



ATG:biosynthetics  
**Solutions**  
in biosynthetics

**CODON NEWS**  
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## Protein assemblies and multi-protein expression tools

The **2013 Nobel Prize for Physiology/Medicine** has been awarded to three researchers who shed light on how vesicle traffic in eukaryotic cells is organized, which molecules are involved and how vesicles interact with membranes.

**Multi-protein complexes** mediate the processes of vesicle loading, targeting and fusion, among others. This is something they share with other signaling processes in the body, e.g. inflammatory responses via the inflammasome, membrane receptor-mediated signaling, transfer of mechanical stress from the cell surface, cell adhesion, to name just a few.

ATG:biosynthetics GmbH offers you several options for generating / studying your own multi-protein complexes:

- our **TOGTEC** family of multi-protein expression systems (E.coli, insect cells)
- **MultiLabel** for multi-protein expression in mammalian cells, e.g. with fluorescence reporters
- our **ACDC-SC design** that enables efficient construction and modification of multi-gene expression constructs (any other organism)
- our **multi-gene expression construct design and optimization** service
- **synthesis** of artificial genes and multi-gene constructs
- **bioinformatics** for synthetic biology and optimization of expression constructs
- **PepID**, the biosystem-based multi-peptide expression system - for studying protein-protein interaction or disruption of these interactions

Multi-gene assemblies play a role in other applications as well

- metabolic engineering and pathway design for bio-based production of chemicals, bio-remediation, and more
- strain optimization
- cell-free production
- in vitro/vivo imaging of interaction (FRET), e.g. with reporter fusions
- building biological switches
- and more

For more information or a quote, just ask our experts at  
<https://www.atg-biosynthetics.com/Optimizations/InfoRequestOpt.html>  
or give us a call: +497618889424

**ATG:biosynthetics ... experts in synthetic biology and bioinformatics**