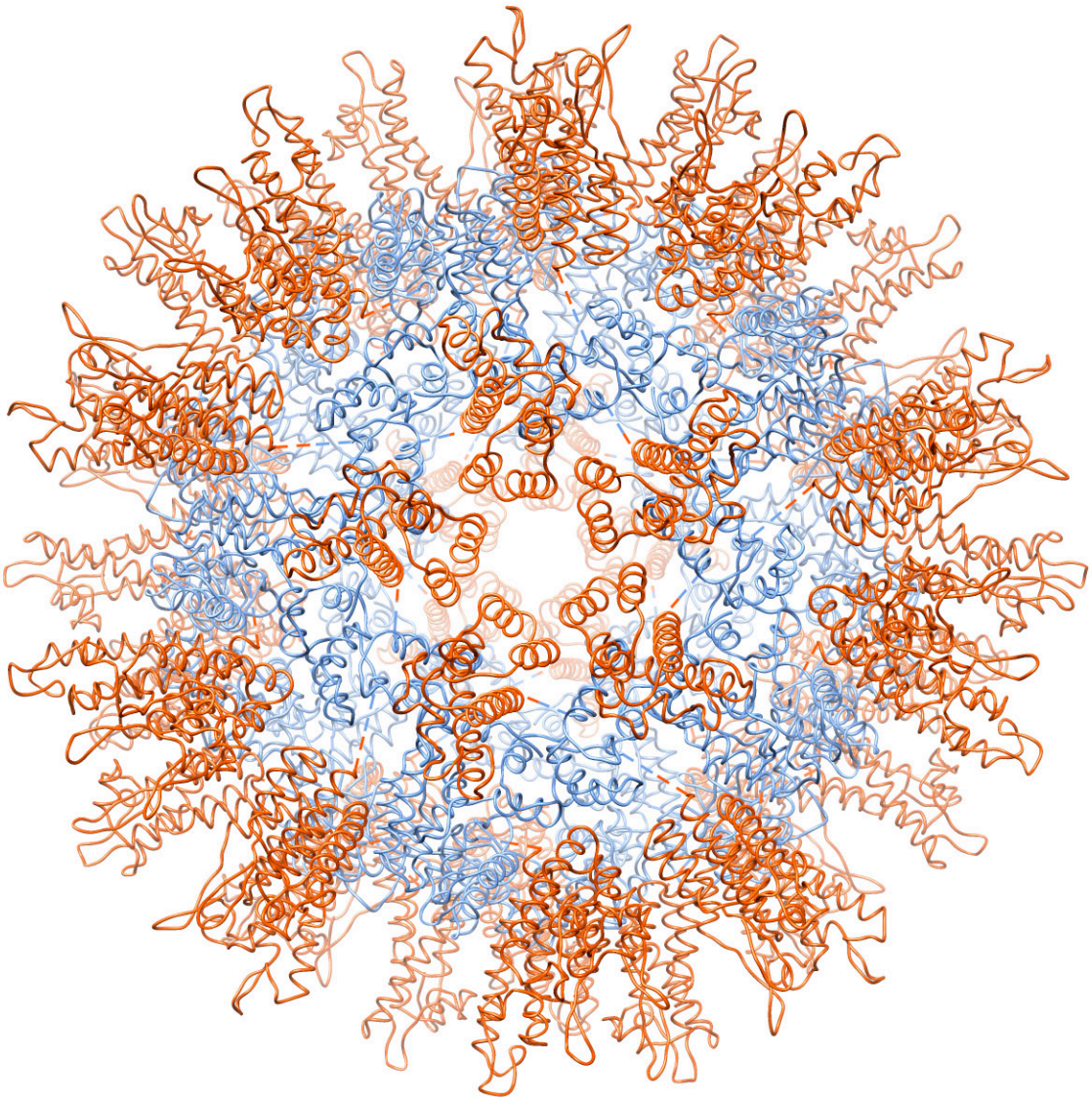
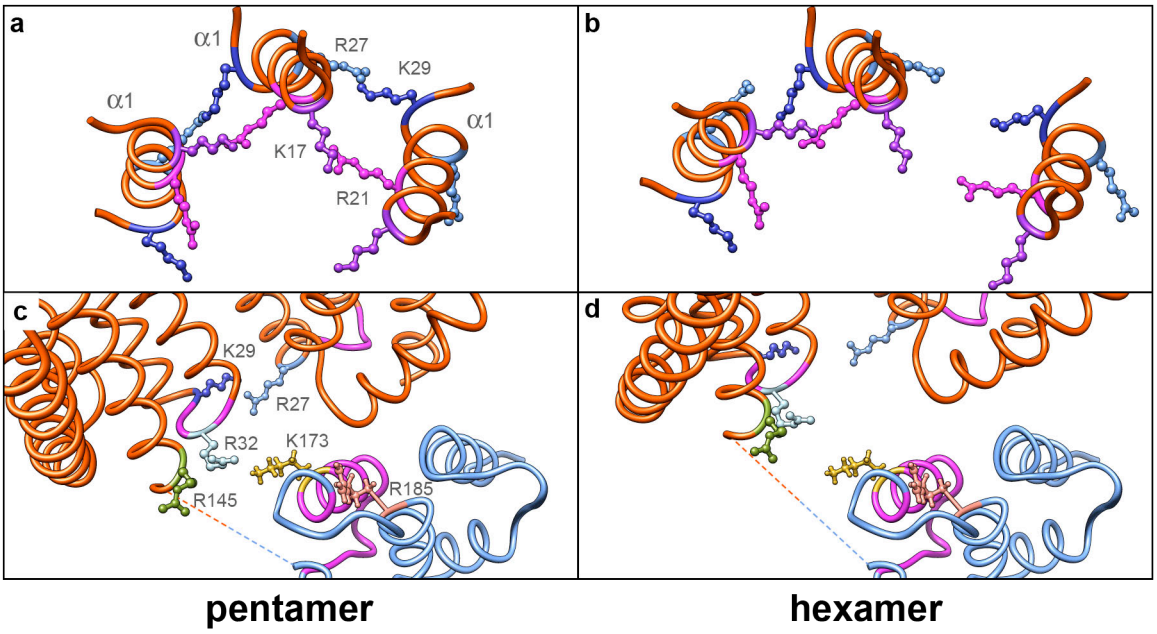
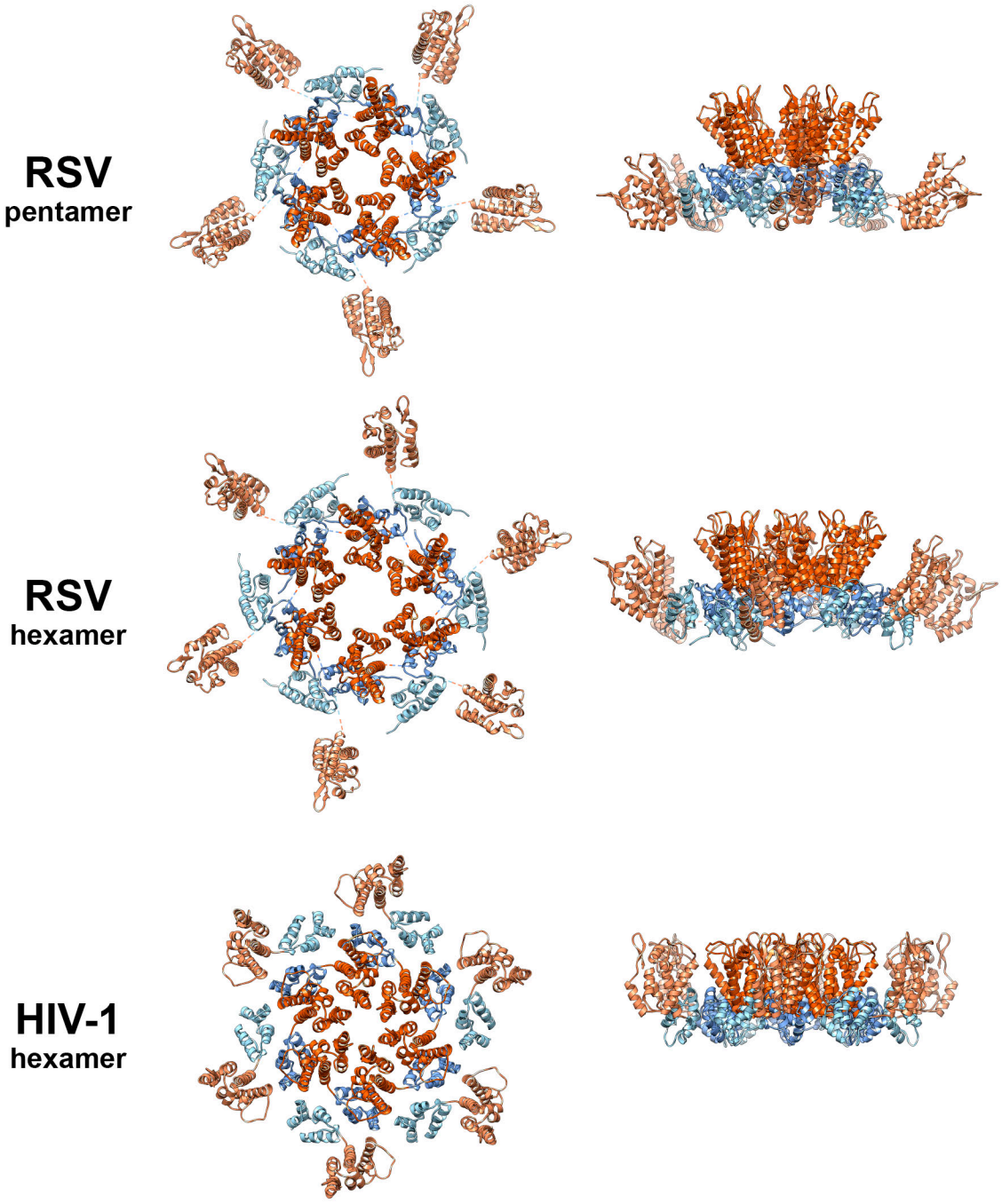


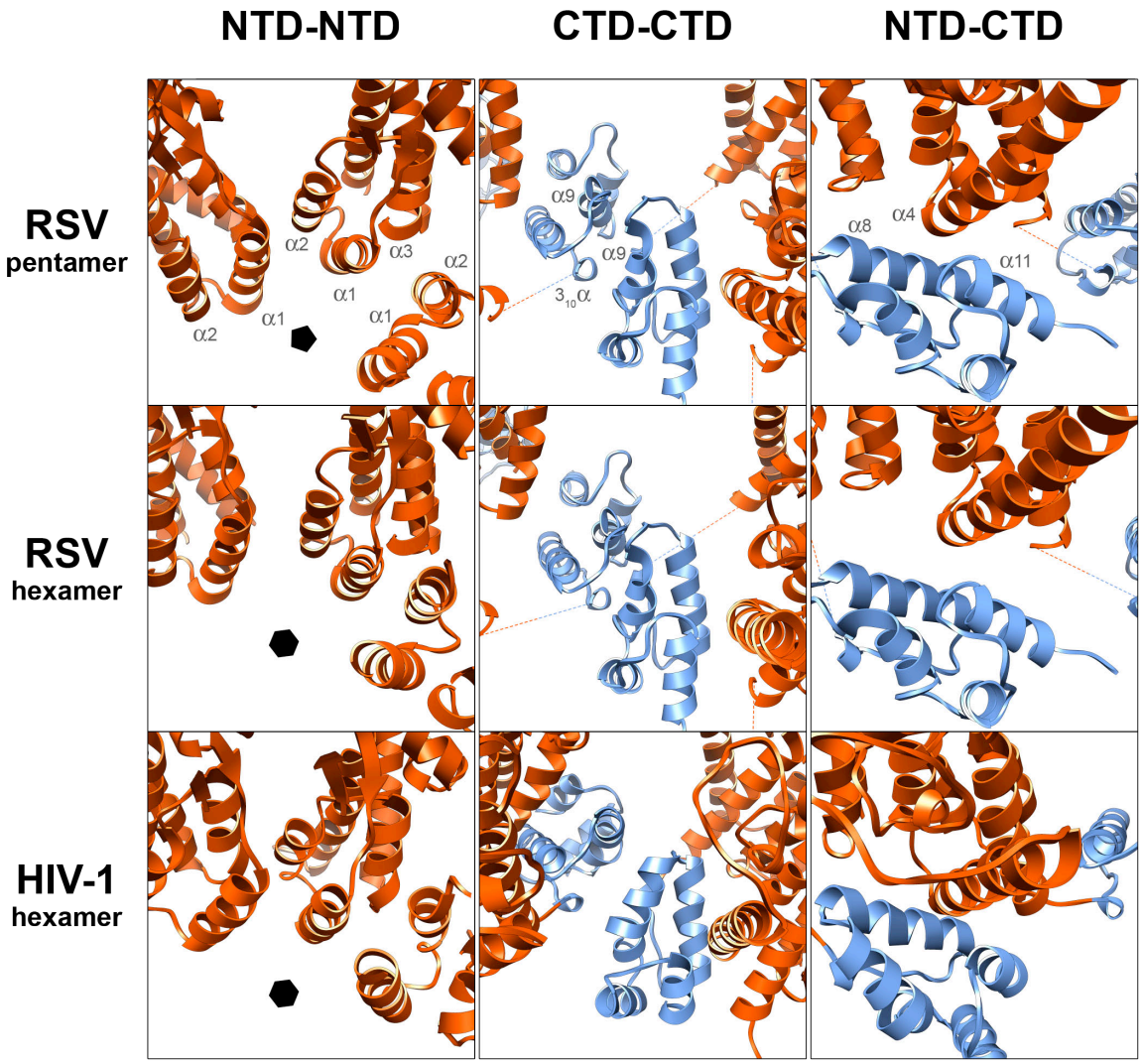
Supplementary Figure 1. Pseudo-atomic model of the T=1 capsid. The NTDs are