



## 45<sup>TH</sup> ANNUAL CONGRESS

INSTITUTO DE HIGIENE E MEDICINA TROPICAL LISBON

22-25 JUNE 2025

### PROGRAMME

#### Sunday 22 June

14:00-15:00	Registration
15:00-15:45	<p><b>Industry Sponsored Symposium</b></p> <p>Chairs: <b>Bernd Merkl, Troels Lillebaek</b></p> <p><u>15:00</u> <b>Inna Friesen, Borstel, Germany</b> Redefining the diagnosis of drug-resistant TB: Clinical validation of FluoroType® MTBDR VER2.0 and first results of tNGS workflow integration.</p> 
15:45-16:30	Coffee Break
16:30-19:00	<p><b>Opening Session</b></p> <p>Chairs: <b>Troels Lillebaek, Miguel Viveiros, Raquel Duarte</b></p> <p><u>16:30</u> Welcome words, ESM and Congress Presidents <b>Troels Lillebaek</b> – President of European Society of Mycobacteriology ESM <b>Miguel Viveiros</b> – Chair of ESM 2025 and Deputy Director of IHMT NOVA <b>Fernando de Almeida</b> – President of the National Institute of Health Dr. Ricardo Jorge <b>Filipe Froes</b> – Vice-President of the Portuguese Society of Pneumology <b>Rita Sá Machado</b> – Portuguese General Director of Health</p> <p><b>Opening Keynote</b> <u>17:00</u> <b>Raquel Duarte, University of Porto</b> <b>GL01</b> Challenges in Tuberculosis Management Today</p> <p><u>17:45</u> <b>Gertrud Meissner Award presented by S. Niemann</b></p> <p><u>18:10</u> <b>GL02</b> Gardner Middlebrook Award</p>
19:00-21:30	Networking drinks and light dinner snacks at the Institute of Hygiene and Tropical Medicine

## Monday 23 June

08:00-08:30	<b>Registration</b>
08:30-10:00	<p><b>Session 1: Molecular Biology and Mycobacterial Evolution</b></p> <p>The evolutionary history and phylogeny of mycobacteria, along with genomics for tracking transmission, resistance, and the evolution of drug resistance mechanisms provide comprehensive insights into their biology and adaptation.</p> <p>Chairs: <b>Christophe Sola, João Perdigão</b></p> <p><u>08:30</u> <b>Roland Brosch</b>, <i>Institut Pasteur, Paris</i>  <b>GL03</b> The Evolutionary History and Phylogeny of Mycobacteria</p> <p><u>09:00</u> <b>Dmytro Butov</b>, <i>Kharkiv National Medical University, Kharkiv, Ukraine</i>  <b>OR01</b> Molecular Epidemiology of Tuberculosis in Ukraine: A Nationwide Whole-Genome Sequencing Study (2020–2023)</p> <p><u>09:15</u> <b>Arash Ghodousi</b>, <i>Vita-Salute San Raffaele University, Milan</i>  <b>OR02</b> CRISPR and phage footprints reveal an aquatic ancestry for the tuberculosis pathogen</p> <p><u>09:30</u> <b>Faramarz Valafar</b>, <i>San Diego State University</i>  <b>OR03</b> Interred mechanisms of resistance and host immune evasion revealed through network-connectivity analysis of <i>M. tuberculosis</i> complex graph pangenome</p> <p><u>09:45</u> <b>Nour Gharbi</b>, <i>EPHE, PSL University, Paris</i>  <b>OR04</b> Genome-wide association analysis of <i>Mycobacterium tuberculosis</i> lineage 2 reveals key factors for its enhanced epidemic success</p>
10:00-10:30	<b>Coffee Break</b>
10:30-12:00	<p><b>Session 2: One Health Perspective on the Epidemiology, Environment, Lifestyle and Risk Factors for Mycobacteria Infection and Disease</b></p> <p>The impact of aging, chronic diseases, co-infections, climate change, water quality, and microbiota on <i>M. tuberculosis</i> and non-tuberculous mycobacterial infections, as well as zoonotic tuberculosis in the One Health Era, highlights the need for an integrated approach addressing human, animal, and environmental health to prevent mycobacterial infection and transmission</p> <p>Chairs: <b>Nuno Empadinhas, Leen Rigouts</b></p> <p><u>10:30</u> <b>Jean-François Guégan</b>, <i>UMR MIVEGEC, Montpellier, France</i>  <b>GL04</b> Canonical fact versus hypothesis testing to decipher transmission of non-tuberculous and tuberculous mycobacteria</p> <p><u>11:00</u> <b>Camille Allam</b>, <i>Centre National de Référence des Mycobactéries et de la Résistance aux Antituberculeux (CNR MyrMA)</i>  <b>OR05</b> Standardised protocol for the detection and quantification of nontuberculous mycobacteria in tap water and its application in investigating the source of clinical infections</p> <p><u>11:15</u> <b>Margo Diricks</b>, <i>Research Center Borstel</i>  <b>OR06</b> Indoor water systems as reservoirs for clinically relevant non-tuberculous mycobacteria in Germany</p> <p><u>11:30</u> <b>Anita Michel</b>, <i>University of Pretoria</i>  <b>OR07</b> TB through a One Health lens: Challenges in a rural South African setting</p> <p><u>11:45</u> <b>Xenia Emilie Iversen</b>, <i>Statens Serum Institute, Copenhagen</i>  <b>OR08</b> Nontuberculous Mycobacteria in Denmark: Seven Decades of Clinical Occurrence</p>

