

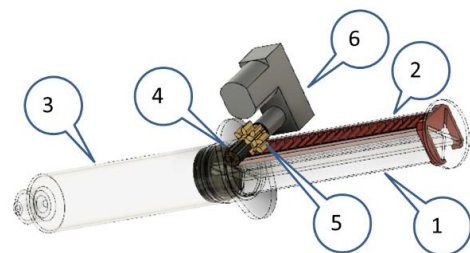
Technology Offer

Medical Infusion Pump

Infusion pumps are needed for versatile purposes. A miniaturization in combination with the use of standard single-use syringes is desirable in particular for veterinary applications as well as for humans in developing countries. Due to its robust and affordable construction it can be also considered single – use for epidemic outbreaks. Our invention offers a controlled application of a drug with remote triggering.

Technology

Portable medical perfusion pump comprising a housing adaptor for receiving a conventional syringe barrel, wherein the pump comprises a toothed rod to be inserted into a longitudinal groove of the plunger rod of the conventional syringe. The pump further comprising a pinion wheel for engaging the toothed rod when the syringe is attached to the housing and linearly driving the plunger rod to expel the liquid drug. The infusion pump may be wirelessly controlled to provide a bolus or driven in constant speed by a motor or clockwork. The housing just contains of a fixation for the syringe body and holds the gear motor in place. Hence it has minimum volume, weight and cost.



Standard syringe comprising of a body (3) and a plunger (1). The latter has a pre-formed or snap-in toothed rod (2). A pinion wheel (5) is driven by a gear motor (6) or by a clockwork.

Applications

- Anesthesia or pain management
- Remote Euthanasia (Bolus)
- Control recovery of horses and wild animals
- Developing countries
- Dosage of disinfectant and cleaner

Advantages

- Small device using standard syringes
- Lowest cost, Single-use applications
- Proprietary syringe plunger with pre-formed toothed rod

State of development

Prototypes available

IPR

Patent pending
Search report provided by EPO did not find any relevant prior art.

Options

Material Transfer Agreement, R&D cooperation, License agreement, Sale

Inventors

Johannes Peter Schramel
Ulrike Auer

Reference

Vetmeduni EM 126

Contact details

Mag. Christine Ruckenbauer,
E: Christine.ruckenbauer@vetmeduni.ac.at; P: +43 1 25077 1047
Technology Transfer
University of Veterinary Medicine Vienna

