**Available PhD projects**

**Studies of Children’s Medicines and Drugs**

**Application deadline:** Applications accepted all year round

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**Funding:** Self-funding only

**Summary**

Quantification of analytes from blood spotted onto cards has a long standing pedigree in screening for inherited diseases affecting newborn infants and children. More recently, there has been growing interest in adapting and applying dried blood spots (DBS) methods using micro-volumes of blood (10-20 ul) to quantify parent drug, metabolites and biomarkers for drug development purposes.

The small sample volumes required for DBS methodology also has significant potential to impact favourably and radically in medicines use in children. It is widely accepted that there is a paucity of PK data for children’s medicines and this information gap is cited as one of the major reasons why the evidence base for medicines use in infants, children and young people is very poor.

There remains an urgent need for a method of collecting blood samples that can be used to quantify drug levels robustly in the conduct of pharmacokinetic-pharmacodynamic (PK-PD) studies undertaken in a population of any age and from a variety of clinical settings. DBS methods has the potential to fit these requirements. Dr Pandya and colleagues offer a number of clinical and laboratory-based MD / PhD projects in children’s medicines. These projects would be of interest to chemistry, pharmacist / pharmacology and bioscience graduates as well as clinicians. There is a great opportunity to gain experience and expertise in cutting edge mass spectroscopy and population pharmacokinetics and to develop a career in drug development.