

Research Interests

Ronen Marmorstein Ph.D.

Dr. Marmorstein's group is involved in determination of the tertiary structure of viral oncoproteins and their cellular partners including P53 and Rb. The laboratory uses biochemical, biophysical and structural techniques to understand the mechanism of gene expression and its relationship to the processes of aging and cancer. Because many cancers and other age-related diseases can be traced to defects in gene-regulatory molecules and viral infections, specific mechanistic insights into their function may lead to development of highly targeted new drugs to treat human disease. Specific areas of research include the Sir2 family of protein/histone deacetylases implicated in maintaining genomic stability. Studies are also ongoing on the p53, pRb and p300/CBP as well as the E6 and E7 HPV oncoproteins. He will employ structure-based design strategies to develop protein-specific drugs for treating viral-associated cancers.

Interactions with other trainers: Dr. Marmorstein actively participates in the student presentations and discussions and has provided expertise to other trainers on crystallography. He interacts with Dr. Lieberman, Yang, Dang and Yuan on studies of HPV E6 and E7 and EBV encoded EBNA1.