

7h00 3rd Floor	Registration Opens
9h00 – 12h15 Lecture Theatre 1	<p>SPECIAL OPENING SESSION – PART I</p> <p>Innovation in Addressing the Global TB Epidemic Co-chairs: Willem Hanekom, South African Tuberculosis Vaccine Initiative (SATVI), South Africa Tom Evans, Aeras, USA</p> <p><i>Featuring:</i> The Honourable Aaron Motsoaledi, Minister of Health, South Africa Yvonne Chaka Chaka, South Africa Lucica Ditiu, Stop TB Partnership, Switzerland Anthony S. Fauci, Director, NIAID/NIH, USA (by videoaddress) Máire Geoghegan-Quinn, European Commissioner for Research, Innovation and Science, Ireland (by videoaddress)</p> <p>SPECIAL OPENING SESSION – PART II</p> <p>Perspectives on the Need for New TB Vaccines and Progress in TB Vaccine Development Co-chairs: Jelle Thole, TuBerculosis Vaccine Initiative, Netherlands Hassan Mahomed, Western Cape Department of Health / Stellenbosch University, South Africa Ann Ginsberg, Aeras, USA</p> <p>Perspectives on the Need for New TB Vaccines- Community perspective Linda Sibeko, SATVI Community Advisory Board, South Africa</p> <p>Cost-effectiveness of future TB vaccines in low- and middle-income countries Gwen Knight, London School of Hygiene and Tropical Medicine, UK</p> <p>Vaccination and the prospects for TB elimination Chris Dye, World Health Organization, Switzerland</p> <p>OPENING PLENARY Collaboration and cooperation: The Stop TB Partnership Working Group on New Vaccines Michel Gréco, Working Group on New Vaccines, France</p> <p>Opening plenary lecture: The past and future of TB vaccine development Stefan Kaufmann, Max Planck Institute for Infection Biology, Germany</p>
12h15 – 13h30 3rd Floor	Lunch (Poster & Exhibit Area)
13h30 – 14h30 Lecture Theatre 1	<p>PLENARY SESSION I : Creativity in Research & Discovery, Part I Chair: David Lewinsohn, Oregon Health & Science University, USA</p> <p>Mechanisms of Protection in the Lung</p> <p>13h35 – 13h50 Factors contributing to the susceptibility of the lung to tuberculosis Andrea Cooper, Trudeau Institute, USA</p> <p>13h50 – 14h05 Mucosal Immunization: relevance to protection against tuberculosis? Per Brandtzaeg, University of Oslo, Norway</p> <p>14h05 – 14h30 Questions and discussion</p>
14h30 – 15h30 Lecture Theatre 1	<p>PLENARY SESSION II : Creativity in Research & Discovery, Part II Chair: Chris Wilson, Bill & Melinda Gates Foundation, USA</p> <p>Translational Research and Models that Mimic Human Disease</p> <p>Viewpoints:</p> <p>14h30 – 14h45 Modelling of transmission of infection Edward Nardell, Harvard School of Public Health/Partners in Health, USA</p> <p>14h45 – 14h55 Blocking naturally acquired infection Glyn Hewinson, Veterinary Laboratory Agencies, UK</p> <p>14h55 – 15h05 Animal models of clinically latent infection Joanne Flynn, University of Pittsburgh, USA</p> <p>15h05 – 15h15 Human mycobacterial challenge models Helen McShane, University of Oxford, UK</p> <p>15h15 – 15h30 Questions and discussion</p>
15h30 – 16h00	Coffee/Tea Break
16h00 – 17h15 Lecture Theatre 1	<p>PLENARY SESSION III : Correlates of Immunity and Biomarkers for TB Vaccines Chair: Warwick Britton, Centenary Institute of Cancer Medicine and Cell Biology, Australia</p> <p>16h05 – 16h20 Correlates of risk of TB disease in adolescents Willem Hanekom, SATVI, South Africa</p> <p>16h20 – 16h35 Evaluating vaccine effects on TB infection rates among adolescent populations Steven Self, Fred Hutchinson Cancer Research Center, USA</p> <p>16h35 – 16h55 Systems analysis of TB vaccines and TB disease risk Dan Zak, Seattle Biomedical Research Institute, USA</p> <p>16h55 – 17h15 Questions and Discussion</p>
