



DIVISION OF
**CLINICAL
PHARMACOLOGY**

**Dedicated unit explores ways to tackle
infectious diseases and HIV/AIDS in Africa**



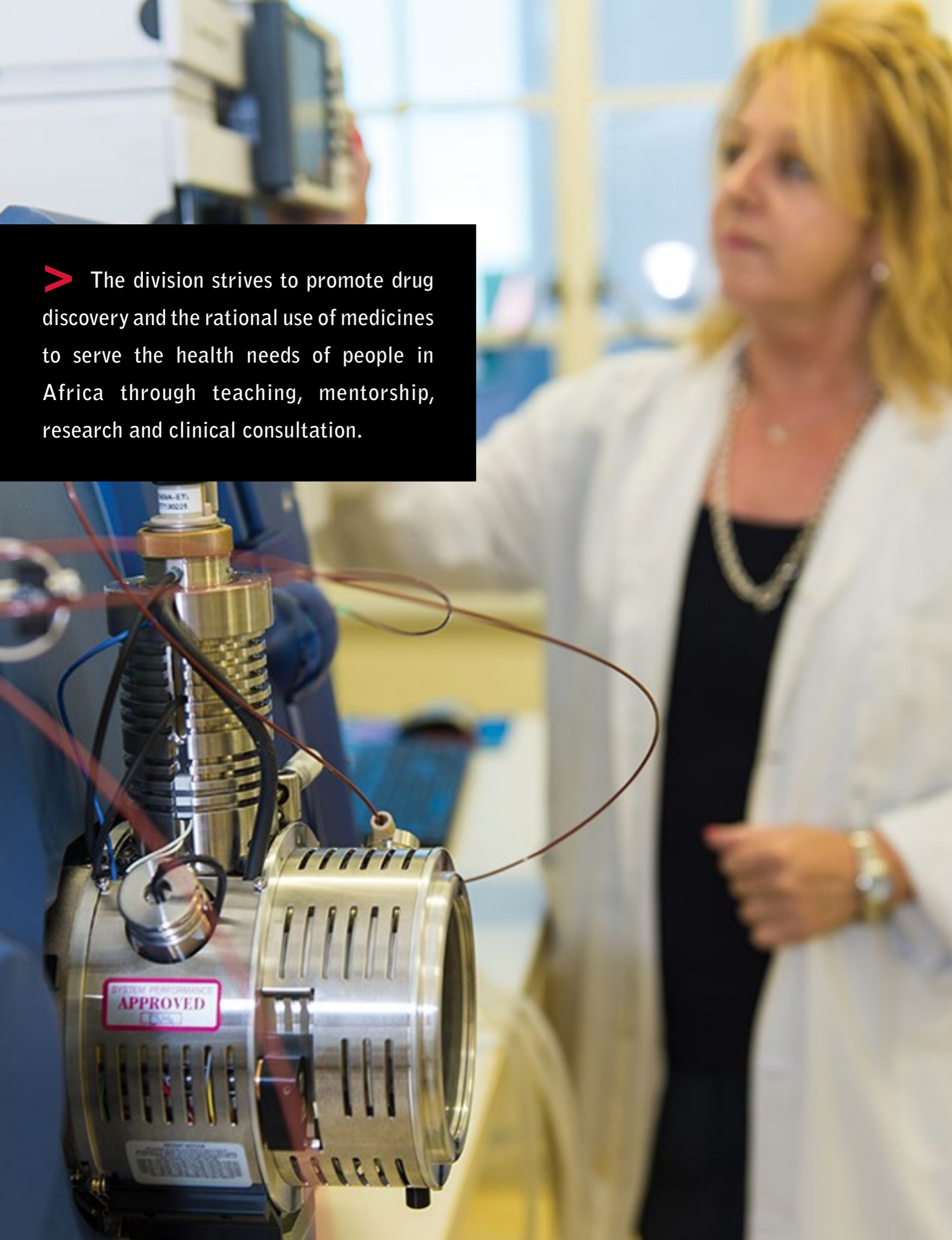
**Professor
Gary Maartens
Head of Clinical
Pharmacology**

Sub-Saharan Africa is one of the regions hardest hit by infectious diseases like malaria, tuberculosis and HIV/AIDS and the Clinical Pharmacology Unit at Groote Schuur Hospital, a designated World Health Organisation collaborating centre for medicines information, is leading the way in Africa in winning the war on these diseases.

Headed by Professor Gary Maartens, work in the division spans research, teaching and clinical services. "The division strives to promote drug discovery and the rational use of medicines to serve the health needs of people in Africa through teaching, mentorship, research and clinical consultation," he says.

"Research in these fields is broad and encompasses drug discovery pharmacokinetics, pharmacodynamics, pharmacogenomics, clinical trials, adverse drug

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reactions, and pharmaco-economic evaluation,” says Professor Maartens, who himself runs a broad research programme focused on the clinical pharmacology of HIV and tuberculosis.

At the heart of the division is an analytical laboratory that plays a key research role, evaluating pharmacokinetics of both new chemical entities in small animal models for drug discovery and in patient samples for drug concentrations. It is the only South African centre accredited to develop new drug assays. The laboratory has funding from the AIDS Clinical Trials Group (ACTG) and the International Maternal Paediatric Adolescent AIDS Clinical Trials Group (IMPAACT) as an International Pharmacology Specialty Laboratory and has built up a track record second to none in the study of drug concentrations in African patients with HIV, tuberculosis and malaria, particularly among vulnerable groups.

In collaboration with Professor Kelly Chibale’s drug discovery group from UCT’s Department of Chemistry, as well as with other drug discovery groups, the division tests new chemical entities directed against infectious diseases in animal models and tissue culture.

Professor Helen McIlleron heads the clinical pharmacokinetics group, which conducts a series of pharmacokinetic studies evaluating antitubercular drugs, antiretroviral drugs, and the interactions between them in adults and children.

On the academic front, the division teaches undergraduate medical and physiotherapy students as well as postgraduates (PhD, MSc and honours). “A key function of the division is the training of registrars to become specialist clinical pharmacologists in our MMed programme,” says Professor Maartens.

The division provides a clinical and laboratory pharmacology service to Groote Schuur Hospital as well as secondary and primary centres within its drainage area.



Samantha Hare and Professor Marc Blockman in the Medicines Information Centre.

And, in addition to its work on the frontlines of disease, it plays an important role in providing policy advice on the rational and cost-effective use of drugs for local hospitals, the Western Cape Provincial Coding Committee and the National Essential Medicines List Committee.

Also located in the division is the Medicines Information Centre, which provides a telephonic consultation service for healthcare professionals and runs the National HIV and TB Healthcare Worker Helpline. The division also produces the popular South African Medicines Formulary, currently in its 11th edition.

While Africa is caught in the middle of what Professor Maartens describes as the colliding plagues of TB and HIV/AIDS, the Division of Pharmacology is clearly rising to the challenge. Professor Maartens says that he is proud of the impact it is having on the African continent and is upbeat about progress in this area. “This is an exciting and fascinating area of study and research,” he says.