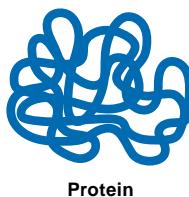


siRNA: a new treatment approach

The role of proteins in disease

Proteins are needed for the structure, function, and regulation of the body's tissues and organs¹.

Over- or underproduction of specific proteins can play an important role in diseases^{2,3}.

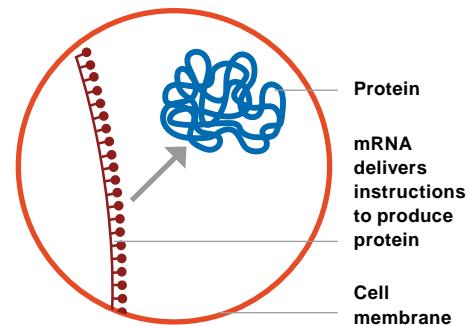


Protein

Protein production, messenger RNA and the RNAi process

Messenger RNA carries the instructions to produce proteins within the cells.

RNA interference (RNAi) is a naturally occurring process within our cells that targets messenger RNA (mRNA) to prevent the production of specific proteins^{3,4}.



siRNA harnesses RNAi to regulate protein production

Small interfering RNAs (siRNAs), are molecules operating in the RNAi process.

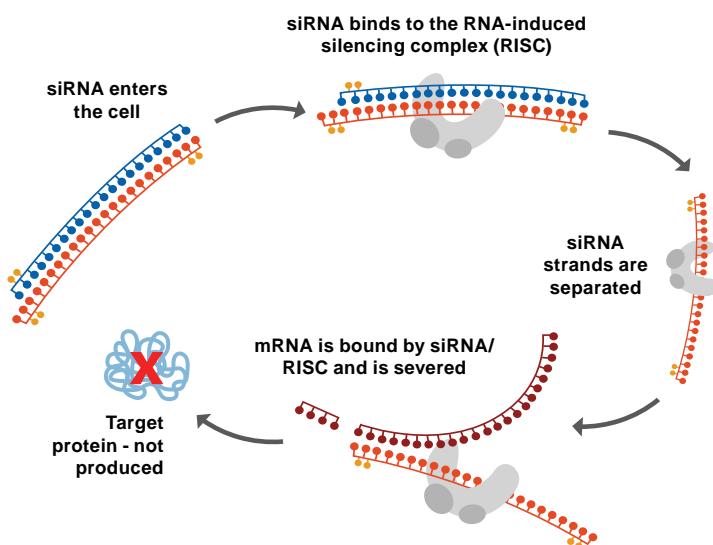
siRNAs bind to the RNA-induced silencing complex (RISC), resulting in a single-stranded siRNA/RISC that matches very specifically to the mRNA encoding the target protein.^{2,3}

siRNAs used for treatment

siRNAs are now being used as a new treatment approach because they could potentially have a long-lasting effect and are very specific to their target messenger RNA^{3,8}.

To date, two siRNAs have been approved for rare diseases: givosiran for acute hepatic porphyria and patisiran for transthyretin-mediated amyloidosis in adult patients^{5,6,7}.

siRNAs are being examined in conditions affecting larger patient populations like those with elevated low density lipoprotein cholesterol (LDL-C), a risk factor for atherosclerotic cardiovascular disease.

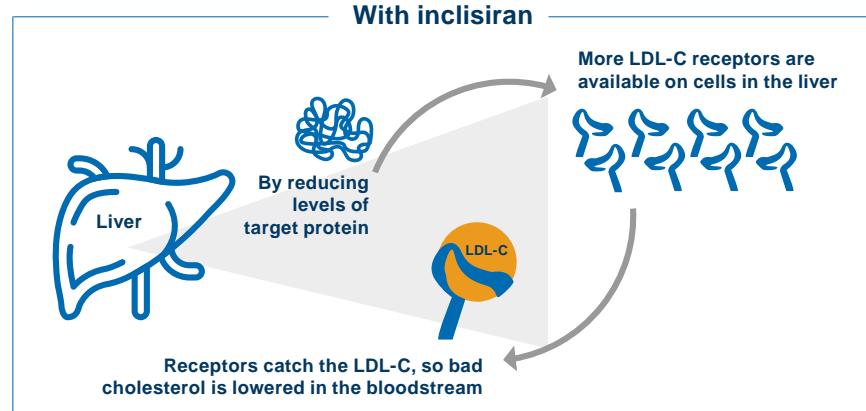


siRNA: a potential new drug class for bad cholesterol (LDL-C) reduction

The regulation of LDL-C levels in the bloodstream takes place in the liver.

An investigational siRNA, inclisiran, is thought to harness RNAi to increase the liver's ability to clear LDL-C from the bloodstream⁸.

If FDA approved, inclisiran will be the first and only LDL-C lowering treatment in the siRNA class. Because it's a siRNA, inclisiran works differently from other lipid-lowering therapies⁸.



Inclisiran is an investigational new treatment. Its efficacy and safety are currently under FDA and EMA review.

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