17h15 – 18h30 3rd Floor	Opening Reception and Poster Viewing (Poster & Exhibit Area)
18h30 – 21h30 <i>Buses depart from Kramer building at 18h30</i>	<p>Forum Dinner, Moyo Restaurant, Stellenbosch <i>Sponsored by Aeras, Bill & Melinda Gates Foundation, Emergent BioSolutions, European & Developing Countries Clinical Trials Partnership (EDCTP), South African Tuberculosis Vaccine Initiative (SATVI), and the TuBerculosis Vaccine Initiative (TBVI)</i></p>

8h00 3rd Floor	Registration Opens
8h30 – 10h45 Lecture Theatre 1	PLENARY SESSION IV : Preventive Vaccines in Advanced Clinical Trials Co-chairs: Gavin Churchyard, Aurum Institute for Health Research, South Africa Peggy Johnston, Bill & Melinda Gates Foundation, USA
8h35 – 9h05	Boosting BCG with MVA85A – clinical trials and efficacy data Helen McShane, University of Oxford, UK
9h05 – 9h25	AERAS-402/Crucell Ad35 Macaya Douoguih, Crucell, The Netherlands
9h25 – 9h45	Progress of the M72/AS01E tuberculosis vaccine candidate into Phase IIB efficacy trial Dereck Tait, Aeras, South Africa
9h45 – 10h05	Prospects for novel tuberculosis protein-based subunit vaccines Else Marie Agger, Statens Serum Institute, Denmark
10h05 – 10h25	Latest development of VPM1002: a new prime vaccine on the horizon Leander Grode, Vakzine Projekt Management, Germany
10h25 – 10h45	Questions and discussion
10h45 – 11h15	Coffee/Tea Break
11h15 – 12h45 Lecture Theatre 2	BREAKOUT SESSION I : Biomarkers Chair: Stefan Kaufmann, Max Planck Institute for Infection Biology, Germany
11:15 – 11:32	Biomarkers of the early response to Mtb infections as indicators of vaccine efficacy Gilla Kaplan, Public Health Research Institute Center, University of Medicine and Dentistry of New Jersey, USA
11:32 – 11:44	TB biomarker discovery Tom Ottenhoff, Leiden University Medical Centre, The Netherlands
11:44 – 11:56	Progression from M.tuberculosis infection to TB disease is marked by an increased interferon response and perturbation of blood leukocyte subsets Adam Penn-Nicholson, SATVI, South Africa
11:56 – 12:08	Evaluation of a human BCG challenge model as a method of assessing anti-mycobacterial immunity induced by BCG and a candidate TB vaccine, MVA85A, alone and in combination Stephanie Harris, University of Oxford, UK
12:08 – 12:20	T-Cell biomarkers in TB disease and latent infection Alexandre Harari, Centre Hospitalier Universitaire Vaudois (CHUV), University of Lausanne, Switzerland
12:20 – 12:32	Identification of biomarkers for Mycobacterium tuberculosis infection and disease in BCG-vaccinated young children in southern India Ruth Stavrum, The Gade Institute, University of Bergen, Norway
12h32 – 12h45	Discussion
11h15 – 12h45 Lecture Theatre 1	BREAKOUT SESSION II : Vaccines in Early Clinical Development Chair: Souleymane MBoup, Laboratoire de Bacteriologie-Virologie, Centre Hospitalier Universitaire Aristide Le Dantec, Senegal
11h15 – 11h30	ID93 Steve Reed, Infectious Disease Research Institute (IDRI), USA
11h30 – 11h45	MTBVAC, from the lab to the clinical trials Carlos Martin, University of Zaragoza, Spain
11h45 – 12h00	Potent T cell immunogenicity of a novel human type 5 adenovirus-based tuberculosis vaccine in humans despite pre-existing anti-adenovirus 5 immunity Fiona Smaill, Mc Master University, Canada
