

Endocrinology perfusion



In the Animal and Poultry Science Department of the University of Guelph, Canada, the research and teaching programs include: animal breeding, genetics, nutrition, physiology, growth and metabolism.

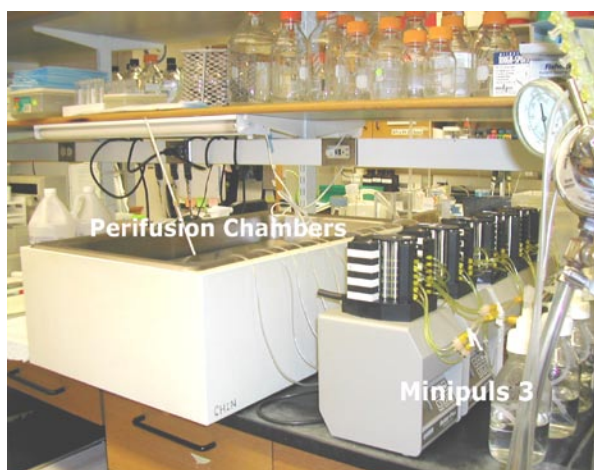
One study led by Dr. Grégoy Bédécarrats in collaboration with Dr. Ursula Kaiser (Brigham and Women's Hospital, Harvard Medical School, Boston, MA, USA) targets the role of Gonadotropin-Releasing Hormone (GnRH) in the differential regulation of gonadotropin subunit gene promoter activity.

These experiments are performed using a perfusion system previously developed in the Dr. Kaiser's laboratory. LbT2 cells are plated in perfusion chambers and a set of peristaltic pumps delivers media for up to 24 hours. The **Minipuls 3** has been chosen for this experiment because it ensures reliability for long runs, is convenient, and can be equipped with multi-heads, with up to 8 tubing, to accommodate different sizes and types of tubing.

Thanks to their electrical connectors, a set of **Minipuls 3** controlled by a timer can deliver the media and/or GnRH at 0.25mL/min, continuously, or as pulses of 5 min every 30 min, 1h, 2h and 3h, of various frequencies to up to 12 perfusion chambers, with an accuracy of +/- 5%.

The quality and robustness of the **Minipuls 3** facilitates the pumping of the different solutions in several chambers, at the same flow rate, during the same periods of time, for up to 24 hours.

The results and experimental designs have been described in:
Endocrinology 144(5): 1802-11 (2003).



«*The minipuls pumps are the ideal tool for experiments requiring precise flow control, and exact on/off control for extended periods of time*»

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Field of Application	Required Minipuls 3 products	Reference
Endocrinology / Animal science	Minipuls 3 control module R8 8-channel pump head Peristaltic tubing PVC, 0.25mm ID orange/blue	F155001 F117608 F117932
Typical customers		
Research Laboratories		