

From Sequence Design to AOC Production: Medicilon's End-to-End RNAi Development Platform

MEDICILON

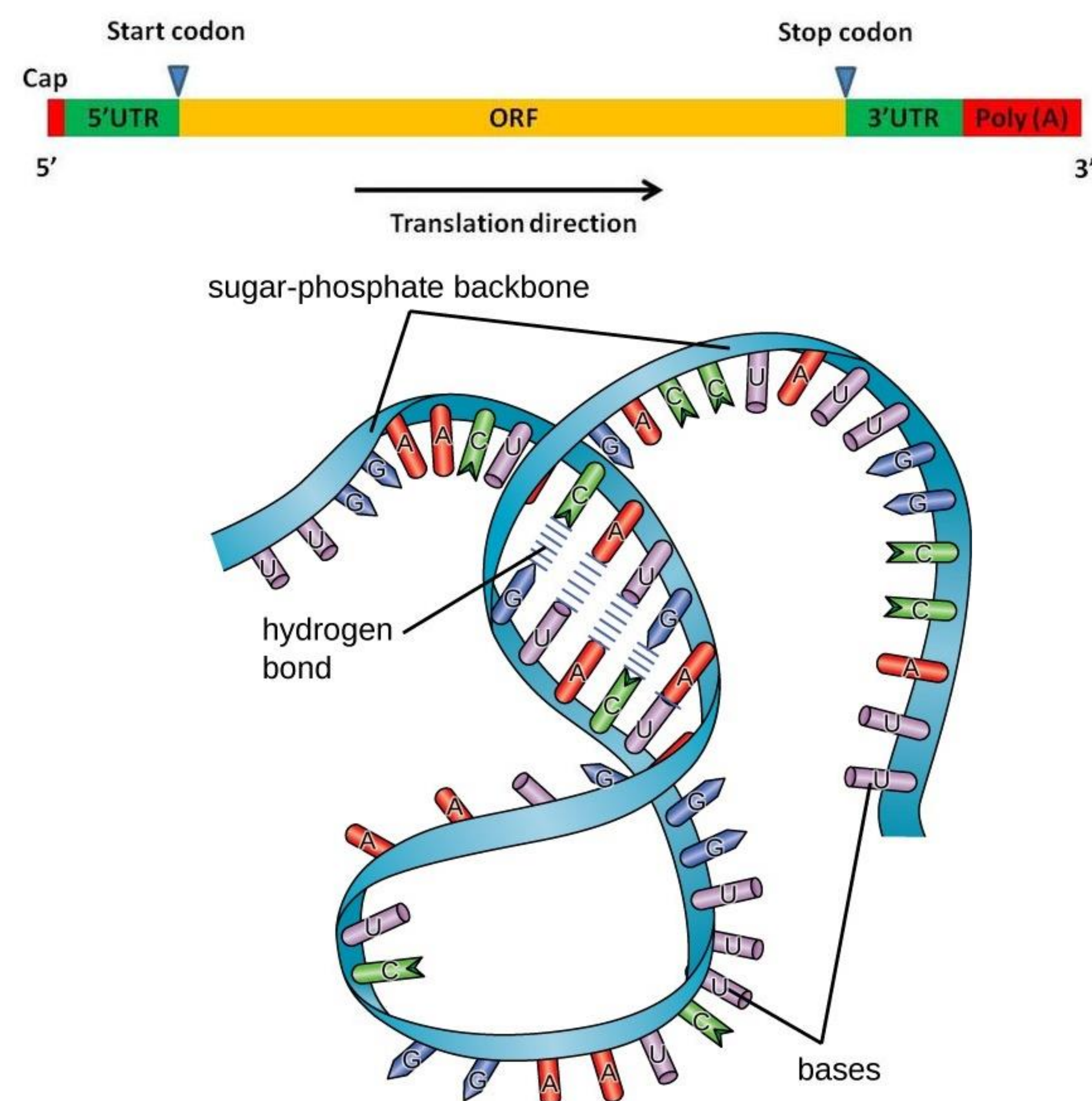


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Anchored by a sophisticated RNAi platform, our AOC capabilities are supported by advanced conjugation chemistries and high-resolution analytical methodologies, and enabled by integrated expertise spanning sequence design, nucleotide synthesis, and in vivo evaluation, together providing a rigorous framework for next-generation oligonucleotide therapeutics.

