



*forward together · saam vorentoe · masiye phambili*

*Draft Programme*

**The First Stellenbosch University  
African Microbiome Workshop and Symposium**

**28 – 30 November 2019**

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## 1. FORMAT

The programme will consist of a workshop and symposium; with the 1<sup>st</sup> day training and 2<sup>nd</sup> day working with own datasets. The symposium (Day 2 and Day 3) will present the latest scientific advances in the field of the Microbiome and the Metabolome presented by national and international leaders in the field.

## 2. ORGANIZING COMMITTEE

**Prof Wim de Villiers**, Rector & Vice-Chancellor, Stellenbosch University

**Prof Hugh Patterton**, Ph.D., Professor of Bioinformatics, Center for Bioinformatics and Computational Biology, Faculty of Science, Stellenbosch University

**Prof Florian Bauer**, Institute for Wine Biotechnology, Faculty of AgriSciences, Stellenbosch University

**Prof Stephen O’Keefe**: Director, African Microbiome Institute, Faculty of Medicine and Health Sciences, Stellenbosch University and Div Gastroenterology, University of Pittsburgh

**Prof Andrew Whitelaw**, Head of Division: Medical Microbiology, Executive Head: Department of Pathology, Faculty of Medicine and Health Sciences

**Prof Grant Theron**, Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences, University of Stellenbosch

## 3. SYMPOSIUM VENUE

The [Wallenberg Research and Conference Centre, STIAS](#), Stellenbosch University

Click [here](#) for directions to the venue



#### 4. REGISTRATION AND ABSTRACT SUBMISSIONS

- Special rates will be available for students and for registration before November 1.
- Abstract submission deadline is November 1.

Registration Fees (ZAR)	Early (before 1 Nov)	Late
<b>Workshop</b> ( <i>all categories</i> )	R 1 200	R 1 200
<b>Symposium</b>		
<b>Academics</b> ( <i>anyone with a formal affiliation with a university</i> )	R 1 500	R 2 000
<b>Industry &amp; Public</b>	R 2 000	R 2 500
<b>Students</b>	R 400	R 500
<b>Exhibits</b> ( <i>includes one representative</i> )	R 4 000	R 6 000

#### 5. ACCOMMODATION

A wide variety of accommodation is available ranging from 5\* hotels to bed and breakfasts, wine farms, and university lodgings. Please click [here](#) for a full list of accommodation options.

#### 6. CONTACT DETAILS

Queries about the **WORKSHOP** can be directed to:

**Olivia van Wyk**

Faculty of Science, Stellenbosch University

[oliviavw@sun.ac.za](mailto:oliviavw@sun.ac.za)

Tel: +27 21 808 9514

Website: <http://www.sun.ac.za/english/faculty/science/sci-bioinformatics/events>

Queries about the **SYMPOSIUM** can be directed to:

**Joyal Arendse**

African Microbiome Institute (AMI)

Faculty of Medicine and Health Sciences, Stellenbosch University

[jvarendse@sun.ac.za](mailto:jvarendse@sun.ac.za) OR [sjokeefe@pitt.edu](mailto:sjokeefe@pitt.edu)

Tel: +27 21 938 9627

Website: <http://www.sun.ac.za/africanmicrobiomeinstitute>

## 7. PROGRAMME

<b>Day 1 &amp; 2</b>	<b>Workshop:</b> Microbiome Analytical Techniques
<b>Dates</b>	Thursday, November 28 and Friday, November 29 (morning)
<b>Venue</b>	Stellenbosch University, Al Perold Building 2005, Stellenbosch
<b>Intended audience</b>	<p>Researchers who want to start analysing their data with Qiime 2 or simply want to know more about the process. The course will run through a basic Qiime 2 tutorial which should enable new users to complete a basic analysis of their own data and how to start with more advanced analyses.</p> <p><b>Registration and more information:</b>  <a href="https://forms.gle/xRtgCVPfUXoVAvVKA">https://forms.gle/xRtgCVPfUXoVAvVKA</a>  <a href="http://www.sun.ac.za/english/faculty/science/sci-bioinformatics/events">http://www.sun.ac.za/english/faculty/science/sci-bioinformatics/events</a>  <a href="http://www.sun.ac.za/africanmicrobiomeinstitute">http://www.sun.ac.za/africanmicrobiomeinstitute</a></p>

