

# Plasmid Engineering Services For Enhanced Expression and Improved Yields



Flyer

Minaris Advanced Therapies delivers comprehensive plasmid engineering services to optimize construct performance and reduce development risk from the outset. Backed by a robust plasmid technology portfolio and deep scientific expertise, these services enhance transgene expression, improve process yield, and elevate product quality and safety.

Leveraging a library of ready-to-use plasmids — including SnapFast™ for LVV, AAV, and adenoviral systems — alongside custom engineering services, Minaris Advanced Therapies tailors construct design to your program-specific performance needs. From early discovery through to IND-enabling studies and GMP transition, these integrated plasmid solutions accelerate development timelines and strengthen clinical and commercial success.

## Why Plasmid Design Matters?

Derisks by maximizing transgene control and expression



Improves viral vector yield, manufacturability cost, and scalability



Enhances safety and reduces genome instability risks

## Two Ways to Power Your Development

### Ready-to-Use Proprietary Plasmids

#### Tried and True

High-quality LV, AAV, adenovirus systems, and SnapFast™ plasmid catalog widely used and validated

#### Fully Optimized

Tested against a wide range of transgenes, engineered for high production yield and safety

#### Application-Ready

Eliminate delays in packaging construct development with optimized plasmids

### Custom Engineered Plasmids

#### Tailored Design

Constructs optimized for your program's goals.

#### Optimize for Your GOI

Construct health-check codon optimization and expression control to maximize transgene performance.

#### Safety & Functionality

Safer WPRE sequences, reduced cryptic splicing, and selection of ideal antibiotic markers; integration into SnapFast™ or proprietary backbones.

# Experience the Minaris Difference

## CASE STUDY:

### Expression of a Challenging GOI

An emerging therapeutics company developing a cystic fibrosis program encountered a critical bottleneck during plasmid development. Their CFTR expression construct was highly toxic in *E. coli*, resulting in poor colony recovery and mutation-prone clones.

#### Minaris Solution

- Suppressed bacterial CFTR expression
- Prevented mutation during cloning
- Restored expression in human cells

Toxic & Mutated



Stable & Functional

## CASE STUDY:

### From Low Titer to IND Ready

A small biotech company approached us to advance their program, but their CAR construct for lentiviral vector production required significant optimization. They were under pressure to meet their IND filing deadline.

#### Minaris Solution

- Expert-guided plasmid health-check
- Three new constructs were designed
- Tested in tandem with PD optimization

Low Titer



12.5x Increase

Get the best results with high-performance plasmids and comprehensive technical support from our expert scientists.



Quality and expertise



Tailored to your program



Integrated and flexible



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