

# SELECTED PRODUCTS & SERVICES

## COMPLEX GENE DESIGNS

For metabolic engineering, protein complex expression, etc.

## GENE (EXPRESSION) ANALYSIS

Comparative Promoter Strengths  
RNAseq  
etc.

## TOGGLE / MULTILABEL

Multi-Protein Expression Systems for Gene Assembly and subsequent Expression in *E.coli*, insect and mammalian cells

*ToggleColi* / *flexiColi*

*ToggleBac* / *flexiBac*<sup>MultiTurbo</sup>

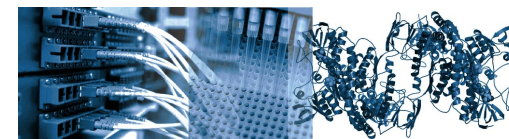
*ToggleMam/flexiMam* & *MultiLabel*

## PEPID

Construction and Expression System for generating complex rationally designed bio-systems-based peptide libraries

## PROJECTS & CONSULTING

Custom-designed strategies and solutions for your (multi-)gene expression projects



ATG:biosynthetics  
**Solutions**  
in biosynthetics

**Design  
Optimization  
Synthesis  
Expression Systems  
and more...**

**all under one roof**

For more information on  
our products & services  
please visit our website

<http://www.atg-biosynthetics.com>

### ATG:BIOSYNTHETICS GMBH

WEBERSTRASSE 40 • 79249 MERZHAUSEN • GERMANY

TEL.: +49 (0)761 8889424

FAX: +49 (0)761 8889425

E-MAIL: [INFO@ATG-BIOSYNTHETICS.DE](mailto:INFO@ATG-BIOSYNTHETICS.DE)

## ATG:BIOSYNTHETICS



## SYSTEMS, SERVICES & SOLUTIONS IN SYNTHETIC BIOLOGY

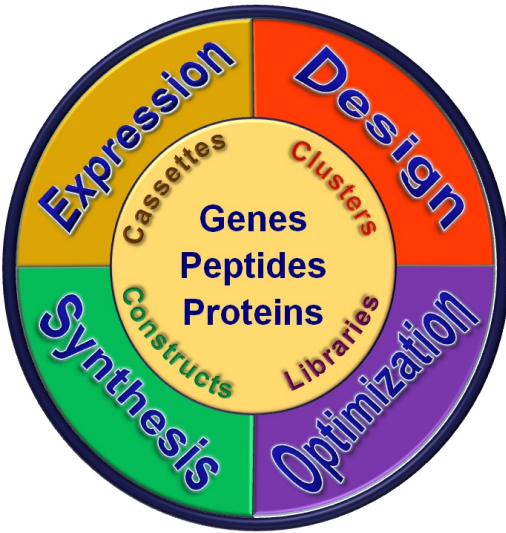
- Protein production: high & stable expression
- Protein complex expression
- Multi-enzyme complex expression
- Vaccine development & production, e.g. virus-like particles (VLPs)
- Baculoviral transduction of mammalian cells

- Artificial pathway engineering
- Functional pathway reconstitution
- High-throughput screening

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- Target identification & validation
- Immunodiagnosics & -therapeutics

**Modular expression systems for multi-protein and multi-peptide expression, ready-made or custom-built and adapted to your host organism**

## Expression



## Design

### Gene Design, Optimization & Analysis

- Bioinformatics Services for parallel multi-parametric optimization of genes, gene designs and gene clusters
- Individual genes or gene cassettes and clusters — we provide strategies for efficient design and cloning using our proprietary bioinformatics tools and gene assembly systems.
- Comparative analysis of promoters and regulatory elements for balanced/enhanced expression, e.g. in metabolic pathways or multi-enzyme complexes

## Optimization

## Synthesis

**We can synthesize any gene you want and realize any gene cluster design you ask for—with or without optimization.**

- Genes, Gene Cassettes and Clusters
- Biologically encoded Peptide-Libraries for the PepID expression system
- Large-scale preparation of plasmid DNA constructs

## application in vitro in silico

