

# Surgical Overview for the Implantation



NeuroLux

### Prior to Beginning:

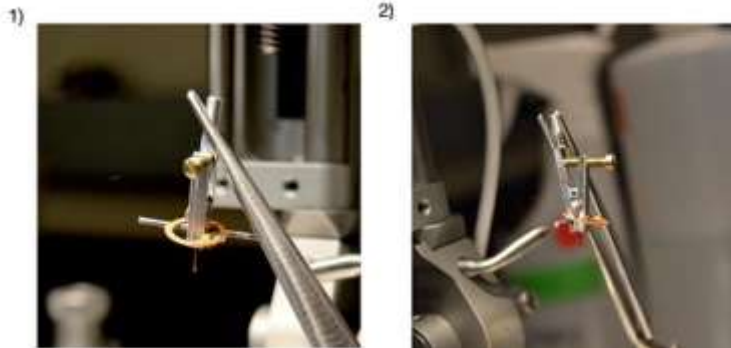
Prior to beginning this procedure, the Animal Care and Use Committee of the investigating institution should approve all procedures and conform to US National Institutes of Health guidelines regarding animal research.

All animals should be anesthetized as they would be for any other stereotactic surgery. We use Isoflurane, USP. Place animals on stereotactic frame aligning the head of the mouse between the ear bars

### Surgical Overview:

- A. Prepare the mouse head for incision:
  - Shave or trim fur
  - Apply artificial tears on mouse's eyes
  - Apply iodine to surgical area
- B. Cut open skin above skull with a vertical incision (use scissors or scalpel) and clean the area to allow good visualization of the skull suture lines.
- C. Locate bregma and lambda on mouse skull and ensure the animal is aligned.
- D. Locate the region of interest and drill a hole through the skull.

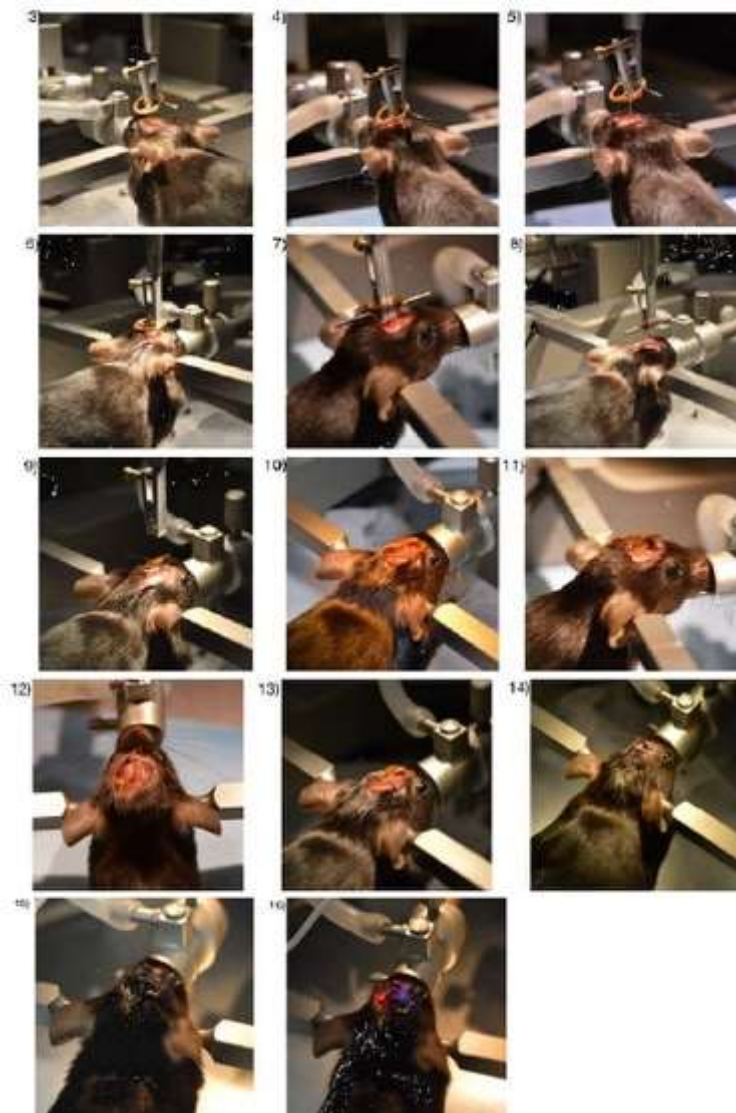
- E. Set up the NeuroLux device as shown in the accompanied pictures (pictures 1 and 2) using the holder provided. This will ensure that the needle can be lowered with room to adhere it to the skull. The holder fits into a standard Kopf stereotactic arm.



The device should be secured in the holder by the flag component at the top of the needle

- F. Slowly lower the needle to the required depth (pictures 3-11) apply cyanoacrylate gel followed by an accelerant around the flag to secure the needle in place (picture 10-13).
- G. Release the device from the holder and retract the arm.
- H. If necessary, reinforce the device further by adding another layer of cyanoacrylate gel.
- I. The device can be tucked under the skin and the skin carefully sutured over the entire device (pictures 12-16).

- J. Immediately following surgery, it is possible to check the functionality of the device by activating the red LED (picture 15).
- K. Following full recovery, the mice can be returned their normal group housing (group or single housing).



For any concerns or questions, please contact NeuroLux support:

[support@neurolux.org](mailto:support@neurolux.org)