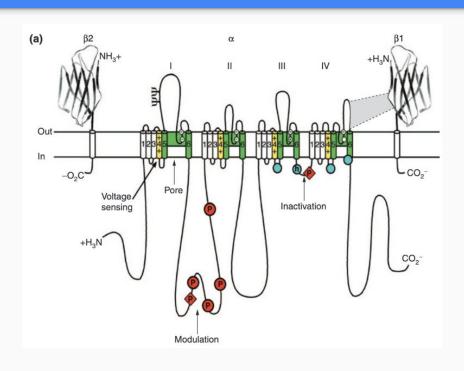
Protein Conformation (PRC) Ontology

Morgan Mitchell, Lauren Wishnie, Alexander Diehl Department of Biomedical Informatics, University at Buffalo

Goals

- Describe protein domains in terms of their secondary structure conformation
- Describe protein structures according to their domain composition and order Ex. Sodium channels
- Enable comparison of proteins based on their structure
- Connect protein aggregates linked to pathological conditions to alternate protein conformations
- Model the voltage gated sodium channel as a type of protein that changes its conformation depending on environmental conditions

Voltage Gated Sodium Channel



We have started to model the voltage gated sodium channel as a protein that changes conformation often due to the environment.

There are conformational changes on the secondary, tertiary, and quaternary level of the sodium channel.