

Synthetic Information Molecules

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The encoded recognition properties of nucleic acids are currently unrivalled in any other material. High fidelity sequence-selective duplex formation is the molecular basis for replication of the genetic information encoded by DNA and is finding widespread applications in the programmed assembly of complex nucleic acid nanostructures. We have been investigating the sequence-selective duplex formation and replication of synthetic recognition-encoded oligomers that bear no resemblance to the natural system. This talk will describe examples of different polymer architectures developed in our laboratory, highlighting the key supramolecular design principles that govern duplex assembly and sequence information transfer.

References

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