## Supplementary data

## Emergence of novel reassortant H1N1 avian influenza viruses in Korea wild duck in 2018 and 2019

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Figure S1. The geographical location of two novel isolates A/Greater white-fronted goose/South Korea/KNU18-64/2018(H1N1) and A/wild bird/South Korea/WKU19-4/2019(H1N1) in Korea.

Figure S2. Raw ELISA data of TCID50 assay for detect virus growth kinetic in MDCK cell

Figure S3. Raw ELISA data of TCID50 assay for viral load shedding in lung after 3 (A), 6 (B) and 15 (C) day post-infection

Figure S4. Mean lung weight at day 6 (A) and day 15 (B) post infection

Figure S5. Lungs from infected mouse at day 3, day 6, day 15 post infection.



Fig. S1. The geographical location of two novel isolates A/Greater white-fronted goose/South Korea/KNU18-64/2018(H1N1) and A/wild bird/South Korea/WKU19-4/2019(H1N1) in Korea.



48hr

60hr

72hr

А

10<sup>1</sup> 10<sup>2</sup> 10<sup>3</sup> 10<sup>4</sup> 10<sup>5</sup> 10<sup>4</sup> 10<sup>3</sup> 10<sup>4</sup> 10<sup>3</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>10</sup> 10<sup>3</sup> 10<sup>4</sup> 10<sup>3</sup> 10<sup>10</sup> 10<sup>10</sup>



В

48hr

60hr

72hr



Figure S2. Raw ELISA data of TCID50 assay for detect virus CA/04/09 (pdm09) (A), KNU2018-64 (B), WKU2019-4 (C) growth kinetic in MDCK cell.





Figure S3. Raw ELISA data of TCID50 assay for viral load shedding in lung after 3 (A), 6 (B) and 15 (C) day post-infection



Figure S4. Lung weight at day 6 (A) and day 15 (B) post infection



Figure S5. Lungs from infected mouse at day 3, day 6, day 15 post infection. Scale bar: 0.5 cm