



RNA Therapeutics and snoRNA Biology

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Applied Biology: RNA Therapeutics

Treatment of monogenetic disorders by engineering natural small RNAs to specifically up- or downregulate disease-associated proteins (wet/dry lab projects). Collaboration with BioInnovation Institute, Copenhagen.

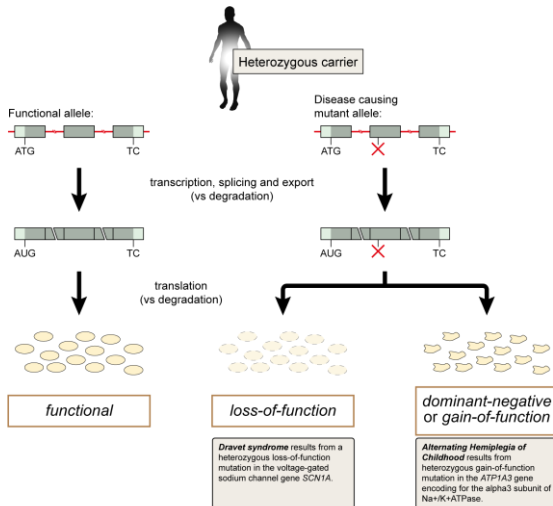


Figure 1 | Disease caused by a heterozygous dominant mutation in one allele of a gene.

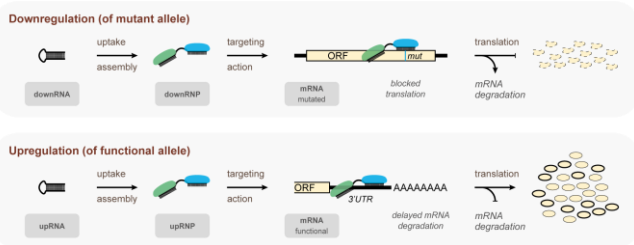


Figure 2 | RNA-based Methods For Targeted Down- or Upregulation of Protein Levels.

Basic Biology: small nucleolar RNAs

Autoregulation and beyond: Conventional and non-conventional functions of box C/D small nucleolar RNAs in human cells (wet/dry lab projects).

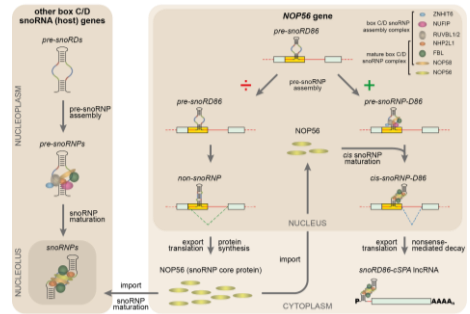


Figure 3 | Box C/D snoRNP Autoregulation by a *cis*-Acting snoRNA in the *NOP56* Pre-mRNA.

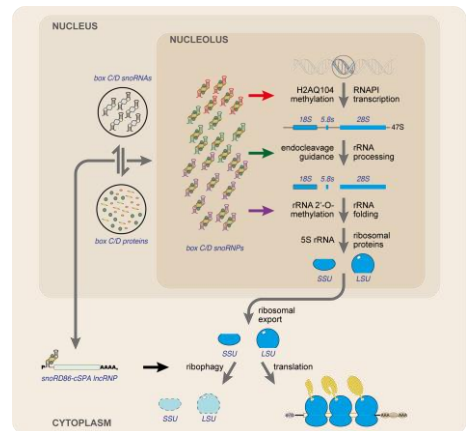


Figure 4 | Deciphering novel critical functions of box C/D small nucleolar RNAs in controlling ribosomal metabolism.

Selected methods



Classic molecular & cellular biology



Fluorescence microscopy



CRISPR-based genome editing & screening



Immuno-precipitation & proximity labeling



Lentiviral screening



Next-generation sequencing

What snoRD to like?



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Record of publications:

<https://orcid.org/0000-0001-9357-2910>

Webpages:

<https://bii.dk/bio-studio-projects/smartrna/>

<https://sparkdenmark.ku.dk/projects/soeren-lykke-andersen/>