This SOP replaces:	Version: A
Reason for Change:	AWO comments
Related SOPs:	SOP-LTK-TRT-13 Isoflurane anesthesia
Indication of Use:	Pulmonary application
Aim of SOP:	This procedure allows the application of drugs, allergens and cells to the lungs of mice

Distribution: 1. Original: Server

Attachments:

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Responsible Persons: Indiviuals with Modul 1 on respective license

Min/Max amount: up to 50 µl, 25 µl per nostril

Material:
- P10 or P20 or P100 or P200 pipet
- pipet tips

Safety:
Follow rules of the animal husbandry, keep substance toxicity in mind during preparation.

Method Description:

1. Anesthetize mouse according to SOP-LTK-TRT-13 Isoflurane anesthesia
2. Load pipet with up to 25 µl (for each nostril)
3. Hold animal in a 45° angle in scruff
4. Intranasal application of 50 µl solution/emulsion with pipette (25 µl per nostril). Wait every ca. 5 µl until drop disappeared.

Figure 32.17 Intranasal injection into an anesthetized mouse using a pipette (Gilson P-20).

from The Laboratory Mouse, Shimizu

5. After each i.n. application: Vertical holding of the mouse in the neck with nose at the top until mouse wakes up.
6. Place mouse back into cage

Controls:
Liquid has to disappear from the nostrils – if not:

Try again if animal had not taken up any liquid, wipe off old drop
If it did not take up liquid but regains consciousness: reuse for another experiment
If it took up insufficient amount of liquid: take animal out of experiment and euthanize

Documentation:
Lab book, place animals in experiment in iRATS

Problem management:
If you have a problem contact your study director or vet.

Literature:
Simmons, M.L. and Brick, J.O. (1970). In The Laboratory Mouse (ed. A. Hollaender), pp. 127–129. Prentice-Hall Inc., Englewood Cliffs.

Shinya Shimizu, Routes of Administration, in The Laboratory Mouse, pp. 527

Prier, J. E. (1966). In Basic Medical Virology (ed. J. E. Prier), pp. 38–77. The Williams & Wilkins Company, Baltimore.