The Art of Building Small

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Beyond the current frontiers of chemical sciences there is vast uncharted territory to control dynamic function based on molecular and supramolecular approaches. Taking inspiration from Nature’s design, the creative power of synthetic chemistry provides unlimited opportunities to realize our own molecular world as we experience every day with products ranging from pharmaceuticals to display materials. In the art of building small we explore the fascinating field of molecular nanoscience. Among the major challenges ahead in the design of complex artificial molecular systems is to realize dynamic functions and responsive far-from-equilibrium behaviour. A goal is to gain control over translational and rotary motion. The focus in this lecture is on my journey in the world of molecular switches and motors creating opportunities for future smart drugs, molecular machines or responsive materials.

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