12:00-12:45	<b>Poster pitches - Session 1</b> Chair: <b>Leen Rigouts</b> <i>1 minute per poster</i>
12:45-13:30	<b>Lunch</b>
13:30-14:45	<b>Poster Session 1</b> All posters with uneven numbers (P001, P003 etc)
14:45-16:15	<b>Session 3: Host-Pathogen interactions in TB</b> Advances in understanding the immune response to <i>M. tuberculosis</i> infection, including lineage-specific drivers of differential immune response and virulence, have highlighted biomarkers of protection and susceptibility as well as potential host-directed therapies. Chairs: <b>Iñaki Comas, Margarida Saraiva</b> 14:45 <b>Mireia Coscolla</b> , <i>University of Valencia</i> <b>GL05</b> Evolutionary insights in host-pathogen compatibility of <i>M. tuberculosis</i> ecotypes. 15:15 <b>Javier Alonso del Real</b> , <i>Instituto de Biomedicina de Valencia - Spanish National Research Council</i> <b>OR09</b> <i>Mycobacterium tuberculosis</i> trehalose synthesis pathways as key determinant of tuberculosis disease progression 15:30 <b>Tobias Dallenga</b> , <i>Research Center Borstel</i> <b>OR10</b> Region-Specific Spatial Transcriptomics Reveal Distinct Immunological Functions in Human Tuberculosis Granulomas 15:45 <b>Jana Schoenfeld</b> , <i>Research Center Borstel</i> <b>OR11</b> Reprogramming of human macrophages in response to <i>Mycobacterium tuberculosis</i> complex (MTBC) infection 16:00 <b>Charlotte Genestet</b> , <i>International Center for Infectious Disease Research, Lyon</i> <b>OR12</b> Autologous host-pathogen pairing enhances early immune responses and bacterial control in tuberculosis ex vivo granuloma model
16:15-16:45	<b>Coffee Break</b>
16:45-18:15	<b>Session 4: Clinical pathology and diagnostic advances</b> Diagnostic advances, artificial intelligence and new technologies relevant to clinical pathologists and laboratory professionals. Chairs: <b>Daniela Maria Cirillo, Rita Macedo</b> 16:45 <b>Daniela Maria Cirillo</b> , <i>San Raffaele Hospital, Milan</i> <b>GL06</b> Co-development of new drugs and diagnostics to prevent drug resistance emergence 17:15 <b>Philip Fowler</b> , <i>University of Oxford</i> <b>OR13</b> Use of large-scale clinical samples to progressively create a reference catalogue of mycobacterial species 17:30 <b>Marcus May</b> , <i>Serum Life Science</i> <b>OR14</b> SIILTBCY: A New Era in TB Diagnosis 17:45 <b>Noud Hermans</b> , <i>KNCV tuberculosis foundation, The Hague</i> <b>OR15</b> Genotypic drug susceptibility testing for new tuberculosis treatment regimens: The challenge of comprehensive and reliable WHO catalogue-based sequencing data interpretation