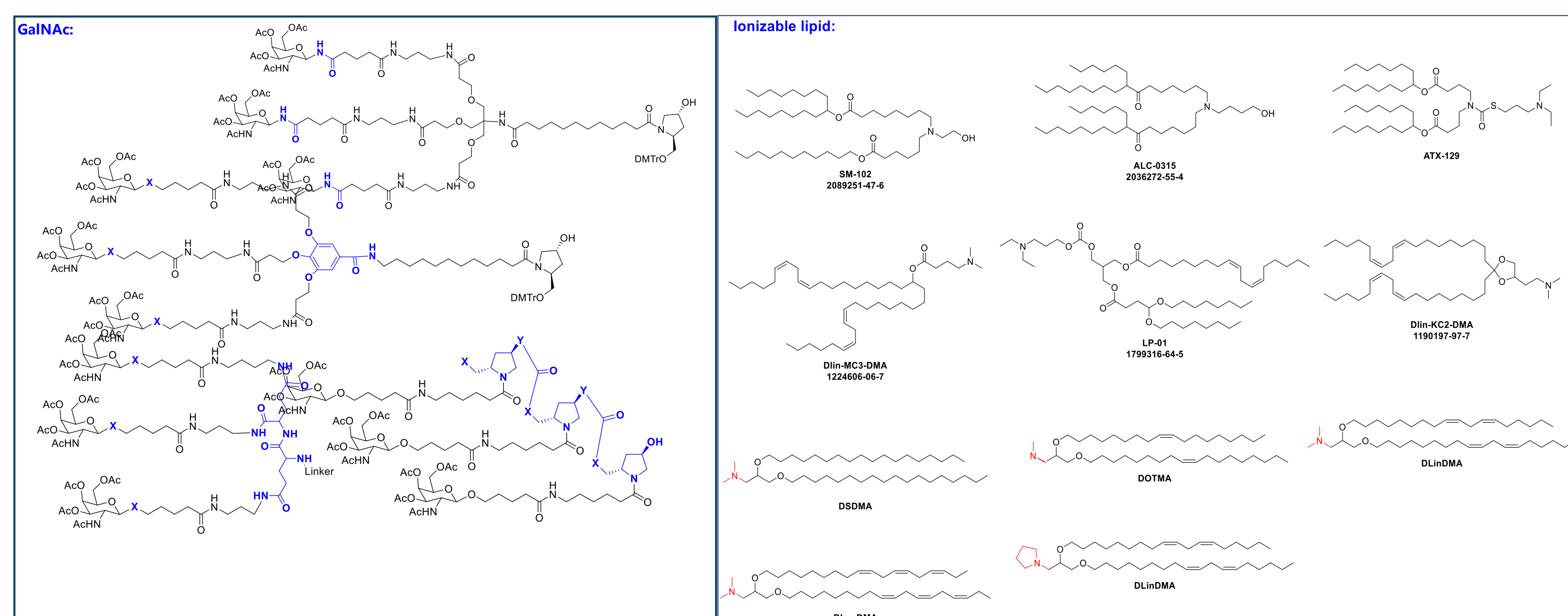
Medicilon Optimal Design (MOD)