12h00 – 12h15	A phase I double-blind, randomized, placebo-controlled to evaluate the safety and immunogenicity of BCG and AERAS-404 administered as a prime-boost regimen to HIV-negative, TB-negative, BCG-naïve adults Giuseppe Pantaleo, Lausanne University Hospital, Switzerland
12h15 – 12h30	Heparin-binding haemagglutinin as a vaccine candidate against tuberculosis Camille Loch, Institute Pasteur Lille, France
12h30 – 12h45	Discussion
11h15 – 12h45 Lecture Theatre 3	BREAKOUT SESSION III : New Emerging Vaccines, Part I Chair: Tom Evans, Aeras, USA
11h15 – 11h30	Interference with mycobacterial Zmp1-mediated subversion of the host's immune response provides a rationale for improvement of BCG Peter Sander, University of Zürich, Switzerland
11h30 – 11h45	Evaluation of a lipid sub-unit tuberculosis vaccine using the Guinea pig model Martine Gilleron, Centre National de la Recherche Scientifique (CNRS), France
11h45 – 12h00	Immunogenicity of aerosol and intradermal MVA85A in the lungs and peripheral blood of healthy BCG-vaccinated UK adults Iman Satti, University of Oxford, UK
12h00 – 12h15	Methods in the development of stable, unmarked recombinant BCG vaccine strains Charles Bourne, Aeras, USA
12h15 – 12h30	Development of a dual TB/HIV vaccine using optimised strains of BCG Shivan Chetty, University of Cape Town, South Africa
12h30 – 12h45	Safety signal associated with recombinant BCG vaccination: immunologic clue or chance occurrence? Daniel Hoft, St. Louis University, USA

12h45 – 14h30 3rd Floor	Lunch and poster viewing (Poster & Exhibit Area)
14h35 – 16h00 Lecture Theatre 1	PLENARY SESSION V : Pathways to Global Introduction of New TB Vaccines Chair: Angeline Nanni, Aeras, USA
14:35 – 14:55	Global policy for public health use of new vaccines Helen Rees, WHO Strategic Advisory Group of Experts (SAGE), South Africa
14:55 – 15:15	Perspectives from endemic countries Gregory Hussey, National Advisory Group on Immunization, South Africa
15:15 – 15:35	Issues and experiences in adolescent and adult vaccination campaigns Marc LaForce, Serum Institute, USA
15:35 – 16:00	Questions and discussion
16h00 – 16h30	Coffee/Tea Break
16h30 – 18h00 Lecture Theatre 2	BREAKOUT SESSION IV : Design of Clinical Trials and Epidemiology Chair: Mark Cotton, Stellenbosch University, South Africa
16h30 – 16h45	Determine TB prevalence and incidence, select trial sites and choose target populations for TB vaccines Suzanne Verver, KNCV Tuberculosis Foundation, The Netherlands
16h45 – 17h00	Design of TB vaccine efficacy trials for different study populations Mark Hatherill, SATVI, South Africa
17h00 – 17h15	Remarkable durability of Ag85a specific CD4 T cell memory responses up to 6 years after MVA85A vaccination Thomas Scriba, SATVI, South Africa
17h15 – 17h30	The influence of sociodemographic characteristics on retention of an infant cohort in western Kenya in preparation for future TB vaccine trials Patience Oduor, KEMRI/CDC, Kenya
17h30 – 17h45	TB exposed or infected infants as a target population for efficacy trials of new vaccines Angelique Kany Kany Luabeya, SATVI, South Africa
17h45 – 18h00	Questions and discussion
16h30 – 18h00 Lecture Theatre 3	BREAKOUT SESSION V : Regulatory Issues for New TB Vaccines Chair: Mike Brennan, Aeras, USA
16h30 – 16h40	Time to regulatory and ethical approval of TB vaccine trials in South Africa Hennie Geldenhuys, SATVI, South Africa
