1. An animal model of Enterovirus 71 (EV71) neuro-infection comprising a mouse that is up to four weeks in age having been infected at between one week and two weeks in age with an EV71 modified for infecting the mouse,

wherein the mouse is infected by injecting a mean cell culture infectious dose ($CCID_{50}$) of between 10^5 and 10^6 of the modified EV71 into the peritoneal cavity or into muscle tissue,

wherein the modified EV71 is *EV71:TLLmv*, which

(a) has been deposited with China Center for Type Culture Collection and assigned accession number CCTCC V201438 or

(b) has been recovered using advanced reverse genetics to synthesize the viral RNA sequence from SEQ ID NO:2 and

wherein the animal model displays acute encephalomyelitis associated with neurogenic pulmonary edema characterized by focal hemorrhage and proteinaceous fluid in the lung alveoli, high serum levels of catecholamines and extensive tissue damage in the brainstem.

2. The animal model of claim 1, wherein the $CCID_{50}$ is 10^6.

3. The animal model of claim 1, wherein the rodent is immuno-competent.

4. The animal model of claim 3, wherein the mouse is a BALB/c mouse.

5. The animal model of claim 1, wherein the mouse is immuno-compromised.

6. The animal model of claim 5, wherein the mouse is a NSG mouse.

7. A method to screen antiviral drugs, comprising: providing a test group of animals and a control group of animals, wherein the animals of each group comprise the animal model of any one of claims 1-6; administering to the test group an antiviral drug candidate; monitoring disease progression in the test group and the control group; comparing the disease progression in the test group to the disease progression in the control group; and

selecting the antiviral drug candidate that reduces disease progression in the test group relative to the control group.

8. The method of claim 7, wherein the antiviral drug is first screened in a test mouse cell line infected with the modified Enterovirus 71 before screening in the animals.

9. A method to screen effective antiviral vaccines, comprising: providing a test group of animals and a control group of animals, wherein the animals of each group comprise the animal model of any one of claims 1-6; administering to the test group an antiviral vaccine candidate; monitoring disease progression in the test group and the control group; comparing the disease progression in the test group to disease progression in the control group; and selecting the antiviral vaccine candidate that reduces disease progression in the test group relative to the control group.

10. A method of preparing an animal model of Enterovirus 71 (EV71) neuro-infection comprising

(i) infecting a mouse at between one week and two weeks in age with an EV71 modified for infecting the mouse and

(ii) raising the infected mouse for up to four weeks in age,

whereby an animal model of EV71 neuro-infection is prepared,

wherein the mouse is infected by injecting a mean cell culture infectious dose of between 10^5 and 10^6 of into the peritoneal cavity or into muscle tissue,

wherein the modified EV71 is *EV71:TLLmv*, which

(a) has been deposited with China Center for Type Culture Collection and assigned accession number CCTCC V201438 or

(b) has been recovered using advanced reverse genetics to synthesize the viral RNA sequence from SEQ ID NO:2, and

wherein the animal model displays acute encephalomyelitis associated with neurogenic pulmonary edema characterized by focal hemorrhage and proteinaceous fluid in the lung alveoli, high serum levels of catecholamines and extensive tissue damage in the brainstem.

11. The method of claim 10, wherein the $CCID_{50}$ is 10^6.

12. The method of claim 10 or 11, wherein the mouse is immuno-competent.

13. The method of claim 12, wherein the mouse is a BALB/c mouse.

14. The method of claim 10 or 11, wherein the rodent is immuno-compromised.

15. The method of claim 14, wherein the mouse is a NSG mouse.