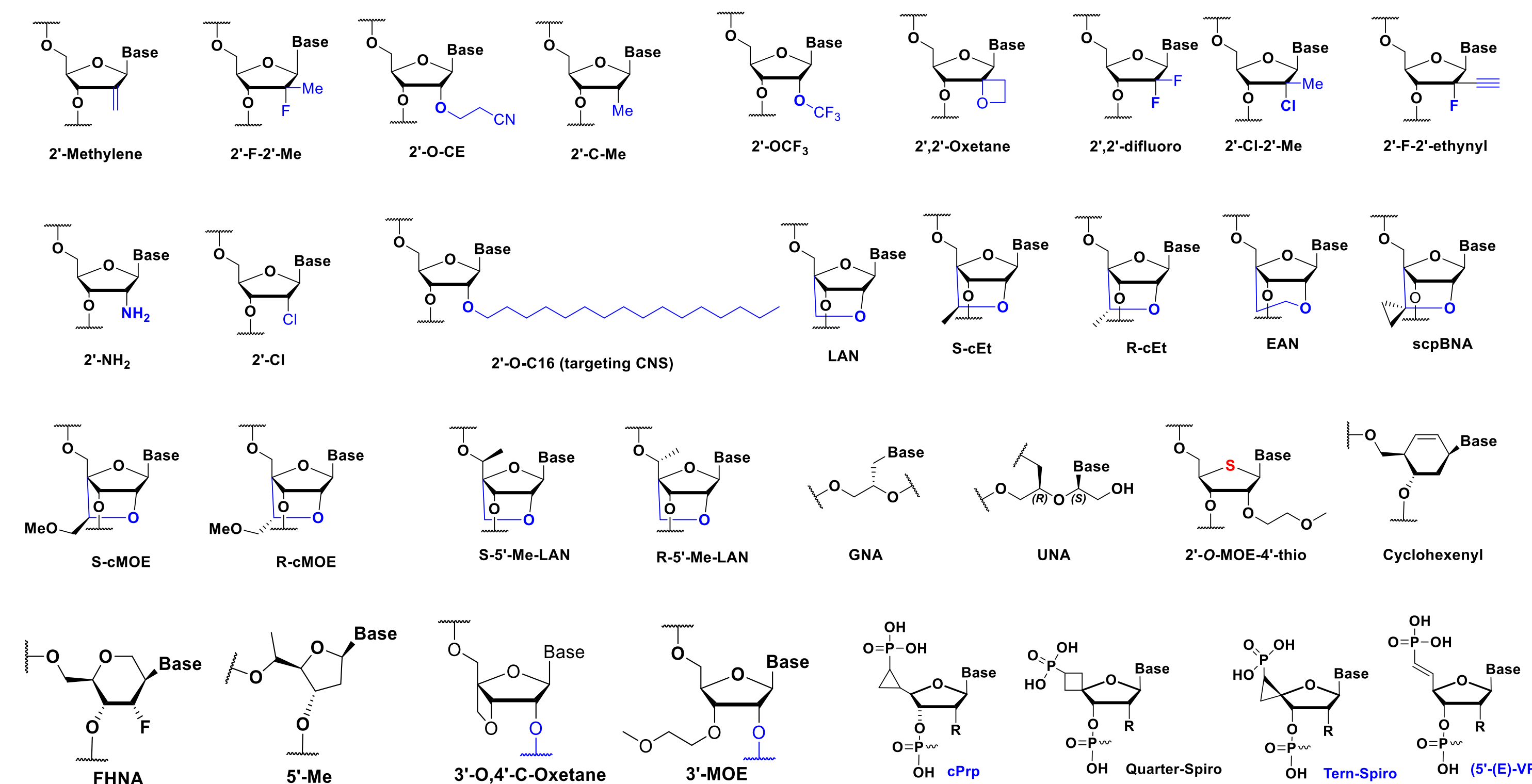
We leverage AI prediction to identify optimal silencing windows on mRNA, ensuring maximal gene knockdown. By integrating empirical design rules with assessments of accessibility, specificity, and cross-species homology, we can design high-performance siRNA/ASO sequences efficiently.

Delivery & Carrier Synthesis

- Broad-class GalNAc synthesis
- Ionizable lipid syntheses



Mono-Nucleotide Synthesis



Oligonucleotide Synthesis

Scalable synthesis capacity:
1000+ OD-scale, 30+ (1–100 mg),
and 3+ (1–100 g) oligos per week

Solid-Phase Oligonucleotide Synthesizers:

- Dr. Oligo™ 48 Channel Synthesizer
- TESIKER™ 192 Channel Synthesizer
- TESIKER™ 12 Channel Synthesizer
- InscinTech™ Auto Oligo 150 Single Channel Synthesizer

Purification & Characterization

Purification System

- Waters™ MS-Guided HPLC Purification System
- InscinTech™ Anion Exchange Purification System

