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## Intracerebroventricular administration of compound in Mus Musculus

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**Protocol status:** Working

We use this protocol and it's working

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## Disclaimer

Protocol requires prior approval by the users' Institutional Animal Care and Use Committee (IACUC) or equivalent ethics committee.

## Abstract

Intracerebroventricular administration of compound in Mus Musculus. Here we utilize the newly developed CDK14 covalent inhibitor, and inject it into lateral ventricle of Mus Musculus brain.

## Troubleshooting

## Day before surgery

- 1 16h before stereotactic surgeries, load Alzet® Mini-Osmotic Pumps (model 2004) with 1.47µg/µL of FMF-04-159-2 (R&D Systems 7158, Minneapolis, MN, USA in vehicle solution containing 8% DMSO (Fisher Scientific, BP231, Hampton, NH, USA), 2% Tween 80 (Fisher Scientific, BP338-500) and 90% ddH<sub>2</sub>O). These pumps administer the solution at 0.35mg/kg/day.
- 2 Trim brain infusion catheters to 3.5cm from Alzet® Brain Infusion Kit and attach to pump as per manufacturer's instructions.
- 3 Incubate brain infusion assemblies at 37 °C in sterile saline until implantation.

## Day of surgery

- 4 Deeply anesthetize mouse with isoflurane.
- 5 Implant canula at the appropriate location (coordinates relative to bregma: –1.1 mm medial-lateral; –0.5 mm antero-posterior and –3 mm dorso-ventral).
- 6 Secure cannula using dental cement.
- 7 Bury the pump in a subcutaneous pocket of the mouse's back.
- 8 Allow for 28 days with the brain infusion catheter implanted.
- 9 Monitor mouse body weight, activity, neurological signs, facial grimace, coat condition, and respiration within 28 days after the surgery.
- 10 Sacrificed mice, collect organs on the 28th day of the administration period.