

## Electronic Supplementary Material

### Visualizing the Transport of Porcine Reproductive and Respiratory Syndrome Virus in Live Cells by Quantum Dots-Based Single Virus Tracking

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Supporting information to DOI: 10.1007/s12250-019-00187-0

#### Legends for movies

Supplementary Movie S1: Dynamic process of PRRSV entry. The virus oscillated on the cytomembrane firstly, and then enter into the cell via an endosome.

Supplementary Movie S2: The movement of PRRSV in live cells. In the cytoplasm the viruses made fast and unidirectional movement and finally accumulated in a special region inside the cell.

Supplementary Movie S3: PRRSV endocytosis on microtubules. Virions moved along the microtubules for a long or short distance. Single virus trajectory on microtubule was also recorded.

Supplementary Movie S4: PRRSV endocytosis on microfilaments. Viruses transported from cytomembrane to nuclear periphery along microfilaments with a long or short trajectory. The trajectory of single virus was tracked in live cells.

Supplementary Movie S5: PRRSV endocytosis on vimentins. The PRRSV move close to the nuclear periphery using the vimentins.

Supplementary Movie S6: PRRSV infection and NMHC II-A. During the movement, the PRRSV made contacts with many NMHC II-A.