Technical Information

9.4T preclinical MRI scanner

Agilent/Varian

Location address:
EPFL AVP CP CIBM AIT CH F0-595
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Description

Ultra-high magnetic field and ultra-strong gradients preclinical system, opening the way for high spatial resolution MRI, exquisite functional and diffusion contrasts, and high resolution spectroscopy. The system is mainly used for rodent MR investigations.

31 cm actively shielded magnet (the first ultra-wide horizontal bore 9.4 Tesla magnet for biomedical imaging research in continental Europe), complemented with a full suite of animal physiology support for anesthesia and surgical preparation, as well as bench experiments.

Specifications

- **Magnet:** Magnex Scientific 14.1 Tesla / 310 mm Bore, 120 mm Inner Diameter.
- Actively Shielded Magnet System
- **Cryostat length:** 1900 mm
- **Cryostat diameter:** 2380 mm
- **Nominal operating current:** 181 Amps
- **Energy stored:** 13.6 MJ
- **Gradient system:** 400 mT/m strength
- **Operating console:** Varian Inc. (Palo Alto, CA)

Software

- **Vnmrj 3.2**

Additional related infrastructure

- Animal preparation, surgery and behavioral room, proximity of CIBM MRI EPFL animalerie
- Physiology support for experiments related to animal imaging experimentation providing support for:
  - The preparation of the rodent
  - Monitoring of physiology to ensure proper physiological parameters during the scan
  - Compliance with ethical rules