

# ESCMID Global

## **Abstract Book 2024**

34th Congress of the European  
Society of Clinical Microbiology  
and Infectious Diseases

**Barcelona, Spain**  
27 – 30 April 2024























## CMI Communications



journal homepage: <https://www.sciencedirect.com/journal/cmi-communications>

# Table of Contents

|      |   |   |
|------|---|---|
| 4    | <a href="#">Welcome Address</a>   |    |
| 6    | <a href="#">ESCMID Global Programme Committee</a>                                       |    |
| 7    | <a href="#">Abstract Reviewers</a>  |    |
| 13   | <a href="#">Abstract Categories</a>   |    |
| 15   | <a href="#">Abstracts</a>   |    |
| 15   | <a href="#">1. Viral infection &amp; disease (incl COVID-19)</a>                        |    |
| 647  | <a href="#">2. Bacterial infection &amp; disease</a>                                    |    |
| 1365 | <a href="#">3. Bacterial susceptibility &amp; resistance</a>                            |    |
| 2085 | <a href="#">4. Diagnostic microbiology</a>  |    |
| 2442 | <a href="#">5. New antibacterial agents, PK/PD &amp; Stewardship</a>                    |    |
| 3017 | <a href="#">6. Fungal infection &amp; disease</a>                                       |    |
| 3298 | <a href="#">7. Parasitic diseases &amp; global health</a>                               |   |
| 3470 | <a href="#">8. Healthcare-associated infections, infection prevention &amp; control</a> |  |
| 3844 | <a href="#">9. Experimental microbiology, microbial pathogenesis &amp; biofilms</a>     |  |
| 4080 | <a href="#">10. Immunology, immune compromise &amp; vaccinology</a>                     |  |
| 4291 | <a href="#">11. Other</a>   |  |
| 4390 | <a href="#">12. Case reports and case series (n&lt;10)</a>                              |  |
| 4733 | <a href="#">13. Late breakers</a>   |  |
| 4837 | <a href="#">ESCMID Global 2024 Abstract Authors</a>                                     |  |

Publication of this abstract supplement has been supported by ESCMID

**Disclaimer:** The abstracts are presented here as they were submitted for inclusion in the proceedings of the 34th European Congress of Clinical Microbiology and Infectious Diseases. Outside of page layout and formatting, only the abstract titles have been proofed and edited by ESCMID. All content entirely represents the work of the submitting author(s), and does not reflect the views of ESCMID, its staff, or its executive. ESCMID does not take responsibility for misspellings or misrepresentation of registered names, copyrights or trademarks.

# ESCMID Global 2024 Abstract Programme – Note from the Directors

The ESCMID Global 2024 congress (34th ECCMID) was held from April 27-30 in Barcelona, Spain. This year, the congress attracted a remarkable number of registrants, over 18,000 professionals from across the globe, a testament to its growing influence and importance.

Central to the success of ESCMID Global 2024 was its Abstract Programme and the outstanding response to the call for abstracts, which underscored the event's role as a premier platform for sharing cutting-edge research and innovations.

ESCMID Global 2024 received 7,887 abstract submissions, a new record compared to the 6,368 abstracts in 2023 and 4,800 abstracts in 2022. Additionally, 7% (587 of the submissions) were late-breaker abstracts, representing a 50% increase compared to 2023. This increase in submissions clearly indicates the importance of ESCMID Global as a leading stage for disseminating knowledge in infectious diseases and clinical microbiology.

The abstracts were submitted from 127 different countries. In addition to established contributions from European countries such as Spain, Italy, France, Germany, and the Netherlands, we received a significant contribution to submissions from non-European countries like the United States, India, and China, among the Top 10 presenting countries. Notably, 15% of all abstracts were received from low- and middle-income countries.

With 89% regular and 11% case abstracts, the abstracts submitted covered a wide array of topics. The number of submissions increased across all categories compared to last year. Particularly notable were the substantial increases in submissions related to healthcare-associated infections and infection prevention and control (+40%), bacterial infections and diseases (+30%), and bacterial susceptibility and resistance (+15%). Furthermore, there was a 30% increase in submissions of case reports and case-series, with the best contributions selected for the clinical case sessions and the Clinical Grand Round.

The overall acceptance rate was 66%. Out of the total submissions, 937 abstracts (18%) were selected for oral presentation, and 4,267 abstracts were selected as paper posters.

The breadth and quality of the research presented are the cornerstones of the congress' scientific exchange and educational merit. As we look forward, the insights and discoveries shared at this year's congress will undoubtedly inspire further advancements and contribute to improved patient care and public health worldwide.

We extend our sincere gratitude to all abstract submitters, whose contributions have greatly enhanced the congress value, to over a thousand dedicated abstract reviewers for their unwavering effort and commitment, and to our Programme Committee members, who supported us in creating such a rich and diverse programme. Their hard work ensures that ESCMID Global remains a beacon of excellence in the scientific community.

We are very proud to be able to share all accepted abstracts of ESCMID Global 2024.

