Suppl. Fig. 1- High-resolution micro-CT imaging of mice brain subjected to mouse stroke model (tMCAO) using iodine staining.

A  Iodine Staining - tMCAO 45min (24h) - mouse stroke model
Suppl. Fig. 2 - Iohexol, phosphotungstic acid (PTA) and phosphomolybdic acid (PMA) staining of whole mice brain.

A  Iohexol staining in tMCAO 45' (24 h) mice

B  Phosphotungstic acid (PTA) staining in tMCAO 45' (24 h) mice

C  Phosphomolybdic (PMA) in PBS staining in naive (no-surgery) mice
Suppl. Fig. 3- Sequential immunostaining process in iodine-stained mice brains

A

B

NeuN  Hoechst 33342  Merge

Ips  Con

NeuN  Hoechst 33342  Merge

Ips
Suppl. Fig. 4- High-resolution micro-CT imaging of mice brains subjected to the TIA mouse model using Osmium Tetroxide staining.

A  Osmium Tetroxide Staining - TIA mouse model

Transaxial

Coronal

Sagittal
Supplementary Fig. 5- Brain ischemic lesions (stroke and TIA models) progression using high-resolution micro-CT.

- Sham
- TIA model
- Stroke model

A. No Changes
B. Striatum Degeneration
C. Striatum/Cortex lesion
D. Striatum/Cortex lesion w/ Core
Suppl. Fig. 6 – Neural network training and results visualization

A

Average loss in each training epoch

MSE loss

Training epochs

B

CNN input: Image of stroke-affected brain hemisphere

CNN output: Approximation of a healthy hemisphere image

Difference image

Segmented whole lesion

Segmented lesion core