

Title (en)

SAMPLE COLLECTION AND DRUG DELIVERY APPARATUS FOR FREELY-MOVING TETHERED LABORATORY ANIMALS

Title (de)

PROBENENTNAHME- UND WIRKSTOFFABGABEVORRICHTUNG FÜR FREIBEWEGLICHE RÜCKGEHALTENE VERSUCHSTIERE

Title (fr)

APPAREIL DE PRELEVEMENT D'ECHANTILLONS ET D'ADMINISTRATION DE MEDICAMENTS POUR ANIMAUX DE LABORATOIRE  
ATTACHES A UN FILIN ET SE DEPLA ANT LIBREMENT

Publication

**EP 0977477 A4 20010905 (EN)**

Application

**EP 98902398 A 19980108**

Priority

- US 9800120 W 19980108
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- US 78169097 A 19970110

Abstract (en)

[origin: WO9830254A2] A multichannel, multipurpose sample collection and drug delivery system for freely-moving laboratory animals including several sampling and/or infusion devices mounted on a powered turntable above the cage but out of the animal's sight. Rotation of the tether as the animal moves is detected by magnetic switches, which cause the turntable to turn in the direction taken by the animal. Fluid or electrical swivels are entirely eliminated; the animal experiences almost zero torque on the tether. As the swivel normally limits the number of fluid or electrical connections in traditional systems, eliminating the swivel removes this constraint. Multiple probes can now be placed in alert, freely moving animals to sample several brain regions simultaneously. Further advantageous embodiments of the present invention include (a) systems to measure feeding, drinking and motor activity; (b) automated and unattended systems for blood withdrawal and drug delivery; (c) a data link with a personal computer to provide for data acquisition and more sophisticated control; (d) an improved method for sampling extracellular concentrations of neuropeptides, which are difficult to measure with conventional microdialysis; (e) the capability to perform electrophysiology simultaneously with microdialysis (or other sampling methods); and (f) the adaptation of the system for use with animals larger or smaller than the rat.

IPC 1-7

**A01K 27/00**; **A01K 1/03**; **A01K 1/04**

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] US 5305712 A 19940426 - GOLDSTEIN ANDREW H [US]
- See references of WO 9830254A2

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