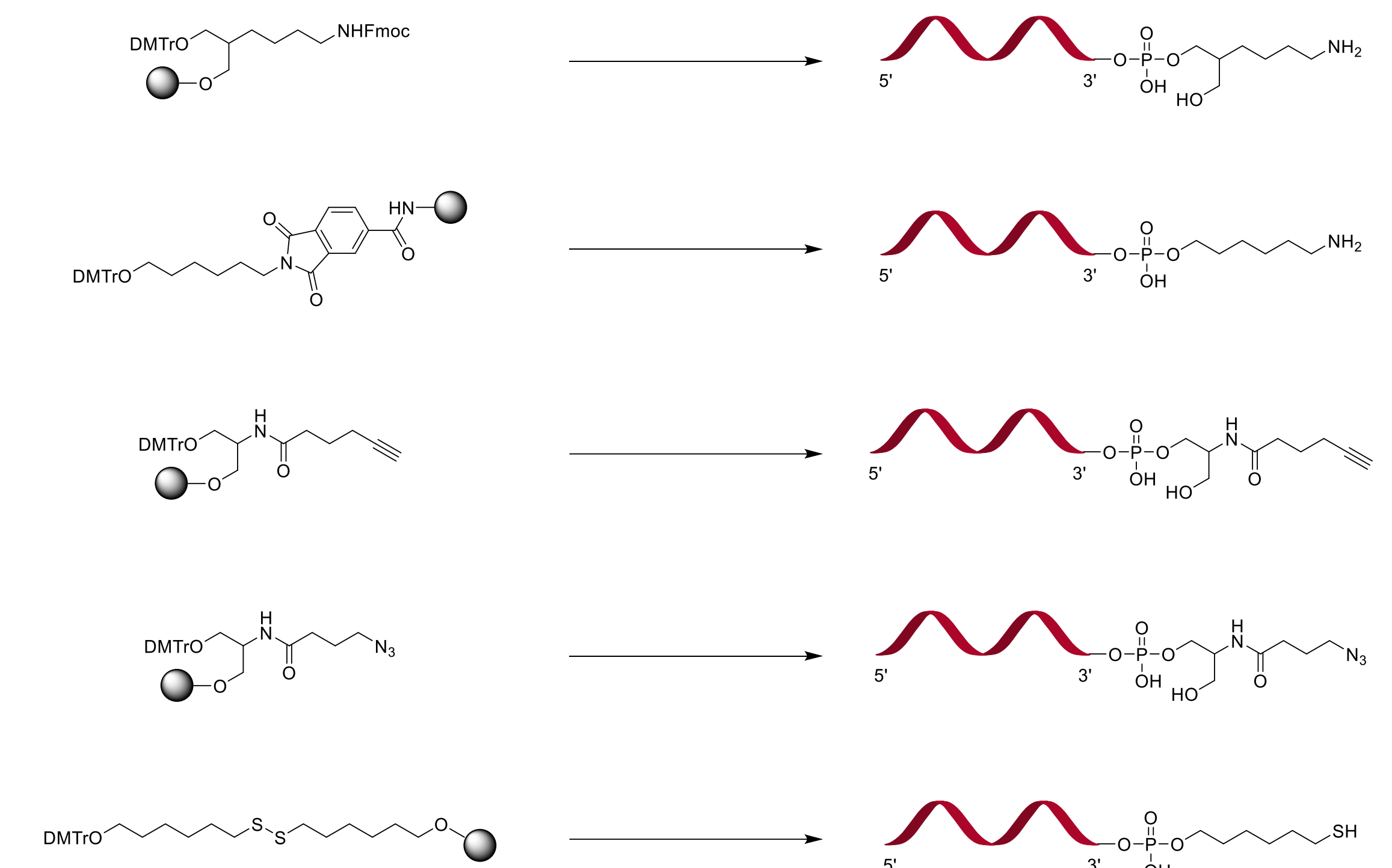
Analytic Instruments

- Waters AcQuity™ PREMIER UPLC + AcQuity™ RDa™ TOF
- Waters AcQuity™ PREMIER UPLC + Zspray™ MS
- Shimadzu™ CBM-20A HPLC

Antibody-Oligonucleotide Conjugation

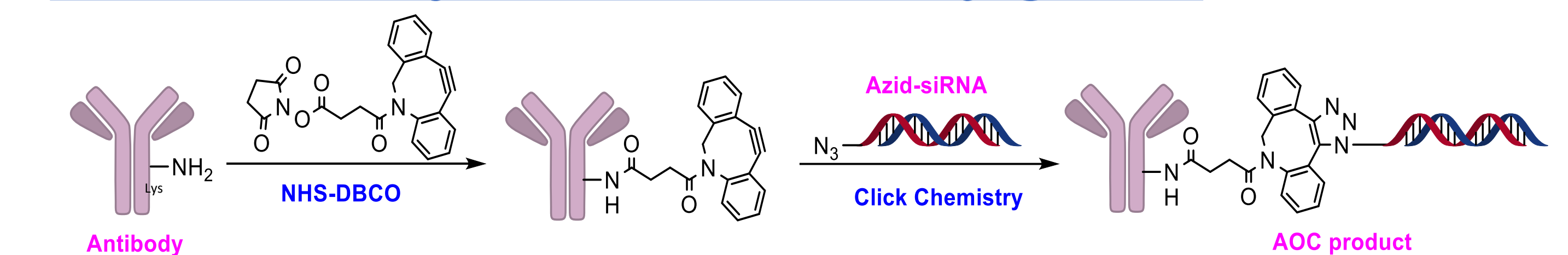
3' Linker-CPG Conjugation Capability

Versatile linkers can be introduced on CPG to enable oligonucleotide conjugation with peptides or small molecules

