Dr. Jansen’s laboratory has a long-standing interest in studying pentameric ligand-gated ion channels. These receptors are targeted by a multitude of clinically used drugs that include antidepressants, antiepileptics, antiemetics, antipsychotics, anesthetics, muscle relaxants, spasmolytics, tranquillizers, and drugs for the treatment of substance abuse. They also represent novel therapeutic targets to treat inflammatory diseases like atherosclerosis, Alzheimer's, diabetes, inflammatory bowel disease, and sepsis. She recently received an R01 award from the National Institute of Neurological Disorders and Stroke to investigate the structure and function of the so-far neglected intracellular domain with the goal to evaluate this domain as a new drug target that can then be utilized to design innovative therapeutic drugs with improved selectivity.