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1. We continued to work on the defining structural basis of norovirus interaction with the histo-blood group antigens (HBGAs). For this purpose, we formed crystal complexes of the norovirus P domain and HBGAs. We found the Saga P domain (GII.4 variant) bound most of the HBGAs, whereas another norovirus strain (SMV GII.2) did not bind any of the HBGAs. This could represent the first time a norovirus strain did not bind the common HBGA receptors. However, we will continue to screen additional SMV complexes to confirm this finding.

2. We collected several data sets of the norovirus P domain in complex with drug compounds (National Institutes of Health Clinical Collection). This pilot study proved that could indeed carryout drug screening with compounds. We will now carryout a larger screen with these compounds in order to identify drug candidates for norovirus inhibition.

3. We collected data on the first cat norovirus P domain. We identified several new tertiary structures on the cat P domain compared to the human norovirus P domain, including a novel helix structure on the outermost P2 domain. We also found that the cat norovirus did not bind the human HBGAs, or analogous cat HBGAs. We are now preparing the manuscript of these findings.