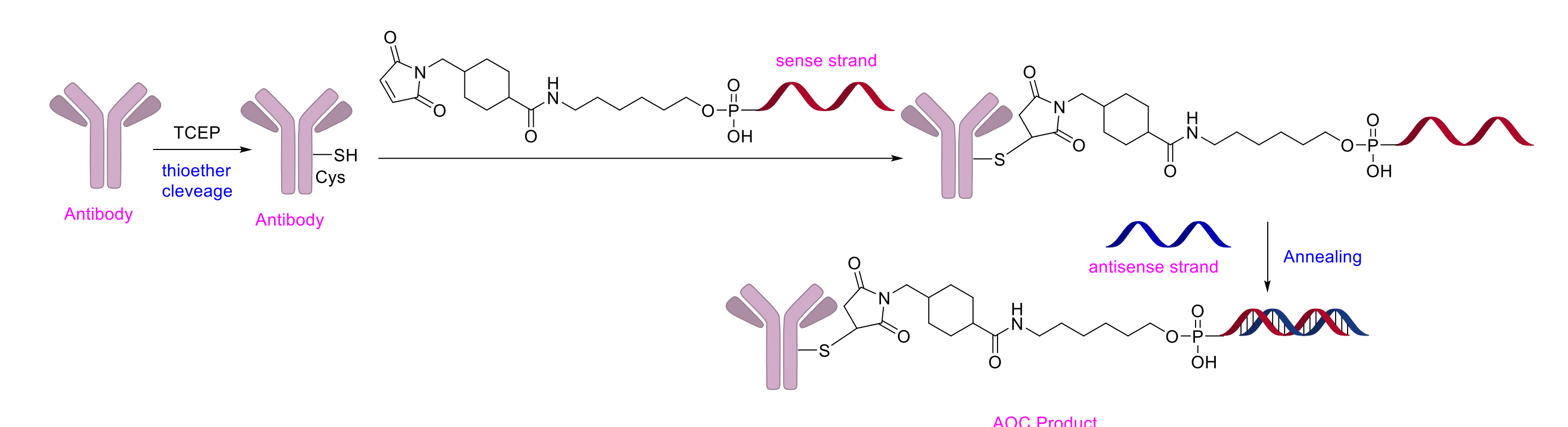


Multiple Types of Conjugation Chemistry

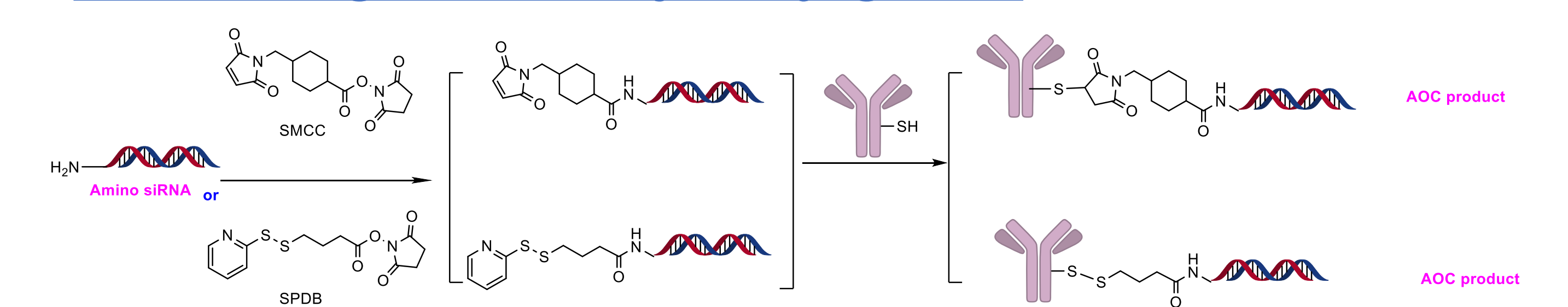
Click Chemistry (DBCO–Azide) Conjugation



Maleimide–Thiol Conjugation



Amino-Oligo-Antibody Conjugation



Site-Specific Conjugation via mTG nase