	<p><u>18:00</u> <b>Iñaki Comas</b>, <i>Instituto de Biomedicina de Valencia - Spanish National Research Council</i></p> <p><b>OR16</b> Complete genomes reveal unprecedented genomic diversity of Mycobacterium tuberculosis complex from global to within-host variation</p>
<b>18:30</b>	<b>Transfer to central Lisboa, for those booked on the guided tour</b>
<b>20:30</b>	<p><b>Traditional Dinner @ Museu da Cerveja</b></p> <p>Terreiro do Paço, Ala Nascente, nº 62 a 65 1100-148 Lisboa</p>

## Tuesday 24 June

<b>08:30-09:00</b>	<b>Registration</b>
<b>09:00-10:00</b>	<p><b>Session 5: Recent advances in research on Mycobacterial pathogenesis</b></p> <p>Experimental infection models, ranging from vertebrates, rodents, and non-human primates to novel in vitro systems such as human granulomas, organoids, and lung-on-a-chip.</p> <p>Chairs: <b>Mireia Coscolla</b>, <b>Maria Salomé Gomes</b></p> <p><u>09:00</u> <b>William Branchett</b>, <i>Francis Crick Institute, London</i></p> <p><b>GL07</b> Models and Mechanisms of M. tuberculosis Infection Outcome</p> <p><u>09:30</u> <b>Mariona Cortacans</b>, <i>Institut d'investigació en Ciències de la Salut Germans Trias i Pujol, Badalona</i></p> <p><b>OR17</b> When Non-Pathogens Kill: Mycolicibacterium manresensis as a Model for Cryptic Virulence in Mycobacteria</p> <p><u>09:45</u> <b>Marta Arch</b>, <i>Institut d'investigació en Ciències de la Salut Germans Trias i Pujol, Badalona</i></p> <p><b>OR18</b> Investigating the virulence of Mycobacterium abscessus using the Drosophila melanogaster infection model</p>
<b>10:00-10:25</b>	<p><b>Poster pitches - Session 2</b></p> <p>Chair: <b>Mireia Coscolla</b></p> <p><i>1 minute per poster</i></p>
<b>10:25-11:00</b>	<b>Coffee Break</b>
<b>11:00-12:30</b>	<p><b>Session 6: New generation vaccines for TB and TB diagnostics</b></p> <p>Advances in vaccine research, including innovative adjuvants and strategies tailored to different epidemiological profiles driving the development of next-generation tuberculosis vaccines</p> <p>Chairs: <b>Matthias Merker</b>, <b>Elsa Anes</b></p> <p><u>11:00</u> <b>Helen McShane</b>, <i>University of Oxford</i></p> <p><b>GL08</b> Progress and challenges in tuberculosis vaccine development</p> <p><u>11:30</u> <b>Patricia Cuenca Lara</b>, <i>CReSA, IRTA, Universitat Autònoma de Barcelona</i></p> <p><b>OR19</b> Evaluation of immune responses elicited by respiratory mucosal vaccination strategies against TB in a goat model</p>

