



Call for applications – Postdoctoral Research Associate in Pharmacometrics
Opportunity at Infectious Diseases Institute
with collaboration with University of Cape Town and University of Liverpool

The **Maternal and Infant Lactation pharmacoKinetics study (MILK)** at the Infectious Diseases Institute Makerere University is **seeking one post-doctoral researcher** for its fully-funded opportunity **in the field pharmacokinetics in breastfeeding mother-infant pairs**, funded by the Wellcome Clinical Research Career Development Fellowship held by Dr Catriona Waitt.

Pharmacometrics is an emerging discipline that uses mathematical and statistical tools to quantify drug, disease, and trial information to aid efficient drug development and/or regulatory decisions. It designs and applies mathematical models to describe the relationship between drug exposure (pharmacokinetics) and response (pharmacodynamics) for both desired and undesired effects, and aims to include in such models the effects of individual patient characteristics.

Project Description

Worldwide, many women require medication whilst breastfeeding, but there is usually little information about how much drug transfers to the breastfed infant and what effects there might be to the infant. The Maternal and Infant Lactation pharmacoKinetics project seeks to explore the transfer from mother to breastfed infant of:

1. First-line TB treatment (Uganda)
2. First-line artemisinin-containing antimalarials (Uganda)
3. Drug-resistant TB treatment (Cape Town)
4. Bacterial infections (Liverpool)

The postdoctoral modeler will be involved in:

1. Protocol and case report form design
2. Interim analysis of data
3. Development of pharmacokinetic models to describe drug transfer from mother to infant

Furthermore, this is an opportunity to join a vibrant group where there is increasing interest in the use of pharmacometrics to explore major clinical challenges and the role will also include:

1. Involvement in the pharmacology group at IDI and the Uganda Chapter of Pharmacometrics Africa
2. Capacity building activities among colleagues and juniors



3. Involvement in the development of new grant proposals in related areas
4. Stakeholder and public engagement activities to raise understanding of pharmacometrics

One Postdoctoral fellowship Position

Eligibility

Highly motivated science/engineering/data science researchers are invited to contribute to the research and training activities of the MILK programme at IDI:

- Eligible candidates will have obtained (or have submitted thesis) for **PhD degree** in pharmacometrics, applied mathematics, engineering, (bio-)statistics, or a closely related discipline within the past 5 years.
- The fellowship involves advanced mathematical/statistical/computer modelling and simulation. **Strong quantitative skills** and experience with **computer programming** (e.g. R, Matlab, C++) and **data analysis** are required.
- A good command of English, passion about scientific research, and the ability to work within a team are essential.
- Track-record of working in pharmacometrics: **a 10-minute presentation of existing work will form part of the interview process.**

Fellowship (up to 3 years, with annual renewal contingent on performance review) includes:

- A full-time stipend
- Research fund
- Collaborative networks with the University of Cape Town Division of Pharmacology and Pharmacometrics, and the University of Liverpool Department of Pharmacology and Therapeutics (among others)
- Under this program, scholars have the opportunity to participate in various short structured courses for training in clinical research and skill-building sessions that are ongoing at IDI. Through this experience, we hope to expose academically excellent students to the sub-specialty of infectious diseases and HIV medicine within the context of academic research



How to apply

Candidates that meet the above criteria and have what it takes to excel in these positions should send their CVs, including details of email address, present position, current remuneration, Certificate/testimonials and address of three (3) Referees plus telephone contact to the stipulated email address not later than **30th November 2021**. *Please follow this link <https://idi.mak.ac.ug/hrms> to apply for this position.*

Key Notes:

- 1. IDI is an equal opportunity employer and does not charge a recruitment fee or any other fees at any stage of the recruitment process*
- 2. Internal candidates who meet the required specifications and have worked with IDI for a period of at least one year will be given priority.*
- 3. Make sure that your application letter, CV and certificates are attached as one document*
- 4. Indicate the Vacancy Code as the subject for your email*
- 5. Only shortlisted candidates will be contacted*
- 6. Any form of canvassing will lead to automatic disqualification.*

The Senior Human Resource Manager

Infectious Diseases Institute — IDI Knowledge Centre, Makerere University Main Campus; College of Health Sciences, Makerere University

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