

27th International Workshop on HIV Drug Resistance and Treatment Strategies

Monday, 22 October 2018

| Time | Topic | Speaker | Abstract |
|--------------|---|---|----------|
| 08:30 | Arrival and refreshments | | |
| 09:00 | Welcome and opening remarks | Pontiano Kaleebu | |
| 09:05 | Setting the scene: Will Resistance Ruin the Rollout? | John Mellors | |
| | Clinical Implications of Resistance | Chairs: Pontiano Kaleebu and Annemarie Wensing | |
| 09:25 | Pretreatment HIV drug resistance in women in low- and middle-income countries | Seth Inzaule | 1 |
| 09:35 | Pretreatment drug resistance is associated with virological failure in South African patients on first-line ART - findings from the ITREMA trial | Lucas Hermans | 2 |
| 09:45 | Population-based Monitoring of HIV Drug Resistance Emerging in HIV-Positive Individuals during Antiretroviral Treatment and Related Programme Factors in Sentinel ART Sites in Malawi | George Bello | 3 |
| 09:55 | Atypical Resistance Patterns at the Time of Failure on First-Line Antiretroviral Therapy in Uganda and South Africa | Suzanne McCluskey | 4 |
| 10:05 | Predictors of Virological Failure and HIV drug resistance in a Ugandan population after 48 months on Antiretroviral Therapy | Juliet Asio | 5 |
| 10:15 | HIV drug resistance in Adults failing protease inhibitor (PI)-based antiretroviral therapy (ART) in KwaZulu Natal, South Africa | Melendhran Pillay | 6 |
| 10:25 | Discussion | | |
| 10:35 | Mid-morning break and posters | | |
| 11:05 | Sensitive Next-Generation Sequencing of HIV-1 from Seroconverters in the MTN-020/ASPIRE Dapivirine Vaginal Ring Study | John Mellors | 7 |
| 11:20 | The Dolutegravir Dilemma | Chair: John Mellors | |
| 11:30 | Teratogenicity in relation to dolutegravir | Ushma Mehta | |
| 11:50 | South African perspective | Francois Venter | |
| 12:05 | Botswana experience | Ava Avalos | |
| 12:20 | European perspective | Annemarie Wensing | |
| 12:35 | Brazil perspective | Ricardo Sobhie Diaz | |
| 12:50 | Lunch | | |
| 14:15 | Overview of mechanism of resistance to second generation integrase inhibitors | Roger Paredes | |
| 14:35 | Review of cases with dolutegravir resistance | Chair: Carole Wallis | |
| | Mechanism of emergence of resistance of T97A during Dolutegravir therapy | Kristi Huik | 22 |
| | Case Study: Integrase Strand-Transfer Inhibitor Resistance in an 11-year-old Child on Third Line Antiretroviral Therapy in South Africa. | Julia Turner | 20 |
| | Case Study: Integrase Strand-Transfer Inhibitor Resistance in a 17-year-old Adolescent on Third Line Antiretroviral Therapy in South Africa. | Julia Turner | |
| | A Case report of Untreatable HIV Infection in Harare, Zimbabwe | Cleophas Chimbetete | 28 |
| 15:15 | Challenges - Panel discussion | | |
| 15:35 | Afternoon break and posters | | |

PROGRAMME - continued

| Time | Topic | Speaker | Abstract |
|-------|--|---------------------------|----------|
| 16:05 | Children and Adolescents | Chair: Lee Fairlie | |
| 16:10 | Paediatric HIV drug resistance | Moherdran Archary | |
| 16:30 | ARV treatment in infants in the context of drug resistance | Avy Violari | |
| 16:50 | HIV Drug Resistance among Adolescents and Young Adults Failing HIV Therapy in Zimbabwe | Vinie Kouamou | 29 |
| 17:05 | Extensive Drug Resistance in Perinatally-infected Western Kenya Children by Real-Time Testing of Hemaspots and Dried Blood Spots | Rami Kantor | 30 |
| 17:20 | Closing remarks | Annemarie Wensing | |
| 17:30 | Welcome reception (Venue: Gallagher Grill, Gallagher Convention Centre) | | |

