



The RNAcore at the Houston Methodist Research Institute is staffed by experienced scientists and researchers who produce high fidelity research and clinical-grade RNA, including mRNA, modified mRNA (mmRNA), and noncoding RNA, for the support of fundamental research and clinical applications.

## RNAcore

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RNAcore



# RNAcore

The RNAcore at the Houston Methodist Research Institute is a leader in RNA synthesis, generating RNA constructs for the scientific and medical communities in the Texas Medical Center and across the world. Beginning as a core group for the Progenitor Cell Biology Consortium of the National Heart, Lung, and Blood Institute, the RNAcore is now also supported by the Cancer Prevention Research Institute of Texas, to further the development of cutting-edge RNA technologies.

## RNA Services

The RNAcore provides services for the development and generation of high-fidelity mRNA, mmRNA, and noncoding RNA for any gene/loci of interest. With the use of an error-free plasmid template and efficient, fast construct generation, we can provide a wide range of generic or customized RNA molecules for any desired species, with various specified modifications.

The RNAcore produces high-fidelity research and clinical-grade RNA, including:

- mRNA
- modified mRNA (mmRNA)
- Long noncoding RNA and miRNA
- Customized bicistronic constructs
- Constructs with reporter genes

## RNA available from RNAcore

### Cell-Based Therapies and Immunotherapies

MSCs, iPSC-derived vascular cells, Dendritic cell vaccines, CART, IL-2, IL-7, IL-10, IL-12

### Differentiation and Trans-differentiation

GATA2  
ETV2  
FLI1  
GATA4-wt

### Reprogramming

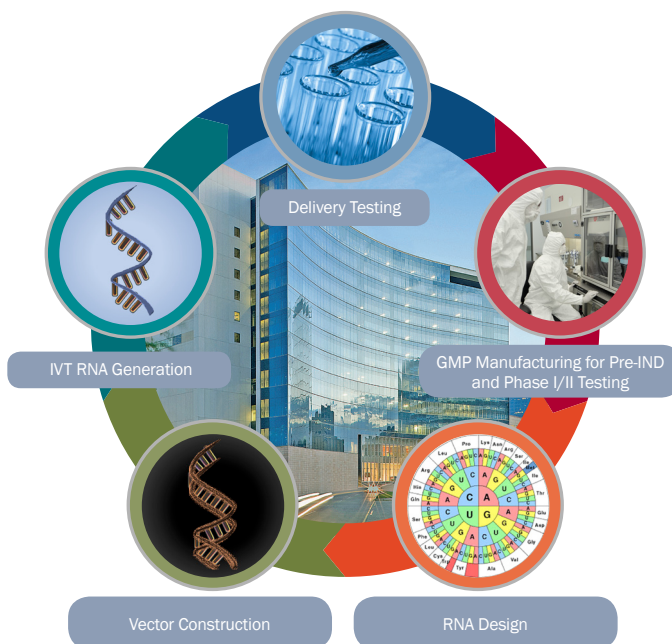
Disease models  
Regenerative medicine  
Oct-4  
KLF4  
SOX2  
LIN28  
c-Myc

### Transient Protein Expression and Signaling Pathway Studies

Telomerase expression, Reporter genes  
TERT-wt  
TERT-ci  
nGFP  
mCherry  
FLuc

### Genome Editing and Integrated Gene Therapy

Transposase and CRISPR functional studies  
Cas9  
SB11



## Specialized Services

RNA molecules can be produced for any species, any loci of interest, and incorporate any of the following modifications:

- 5-methyl-CTP
- Pseudo-UTP
- Anti-reverse cap analog (ARCA)
- Long 150 nt poly-A tail
- Sequence-optimized
- Nucleotide fluorophore tagging

RNA molecules can also be generated in any of the following methods:

- Research-grade, without HPLC purification
- Research-grade, with HPLC purification
- cGMP-grade