### **PROGRAMME: DAY 1 (28 November 2019)**

#### **Workshop: Microbiome Analytical Techniques**

08:30	Registration
09:00	Introduction: Riaan N de Witt, Centre for Bioinformatics and Computational Biology
09:30	<i>Break</i>
10:30	Connect to HPC
11:30	Core concepts
12:00	<i>Lunch break</i>
13:00	Standard workflow tutorial: Importing data
13:30	Sample processing
14:00	Alpha & Beta diversity
15:00	<i>Break</i>
13:30	Taxonomy
16:30	Local install

### **PROGRAMME: DAY 2 (29 November 2019)**

#### **Workshop: Microbiome Analytical Techniques**

08:30	Course review
09:00	Additional analyses: Differential abundance
10:00	<i>Break</i>
10:30	Review of commands; download data
11:30	Questions and discussion
12:00	<i>End of workshop</i>

## SYMPOSIUM

<b>Day 2 &amp; 3</b>	<b>Symposium:</b> Interactions between the Environmental and Human Microbiota in the Preservation of Health and Genesis of Disease
<b>Dates</b>	Friday, November 29 and Saturday, November 30
<b>Venue</b>	The Wallenberg Research and Conference Centre at STIAS, Stellenbosch
<b>Registration</b>	<a href="https://forms.gle/uEocWYskxfXQGT1Z7">https://forms.gle/uEocWYskxfXQGT1Z7</a>
<b>Further information</b>	<a href="http://www.sun.ac.za/english/faculty/healthsciences/african-microbiome-institute/Pages/default.aspx">http://www.sun.ac.za/english/faculty/healthsciences/african-microbiome-institute/Pages/default.aspx</a>

### PROGRAMME: DAY 2 (29 November 2019)

TIME	ITEM	SPEAKER / FACILITATOR
10:00 – 12:00	<b>Registration</b>	
13:00 – 13:15 (15 min)	<b>Opening Address and Introduction</b>	<b>Prof. Wim de Villiers</b> <i>Rector &amp; Vice-Chancellor, Stellenbosch University</i>
<b>SESSION I: Recent advances in study design and analytical measurements of the microbiome and metabolome</b>		
<u>Chair(s):</u> Prof Nico Gey van Pittius ( <i>Vice Dean: Research and Professor in Molecular Biology</i> )		
13:20 – 14:00  (40 min)	<b>SESSION I.1</b> Update on the Measurement of the Microbiome, Metagenome, and Transcriptome  Lecture: 30 min Discussion: 10 min	<b>Prof. Barbara Methé</b> <i>PhD, Professor of Medicine, Co-Director, Center for Medicine and the Microbiome</i>
14:00 – 14:40  (40 min)	<b>SESSION I.2</b> Enterotypes, Signatures, and Specific Microbes in Health and Disease  Lecture: 30 min Discussion: 10 min	<b>Prof. Erwin Zoetendal</b> <i>PhD, Universitair docent Wageningen University, Agrotechnology &amp; Food Sciences</i>
14:40 – 15:20  (40 min)	<b>SESSION I.3</b> A systems biological approach to the interpretation of multi-omics data  Lecture: 30 min Discussion: 10 min	<b>Dr. Joram M. Posma</b> <i>PhD, MSc, B AS, MRSC. Division of Systems and Digestive Medicine (Computational and Systems Medicine), Imperial College London, United Kingdom</i>

TIME	ITEM	SPEAKER / FACILITATOR
15:20 – 15:40 (20 min)	<b>Roundtable speaker and peer group discussion</b>	<b>Session Chair</b>
15:40 – 16:00	<i>Break (20 min)</i>	
16:00 – 16:40  (40 min)	<b>SESSION 1.4</b> Metabolic phenotyping in host-microbial interactions  Lecture: 30 min Discussion: 10 min	<b>Dr. Jia Li</b> <i>Faculty of Medicine, Department of Metabolism, Digestion and Reproduction, Imperial College, London</i>
16:40 – 17:10  (30 min)	<b>KEYNOTE ADDRESS</b> <b>The development of phenome centres - is an international phenome centre desirable and feasible?</b>	<b>Prof. Jeremy Nicholson</b> <i>ProVice Chancellor for Health and Director: Australian National Phenome Center, Murdoch University, Perth</i>
18:00 – 20:00	<b>Welcoming reception and poster presentations</b>	VENUE: The Wallenberg Research and Conference Centre at STIAS

### PROGRAMME: DAY 3

TIME	ITEM	SPEAKER / FACILITATOR
<b>SESSION 2: Advances in the Understanding of the impact of the environmental microbiome on the human microbiome</b>		
<u>Chair(s):</u> Prof. Alf Botha and Prof. Gideon Wolfaardt ( <i>Microbiology, Faculty: Science, SU</i> )		
<i>From 07:30</i>	<i>Arrival coffee &amp; tea</i>	
08:00 – 08:20  (20 min)	<b>SESSION 2.1</b> Controlling the wine microbiome: Bringing change to the global wine industry	<b>Prof Florian Bauer</b> <i>Institute for Wine Biotechnology, Stellenbosch University</i>
08:20 – 08:40  (20 min)	<b>SESSION 2.2</b> Temporal shifts in the vineyard soil and grape must fungal populations	<b>Dr Evodia Setati</b> <i>PhD, Senior Researcher</i>
08:40 – 09:00  (20 min)	<b>SESSION 2.3</b> The microbiome in South African homes: Biodiversity boost or silent killer?	<b>Prof Karin Jacobs</b> <i>PhD, Department of Microbiology, Stellenbosch University</i>
09:00 – 09:20  (20 min)	<b>SESSION 2.4</b> Microbiome analysis of treated water	<b>Prof Wesaal Khan</b> <i>PhD, Department of Microbiology, Stellenbosch University</i>
09:20 – 09:50  (30 min)	<b>Roundtable speaker and peer group discussion</b>	<b>Session Chair</b>

TIME	ITEM	SPEAKER / FACILITATOR
<b>SESSION 3: The Human Microbiome</b>		
Chair(s): Prof. Rafique Moosa ( <i>Department of Internal Medicine, SU</i> ); and Prof. Christo van Rensburg ( <i>Division of Gastroenterology, SU</i> )		
09:50 – 10:10 (20 min)	<b>SESSION 3.1</b> Diet and the Microbiome in Health and Disease	<b>Prof. Stephen O’Keefe</b> <i>Director, African Microbiome Institute, Stellenbosch University</i>
10:10 – 10:40 (30 min)	<b>SESSION 3.2</b> The Role of Dysbiosis in Obesity and Inflammatory Bowel Disease	<b>Prof. Dr. Dirk Haller</b> <i>Chair of Nutrition and Immunology, Director ZIEL, Institute for Food &amp; Health, Technical University of Munich</i>
10:40 – 11:00	<i>Break (20 min)</i>	
11:00 – 11:20 (20 min)	<b>SESSION 3.3</b> The Emerging Crisis in Antimicrobial Resistance and What Resistome Analysis can tell us	<b>Prof. Andrew Whitelaw</b> <i>Head of Division: Medical Microbiology, Executive Head: Department of Pathology, Faculty of Medicine and Health Sciences, Stellenbosch University</i>
11:20 – 11:40 (20 min)	<b>Roundtable speaker and peer group discussion</b>	<b>Session Chair</b>
<b>SESSION 4: Translational Research</b>		
Chair(s): Prof. Steve Innes ( <i>Department of Paediatrics and Child Health, SU</i> ) and Prof. Renée Blaauw ( <i>Division of Human Nutrition, SU</i> )		
11:40 – 12:10 (30 min)	<b>SESSION 4.1</b> The Role of the Microbiome in Inflammation and Carcinogenesis	<b>Prof. Christian Jobin</b> <i>PhD: Gatorade Trust Professor of Medicine, Program Co-leader Cancer Therapeutics and Host Response, University of Florida</i>
12:10 – 12:40 (30 min)	<b>SESSION 4.2</b> The Impact of Intermicrobial Interactions on the Host Mucosa	<b>Prof. H Rex Gaskins</b> <i>PhD, Prof Mucosal and Immunological Biology, Nutritional Sciences, University of Illinois-Urbana</i>
12:40 – 14:00	<i>Lunch break and poster presentations</i>	
14:00 – 14:30 (30 min)	<b>SESSION 4.3</b> The Influence of the Microbiota on Drug Metabolism and anti-Viral Therapy	<b>Prof. Nichole R. Klatt</b> <i>PhD, Assistant Professor, Department of Pharmaceutics, Program in Molecular and Cellular Biology, Program in Pathobiology, University of Washington</i>
14:30 – 14:50 (20 min)	<b>SESSION 4.4</b> Probiotics and the gut-brain axis	<b>Prof. Leon Dicks</b> <i>Distinguished Professor in Microbiology, Department of Microbiology, Stellenbosch University</i>

<b>TIME</b>	<b>ITEM</b>	<b>SPEAKER / FACILITATOR</b>
14:50 – 15:10 (20 min)	<b>Roundtable speaker and peer group discussion</b>	<b>Session Chair</b>
<b>SESSION 5: Young Investigators</b>		
<u>Chair(s): to be confirmed</u>		
15:10 – 15:30 (20 min)	<b>SESSION 5.1</b> Metabolomics and the Inflammasome	<b>James Kinross</b> <i>FRCS PhD, Consultant Surgeon and Clinical Senior Lecturer in Colorectal Surgery, Imperial College London</i>
15:30 – 15:50	<i>Break (20 min)</i>	
15:50 – 16:10 (20 min)	<b>SESSION 5.2</b> Investigating urinary and faecal metabolic differences among native Africans, african Americans and Alaskans using mass spectrometry	<b>Grace Barker</b> <i>Imperial College, London</i>
16:10 – 16:30 (20 min)	<b>SESSION 5.3</b> Germ-free Mouse Models to Determine Cause or Effect in Microbiome Association Studies	<b>Dr. Sören Ocvirk</b> <i>PhD, Division of Gastroenterology, Hepatology and Nutrition, University of Pittsburgh and Intestinal Microbiology Research Group, German Institute of Human Nutrition Potsdam-Rehbruecke</i>
16:30 – 16:50 (20 min)	<b>SESSION 5.4</b> Microbiota and response to TB therapy	<b>Prof. Grant Theron</b> <i>Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences, University of Stellenbosch</i>
16:50 – 17:10 (20 min)	<b>SESSION 5.5</b> The influence of migration from a rural to an urban environment on the microbiome and cancer risk in Zimbabweans	<b>Dr. Leo Katsidzira</b> <i>Gastroenterologist, University of Zimbabwe</i>
17:10 – 17:30 (20 min)	<b>Roundtable speaker and peer group discussion</b>	<b>Session Chair</b>
17:30 – 18:10 (40 min)	<b>Prizes for posters</b> <b>Summary and Conclusions: The Way Forward</b>	<b>Prof. Stephen O’Keefe</b> <i>Director, African Microbiome Institute, Stellenbosch University</i>  <b>Panel:</b> all speakers and peer groups (consensus statement)
18:30 – 20:30	<b>Reception and networking @</b> The Old Nectar Historic Homestead Estate and Gardens, Jonkershoek Valley	<i>The venue is 10min drive from STIAS</i>



## 8. ACCOMMODATION OPTIONS

NAME	ADDRESS	TEL	EMAIL	WEBSITE
10 Alexander B&B	10 Alexander Street	+27 (0)21 887 4414	<a href="mailto:stay@10alexander.co.za">stay@10alexander.co.za</a>	<a href="http://www.10alexander.co.za">www.10alexander.co.za</a>
22 Die Laan Self catering	22 Die Laan	+27 (0)21 886 8753	<a href="mailto:info@22dielaan.co.za">info@22dielaan.co.za</a>	<a href="http://www.22dielaan.co.za">www.22dielaan.co.za</a>
Avenues	32 The Avenue	+27 (0)21 887 1843	<a href="mailto:info@avenuesguestlodge.com">info@avenuesguestlodge.com</a>	<a href="http://www.theavenues.co.za">www.theavenues.co.za</a>
Bonne Esperance Guest House	17 Van Riebeeck Street	+27 (0)21 887 0225/6	<a href="mailto:stay@bonneesperance.com">stay@bonneesperance.com</a>	<a href="http://www.bonneesperance.com">www.bonneesperance.com</a>
Caledon Villa	7 Neethling Street	+27 (0)21 883 8912	<a href="mailto:info@caledonvilla.co.za">info@caledonvilla.co.za</a>	<a href="http://www.caledonvilla.co.za">www.caledonvilla.co.za</a>
Crofters(Self-catering units)	15 Thibault Street	+27 (0)21 883 8912	<a href="mailto:info@crofters.co.za">info@crofters.co.za</a>	<a href="http://www.crofters.co.za">www.crofters.co.za</a>
De Haas Luxury Living	2 Die Laan	+27 (0)74 918 5658	<a href="mailto:info@dehaasliving.co.za">info@dehaasliving.co.za</a>	<a href="http://www.dehaasliving.co.za">www.dehaasliving.co.za</a>
De Oude Meul	10A Mill Street	+27 (0)21 887 7085	<a href="mailto:info@deoudemeul.co.za">info@deoudemeul.co.za</a>	<a href="http://www.deoudemeul.com">www.deoudemeul.com</a>
Fynbos	14 Neethling Street	+27 (0)21 883 8670	<a href="mailto:info@fynbosguesthouse.co.za">info@fynbosguesthouse.co.za</a>	<a href="http://www.fynbosguesthouse.co.za">www.fynbosguesthouse.co.za</a>
Jonkershuis Guest House	50 Jonkershoek Drive	+27 (0)21 886 6000	<a href="mailto:info@jonkershuis.co.za">info@jonkershuis.co.za</a>	
Laanhof Self catering	28 Die Laan	+27 (0)21 66 22 14452	<a href="mailto:laanhof@gmail.com">laanhof@gmail.com</a>	<a href="http://www.laanhof.co.za">www.laanhof.co.za</a>
Labri Manor	71 Victoria Street	+27 (0)21 886 5652	<i>email from website</i>	<a href="http://www.stellenbosch.travel/stay/labri-manor">www.stellenbosch.travel/stay/labri-manor</a>
Lanzerac Hotel & Spa	1 Lanzerac Road	+27 (0)21 887 1132	<a href="mailto:info@lanzerac.co.za">info@lanzerac.co.za</a>	<a href="http://www.lanzerac.co.za">www.lanzerac.co.za</a>
Life & Leasure Self catering	20 Van Riebeeck St	+27 (0)21 886 6955	<a href="mailto:info@lifeandleisure.co.za">info@lifeandleisure.co.za</a>	<a href="http://www.lifeandleisure.co.za">www.lifeandleisure.co.za</a>
Malans Guest House	4 Keerom Street	+27 (0)21 887 8859	<a href="mailto:malansgh@gmail.com">malansgh@gmail.com</a>	<a href="http://www.malansguesthousestellenbosch.co.za">www.malansguesthousestellenbosch.co.za</a>
Oak Village B&B	7 Hamman Street	+27 (0)21 887 7889	<a href="mailto:oakvillage@volkskombuis.co.za">oakvillage@volkskombuis.co.za</a>	<a href="http://www.oakvillage.co.za">www.oakvillage.co.za</a>
Roosenwijn Guest House	14 Van Riebeeck Street	+27 (0)21 883 3338	<a href="mailto:roosenwijn@stellenguest.co.za">roosenwijn@stellenguest.co.za</a>	<a href="http://www.stellenguest.co.za">www.stellenguest.co.za</a>
Summerwood	28 Jonkershoek Road	+27 (0)21 887 4112	<a href="mailto:info@summerwood.co.za">info@summerwood.co.za</a>	<a href="http://www.summerwood.co.za">www.summerwood.co.za</a>
Villa Grande Guest House	1 Keerom Street	+27 (0)21 887 8454	<a href="mailto:info@villa-grande.com">info@villa-grande.com</a>	<a href="https://www.villa-grande.com/">https://www.villa-grande.com/</a>
<b>Hotel accommodation in Stellenbosch</b>				
107 Dorpstraat Boutique Hotel	107 Dorp Street	+27 (0)21 882 8696	<a href="mailto:dorpboutiquehotel@icloud.com">dorpboutiquehotel@icloud.com</a>	<a href="https://www.107dorp.co.za/">https://www.107dorp.co.za/</a>
Coopmanhuijs Boutique Hotel	33 Church Street	+27 (0)21 883 8207	<a href="mailto:gm@coopmanhuijs.co.za">gm@coopmanhuijs.co.za</a>	<a href="https://coopmanhuijs.co.za/">https://coopmanhuijs.co.za/</a>
Eendracht Village Hotel	161 Dorp Street	+27 (0)21 883 8843	<a href="mailto:info@eendracht-hotel.com">info@eendracht-hotel.com</a>	<a href="http://www.eendracht-hotel.com">www.eendracht-hotel.com</a>
Oude Werf Hotel	30 Church Street	+27 (0)21 887 4608	<a href="mailto:hotel@oudewerfhotel.co.za">hotel@oudewerfhotel.co.za</a>	<a href="http://www.oudewerfhotel.co.za">www.oudewerfhotel.co.za</a>
Stellenbosch Hotel	162 Dorp Street	+27 (0)21 888 0100	<a href="mailto:reservations@stellenboschhotel.co.za">reservations@stellenboschhotel.co.za</a>	<a href="http://www.stellenboschhotel.co.za">www.stellenboschhotel.co.za</a>

NAME	ADDRESS	TEL	EMAIL	WEBSITE
<b>Other accommodation near Stellenbosch</b>				
Old Nectar Accommodation	Old Nectar, Jonkershoek Valley, Stellenbosch	+27 (0)21 866 1133	info@oldnectar.com	<a href="https://www.oldnectar.com/">https://www.oldnectar.com/</a>
Protea Hotel Dorp Street	22 Dorp Street	+27 (0)21 883 9881	<a href="mailto:info@dorphuis.co.za">info@dorphuis.co.za</a>	
Protea Hotel Tegno Park	35 Techno Ave, Techno Park	+27 (0)21 880 9500	<a href="mailto:info@phstellenbosch.com">info@phstellenbosch.com</a>	
Soverby Guesthouse	Annandale Road, Lynedoch	+27 (0)21 881 3291 +27 (0) 84 901 2564	<a href="mailto:soverby@adept.co.za">soverby@adept.co.za</a>	<a href="http://www.soverby.co.za">www.soverby.co.za</a>
Spier Hotel	R310 Baden Powell Drive	+27 (0)21 809 1100	<a href="mailto:reservations@spier.co.za">reservations@spier.co.za</a>	<a href="http://www.spier.co.za">www.spier.co.za</a>