

Venue: SANBI Rooms, 4th Floor, Life Sciences Building

## Wednesday, March 29

8:00 - 8:55 Arrival tea/coffee/ bakery

9:00- 13:00 Group Presentations - each 25 minutes with 10 minutes for questions.

- Utilization of the African Genome Project for Africa-focused Precision Medicine and Precision Drug Discovery: A Case Study of Statins by Prof. Samuel Egieyeh (UWC)
- Precision medicine: Pharmacogenomics and Development of Individualised Drug Therapy for Diabetes and Hypertension Patients by Prof. Mongi Benjeddou (UWC)
- Application of metabolomics and DNA adductomics to further unravel the impact of the exposome in health and disease by Dr. Lieselot Hemeryck (UGent)
- FLEXIGUT: Investigating the life-course impact of dietary and environmental exposure on chronic low-grade gut inflammation by Dr. Roger Però-Gascón, Prof. Dr. Marthe De Boevre, Prof. Dr. Sarah De Saeger, and the FLEXIGUT consortium (virtual)
- The prognostic role of M2-type tumor associated macrophages in oropharyngeal squamous cell Carcinoma by Dr. Tiji Vermassen (UGent) and Mr. Mathieu Struys (UGent)
- The role of human papilloma virus and tumor-infiltrating lymphocytes in oral and oropharyngeal cancer microenvironment: a tricontinental study by Dr. Tiji Vermassen (UGent) and Mr. Mathieu Struys (UGent)
- Creating Precision Medicine Education for Future Pharmacists: Challenges and Opportunities for the UM/UWC Partnership by Ms. Nicole Keuler (UWC) and Prof. Jerry Wyckoff (UMKC)
- Smart Sensing and Analytics for Cognitive Health Care by Prof. Sajal Das (Missouri Science & Technology)

13:00 - 14:45 Lunch for small groups

15:00 - 18:00 Small group meetings (TBC)

## Thursday, March 30

Open day for group meetings or social activities.

All morning sessions will be recorded for circulation at UM, UGent & UWC. The afternoon sessions on Monday and Tuesday will be webinar style to provide the opportunity for UM and Ghent researchers to participate virtually.

# PROGRAMME

The University of the Western Cape,  
Ghent University and the University of Missouri's  
joint symposium on Precision Medicine:

## Therapeutic Targets

Promoting focused Trans-institutional  
Collaborative Research

27-30 March 2023

The University of the Western Cape  
Cape Town South Africa



University of Missouri System  
COLUMBIA | KANSAS CITY | ROLLA | ST. LOUIS



Venue: SANBI Rooms, 4th Floor, Life Sciences Building

## Monday, March 27

8:00 - 8:55 Arrival tea/coffee/bakery

### 9:00 - 13:00 UGent Presentations - each 30 minutes with 15 minutes for questions

- Camelid single domain antibodies (Nanobodies): principles and applications in (bio)medical research by Prof. Jan Gettemans
- Toward targeted therapies for medication-resistant epilepsy by Prof. Robrecht Raedt
- Integrative gene regulatory network biology for precision medicine: elucidation of molecular mechanisms and pinpointing key regulators in complex diseases by Prof. Vanessa Vermeirssen
- Pharmacogenetics in Belgium: from high expectations towards more clinical applications by Prof. Lies Lahousse (virtual)
- Biomarker identification and profiling in heterogeneous prostate tumors by Prof. Kathleen Marchal (virtual)

13:00 - 14:45 Lunch for symposium attendees

### 15:00 - 15:30 Welcoming Remarks

- Rector Tyrone Pretorius
- President Mun Choi
- Vice-rector Mieke Van Herreweghe

### 15:30 - 16:30 Presentation by group #1

- Hypoxia enhances the secretion of Cancer Paracrine factors and Exosomes and is crucial to the progression of metastasis across the Blood-Brain Barrier by Prof. David Fisher (UWC)
- Sleep Apnea End-Organ Morbidity: Exosomes as Diagnostic and Prognostic Phenotypic Markers by Prof. David Gozal (MU) & Prof. Abdelnaby Khalyfa (MU)

### 16:30 - 18:00 Presentation by group #2

- Presentation 1: Development of Neuroprotective Agents and the Implementation of an African Specific Disease-Gene Variant Data Analytic Platform with a Focus on Alzheimer's Disease by Prof. Jacques Joubert (UWC) and Prof. Xiaoqin Zou (MU) (virtual)
- Presentation 2: Alzheimer's disease mitigation: AI, neuroimaging and gut-brain axis by Prof Ai-Ling Lin (MU) (virtual) and Prof. Jacques Joubert (UWC)

## Tuesday, March 28

10:00 - 13:00 Small group meetings (TBC)

Venue: SANBI Rooms, 4th Floor, Life Sciences Building

13:00 - 14:45 Lunch for symposium attendees

### 15:00 - 16:00 Presentation by group #3

- Developing a multimodal, integrative, in-silico, multiomics data science approach to early detection of HPV-based biomarkers of oropharyngeal head and neck cancer by Prof. Henry Adeola (UCT), Prof. James Bashkin (UM St. Louis), Prof. Haly Holmes (UWC), Prof. Amir Afrogeh (UWC), Prof. Badri Adhikari (UM St. Louis) and Dr Hocine Bendou (UWC).

### 16:00 - 17:00 Presentation by group #4

- Precision nanomedicine for tuberculosis therapy by Prof. Admire Dube (UWC) and Prof. Raghuraman Kannan (MU) (virtual)

### 17:00 - 18:00 Presentation by group #5

- Patient Data standardization and collection for UWC; benefits of collaborations and partnerships by Prof. Gerald J Wyckoff and Prof. Jennifer-Anne Chipps (UWC) (virtual)

