When sleeping like a log is better for your mouse

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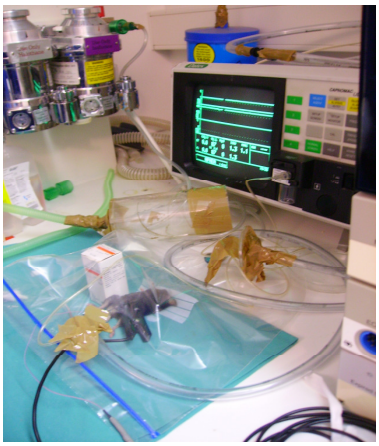
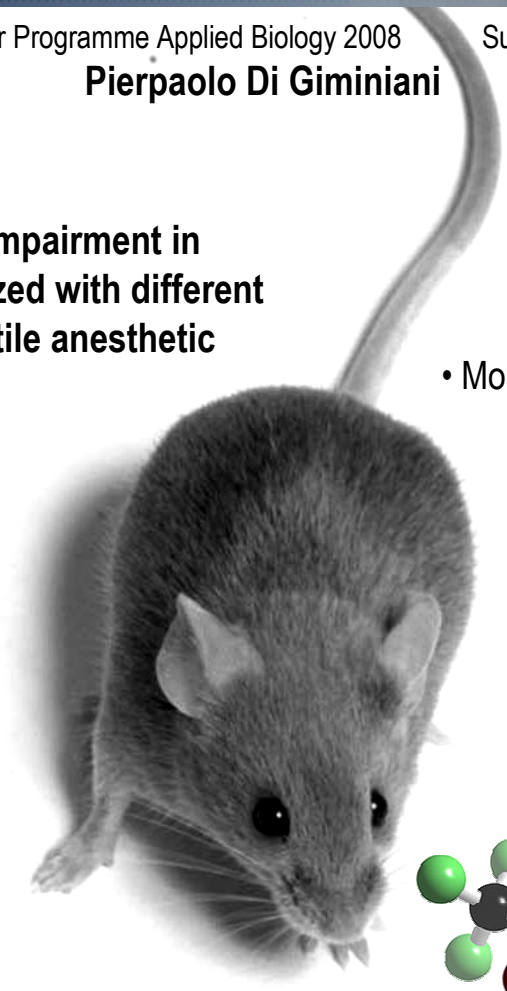
Supervisors: Dr. A Olsson, Prof. P Jensen
Pierpaolo Di Giminiani

Aim of the study

To assess the cognitive impairment in C57BL/6J mice anesthetized with different concentration of the volatile anesthetic agent ISOFLURANE.



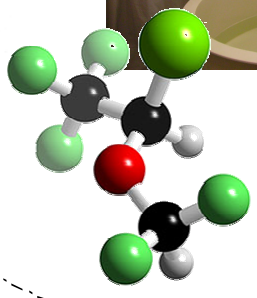
Anaesthesia procedure



Material & Methods

- Anaesthesia
- Morris water maze (spatial memory)
- 4 treatment groups (n=8) (0%, 1%, 1.5%, 2%)

Morris water maze



Results

- Individuals being anesthetized with 1% isoflurane showed greater impairment in the spatial memory task compared to 0% (p=0.010), 1.5% (p=0.023) and 2% (p=0.038).
- No differences were recorded in the animals' speed (no locomotory impairment).

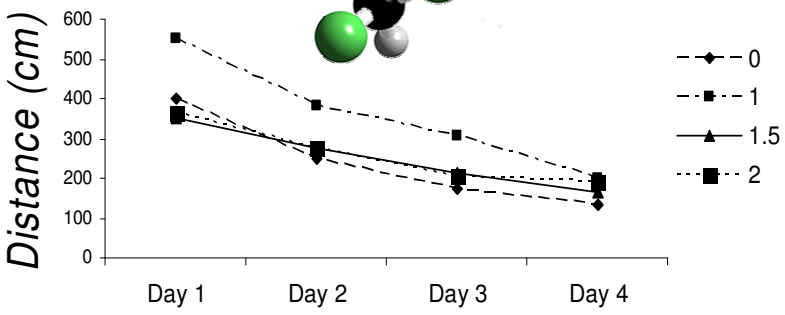


Figure 1. Mean weekly distance travelled by the four treatment groups before reaching the escape platform.

CONCLUSION

Lower concentrations of the volatile anesthetic ISOFLURANE cause impairment in the ability of mice to acquire and perform a spatial memory task.

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