Tuesday, 23 October 2018

| Time | Topic | Speaker | Abstract |
|-------|--|-------------------------------|----------|
| 08:30 | Arrival and refreshments | | |
| 09:00 | Welcome and opening remarks | Douglas Richman | |
| | New and Long-Acting Drugs | Chair: Douglas Richman | |
| 09:05 | Introduction and overview | Daniel Kuritzkes | |
| 09:35 | Transmitted Drug Resistance & New treatment paradigms in 1st Line | Michelle Moorhouse | |
| 09:55 | Long-acting cabotegravir | Kimberly Smith | |
| 10:15 | Discussion | Chair: Theresa Rossouw | |
| 10:35 | Mid-morning break and posters | | |
| 11:05 | Next Generation Sequencing - ready for primetime yet? | Chair: Gillian Hunt | |
| 11:10 | Comparison of HIV Drug-Resistant Mutant Detection by NGS with and without Unique Molecular Identifiers (UMI) | Kevin McCormick | 34 |
| 11:20 | Illumina Sequencing Characterises Diverse Errors in HIV-1 Resistance Testing | Jean Mbisa | 35 |
| 11:30 | Amino Acid Prevalence of Mutations Detectable by Direct PCR versus Single Genome Sequencing | Robert Shafer | 36 |
| 11:40 | Multi-Laboratory Comparison of Next-Generation Sequencing for HIV-1 Drug Resistance Genotyping | Neil Parkin | 37 |
| 11:50 | Characterization and data assessment of next generation sequencing-based genotyping using existing HIV-1 drug resistance proficiency panels | Emma Lee | 38 |
| 12:00 | PhyloPi: an affordable, purpose built phylogenetic pipeline for the HIV drug resistance testing facility | Phillip Bester | 39 |
| 12:10 | Bioinformatic Data Processing Pipelines in Support of Next Generation Sequencing-based HIV Drug Resistance Testing: the Winnipeg Consensus | Hezhao Ji | 40 |
| 12:20 | Discussion | | |
| 12:35 | Lunch | | |
| 14:00 | Special Populations | Chair: Deenan Pillay | |
| 14:05 | Cerebrospinal Fluid (CSF) HIV Viral Escape (CVE): Clinical Resolution and CSF Viral Suppression Following Switching to a Genotype-guided South African Antiretroviral Third Line Regimen (TLR) with Good CSF Penetration | Dominique Kabengele Kayembe | 48 |
| 14:15 | Case study: Adult HIV drug resistance | Richard Lessells | |

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|-------|---|-----------------------------|----------|
| 15:35 | Case Report: Dolutegravir for Third-line Antiretroviral Therapy (ART) in an HIV Infected Child Under 36 Months' Age | Melanie Collins | 21 |
| 14:55 | Afternoon break and posters | | |
| 15:30 | Costing / Modelling | Chair: Elliot Raizes | |
| 15:35 | Modelling the Impact of Dolutegravir Introduction on the Level of Pre-treatment NNRTI-Resistance in South Africa | Roger Kouyos | 49 |
| | Debate: Routine first line resistance testing in the current treatment era | | |
| 15:45 | For | Mark Siedner | |
| 16:05 | Against | Emily Hyle | |
| 16:25 | Introduction | Francois Venter | |
| 16:30 | Plenary: Achieving the last 90 | Elliot Raizes | |
| 17:00 | Closing remarks | Francois Venter | |
| 19:00 | Workshop awards dinner (Venue: The Ballroom, Gallagher Convention Centre) | | |

Wednesday, 24 October 2018

Resistance Training Workshop entitled 'Integrated adherence & virological monitoring; insights from the ITREMA trial'

| Time | Topic | Speaker |
|-------|---|---|
| | Chairs | Hugo Tempelman and Yunus Moosa |
| 10:00 | Welcome and introductions | Annemarie Wensing |
| 10:05 | Basic principles of HIV drug resistance | Carole Wallis |
| 10:25 | How to measure HIV drug resistance | Monique Nijhuis |
| 10:40 | Impact of ART resistance in sub Saharan Africa | Elliot Raizes |
| 11:00 | Barriers to resistance | John de Wit |
| 11:20 | Refreshment break | |
| | Chairs | John Mellors and Annemarie Wensing |
| 11:30 | Understanding virological failure: integrated adherence and resistance monitoring | Annemarie Wensing |
| 11:50 | Integrated counselling using biomedical and socio-economic information | Lucas Hermans |
| 12:10 | Therapy success and failure: first, second and third line therapy | Francois Venter |
| 12:30 | Global roll out of dolutegravir | Ava Avalos |
| 12:50 | Future trends of drug resistance and prospects of antiviral therapy | Douglas Richman |
| 13:10 | Round table | All |
| 13:30 | End | |