16h40 – 16h45	Historical approvals of clinical trial applications and protocol amendments from four African national regulatory authorities Jan Chappell, Aeras, USA
16h45 – 18h00	Roundtable discussion with regulatory authorities Helen Rees, SAGE, South Africa Helen Ndagije, National Drug Authority, Uganda Portia Nkambule, Medicines Control Council, South Africa Mair Powell, European Medicines Agency (EMA), UK Jim Southern, Developing Countries Vaccine Regulators Network (DCVRN), South Africa Paul Tanui, NEPAD Agency, South Africa
16h30 – 18h00 Lecture Theatre 1	BREAKOUT SESSION VI : New Emerging Vaccines, Part II Chair: Christine Sizemore, NIAID/NIH, USA
16h30 – 16h45	Vaccines to induce bactericidal immunity against Mycobacterium tuberculosis Bill Jacobs, Albert Einstein College of Medicine, USA
16h45 – 17h00	M. tuberculosis attenuated mutants as novel vaccine candidates Olivier Neyrolles, CNRS, France
17h00 – 17h15	Intranasal immunization with recombinant human parainfluenza type 2 virus-Ag85B showed protective effects against Mycobacterium tuberculosis infection Yasuhiro Yasutomi, National Institute of Biomedical Innovation, Japan
17h15 – 17h30	Lipoproteins determine the antigenicity of a new protective membrane vesicle-based vaccine against Mycobacterium tuberculosis Rafael Prados-Rosales, Albert Einstein College of Medicine, USA
17h30 – 17h45	Dose-dependent immune responses of the novel tuberculosis vaccine, AERAS-402, to mycobacteria-specific CD4+ and CD8+ T cells in healthy infants previously vaccinated with BCG Benjamin Kagina, SATVI, University of Cape Town, South Africa
17h45 – 18h00	An unbiased genome-wide Mycobacterium tuberculosis gene-expression approach to discover new antigens for human T cells that are expressed during pulmonary infection Tom Ottenhoff, Leiden University Medical Center, The Netherlands
18h00 – 19h30	Poster Viewing Area Open
18h15 – 21h00 Lecture Theatre 1	SATELLITE SESSION : The MVA85A Phase IIb Trial: Results and Implications for the Field Hors d'oeuvres and refreshments will be served starting at 18:15. Panel discussion to begin at 19h00. Hosted by Aeras, Emergent BioSolutions, University of Oxford, South African Tuberculosis Vaccine Initiative and the Wellcome Trust

7h00 3rd Floor	Registration Opens
7h30 – 9h00	MORNING WORKSHOPS : Continuing to Advance the Blueprint
Lecture Theatre 3	SESSION I: Creativity in research and discovery Chair: Uli Fruth, WHO, Switzerland Rapporteur: David Lewinsohn, Oregon Health and Science University, USA
Classroom 2A	SESSION II: Correlates of immunity and biomarkers for TB vaccines Chair: Gerhard Walzl, Stellenbosch University, South Africa Rapporteur: Camille Loch, Institute Pasteur Lille, France
Classroom 2B	SESSION III: Harmonization and cooperation of clinical trials Chair: Lew Barker, Aeras, USA Rapporteur: Michele Tameris, South African Tuberculosis Vaccine Initiative, South Africa
Classroom 4A	SESSION IV: Rational selection of TB vaccine candidates Chair: Barry Walker, Aeras, USA Rapporteur: Jelle Thole, TBVI, The Netherlands
Classroom 4B	SESSION IV: The critical need for advocacy, communications and resource mobilisation Chair: Robert Nakibumba, Africa for Health Research Initiative, Stop TB Partnership Working Group on New Vaccines, Uganda Rapporteur: Mandy Slutsker, ACTION Global Health Advocacy Partnership, USA
