Unraveling the mechanism of antisense oligonucleotides

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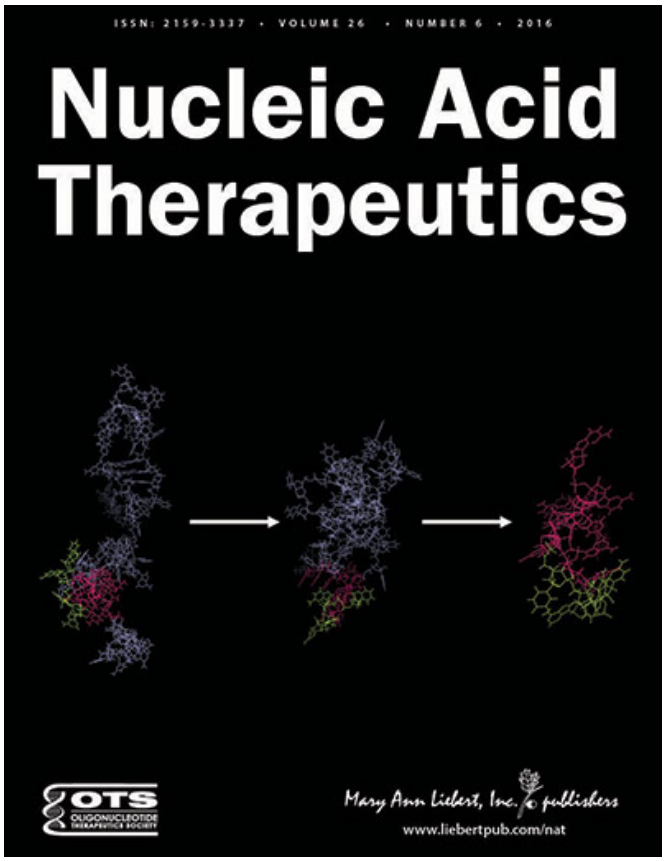

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Stanley T. Crooke, MD, PhD, CEO of Ionis Pharmaceuticals and recipient of the 2016 Lifetime Achievement Award from the Oligonucleotide Therapeutic Society presents a detailed look at the mechanisms that underlie antisense drug activity in the article entitled "Molecular Mechanisms of Antisense Oligonucleotides," published in *Nucleic Acid Therapeutics*.

Dr. Crooke draws on his extensive experience and long career focused on developing antisense oligonucleotide (ASO) therapeutics and highlights the contributions his group has made over the years to characterizing the three main phases of antisense drug action: prehybridization, hybridization, and post-hybridization. He describes the design of ASO therapeutics, how they can be targeted to and hybridize with a target RNA sequence, and the various mechanisms by which ASO drugs are able to degrade, disable, or modify a target RNA—which depends on how they are designed—to inhibit the expression of a specific gene.

"This retrospective will allow our researchers a greater insight into how passion and commitment can truly translate technical development and acumen into therapeutic realities," says Executive Editor Graham C. Parker, PhD, The Carman and Ann Adams Department of Pediatrics, Wayne State University School of Medicine, Children's Hospital of Michigan, Detroit, MI.

More information: Stanley T. Crooke, Molecular Mechanisms of Antisense Oligonucleotides, *Nucleic Acid Therapeutics* (2017). DOI: 10.1089/nat.2016.0656

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