

# PROTEIN SCIENCES

## We Are

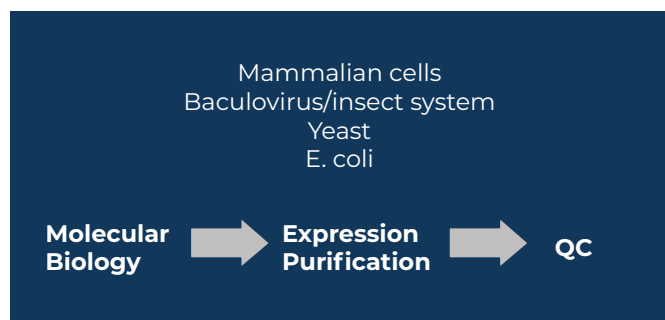
- Experts in protein production and characterization
- Flexible and adaptable
- Skilled in solving scientific problems

## We Excel

- Optimized transient transfection of CHO or HEK293 cells
- Improved recombinant expression in insect or E. coli cells
- Fast turnaround from gene to final products
- High quality and quantity

## We Provide

- A wealth of experience in molecular biology, protein expression and purification
- A team of highly trained scientists able to progress projects from construct design to protein product in as short as 5-8 weeks.
- Full protein characterization



### Antibody Research

- Large-scale Ab production
- Novel Ab R&D
- ADC
- Pre-clinical evaluation

### Integrated Services Support

- Immunization
- Assay development
- PK/PD
- Structural biology

### Customized Protein Production

- Construct optimization
- Process and formula optimization
- Folding and refolding
- Mutation and function
- Labeling

# Protein Expression Capabilities

- Efficiency
  - From amino acid sequence to protein in as short as 5 weeks
- Multiple Choices
  - Different epitope tags
  - Various expression systems (mammalian, baculovirus, yeast, E.coli)
  - Specialized protein chromatography columns (affinity, SEC, IEX, HIC)
- Scaleup
  - Up to 300L expression cultures
  - Deliver protein in multi-gram scale
- Quality
  - Full spectrum of analytical techniques (DSF, MST, SEC, UV, MS, SEC-MALS, SDS-PAGE, CE-SDS, RPHPLC, etc.)
  - Quality support in NMR and crystal structure illustration, bioassay development/ screening, compound screening, antibody screening
  - PD-1 mAb epitope mapping by co-crystallization
- Strong performance track record of success

## Customized Protein Production

### Statistics

	Receptors/Ligands	Cellular Signaling	Enzymes & Complexes
Number of Projects	> 200 per year	> 100	> 600
Quantity (per project)	5-100 mg	5-100 mg	5-200 mg

### Example of Quality Improvement

Data Resource	Mass Spec.	X-ray Diffraction
Client's Original Data	Double peaks (poor homogeneity)	8.0 Å
ChemPartner's Optimized Data	Single Peak (good homogeneity)	2.2 Å



**Our purification protocol for the client has largely improved homogeneity and helped to obtain high-resolution crystal structure.**