9h00 – 10h00 Lecture Theatre 1	Report Back from Morning Workshops Chair: Ann Ginsberg, Aeras, USA Workshop rapporteurs
10h00 – 11h00 Lecture Theatre 1	PLENARY SESSION VI : Building Support Through Advocacy and Communications Chair: Jennifer Woolley, Aeras, USA Roundtable discussion on the role of advocacy and communications in supporting and advancing TB vaccine R&D at all levels, from the community to the global level Kaitlin Christenson, Global Health Technologies Coalition, USA Gavin Churchyard, Aurum Institute for Health Research, South Africa Nick Herbert, Member of Parliament, UK Kari Stoever, Aeras, USA Wim Vandeveld, Global TB Community Advisory Board, South Africa
11h00 – 11h30	Coffee/Tea Break
11h30 – 13h00 Lecture Theatre 1	BREAKOUT SESSION VII : Preclinical Animal Models and Therapeutic Vaccines Chair: Frank Verreck, BPRC, The Netherlands
11h30 – 11h45	Therapeutic immunization against Mycobacterium tuberculosis is an effective adjunct to antibiotic treatment Rhea Coler, IDRI, USA
11h45 – 12h00	Early clinical measures reminiscent of human TB predict survival in NHP models in support of quantitative pre-clinical vaccine evaluation Frank Verreck, BPRC, The Netherlands
12h00 – 12h15	HPA global role in pre-clinical evaluation of novel vaccines Simon Clark, Health Protection Agency, UK
12h15 – 12h30	Pre-clinical screening of TB vaccines in the era of clinical efficacy testing Ann Williams, Health Protection Agency, UK
12h30 – 12h45	Chest imaging and lung function tests for the assessment of safety of an investigational TB vaccine in patients treated for pulmonary tuberculosis Richard van Zyl-Smit, University of Cape Town, South Africa
12h45 – 13h00	Enhanced immune responses against ESAT- 6 might induce hypersensitivity in Mycobacterium tuberculosis infected mice treated with ESAT-6/Ag85a chimeric plasmid DNA Zhongming Li, Shanghai H&G Biotechnology Company, China

11h30 – 13h00 Lecture Theatre 2	BREAKOUT SESSION VIII : Late Breaker	
	Chair: Juhani Eskola, Finnish National Institute for Health and Welfare, Finland	
11h30 – 11h45	Enzymes of the sulphate assimilation pathway induced during intracellular growth are novel protective antigens of <i>Mycobacterium tuberculosis</i>	Warwick Britton, Centenary Institute, University of Australia, Australia
11h45 – 12h00	Characterization of novel multi-antigenic vaccine candidates with pan-HLA coverage against <i>M. tuberculosis</i>	Lior Carmon, Vaxil BioTherapeutics Ltd, Israel
12h00 – 12h15	Improved BCG mediated protection in necrosis-prone C3Heb/FeJ inbred mice following infection with W-Beijing strains of <i>Mycobacterium tuberculosis</i>	Diane Ordway, Colorado State University, USA
12h15 – 12h30	Polyantigenic DAR-901: an inactivated whole cell vaccine for the prevention of tuberculosis	Ford von Reyn, Geisel School of Medicine at Dartmouth, USA
12h30 – 12h45	Phase II randomised controlled trial to evaluate safety and immunogenicity of MVA85A and selective, delayed BCG vaccination in infants of HIV infected mothers	Mark Hatherill, SATVI, South Africa
12h45 – 13h00	In-situ hsp-complex vaccines from BCG as TB vaccine candidates	Camilo Colaco, ImmunoBiology Ltd, UK
11h30 – 13h00 Lecture Theatre 3	BREAKOUT SESSION IX : Operational Issues Involved in Planning and Implementing Clinical Trials	
	Chair: Videlis Nduba, KEMRI/CDC Research and Public Health Collaboration, Kenya	