represented in orange, and the CTDs are in blue.



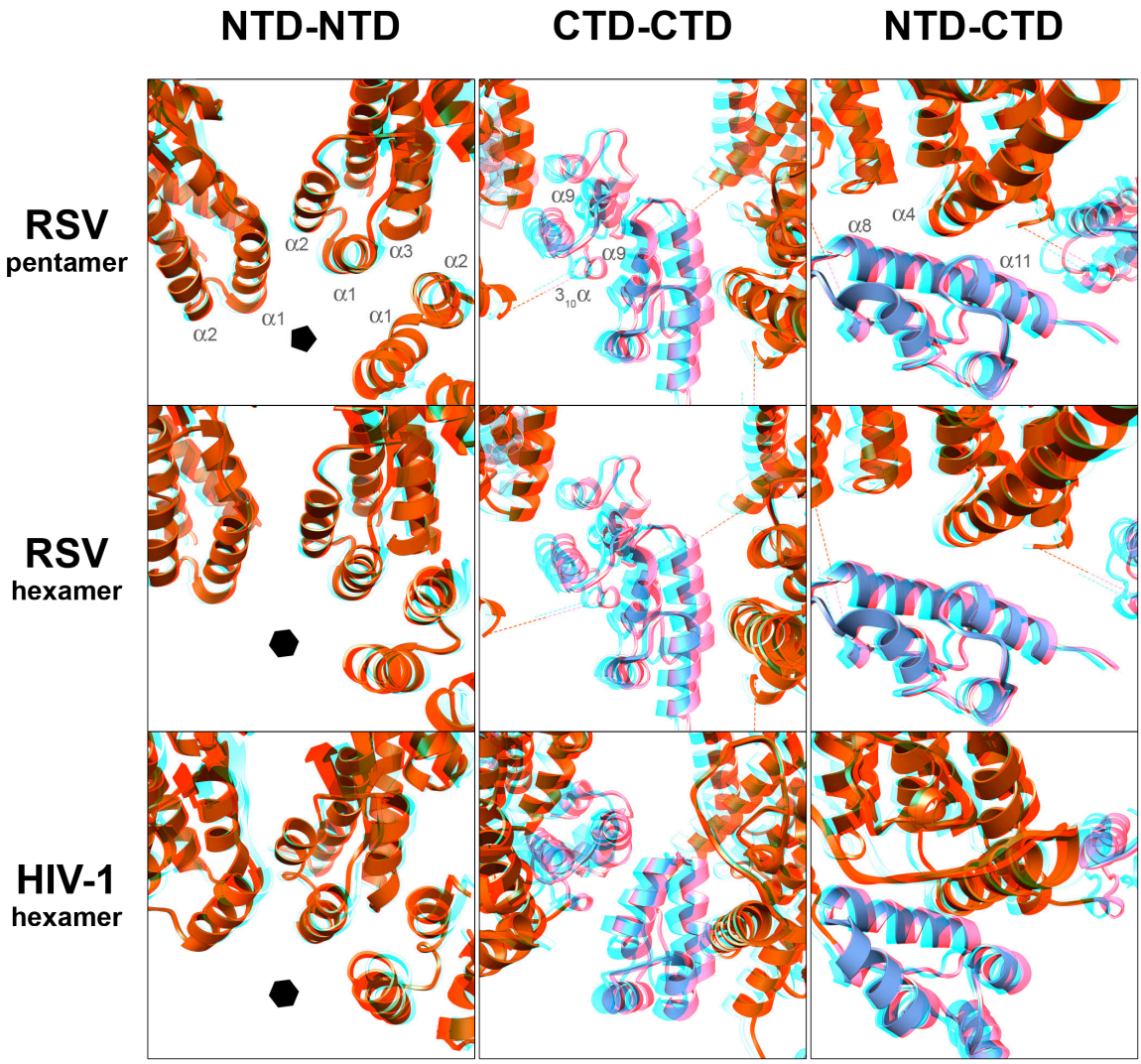
Supplementary Figure 2. Charged residues and inter-subunit interactions. Basic residues located close to the NTD-NTD and NTD-CTD interfaces are shown in a ball-and-stick fashion. The side-chain dispositions have not been determined; the diagram is intended to illustrate the relative proximity of like charges. NTD-NTD interfaces for pentamers and hexamers are shown in **a** and **b**, respectively. NTD-CTD interfaces for pentamers and hexamers are shown in **c** and **d**, respectively. The interfaces shown in **a** and **c** are from the T=1 capsid model, and those shown in **b** and **d** from the T=3 capsid model. The NTD-CTD interface in **d** is from the interaction of H1-NTD against H2-CTD. The NTDs are represented in orange, and the CTDs are in blue. In **c** and **d**, the loop between helices 1 and 2, in the NTDs, and the major homology region, in the CTD, are highlighted in magenta.



