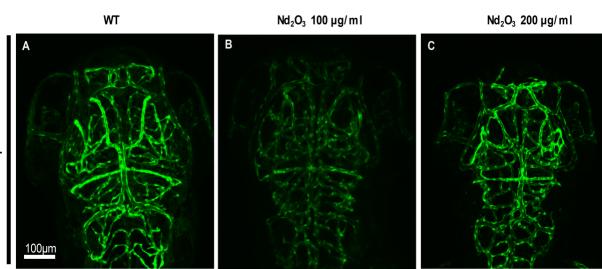
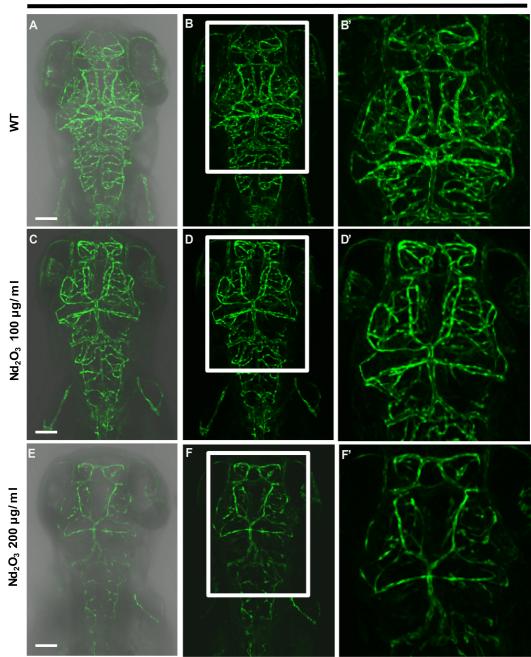
Sup Figure 1



3dpf

Sup Figure2

4 dpf



## **Supporting Information Legends**

## Figure S1. Nd<sub>2</sub>O<sub>3</sub> disturbed the cerebrovascular development at 3 dpf. A The

cerebrovascular images of wide type embryos. B The cerebrovascular images of embryos exposed to  $Nd_2O_3$  (100 µg/ml). C The cerebrovascular images of embryos exposed to  $Nd_2O_3$  (200 µg/ml). Scale bars, 100 µm.

Figure S2.  $Nd_2O_3$  disturbed the development of cerebrovascular at 4 dpf. A, B, B' The cerebrovascular images of wide type embryo. C, D, D' The cerebrovascular images of embryos exposed to  $Nd_2O_3$  (100 µg/ml). E, F, F' The cerebrovascular images of embryos exposed to  $Nd_2O_3$  (200 µg/ml). Scale bars, 100 µm.

Movie S1 showed that Nd<sub>2</sub>O<sub>3</sub> NPs can be ingested by embryos, related to Figure 1.

Movie S2-3 showed the heart rate of embryos treated with  $Nd_2O_3$  reduced, related to Figure 3. Movie 2 showed the heart rate of wild-type embryos, related to Figure 3; Movie 3 showed the heart rate of embryos treated with  $Nd_2O_3$ , related to Figure 3.

Movie S4-5 showed the heart dysfunction (arrhythmia) can be recorded in embryos exposed to  $Nd_2O_3$ , related to Figure 3.

**Movie S6-7 showed that cerebrovascular in Nd**<sub>2</sub>**O**<sub>3</sub> **embryos were vanished at 5 dpf, related to Figure 4.** Movie 6 showed cerebrovascular pattern of wide type embryos, related to Figure 4; Movie 7 showed cerebrovascular pattern of embryos treated with Nd<sub>2</sub>O<sub>3</sub>, related to Figure 4.

Movie S8-10 showed Nd<sub>2</sub>O<sub>3</sub> disturbed vascular sprouting at 3 dpf, related to Figure 5. Movie 8 showed vascular sprouting of wide type embryos, related to Figure 5; Movie 9 showed vascular sprouting of embryos treated with Nd<sub>2</sub>O<sub>3</sub> at 100  $\mu$ g/ml, related to Figure 5; Movie 10 showed vascular sprouting of embryos treated with Nd<sub>2</sub>O<sub>3</sub> at 200  $\mu$ g/ml, related to Figure 5.