	<p><u>11:45</u> <b>Kristin Kremer</b>, <i>KNCV Tuberculosis Foundation, The Hague</i> <b>OR20</b> Utility of targeted Nanopore sequencing for the detection of drug-resistant tuberculosis in Kyrgyzstan</p> <p><u>12:00</u> <b>Paulo Bettencourt</b>, <i>Faculty of Medicine, Universidade Católica Portuguesa, Rio de Mouro</i> <b>OR21</b> Immunoepitidomics for vaccines against tuberculosis</p> <p><u>12:15</u> <b>Oren Tzfadia</b>, <i>Institute of Tropical Medicine, Antwerp</i> <b>OR22</b> Determining the genetic drivers of pathogenicity in the genus Mycobacterium</p>
<b>12:30-12:50</b>	<p><b>Poster pitches - Session 3</b> Chair: <b>Daniela Maria Cirillo</b> <i>1 minute per poster</i></p>
<b>12:50-13:45</b>	<b>Lunch</b>
<b>13:45-15:00</b>	<p><b>Poster Session 2</b> All posters with an even number (P002, P004, etc)</p>
<b>15:00-15:45</b>	<p><b>Industry Sponsored Symposium</b> Chairs: <b>Matthias Merker, Erik Svensson</b></p> <p><u>15:00</u> <b>Viktoria Szel</b>, <i>National Reference Laboratory for Mycobacteriology, Hungary</i> Implementation plan of the Mycobacterium RealTime Kit Vircell (MRTVircell) Assay for Detecting Mycobacterium Species in National Mycobacterium Reference Lab, Hungary</p>
<b>15:45-16:15</b>	<p><b>Session 7: Therapeutic strategies for NTM and TB</b> Treatment of NTM focused on evidence for new drugs, including antibiotic and non-antibiotic combinations, alongside discontinuation strategies and treatment adjustments based on clinical response. Chairs: <b>Troels Lillebaek, Raquel Duarte</b></p> <p><u>15:45</u> <b>Natalie Lorent</b>, <i>KU Leuven</i> <b>GL09</b> Rethinking NTM management: new drugs, new approaches, new hope.</p>
<b>16:15-16:45</b>	<b>Coffee Break</b>
<b>16:45-18:15</b>	<p><b>Session 8: Therapeutic strategies for NTM and TB Part 2</b> Chairs: <b>Daniela Maria Cirillo, Raquel Duarte</b></p> <p><u>16:45</u> <b>Nicola Lorè</b>, <i>San Raffaele Scientific Institute, Milan</i> <b>OR23</b> Single-cell RNA sequencing shows that circulating monocytes enriched in IFN signaling are associated with nontuberculous mycobacteria pulmonary disease in cystic fibrosis</p> <p><u>17:00</u> <b>D Moreira Sousa</b>, <i>Pulmonology Department, Local Health Unit Cova da Beira, Covilhã</i> <b>OR24</b> International Consensus Framework for Managing Treatment Failure in Nontuberculous Mycobacterial Pulmonary Disease</p> <p><u>17:15</u> <b>Chloé Jacquet</b>, <i>Inserm U1070 PHAR2, Poitiers</i> <b>OR25</b> Fidaxomicin, a potential new drug for combinatorial therapies against Mycobacterium abscessus.</p>

	<p><u>17:30</u> <b>Simone Mok</b>, <i>Irish Mycobacteria Reference Laboratory, St. James's Hospital, Dublin</i> <b>OR26</b> Evaluation of NTM-Profiler for identification and drug resistance prediction in nontuberculous mycobacteria from whole genome sequencing data</p> <p><u>17:45</u> <b>Aarnoud van der Spoel</b>, <i>Dalhousie University, Halifax</i> <b>OR27</b> Modelling a genetic condition that protects against tuberculosis</p> <p><u>18:00</u> <b>Fabio Saliu</b>, <i>San Raffaele Scientific Institute, Milan</i> <b>OR28</b> Preclinical murine models for studying lung infection and antimicrobial treatments of Nontuberculous mycobacteria</p>
<b>18:15</b>	<b>General Assembly</b>
<b>19:30</b>	<p><b>Social activity: Dinner and party @ Doca do Santo</b> Armazém CP – Doca de Santo Amaro</p>

