

# Cape Town Acid Fast Club

2.00 pm Tuesday 10<sup>th</sup> May 2016

Lecture Theatre 1, Groote Schuur Hospital, Observatory

Enter the New GSH complex through the Main Entrance off Palm Court (the parking area immediately in front of the Old GSH Building). Lecture Theatre 1 and Klein Schuur function room are straight ahead, on the far side of the entrance foyer. Take a right down the stairs to the lecture theatre.

AGENDA		
1.45-2.15	Registration	
2.15-2.25	Welcome Acid Fast Club mission and objectives	Ruth Mc Nerney, Val Mizrahi, Rob Warren
2.25-2.45	Visualizing the Mycobacterial Mutasome	Michael A. Reiche
2.45-3.05	Single cell elucidation of mycobacterial replication dynamics	Jomien M. Moulton
3.05-3.25	Early morning urine collection to improve urinary LAM lateral flow assay sensitivity in hospitalised patients with HIV-TB co-infection.	Phindile Gina
3.25-4.00	Refreshment break	
4.00-4.20	Genotypic patterns in untreatable TB	Jason Limberis
4.20-4.40	Linezolid resistance in clinical isolates of <i>M. tuberculosis</i>	Taeksun Song
4.40-5.00	Generating hypotheses for the role of <i>inhA</i> promoter mutations in the pre-existing presence of isoniazid and ethionamide resistance in <i>Mycobacterium tuberculosis</i>	Marisa Klopper
5.00-6.30	Reception	

**The organisers would like to acknowledge Cepheid Inc.  
for their generous sponsorship of this event.**

<http://www.cepheid.com/us/cepheid-solutions/clinical-ivd-tests/critical-infectious-diseases/xpert-mtb-rif>

## **Visualizing the Mycobacterial Mutasome**

Michael A. Reiche,<sup>1</sup> Zela Martin,<sup>1</sup> Dirk Lang,<sup>2</sup> John McKinney,<sup>3</sup> Neeraj Dhar,<sup>3</sup> Valerie Mizrahi,<sup>1,4</sup> and Digby F. Warner<sup>1,4</sup>

<sup>1</sup>MRC/NHLS/UCT Molecular Mycobacteriology Research Unit, DST/NRF Centre of Excellence for Biomedical Tuberculosis Research, Department of Clinical Laboratory Sciences, Faculty of Health Sciences, University of Cape Town.

<sup>2</sup>Confocal and Light Microscope Imaging Facility, Department of Human Biology, Faculty of Health Sciences, University of Cape Town.

<sup>3</sup>UPKIN, Global Health Institute, School of Life Sciences, Ecole Polytechnique Fédérale de Lausanne, Switzerland.

<sup>4</sup>Institute of Infectious Disease and Molecular Medicine, Faculty of Health Sciences, University of Cape Town.

## **Single cell elucidation of mycobacterial replication dynamics**

JM Mouton<sup>1</sup>, S Helaine<sup>2</sup>, DW Holden<sup>2</sup> and SL Sampson<sup>1,2</sup>

<sup>1</sup>SA MRC Centre for Tuberculosis Research, DST/NRF Centre of Excellence for Biomedical TB Research, Stellenbosch University, South Africa; <sup>2</sup>MRC Centre for Molecular Bacteriology and Infection, Imperial College London, London, United Kingdom

## **Early morning urine collection to improve urinary LAM lateral flow assay sensitivity in hospitalised patients with HIV-TB co-infection.**

Phindile Gina<sup>1</sup>, Philippa J. Randall<sup>1</sup>, Tapuwa E. Muchinga<sup>1</sup>, Ani Pooran, Richard Meldau, Jonny G. Peter<sup>1\*</sup>, Keertan Dheda<sup>1\*</sup>

<sup>1</sup>Lung Infection and Immunity Unit, Division of Pulmonology and UCT Lung Institute, Department of Medicine, University of Cape Town, South Africa. \*These authors contributed equally.

## **Genotypic patterns in untreatable TB.**

Jason Limberis<sup>1</sup>, Elize Pietersen<sup>1</sup>, Jody Phelan<sup>2</sup>, Aliasgar Esmail<sup>1</sup>, Maia Lesosky<sup>3</sup>, Kevin P Fennelly<sup>4</sup>, Julian te Riele<sup>5</sup>, Barbara Mastrapa<sup>6</sup>, Paul Spiller<sup>5</sup>, Liezel Smith<sup>1</sup>, Paul van Helden<sup>7</sup>, Frik A Sirgel<sup>7</sup>, Arnab Pain<sup>8</sup>, Ruth McNerney<sup>1</sup>, Grant Theron<sup>1,7</sup>, Taane G Clark<sup>4</sup>, Robin M Warren<sup>7</sup> & Keertan Dheda<sup>1</sup>

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<sup>3</sup>Maia Lesosky, Department of Medicine, University of Cape Town

<sup>4</sup>Kevin Fennelly, Pulmonary Clinical Medicine Section, Cardiovascular and Pulmonary Branch, Division of Intramural Research, National Heart, Lung, and Blood Institute; National

Institutes of Health, Bethesda MD, U.S.A. (formerly at the University of Florida, Gainesville, FL)

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<sup>6</sup>Harry Surti Hospital, Upington, South Africa

<sup>7</sup>DST/NRF Centre of Excellence for Biomedical Tuberculosis Research/MRC Centre for Molecular and Cellular Biology, Division of Molecular Biology and Human Genetics, Faculty of Medicine and Health Sciences, Stellenbosch University, Tygerberg, South Africa

<sup>8</sup>Pathogen Genomics Laboratory, BESE Division, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia

### **Linezolid resistance in clinical isolates of *M. tuberculosis*.**

Taeksun Song

Institute of Infectious Disease and Molecular Medicine and Department of Clinical Laboratory Sciences, Faculty of Health Sciences, University of Cape Town

### **Generating hypotheses for the role of *inhA* promoter mutations in the pre-existing presence of isoniazid and ethionamide resistance in *Mycobacterium tuberculosis*.**

M Klopper<sup>1#</sup>, G Hill-Cawthorne<sup>2</sup>, FA Sirgel<sup>1</sup>, RG van der Merwe<sup>1</sup>, EM Streicher<sup>1</sup>, SL Sampson<sup>1</sup>, A Pain<sup>3</sup>, RM Warren<sup>1</sup>

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