11h30 – 11h45	Assessing volunteer understanding in clinical research: lessons learned from implementation of a mixed method assessment of understanding tool (AOU) tool in HIV vaccine clinical trials	Judie Mbogua, IAVI, Kenya
11h45 – 12h00	Collection of PBMCs (peripheral blood mononuclear cells) in an infant TB vaccine trial: Challenges and lessons	Grace Kaguthi, KEMRI/CDC, Kenya
12h00 – 12h15	Retention, recruitment and enrolment into a South African TB vaccine trial	Trevor Beattie, Aurum Institute, South Africa
12h15 – 12h30	An early morning sputum sample is necessary for the diagnosis of pulmonary tuberculosis, even with more sensitive techniques: A prospective cohort study among adolescent TB-suspects in Uganda	Willy Ssengooba, Makerere University College of Health, Uganda
12h30 – 12h45	Willingness to participate in trials of and acceptability of new tuberculosis vaccines among HIV -infected adults with high CD4 counts	Tendesayi Kufa, Aurum Institute, South Africa
12h45 – 13h00	Questions and Discussion	
11h30 – 13h00 Classroom 2A	BREAKOUT SESSION X : Advocacy and Resource Mobilisation for TB Vaccines: Strategies and Tactics	
	Co-chairs: Lucy Ghati, NEPHAK / Stop TB Partnership Working Group on New Vaccines, Kenya Erna Balk, TBVI, The Netherlands	
11h30 – 11h45	Advocacy towards increased EU funding for TB vaccines research	Fanny Voitzwinkler, Global Health Advocates, France
11h45 – 12h00	Working in coalitions to advance an R&D agenda	Kaitlin Christenson, Global Health Technologies Coalition, USA
12h00 – 12h15	Utilising vaccine support networks to build community engagement for vaccine trials	Evelyn Kibuchi, Kenya AIDS NGO Consortium (KANCO), Kenya
12h15 – 12h30	Utilising data and modelling for evidence-based advocacy	Angeline Nanni, Aeras, USA
12h30 – 12h45	Researchers as advocates	David Lewinsohn, Oregon Health and Science University, USA]
12h45 – 13h00	Questions and Discussion	
13h00 – 14h15 3rd Floor	Lunch (Poster & Exhibit Area)	SATELLITE SESSION: Human and Animal TB: Exploring the Links and Opportunities for Vaccine Development
		Classroom 2B Hosted by Aeras and Glyn Hewinson of the of the Animal Health and Veterinary Laboratories Agency (AHVLA)

14h15 – 15h45 Lecture Theatre 1	PLENARY SESSION VII : Sustaining the Global TB Vaccine Portfolio Co-chairs: Line Matthiessen, European Commission, Belgium Kari Stoever, Aeras, USA
14:20 – 14:30	Overview of financing gap and approaches to resource mobilisation Kari Stoever, Aeras, USA
14:30 – 15:30	Perspectives on sustaining the pipeline Innovative financing mechanisms Thomas Barrett, European Investment Bank, Belgium Towards EDCTP-II Charles Mgone , EDCTP, The Netherlands Multinational corporations Didier Lapierre, GSK Biologicals, Belgium China’s contributions to TB vaccine R&D Jueren Lou, China National Biotec Group (CNBG), China South Africa’s contributions to TB vaccine R&D Glaudina Loots, Department of Science and Technology, South Africa A Perspective from the US Congress on TB James McDermott, Member of Congress, USA
15:30 – 15:45	Questions and discussion
15h45 – 16h30 Lecture Theatre 1	CLOSING SESSION Chairs: Hassan Mahomed, Western Cape Department of Health / Stellenbosch University, South Africa Jelle Thole, TBVI, The Netherlands Ann Ginsberg, Aeras, USA CLOSING PLENARY ADDRESS TB Elimination: Where we are and what are the needs Mario Raviglione, WHO, Switzerland

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Site Visits and Optional Tours
