

## CONCEPT: POSTTRANSLATIONAL REGULATORS

- Polypeptide chains, and proteins can be modified by small molecules, which can change their structure or function

□ These \_\_\_\_\_ include:

- Protein folding: **Chaperone** proteins correctly fold polypeptide chains into functional conformations
- **Phosphorylation**: is the addition of phosphates, which can change the activity of the protein
  - **Kinases** add phosphates and **phosphatases** remove phosphates
- **Ubiquitination**: is the addition of an ubiquitin protein, which marks the protein for degradation
- **Signal sequences** are short sequences that direct proteins to certain cellular locations
  - These are generally removed once the protein arrives at the correct organelle
  - Ex: **Nuclear localization signal** (NLS) targets proteins to the nucleus
- **Cleavage** occurs when a section of the protein is removed

## EXAMPLE:

