

6TH INTERNATIONAL CONFERENCE ON FUNCTIONAL METAGENOMICS

2 – 5 June 2024

NOMBOLO MDHLULI CONFERENCE CENTRE,
SKUKUZA, KRUGER NATIONAL PARK,
SOUTH AFRICA

Provisional Conference Programme_8May2024

Sunday 2 June 2024	
14:00 onward	Arrival and Registration at Skukuza Safari Lodge
17:30	Welcome Function at Selati Kruger Train Station, Skukuza camp

Monday 3 June 2024	
08:00	Breakfast
Keynote Lecture 1	
09:00 – 09:40	Rolf Daniels , Georg-August University, DE Title to be added
09:40 – 10:00	Oral 1 Ruth Schmitz , Institute for General Microbiology, Kiel, DA <i>Aurelia aurita</i> , a rich source for novel antimicrobial compounds and quorum quenching activities
10:00 – 10:20	Oral 2 Aurelio Hidalgo , Universidad Autónoma de Madrid, ES Reproducing the central dogma of molecular biology at the single-molecule level to discover greener biocatalysts in the natural microbial diversity
10:20 – 11:00	Morning Refreshment Break
Keynote Lecture 2	
11:00 – 11:40	Marla Trindade , University of the Western Cape, RSA All roads lead to Rome: Genome-guided discovery to deliver biotechnological solutions.
11:40 – 12:00	Oral 3 Anna Lewin , SINTEF Industry, NO Functional metagenomics applied for the discovery of xylan debranching enzymes
12:00 – 12:20	Oral 4 Shaul Pollak , Massachusetts Institute of Technology, USA Beyond functional annotation - understanding microbiomes using uncharacterized genes (possible withdrawal)
12:20 – 12:40	Oral 5 Gabrielle Potocki-Veronese , Université de Toulouse, FR Functional metagenomics for sweet dreams
12:40 – 14:00	Posters and Lunch
Keynote Lecture 3	
14:00 – 14:40	Pablo Garcia , University of Hamburg, DE Decoding Nature's Potential: Innovative Strategies in the Discovery of Plastic-Degrading Enzymes
14:40 – 15:00	Oral 6 Eugenia Dadzie , University of Waterloo, CA Enzymes and microbes: Sustainable plastic degradation
15:00 – 15:20	Oral 7 Elliot Mathieu , University of Paris-Saclay, FR A functional metagenomic approach to decipher microbiota-host interactions
15:20 – 15:40	Oral 8 Alexander Wentzel , SINTEF Industry, NO Bioprospecting of marine microbial resources in mid-Norway – recent discoveries and future perspectives
17:00	Game Drive and Bush Braai



Tuesday 4 June 2024

08:00	Breakfast	
AMI Presentation		
09:00 – 09:20	Lucy Harper, Applied Microbiology International	
Keynote Lecture 4		
09:20 – 10:00	Florian Hollfelder , University of Cambridge Enzyme discovery by functional metagenomics and directed evolution at ultrahigh throughput	
10:00 – 10:20	Oral 9	Delaney Nash , University of Waterloo, CA Utilizing a mosaic ends tagmentation approach to explore antimicrobial resistance gene diversity in municipal wastewater influent
10:20 – 10:40	Oral 10	Haripriya Rama , Agricultural Research Council, RSA Impact of nano-additives on microbial community functions in semi-continuous psychrophilic anaerobic digesters
10:40 – 11:10 Morning Refreshment Break		
Keynote Lecture 5		
11:10 – 11:50	Daniele Daffonchio , King Abdullah University of Science and Technology, SA Enzyme adaptation shapes diversity and thermal plasticity of marine microbiomes in time and space	
11:50 – 12:10	Oral 11	Liisa van Vliet , University of Cambridge, UK Functional metagenomics in microfluidic droplets: ultra-high throughput screening assays for a green and circular economy
12:10 – 12:30	Oral 12	Aranksha Thakor , University of Waterloo, CA Optimized construction of metagenomic libraries from wastewater
12:30 – 12:35	Sponsors	Ernest Mokoena , Inqaba Biotec
12:35 – 12:40		Chris Hunter , GigaScience Journal, BGI Hong Kong
12:40 – 13:40 Lunch		
Invited Lecture 1		
13:40 – 14:10	Dirk Benndorf , Anhalt University of Applied Sciences, DE Metaproteomics for functional description of microbial communities	
14:10 – 14:30	Oral 13	Tidimalo Coetzee , University of Pretoria, RSA Functional microbiomics of dryland soils in Botswana
14:30 – 14:50	Oral 14	José Eduardo González-Pastor , Centro de Astrobiología, ES tRNA queuosine modification, a regulatory mechanism controlling biofilm formation, resistance and virulence in bacteria discovered through functional metagenomics
14:50 – 15:10	Oral 15	Silindile Maphosa , University of Pretoria, RSA Exploring the functional potential of microbial metagenome-assembled genomes (MAGs) from sub-Antarctic islands.
15:10 – 15:40 Afternoon Refreshment Break		
15:40 – 16:00	Oral 16	Marilize Le Roes-Hill , Cape Peninsula University of Technology, RSA Marine multicopper oxidases and their application in seaweed degradation
16:00 – 16:20	Oral 17	Pedro H. Lebre , University of Pretoria, RSA Expanding Antarctic biogeography: microbial ecology of Antarctic island soils
16:20 – 16:40	Oral 18	Memory Tekere , University of South Africa, RSA Shotgun metagenomics of water and sediments from two artificial lakes in the Gauteng Province of South Africa
16:40 – 17:00	Oral 19	Eran Elhaik , Lund University, Sweden Creating fine-scale Antimicrobial Resistance gene transfer maps
17:00 – 18:00 Posters		
18:40 Transport to Conference Banquet @ Skukuza Golf Club		



Wednesday 5 June 2024	
05:00 – 08:00	Morning game drive
08:30	Breakfast
Invited Lecture 2	
09:30 – 10:00	Stephanie Burton , University of Pretoria, RSA Impact of artificial intelligence and digital technologies on the academic research environment.
Invited Lecture 3 (Recorded)	
10:00 – 10:30	Evelien Adriaenssens , Quadram Institute Bioscience, UK What about the viruses?
10:30 – 10:50	Oral 20 Lefentse Mashamaite , University of Pretoria, RSA Effects of altitude on soil microbiomes analysed across an altitudinal transect in Antarctic Dry Valleys.
10:50 – 11:20 Morning Refreshment Break	
11:20 – 11:40	Oral 21 Jacques Fouché , University of Pretoria, RSA Changes in structure and function of soil microbiomes beneath decaying carcasses
11:40 – 12:00	Oral 22 Grace Ijoma , University of South Africa, RSA Draft genome of <i>Schizophyllum</i> sp isolate F8_1, a novel white-rot fungi from decaying wood in Gauteng, South Africa
12:00 – 12:20	Oral 23 Semakaleng Monyai , University of Pretoria, RSA <i>In silico</i> characterization of novel DNA polymerases
12:20 – 12:40	Oral 24 Michael Wittenberg , University of Cape Town, RSA Add title
Invited Lecture 4	
12:40 – 13:10	Don Cowan , University of Pretoria, RSA The changing face of functional metagenomics
13:10	Conference Close (subject to program extensions)
13:20 – 14:00 Lunch	
14:00 onward Free afternoon or departures	
19:00	Dinner for delegates own account

