

PROGRAMME

Wednesday 4 April 2018

12:00 – 18:00	Exhibition stand build-up
15:00 – 18:00	Conference Registration opens
18h00	Opening - Fanus Venter
18:10 – 19:00	Opening Lecture - The power of metagenomics to accurately classify uncultured species - Ramon Rossello-Mora
19:00 – 21:00	Welcome Function

Thursday 5 April 2018

07:30	Registration open		
8h15	Opening: Chair - Fanus Venter		
8h20	Keynote - Microbial degradation of isoprene, a much neglected atmospheric trace gas - Colin Murrell		
9h00	Keynote - Advances in Next Generation Sequencing and its applications to study genomes and transcriptomes of biotechnologically and medically relevant microbes - Christian Rueckert		
9h40	End		
	Springbok Room	Pelindaba Room	Impala Room
9h45	Session Disease (1) Chair – Mapitsi Thantsha	Session Environment (1) Chair – Karin Jacobs	TIA workshop Convener - Dawn Stephens
9h45	D1 -Immunogenicity evaluation of full-length and truncated versions of a transmembrane virulence protein Iss from avian pathogenic <i>Escherichia coli</i> (APEC) Wouter vd Westhuizen	E1 -Assessing the plant growth promoting potential of actinobacteria associated with rooibos (<i>Aspalathus linearis</i>) plants Bronwyn Kirby - McCullough	#OurFutureInGenes Talks will focus on the SABDI thematic areas and include helpful career advice, funding and entrepreneurship opportunities. The line-up of speakers includes young women who are using science to make a difference.
10h00	D2 -Sponge-associated bacterial extracts and quorum sensing inhibitors of <i>Pseudomonas aeruginosa</i> Carrie Jacobs	E2 -Legume species and soil pH are main drivers of diversity and abundance of rhizobia in dryland soils of Succulent Karoo region in South Africa Esther Muema	
10h15	D3 -Studying the regulation of immune signalling molecules related to immunity during <i>Avibacterium paragallinarum</i> infection Poojah Jawallapersand	E3 - Assessing the effect of glyphosate application on soil enzymatic activities and microbial communities from soil in Viljoenskroon, South Africa. Thokozile Yende	
10h30	D4 -Molecular epidemiology and antibiotic profiling of environmental <i>Vibrio</i> pathogens in Cradock, Eastern Cape Province, South Africa Charles Osunla	E4 - Diversity and distribution of rhizobial populations associated with <i>Acacia dealbata</i> in South Africa Percy Mutseka Lunga	

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10h45	Tea Break		
	Springbok Room	Pelindaba Room	Impala Room
11h15	Session Disease (2) Chair – Wanda Markotter	Session Environment (2) Chair - Thulani Makhalanyaane	TIA workshop (continue) Convener - Dawn Stephens
11h15	D5 - Complementing the plant-based expression system for production of the Zmapp anti-Ebola antibody cocktail components with glycolengineered <i>Pichia pastoris</i> could provide additional flexibility to fight future outbreaks Patrick Opdensteinen	E5 - Marine microbial community composition and diversity during the upwelling season in the Southern Benguala: a spatio-temporal study Emma Roche	#OurFutureInGenes Talks will focus on the SABDI thematic areas and include helpful career advice, funding and entrepreneurship opportunities. The line-up of speakers includes young women who are using science to make a difference.
11h30	D6 - A metagenomic approach to identify potential zoonotic viruses in serotine bats in South Africa- Marike Geldenhuys-Venter	E6 - The effect of biogenic and chemically manufactured silver nanoparticles on benthic bacterial community structures Pamela Welz	
11h45	D7 - Cassava Mosaic Disease: an ultimate battle of host and virus miR/miR* regulated defence against SACMV infection Christine Bizabani	E7 - Microbial nitrogen metabolism in chloraminated drinking water reservoirs Sarah Potgieter	
12h00	D8 - Identification and characterization of potential zoonotic henipa- and rubulavirus-related virus in an Egyptian fruit bat (<i>Rousettus aegyptiacus</i>) colony in South Africa Marinda Mortlock	E8 - Commensal <i>Escherichia coli</i> of surface water origin: an underappreciated reservoir of antibiotic resistance determinants Yinka Titilawo	
12h15	D9 - Identification and characterization of Lagos bat virus in bats and spillover hosts in South Africa Jessica Coertse	E9 - Unique environmental <i>Escherichia coli</i> strains isolated from aquatic environments Tarren Seale	
12h30	Lunch		

