IntegrateRNA Launches GalNAc-Oligonucleotide Conjugation Service to Support Oligonucleotides Therapeutic Research

New York City, New York Aug 1, 2022 (<u>Issuewire.com</u>) - IntegrateRNA, a branch of Creative Biogene, is dedicated to developing unique technologies and satisfactory services that can be applied for RNA discovery, expression analysis, functional research, and mechanism analysis. With continuously optimized RNA pull-down, immunoprecipitation, and luciferase reporter assay technologies, IntegrateRNA is capable to help researchers to identify RNA-protein or RNA-RNA interactions and reveal their mechanisms. Recently, IntegrateRNA announced its release of GalNAc-Oligonucleotide conjugation service to support oligonucleotides therapeutic research.

GalNAc has shown remarkable success in the development of nucleic acid therapeutics in recent years, and in addition, these <u>GalNAc oligonucleotide</u> delivery systems have been successfully used in nonclinical species and humans to modulate the expression of many hepatocyte target RNAs.

IntegrateRNA offers STC-siRNA-GalNAc and ESC-siRNA-GalNAc conjugates with specific chemical modifications to improve siRNA stability and affinity. A multivalent GalNAc-siRNA conjugate, in which a multivalent GalNAc cluster is usually attached to the 3'-terminus of the siRNA sense strand, causes robust gene silencing in hepatocytes *in vitro* and *in vivo* without the aid of a drug delivery agent.

IntegrateRNA also offers GalNAc conjugates for ASO drug development. When using the GalNAc conjugate, GalNAc-ASO showed approximately 10-fold greater potency than ASO without the conjugate, which supports lower doses and less frequent dosing. GalNAc-ASO demonstrated greater convenience, better efficacy and tolerability, and higher compliance for patients. The GalNAc conjugate technology developed by IntegrateRNA has also been used for anti-miR (antagomir) delivery to improve it's *in vivo* efficacy and targeting efficiency.

Based on years of experience in oligonucleotide synthesis, modification and conjugation, IntegrateRNA offers mono-, di-, tri-, or tetra-GalNAc conjugated oligonucleotides. GalNAc conjugates are compatible with various ribose, base, and phosphate bond modifications. Compatible chemical modifications of oligonucleotides provided by IntegrateRNA cover 2'F, 2'OMe, 2'MOE, LNA, cEt, 5'VP, PS, and PO. With years of experience in oligonucleotide design, synthesis, modification, and coupling, the team is able to enhance the stability and affinity of oligonucleotides.

"Our services can be applied to animal experiments and preclinical studies of RNA drugs, oligonucleotide therapy development and optimization, oligonucleotide drug delivery to hepatocytes, etc." said Marcia Brady, the marketing director of Creative Biogene, she also added, "We are committed to meeting the needs of our customers at reasonable prices and providing quality products and services. To date, we have successfully performed many different types of RNA discovery, synthesis, functional studies, and bioinformatics analysis."

About IntegrateRNA

IntegrateRNA, as the division of Creative Biogene that holds a leading position in providing complete solutions for RNA research, has years of experience in next-generation sequencing and develops microarray platforms that enable researchers to explore the world of RNA on an unprecedented scale, and map all RNAs involved in cell life programs, human diseases, and drug discovery.

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