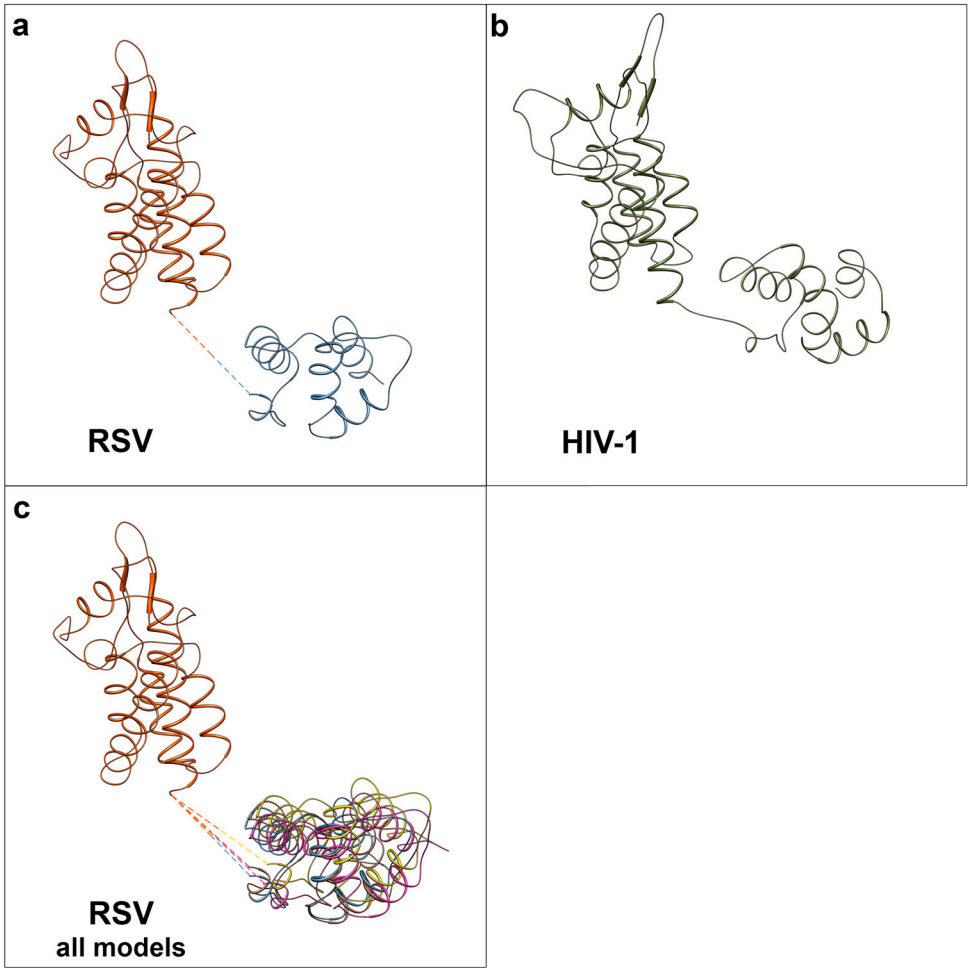
Supplementary Figure 3. Top (left) and side (right) views of pentamer and hexamer of RSV CA and hexamer of HIV-1 CA. In each case, all the subunits in a given ring are shown, plus 5 or 6 subunits from surrounding rings. The NTDs are represented in orange, and the CTDs are in blue.



Supplementary Figure 4a. Comparison of the three inter-subunit interactions as observed in pentamers and hexamers of RSV CA and hexamers of HIV-1 CA. The CTD-CTD interface shown for the RSV CA hexamer is from the interaction between H2-CTD and H2-CTD. The NTD-CTD interface shown for the RSV CA hexamer is from the interaction between H1-NTD and H2-CTD. NTDs are represented in orange and CTDs are in blue.



Supplementary Figure 4b. Anaglyph stereo view of Figure 4a.



Supplementary Figure 5. Flexibility of RSV CA allowed by the inter-domain linker. **a**, Pseudo-atomic model of RSV CA derived from the 17-nm T=1 particle. **b**, Pseudo-atomic model of HIV-1 CA derived from a published analysis of hexameric lattices (Ganser-Pornillos et al., Cell, 2007). **c**, Overlap of pseudo-atomic models of RSV CA for all non-equivalent positions in the T=1 and T=3 capsids. The NTDs are fixed and the positions of CTDs vary. The models of RSV CA and HIV-1 CA (a, b) are aligned to show the same orientation.