

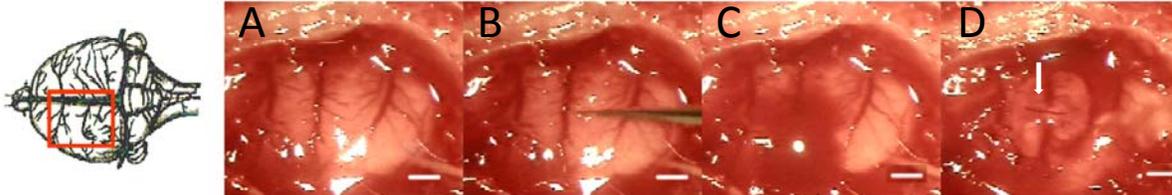
Translational Nanomedicine:

Instant Hemostasis

Brain, Femoral Artery & Liver

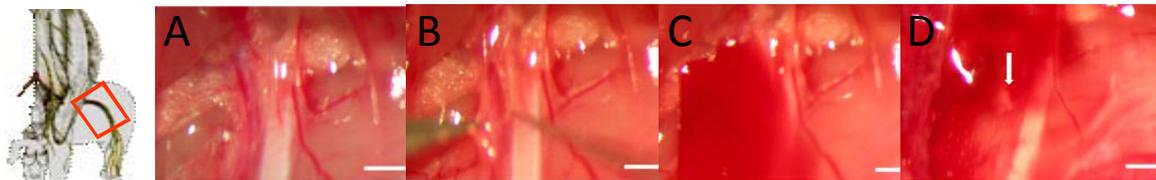
Instantaneous hemostasis in various tissues

Stop bleeding in the brain



The photo (A to D) is taken from region of the brain as outlined by the box in the sketch. **A)** the overlying skull has been removed to show the dorsal surface of the brain with the cerebral blood vessels. **B)** a probe is heading to one of the cerebral vessels **C)** the blood vessel is cut and blood is pouring out from the ruptured vessel. **D)** upon application of a drop of the nano hemostat solution (NHS) which assembles when in contact with the cerebrospinal fluid over the injured site to bring about instant hemostasis. Note that the lesion of the brain and the discontinuity of the severed vessel (arrow) is clearly visible under the haemostat.

Stop bleeding in the femoral artery



A) shows the exposed femoral artery taken from the region indicated by the box in the sketch. **B)** a scalpel blade is approaching the artery and cut it. **C)** blood pours out from the ruptured artery. **D)** a few seconds after application of the NHS over the severed artery (arrow) bleeding stops.

Stop bleeding in the liver



A) the liver is exposed. **B)** one of the liver lobe is cut vertically to separate into two halves. **C)** blood is seen gushing out from the lesion site. **D)** NHS is injected with a syringe into the gap of the liver created by the cut. Bleeding stops and the trench (arrow) between the liver halves can be clearly visible under the layer of hemostat.

Ellis-Behnke, R. G. et al. Unpublished work.