## Wednesday 25 June

<b>08:30-09:00</b>	<b>Registration</b>
<b>09:00-11:00</b>	<p><b>Session 9: Neglected mycobacterial diseases – continuing challenges for a hopeful future</b></p> <p>New hurdles in the fight against neglected mycobacterial diseases such as leprosy and Buruli - resistance, challenges in diagnosis, and the debate between molecular and traditional methods to better identify these often non-cultivable pathogens.</p> <p>Chairs: <b>Margarida Correia-Neves, Leen Rigouts</b></p> <p><u>09:00</u> <b>Leen Rigouts</b>, <i>Institute of Tropical Medicine, Antwerp</i> <b>GL10</b> Neglected mycobacterial diseases - Continuing challenges for a hopeful future</p> <p><u>09:30</u> <b>Emmanuelle Cambau</b>, <i>APHP-GHU Nord &amp; Université Paris Cité</i> <b>GL11</b> Leprosy: back to the future</p> <p><u>10:00</u> <b>Conor Meehan</b>, <i>Nottingham Trent University</i> <b>OR29</b> Validating a SNP calling pipeline for Mycobacterium leprae</p> <p><u>10:15</u> <b>Louisa Warryn</b>, <i>Swiss Tropical and Public Health Institute</i> <b>OR30</b> The diagnostic potential of Mycobacterium ulcerans Mycolactone and the surface protein MUL_3720</p> <p><u>10:30</u> <b>Alisa Aliaga Samanez</b>, <i>MIVEGEC (UMR Université de Montpellier, CNRS, IRD)</i> <b>OR31</b> Natural drivers and Human-Induced Pressures shaping the distribution of Mycobacterium ulcerans and Buruli Ulcer</p> <p><u>10:45</u> <b>Tim Stinear</b>, <i>University of Melbourne</i> <b>OR32</b> Solving the transmission enigma of Buruli ulcer (Mycobacterium ulcerans infection)</p>
<b>11:00-11:30</b>	<b>Coffee Break</b>

11:30-13:00	<p><b>Session 10: Systems Biology Approaches to Accelerate Mycobacteriosis Drug Discovery</b></p> <p>Emerging areas in the fight against TB and NTM including omics approaches for identifying new host and pathogen drug targets, advancements in drug delivery methods, drug discovery and repurposing pipelines for mycobacteriosis, exploration of non-antibiotic treatments, and innovations in adaptive clinical trial designs.</p> <p>Chairs: <b>Miguel Viveiros, Troels Lillebaek</b></p> <p><u>11:30</u> <b>Hannu Myllykallio</b>, <i>Polytechnique; Palaiseau</i> <b>GL12</b> From Abyss to Mycobacterial Drug Discovery</p> <p><u>12:00</u> <b>Pedro Duarte</b>, <i>Research Institute for Medicines, Faculdade de Farmácia, Universidade de Lisboa</i> <b>OR33</b> Implementing large-scale genomics and genomic subtractive strategies to expand the target space in Mycobacterium tuberculosis: a strategy for improving target-based drug discovery</p> <p><u>12:15</u> <b>Liliana Rodrigues</b>, <i>GHTM, LA-REAL, Instituto de Higiene e Medicina Tropical, IHMT, Universidade NOVA de Lisboa</i> <b>OR34</b> Exploring in silico drug repurposing to develop new therapeutic alternatives for tuberculosis</p> <p><u>12:30</u> <b>Andrea Muscetti</b>, <i>San Raffaele Scientific Institute, Milan</i> <b>OR35</b> DprE1 inhibitors and bedaquiline combination for TB treatment: in-vitro and in-silico analyses</p> <p><u>12:45</u> <b>Salomé Gomes</b>, <i>University of Porto</i> <b>OR36</b> Improved models for drug development against non-tuberculous mycobacteria</p>
13:00-13:15	<p><b>Poster Awards and Closing Ceremony</b></p> <p>Chairs: <b>Troels Lillebaek, Leen Rigouts</b></p>



With thanks to our sponsors and partners

### Platinum

---



### Silver

---



### Supporters

---