Workshop :#OurFutureInGenes

The SA BioDesign Initiative (SABDI) is a DST fund, managed by TIA, which encourages cross-functional development of genomics, synthetic, structural and systems biology, which will seed future bio-based smart systems. These smart systems will enable the birth of improved solutions to local issues. Development of high end skills in these areas amongst young graduates are of interest to SABDI. The future in genes is quite exciting and more young people should invest their careers in these fields.

So, on Thursday, 5 April 2018, at SASM 2018, wear your denims/jeans and join us in this TIA-sponsored, 'youth-centric' dialogue on 'Our Future in Genes'. Talks will focus on the SABDI thematic areas and include helpful career advice, funding and entrepreneurship opportunities. Our line-up of speakers includes young women who are using science to make a difference.

They include:

Dr Dawn Stephens (Technology Innovation Agency - TIA) - Introduction to SABDI

Ms Roshilla Ramdin (WhiteHead Scientific) - Future trends in Genomics

Dr Janine Scholefield (CSIR) - Synthetic Biology

Ms Rizwana Mia (Medical Research Council)- Precision Medicine

Dr Siva Danaviah (Africa Health Research Institute-AHRI) - Population Genetics

Ms Sarusha Pillay (Technology Innovation Agency - TIA) - Turning your research into a Job

Ms Ntombikhayise Mahaye (University of Pretoria, PhD candidate) - How an internship added value to my career (1)

Ms Diantha Pillay (Wits Reproductive Health and HIV Institute - WRHI) - How an internship added value to my career (2)



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13h30	Getting Published: Conveners - Mark Bailey, Don Cowan and Ramon Rossello-Mora		
	Springbok Room	Pelindaba Room	Impala Room
14h30	Session Diseases (3) Chair - Carlien Pohl	Session Environment (3) Chair – Carlos Bezuidenhout	Session Industry (1) Chair - Marinda Viljoen-Bloom
14h30	D10 - <i>Caenorhabditis elegans</i> as model for <i>Candida albicans</i> and <i>Pseudomonas aeruginosa</i> infection and infection induced changes in fatty acid metabolism Nthabiseng Mokoena	E10 - Occurrence of <i>Acinetobacter</i> species in selected freshwater resources in the Eastern Cape Province, South Africa Mary Adewoyin	I1 - Peroxidase production by <i>Raoultella ornithinolytica</i> OKOH-1 isolated from Tyhume river sediments Ayodeji Falade
14H45	D11 - Elucidation of the role of 3-hydroxy fatty acids in <i>Cryptococcus-amoeba</i> interactions Uju Madu	E11 - Occurrence of pathogenic <i>Vibrio</i> species in some fresh water resources used for vegetables irrigation in the Eastern Cape, South Africa Taiwo Fadare	I2 - Valorization of peanut shells for the production of xylooligosaccharides by <i>Thermomyces langinosus</i> (GH11) xylanase Nanthakumar Arumugam
15h00	D12 - Functional characterisation of <i>Cryptococcus</i> genes: then and now Lukas Du Plooy	E12 - Pathogenic attributes, antibiogram and antibiotic resistant genes in <i>Enterococcus</i> from wastewater treatment plants and their recipients Chibuzor Madu	I3 - Novel microbes with industrial applications discovered in an undergraduate laboratory Jeffrey Newman
15h15	D13 - Iron at the interphase of <i>Candida albicans</i> prostaglandin production and virulence Bonang Mochochoko	E13 - Limpet (<i>Scutellastra cochlear</i>) recovered from the estuarine of Eastern Cape, South Africa as a reservoir of pathogenic <i>Vibrio</i> species Oluwatayo Abioye	I4 - Improving heterologous gene expression via overexpression of two transcriptional activators in <i>Saccharomyces cerevisiae</i> Jade Martin
15h30	D14 - The influence of polyunsaturated fatty acids in <i>Candida albicans</i> biofilms susceptibility towards azoles Oluwasegun Kuloyo	E14 - Species diversities, antibiotic profiling and virulence signature of <i>Aeromonas</i> and <i>Pseudomonas</i> in wastewater treatment plants and recipient surface water Reshme Govender	I5 - FMDV specific scFvs as tools to map epitopes and diagnostic reagents Melanie Chitray
15h45	D15 - The re-purposing or re-positioning of copper acyl salicylate as an anti- <i>Cryptococcus</i> medicine Boitumelo Porotloane	E15 - The prevalence and diversity of <i>ampC</i> beta-Lactamase genes from mixed environmental samples and isolates from aquatic environments Roelof Coertze	I6 - Characterization of intracellular gas bubbles in <i>Saccharomyces</i> Khumisho Dithebe

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16h00	Poster (1) & refreshments (ISME Sponsorship) Poster themes: Industry, Disease & Environment (1)	
17h30	End	
18h30	Dinner	
Friday 6 April 2018		
8h15	Opening: Chair – Fanus Venter	
8h20	Keynote - Ecogenomic insights into the structural and functional basis of symbiosis in marine sponges - Nicole Webster	
9h00	Keynote - <i>Escherichia coli</i> : a versatile creature hiding in plain sight - Volker Brözel	
9h40	End	
	Pelindaba Room	Impala Room
9h45	Session Environment (4) Chair – Wilhelm de Beer	Session Industry (2) Chair - Riaan den Haan
9h45	E16 - Behavioral response of the bark beetle, <i>Ips typographus</i> , to commonly associated Ophiostomatoid fungi Almuth Hammerbacher	I7 - Evaluation of autochthonous microalgae isolated from fresh water bodies in KwaZulu Natal, South Africa for potential biotechnological application Ejovwokoghene Odjadjare
10h00	E17 - Morphotaxonomic and molecular identification of coprophilous fungi with extracellular fructosyltransferase and hydrolase activities for the production of biofunctional prebiotics Jeff Ojwach	I8 - Genome resolved metagenomics of microbial communities associated with bioremediation systems for thiocyanate-laden mine water effluents Rob Huddy
10h15	E18 - Pollution in the Mooi river: pathogenic yeasts species Mzimkhulu Monapathi	I9 - Potential use of immobilized cyanase from <i>Thermomyces lanuginosus</i> in bioremediation of wastewater Bibhuti Ranjan
10h30	E19 - Picoplankton community dynamics in St. Helena Bay: An anchor station study Nicole Dames	I10 - The optimization, quantification and storage stability of an astaxanthin-producing bacterium, <i>Paracoccus sp.</i> , and its application in poultry feed Tersia Conradie
10h45	Tea Break	
11h15	Session Environment (5) Chair - Marla Trindade	Session Systematics / Evolution Chair – Emma Steenkamp
11H15	E20 - Searching for immunomodulating proteins in the outer membrane protein fraction of <i>Avibacterium paragallinarum</i> Marisa Coetsee	S1 - Bacterial species are uniquely evolving entities Marike Palmer

