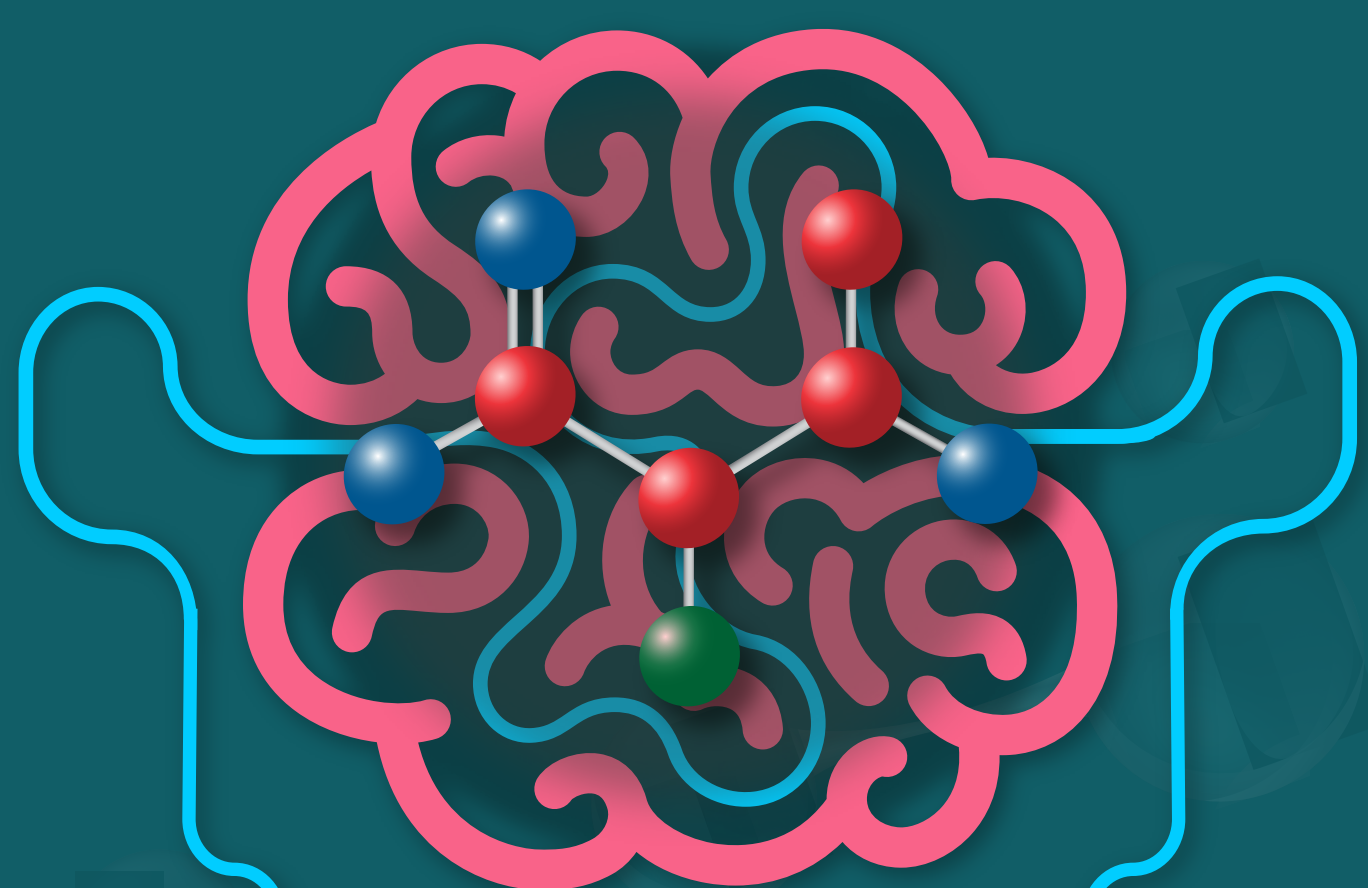


Elucidating the Chirality Memory of α -alkylidene- π -allyl Iridium Species

Chemical
Science

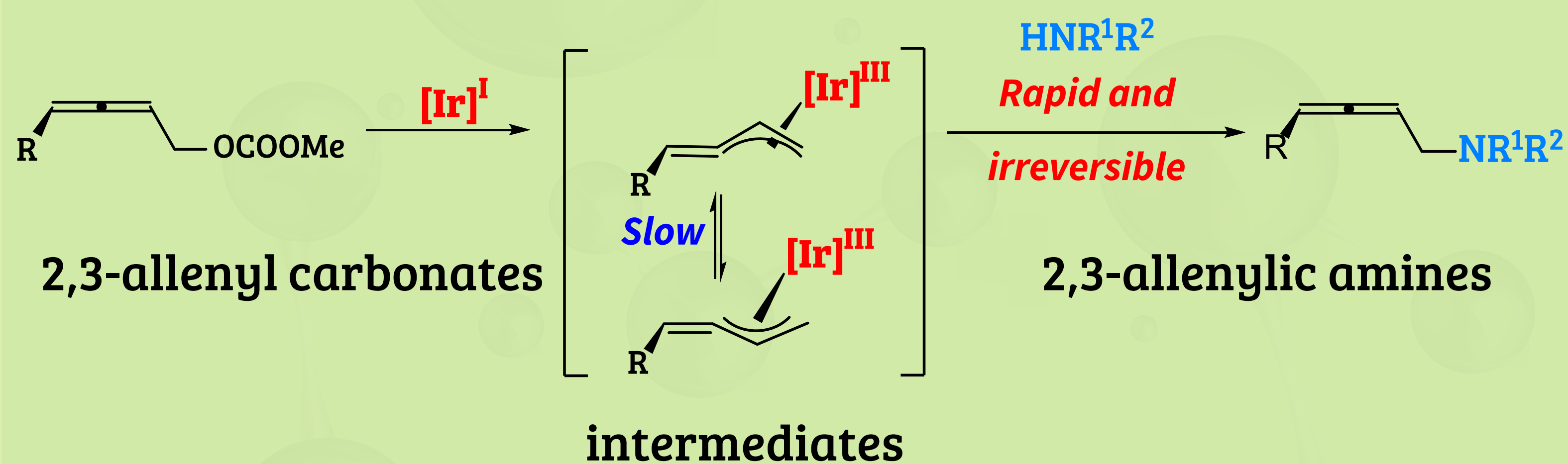


Organic molecules with chirality can be used to develop chiral drugs and derivatives of natural products



Memory of chirality (MOC) of 2,3-allenyl carbonates with chiral information stored across 3 carbons has not been explored yet

MOC of 2,3-allenyl carbonates realized through an optically active α -alkylidene- π -allyl iridium intermediate



Optical activity transferred

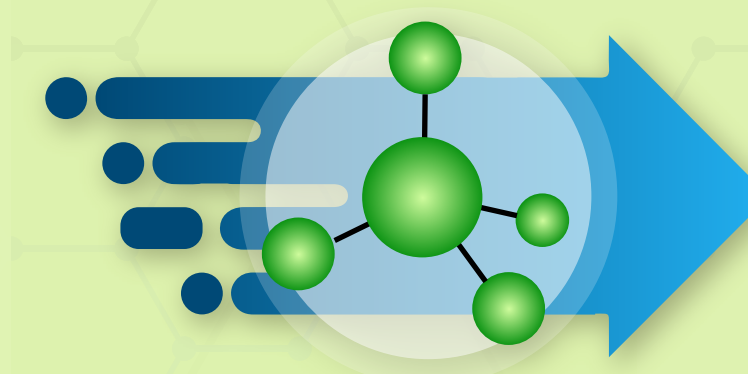
The reported mechanism



Shows compatibility with bulky and small substituents on amine/allenyl carbonate



Furnishes desired optically active product



Ensures high efficiency of chirality transfer

MOC involving α -alkylidene- π -allyl iridium species is recorded for the first time in a robust, stereoselective approach to asymmetric allene synthesis