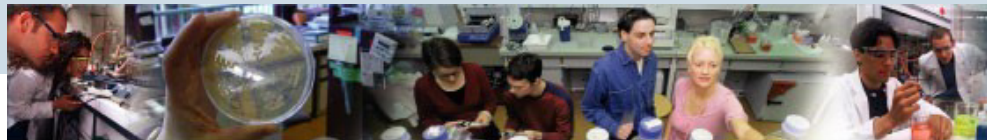




UNIVERSITÉ DE GENEVE

# Licensing Opportunity

UNIVERSITY OF GENEVA



## 587-A411

### In-capillary method for nanoscale automated cytochromes P450 assays

#### Invention

The group of Professor J.-L. Veuthey at the University of Geneva has developed a technique for automated *in vitro* cytochromes P450 (CYP450) drug metabolism studies. CYP450 assays are performed within a capillary of about one microliter volume, significantly reducing enzyme and substrate consumption and therefore costs. Metabolite analysis can be achieved off-line by ultra-high pressure liquid chromatography coupled to mass spectrometry (UHPLC-MS). This method presents several advantages compared to standard approaches used in drug metabolism studies. Moreover, it offers the possibility to increase the throughput by using multiple capillaries in parallel.

#### Applications

*In vitro* CYP450 drug metabolism studies:

- Metabolic stability;
- Metabolite identification;
- Characterization of metabolic pathways;
- Enzyme kinetics and inhibition.

#### Advantages

- Very low CYP450 consumption (ca. 30 nL/assay);
- Complete automation of assays;
- Applicable to both human liver microsomes and recombinant CYP450;
- High-throughput assays.

#### Stage of development

A system with a multicapillary configuration for high-throughput experiments is in development.

#### Collaboration and licensing opportunities

The University of Geneva is seeking a commercial/industrial partner:

- to sponsor further research for interesting applications;
- to license the U.S provisional patent (2008 / 61/112,393).



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