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11H30	E21 - Isolation and characterization of carotenoid producing microalgae from KwaZulu-Natal (South Africa) Ayodeji Adedoyin	S2 - Characterization of a growth QTL in <i>Fusarium circinatum</i> Benedicta Swalarsk-Parry
11H45	E22 - The biological function of cryptococcal 3-hydroxy fatty acids Nyakalo Pilenyane	S3 - Characterization of MAT1-2-7; a novel mating gene in <i>Huntia omanensis</i> Andi Wilson
12H00	E23 - Assessing the use of halophilic bacteria for the management of mine wastewater desalination brines Anesu Moyo	S4 - Genetic characterization of the first complete genomes of porcine circovirus type 2b and 2d from South African pigs Kayode Afolabi
12H15	E24 - Biomethane from water hyacinth (<i>Eichhornia crassipes</i>): Effect of mono and co-digestion Rosina Makofane	S5 - Genome-informed biology of <i>Bradyrhizobium</i> species Juanita Avontuur
12H30		S6 - Updating the taxonomy of the genera <i>Aspergillus</i> and <i>Penicillium</i> in South Africa Cobus Visagie
12H30	Lunch	
13h45	AGM	
	Pelindaba Room	Impala Room
15h00	Session Environment (6) Chair - Almuth Hammerbacher	Session Omics Chair – Heinrich Volschenk
15h00	E25 - Metagenomics for the South African biotechnology industry Marla Trindade	O1 - A comparison of the metabolite profiles of different <i>Bacillus</i> species Ilzé Horak
15h15	E26 - Phenanthrene and fluoranthene biodegradation in the mycorrhizosphere of <i>Pinus patula</i> MaryamBello-Akinosho	O2 - Competitive fitness: an important survival strategy for <i>Pectobacterium brasiliense</i> Lucy Moleleki
15h30	E27 - Production of lipopeptide biosurfactant by <i>Paenibacillus</i> sp. D9 and its application in improved biodegradation and the bioremediation of impacted soils Abdullahi Jimoh	O3 - Novel phages of healthy skin metaviromes from South Africa Leonardo van Zyl
15h45	E28 - Biodegradation of chloroethene compounds by an indigenous mixed microbial consortium Abidemi Ojo	O4 - Peeking behind the curtain: Transcriptomics of the <i>Candida albicans</i> - <i>Pseudomonas aeruginosa</i> interaction Ruan Fourie

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16h00	E29 - Synthesis, characterization and application of polyacrylamide grafted biofloculant Siyanda Ngema	O5 - Understanding the effects of diet, lifestyle and geography on the gut microbiome of rural versus urban populations in South Africa Khodani Mulaudzi
16h15	E30 - Secretory expression of SLAC from the <i>Streptomyces coelicolor</i> in <i>Pichia pastoris</i> , its characterisation and application in dye decolorisation Deepti Yadav	O6 - Using the metabolome of <i>Bacillus</i> species to identify possible sources for bionematicide development Gerhard Engelbrecht
16h30	Poster (2) & refreshments (FABI Sponsorship) Themes: Environment (2), Genetics, Omics & Engagement	
18h00	End	
19h00	Conference Dinner	
Saturday 7 April 2018		
8h15	Opening: Chair – Fanus Venter	
8h15	Keynote - The diversity and evolution of incomplete denitrification pathways in <i>Deinococcus-Thermus</i> - Brian Hedlund	
8h55	University Kaleidoscope: Chair – Teresa Coutinho	
8h55	U1 - Transformation of microbiology teaching and learning from a traditional lecturer 'tell' to an active cooperative learning environment: the students' perceptions Mapitsi Thantsha	
9h10	U2 - Palm fruit juice mediates the expression of genes associated with the slowed progression of α -Synucleinopathies Angela Botes	
9h25	U3 - Geospatial analysis, microbial community structure and antimicrobial resistance analysis: Implications for water quality management Cornelius Bezuidenhout	
9h40	U4 - Biorefinery concept for biomass conversion to bioethanol and other green chemicals Marinda Viljoen-Bloom	
9h55	Tea Break	
10h15	Future Perspectives – Consulting the stars: Chair - Fanus Venter	
10h15	Keynote - The diagnosis of tuberculosis: challenging an ancient enemy with modern tools - Grant Theron	
10h45	Keynote - Microbial ecology and metagenomics of hot and cold desert soil ecosystems - Don Cowan	
11h15	Keynote - Putting plant and animal viruses to work: replicating vector systems - Ed Rybicki	
11h45	Genes to genomes and back again - Brenda Wingfield	
12h15	Closure	