

## CONCEPT: RIBOSWITCHES

● **Riboswitches** are 5' UTR mRNA sequences that can bind small molecules and control gene expression of the mRNA

- Riboswitches control the expression of \_\_\_\_\_
- There are two main domains in a riboswitch
  - An **aptamer** is the sequence that binds the small molecule ligand
  - An **expression platform** forms secondary structures which regulate gene expression
    - A **terminator structure** is the structure formed by binding the small ligand
- Riboswitches can interfere with transcription, splicing, and translation
  - Transcription termination is controlled by a terminator structure
  - Translation termination is controlled by a terminator structure blocking the ribosome binding site

## EXAMPLE:

