

# Powerful Protein Evolution

BioAtla, LLC is a global, biology outsourcing services provider based in San Diego, CA with operations in San Diego, New York, Beijing and expanding in 2011. We are a pioneer in BioAcceleration™ – using a global infrastructure to deliver cost-efficient access to state-of-the-art technologies and services, maximizing antibody and other protein product development opportunities for our client partners.

## Powerful & Fast:

BioAtla's proprietary CPE™ and CPS™ processes are the fastest, most comprehensive evolution technologies available today. These technologies are capable of generating proteins ranging from enhanced stability to improved pharmacokinetics. The technologies are *powerful* for protein therapeutics since they identify the smallest number of codon modifications to achieve maximal targeted characteristics, thereby reducing the likelihood of negative immune response and achieve the highest efficiency.

## Comprehensive Positional Evolution™

BioAtla's CPE platform enables the comprehensive mapping of the *in vivo* effects of every individual codon change within the protein for all 63 potential codon changes at each position within the protein.

## Combinatorial Protein Synthesis™

BioAtla's CPS allows the subsequent generation and *in vivo* selection of all permutations of improved individual codons for identification of the optimal combination or set of codon changes within a protein or antibody.

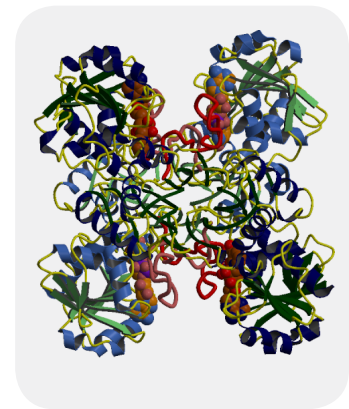
## Synergy Evolution™

Synergy Evolution is the BioAtla patent pending evolution strategy designed engineer improvements in protein function that result from multiple simultaneous changes. This technology is suited for evolving proteins with high assay variability, requiring complex substrate specificity changes and other improvements intractable by single amino acid protein evolution strategies.

## FlexEvolution™

We employ our novel, patent pending FlexEvolution™ approach to modify protein characteristics such as solubility, aggregation, deimmunization, glycosylation design and pharmacokinetics that are intractable through traditional approaches.

BioAtla provides a powerful suite of ENZYME & PROTEIN CHARACTERIZATION capabilities including enzyme kinetics, protein-ligand interaction, glycosylation mapping and expression system testing.



## Powerful Protein Evolution

### Is Your Protein...

Too Slow?	Improve Turnover
Too Unstable?	Enhance Stability
Too Hydrophobic?	Modify Solubility
Too Promiscuous?	Increase Specificity & Selectivity

- Improve catalytic activity, expression, and pharmacokinetics
- Enhance pH and solvent stability
- Remodel protein stability to depend on temperature, solvent or pH
- Reduce product inhibition
- Modify protein-ligand interaction
- Eliminate royalties
- Create strong intellectual property

### Proatla™ Assay Development, Evolution & Engineering Services™

BioAtla provides a broad range of proprietary services in state-of-the-art evolution and protein expression technologies, including comprehensive mutagenesis, combinatorial protein synthesis (CPS™), protein expression, optimization and bioassay development. Our team of scientists have extensive experience in molecular evolution and protein engineering with a proven record of delivery and success.

### Protein Expression

- Multi-system expression platform (bacterial, insect, mammalian, *in vitro*, other)
- Modify translation rates and folding via comprehensive codon library testing
- Separate native proteins from non-native proteins
- Consistent production of a single structure entity
- Custom Projects

### Customized Business Terms

Ask how we could eliminate License Fees and Royalties.

### Commitment To Excellence

As a company, BioAtla strives for excellence in all its business. We continuously advance our technologies to maintain leadership in our field, therapeutic protein services.

