



Division of Clinical Pharmacology Postdoctoral Fellowship in Pharmacometrics

The Division of Clinical Pharmacology at the University of Cape Town invites applications for a **Postdoctoral Research Fellowship**. Highly motivated science/engineering/data science researchers are invited to contribute to the research and training activities of the **Pharmacometrics Group**.

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.

Our Pharmacometrics Group has established **pharmacokinetic/pharmacodynamic** expertise in the area of **tuberculosis, HIV, and malaria**. It is active internationally and enjoys on-going collaborations and exchange programs with some of the most renowned pharmacometric modelling groups worldwide.

This fellowship is not only a unique chance to acquire an internationally sought-after set of professional skills geared towards a career either in academia or the pharmaceutical industry, but also an opportunity for a scientist in quantitative sciences to apply their expertise within the fascinating and rewarding framework of biomedical research.

Conditions of Award:

- Eligible candidates will have obtained the **PhD degree** in pharmacometrics, applied mathematics, engineering, (bio-)statistics, or a closely related discipline **within the past 5 years**.
- Applicants may not have previously held any permanent full-time professional or academic posts.
- 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.
- Previous experience in pharmacometrics and pharmacology would be advantageous, but not essential. Candidates without prior direct experience will have to show evidence of the ability to quickly get familiar with new analysis tools and techniques.
- The post-doctoral fellow will be required to contribute to pharmacometric research activity of the division:
 - The research projects can be adjusted to the interests and skills of the candidate and will pertain to the research interests of the division, mostly (but not only) the pharmacokinetics and pharmacodynamics of drugs for infectious diseases, with a focus on drug-drug interactions and dose optimization for neglected populations, such as paediatrics and pregnant women.
 - Candidates who are interested in pursuing more methodological topics (but relevant to the clinical interests of the division) will be encouraged to do so.
- As part of the candidate's professional development, limited mentorship and training of students will be required.

- A good command of English, passion about scientific research, and the ability to work within a team are essential.
- The successful candidate will be required to comply with the University of Cape Town's approved policies, procedures and practises for the postdoctoral sector. <http://www.uct.ac.za/main/research/postdoc-research-fellowships>

Value and Tenure:

The fellowship's value ranges from R 250 000 to 420 000 per annum (depending on the candidate's initial skillset and level of knowledge of pharmacometrics), is tax-free, and is tenable for one year. Yearly renewal for up to three years is possible, conditioned on satisfactory academic progress and availability of funds.

Application Requirements:

Suitable candidates are required to submit the following:

- A letter of interest/introduction in which the candidate motivates why s/he is suitable for the award of the fellowship;
- A CV including details of conferences presentations and all publications;
- Certified copies of academic transcripts (these can be sent later if not immediately available)
- The names and email addresses of at least three academics who have agreed to stand as referees on behalf of the applicant

Complete applications and all enquiries must be submitted to paolo.denti@uct.ac.za by Feb 17th 2019.

Selection Process:

Eligible and complete applications will be considered by a committee chaired by the head of Division of Clinical Pharmacology, University of Cape Town.

The University of Cape Town reserves the right to make no awards at all, to cancel the award if the conditions are not met, and to effect changes to the conditions of the award. The University of Cape Town reserves the right to disqualify ineligible, incomplete and/or inappropriate applications.

