



# PROTEIN SCIENCES

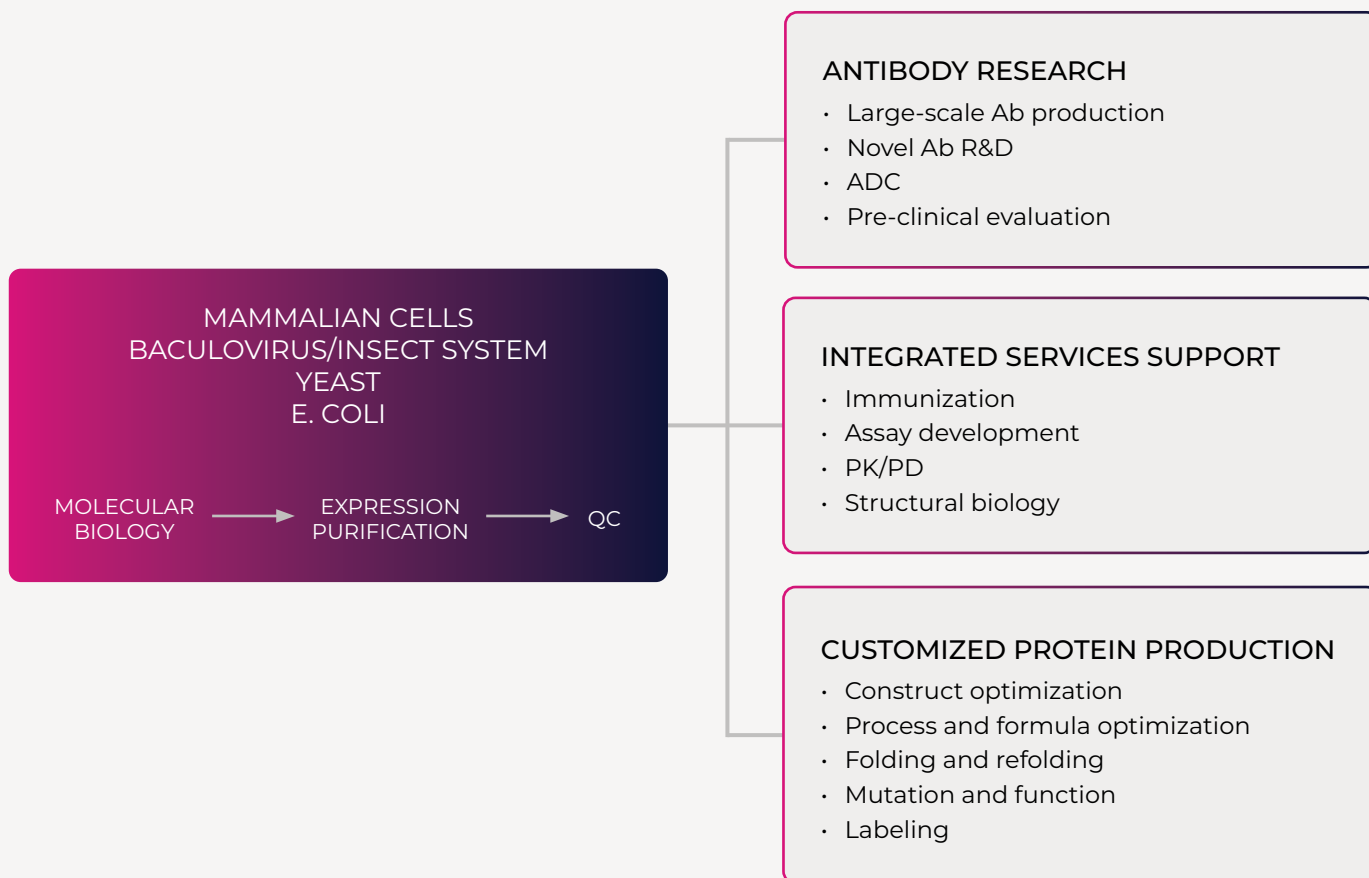
With years of experience with the purification of recombinant proteins expressed from various systems, ChemPartner's protein science group integrated services offering cover a wide range of areas, including molecular biology, protein expression and purification, antibody research, and customized protein production.

## WE ARE

- Experts in protein production and characterization
- Flexible and adaptable
- Skilled in solving scientific problems
- A team of highly trained scientists able to progress projects from construct design to protein product as fast as 5-8 weeks

## WE EXCEL AT

- Optimized transient transfection of CHO or HEK293 cells
- Improved recombinant expression in insect or E. coli cells
- Providing fast turnaround from gene to final products
- Full protein characterization
- High quality and quantity services and production



## 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)
- Scale-up
  - 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

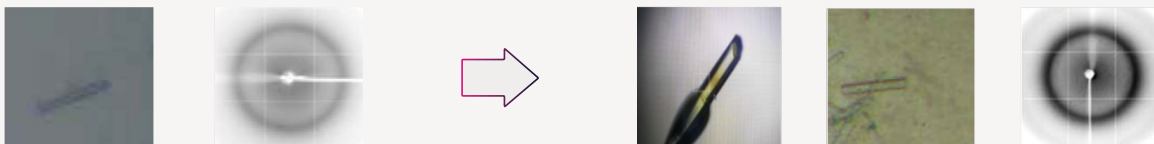
## CUSTOMIZED PROTEIN PRODUCTION

### 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



CHEMPARTNER'S PURIFICATION PROTOCOL FOR THE CLIENT LARGELY IMPROVED HOMOGENEITY AND HELPED TO OBTAIN HIGH-RESOLUTION CRYSTAL STRUCTURE

LEARN MORE AT [CHEMPARTNER.COM/SERVICES/BIOLOGICS-DISCOVERY/PROTEIN-SCIENCE/](https://chempartner.com/services/biologics-discovery/protein-science/)