“Aromatic Foldamers: medium sized molecules that can be engineered to recognize biological targets”

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Abstract: Research of new therapeutic agents has for long developed in the paradigm of small molecules that follow Lipinski’s rule of five. In parallel, an alternate paradigm has emerged in the last decade: that of protein drugs. The understanding that therapeutic agents may be small, or as large as proteins, naturally brings the possibility of using medium sized molecules in the 0.5 to 5 kDa range. This lecture will introduce aromatic foldamers, a novel class of synthetic folding oligomers, as medium sized molecules with predictable shapes and properties that can be tailored to recognize biomolecules (Fig. 1) and that may inspire new lines of research in the development of drugs and pharmacological tools.

Fig. 1. Crystal structure of a protein-foldamer complex.

References:


