

大阪大学理学研究科化学専攻 Bコース

産業科学研究所 精密制御化学研究分野 中谷研究室

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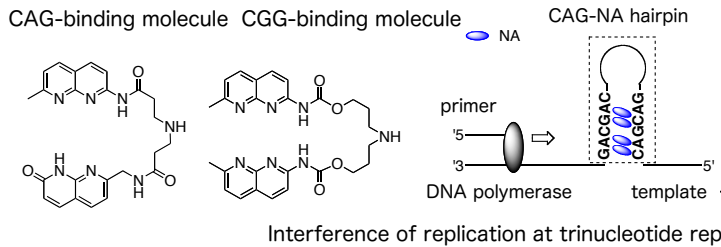
精密有機合成化学を基盤とした新化合物の創製を武器として、

- ・ケミカルバイオロジー (化学生物学、ゲノム化学)
- ・ナノテクノロジー (核酸を操るサイエンス)

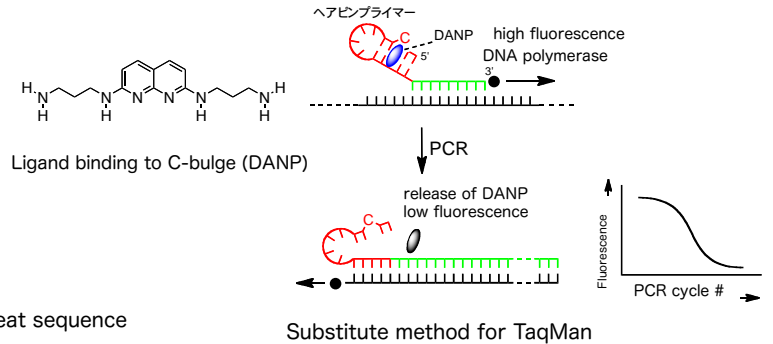
に関する研究を通じて、真理の追究と社会に役立つ技術開発を目指します。

1. Chemical Biology Studies using DNA-binding molecules

1) Regulation of replication and transcription by controlling DNA secondary structure with mismatch-binding ligand

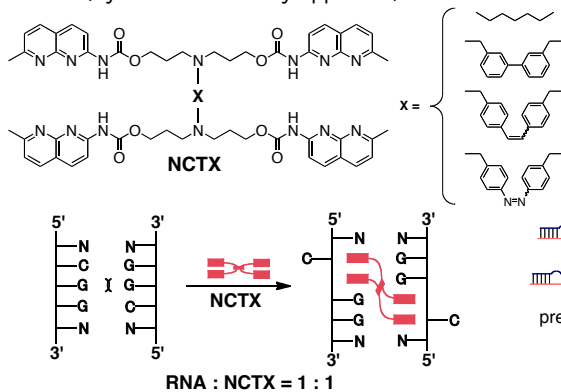


2) Hairpin primer PCR for SNP typing etc.

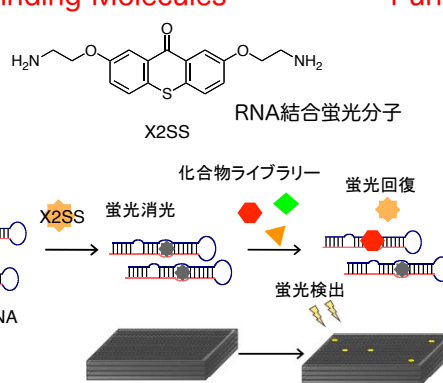


2. Small Molecules targeting RNA

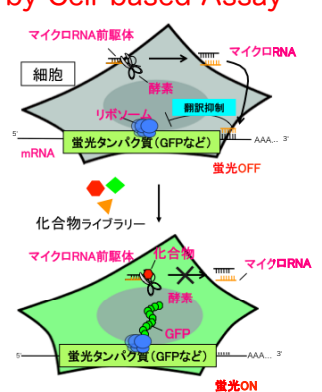
1) Design of Molecules binding to RNA (Synthetic Chemistry approach)



2) Screening of RNA-binding Molecules

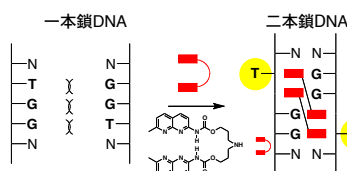


3) Molecules regulating miRNA Function by Cell-based Assay

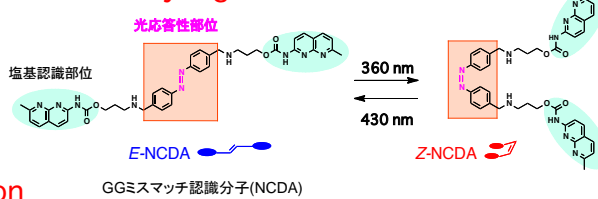


3. Controlling DNA Structure and Function

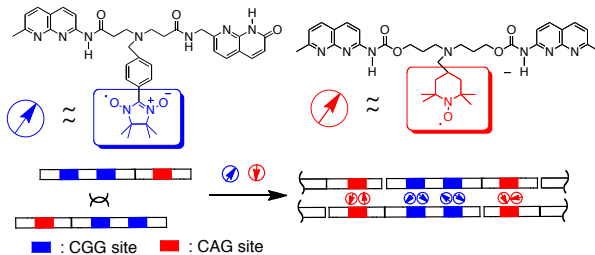
1) Molecular Glue for DNA



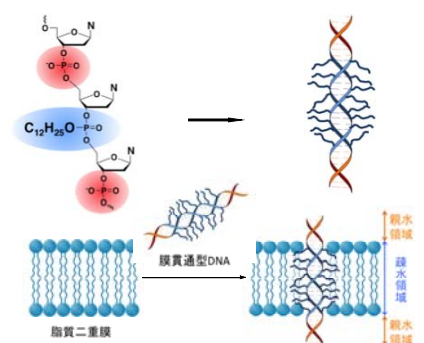
3) Regulating DNA hybridization ON and OFF by Light Illumination



2) Arrangements of Function on DNA Structures



4) DNA



5) DNA Origami

