Supporting Information

Yang et al. 10.1073/pnas.1200206109

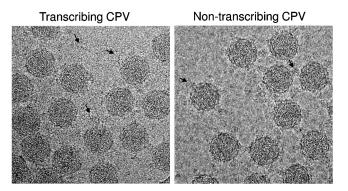


Fig. S1. Side-by-side comparison of a cryo-EM image of transcribing CPV (left) and a cryo-EM image of nontranscribing CPV (right). Left: arrows point to strand-like material around the CPV particles; right: arrows point to spike-like protein complexes.

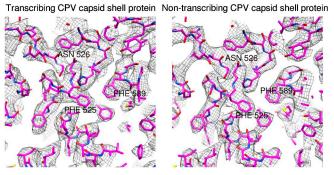


Fig. S2. Side-by-side comparison of transcribing CPV capsid shell protein (density map superimposed on the atomic model) with its counterpart in nontranscribing CPV filtered at a resolution of 4.1 Å. It indicates that both structures have a resolution of 4.1 Å.

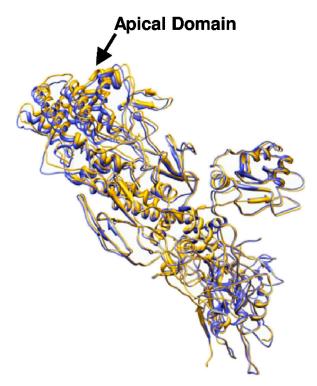


Fig. S3. VP1B from transcribing CPV (yellow) superimposed with VP1B from nontranscribing CPV (blue).

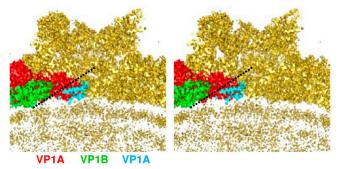


Fig. S4. Wall-eye stereo cutaway view of the turret of transcribing CPV. The direction of the channel is indicated by a dotted line. Copies of VP1A are in red and cyan, and that of VP1B is in green.

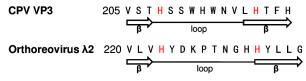


Fig. S5. Alignment of part of the amino acid sequence of CPV VP3 and orthoreovirus $\lambda 2$. The two conserved histidines are in red.

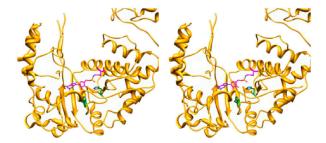
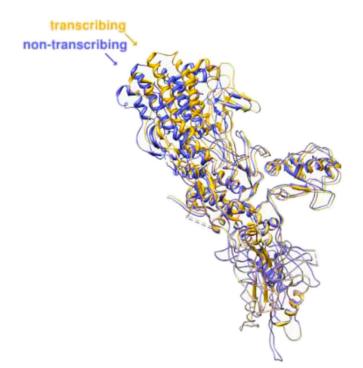
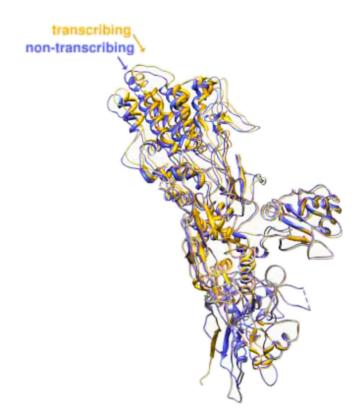


Fig. S6. Wall-eye stereo view of the CPV GTase domain. The two histidines are in green and the GMP moiety is in magenta.



Movie S1. VP1A from transcribing CPV (yellow) superimposed on VP1A from nontranscribing CPV (blue). The structural transition from the nontranscribing state to the transcribing state is shown.

Movie S1 (MOV)



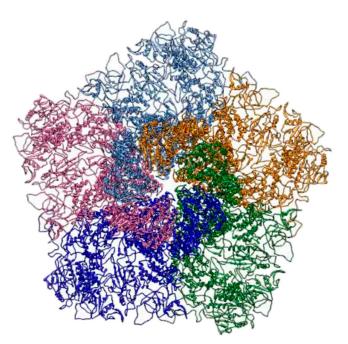
Movie S2. VP1B from transcribing CPV (yellow) superimposed on VP1B from nontranscribing CPV (blue). The structural transition from the nontranscribing state to the transcribing state is shown.

Movie S2 (MOV)



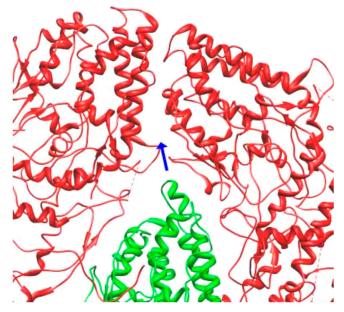
Movie 53. Alternative presentation of the slab view of the turret from transcribing CPV (yellow) and nontranscribing CPV (blue). The capsid chamber of transcribing CPV is enlarged.

Movie S3 (MOV)



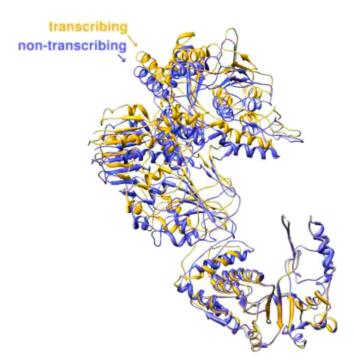
Movie S4. The fivefold region from turret protein VP3, and capsid shell proteins VP1A and B around a fivefold axis. The structural transition from the nontranscribing state to the transcribing state is shown.

Movie S4 (MOV)



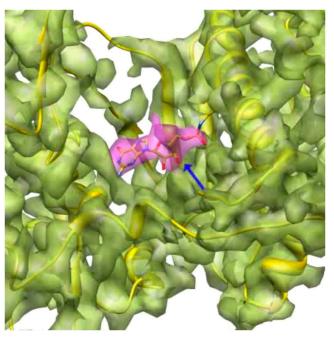
Movie S5. The RNA channel in the capsid shell. The RNA channel transition from the nontranscribing state to the transcribing state is shown. The peripentonal channel is indicated by a blue arrow.

Movie S5 (MOV)



Movie S6. VP3 from transcribing CPV (yellow) superimposed on VP3 from nontranscribing CPV (blue). The structural transition from the nontranscribing state to the transcribing state is shown.

Movie S6 (MOV)



Movie S7. The density map (transparent) of VP3 with its atomic model superimposed and a zoom-in view of the GMP in the GTase domain. Movie S7 (MOV)

DNA NO

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