**Giulia De Angelis**  
ESCMID Global  
Associate Director



**Jacob Moran-Gilad**  
ESCMID Global  
Programme Director



# About ESCMID Global Abstract Book

We are pleased to present the abstract book for ESCMID Global 2024, held in Barcelona, Spain, 27-30 April 2024. This book is a collection of 4890 abstracts presented during the congress, whether delivered as oral presentations or uploaded to the ESCMID ePoster repository per Congress guidelines. Abstracts are organised into 12 categories, representing the main research topics covered by the congress. Poster abstracts are further organised by subcategories, providing a more granular subdivision of all topics.

Each abstract underwent a peer-review process, and evaluated by at least three reviewers belonging to our esteemed panel of over 1000 expert reviewers. The average number of reviews per abstract was ~5. This year, the cut-off score for acceptance and inclusion in congress materials was 3.53 out of a maximum score of 6 points. Our esteemed panel of over 1000 reviewers consisted of ESCMID Global faculty who participated in the congress as a speaker or chair in the last five years and who, with expertise and diligence, have ensured the high quality of the selected abstracts.

The abstracts included in this book remain unedited, with no alterations made to the text or figures, ensuring that the original contributions of the authors are preserved. Authors provided their consent to publish their abstracts during submission. The responsibility for the content presented, its quality and originality and abstract authorship is with abstract submitters. ESCMID does not assume responsibility for abstract content. For more information please refer to the [ESCMID Global Abstract Guidelines](#).

We extend our deepest gratitude to the contributors and reviewers for their invaluable efforts, which have not only enriched this abstract book but have also been the cornerstone of this congress' success. Your dedication and expertise have ensured that high quality research is presented at ESCMID Global. We hope this abstract book serves as a valuable resource and reference, and a testament to your outstanding contributions.

Sincerely,  
ESCMID Office

# ESCMID Global 2024 Programme Committee

Emmanuelle Cambau, Paris, France  
Fusun Can, Istanbul, Turkey  
Anuradha Chowdhary, Delhi, India  
Stephanie Dancer, Glasgow, United Kingdom  
Giulia De Angelis, Rome, Italy  
Mauricio Farfan, Santiago, Chile  
Jon S. Friedland, London, United Kingdom  
Maddalena Giannella, Bologna, Italy  
Tyra Grove Krause, Copenhagen, Denmark  
Heli Harvala, London, United Kingdom  
Jaroslav Hrabak, Plzen, Czech Republic  
Anu Kantele, Helsinki, Finland  
Antonios Katsounas, Bochum, Germany  
Nina Khanna, Basel, Switzerland  
Kimberly Kline, Geneva, Switzerland  
Justyna, Kowalska, Warsaw, Poland  
Florian, Krammer, New York, United States  
Joanne M., Langley, Halifax, Canada  
Gustavo, Lopardo, Vicente Lopez, Argentina  
Colin, Mackenzie, Düsseldorf, Germany  
Preeti Malani, Ann Arbor, United States  
Sandrine Marchand, Poitiers, France  
Bruno Megarbane, Paris, France  
Jacob Moran-Gilad, Beer Sheva & Jerusalem, Israel  
Joel Mossong, Luxembourg, Luxembourg  
Anna Norrby-Teglund, Stockholm, Sweden  
Joshua Nosanchuk, New York, United States  
Christina Obiero, Kilifi, Kenya  
Jose Ramon Pano-Pardo, Zaragoza, Spain  
Anna Papa-Konidari, Thessaloniki, Greece  
Elisabeth Presterl, Vienna, Austria  
Mario, Ramirez, Lisbon, Portugal  
Pilar, Retamar, Seville, Spain  
Priscilla, Rupali, Vellore, India  
Simona, Ruta, Bucharest, Romania  
Maurizio Sanguinetti, Rome, Italy  
Carlos Seas, Lima, Peru  
Bhanu Sinha, Groningen, Netherlands  
Vitali Sintchenko, Sydney, Australia  
Robert Skov, Copenhagen, Denmark  
Ermira Tartari, Malta, Malta  
Julie Toubiana, Paris, France  
Annelies Verbon, Utrecht, Netherlands  
Heiman Wertheim, Nijmegen, Netherlands  
Kai Zhou, Shenzhen, China  
Snjezana Zidovec Lepej, Zagreb, Croatia  
Annelies Zinkernagel, Zurich, Switzerland



# Abstract Reviewers 2024

Aamot, Hege Vangstein, Norway  
Abad, Cybele Lara, Philippines  
Abdala, Edson, Brazil  
Aboltins, Craig, Australia  
Abubakar, Aisha, Nigeria  
Achermann, Yvonne, Switzerland  
Adlhoch, Cornelia, Sweden  
Aghdassi, Seven Johannes Sam, Germany  
Agrawal, Umang, India  
Ahman, Jenny, Sweden  
Akan, Hamdi, Turkey  
Akova, Murat, Turkey  
Akpede, George, Nigeria  
Al-Abri, Seif, Oman  
Alain, Sophie, France  
Alanio, Alexandre, France  
Alavi Darazam, Ilad, Iran, Islamic Republic of  
Aldieri, Chiara, Italy  
Alfa, Michelle, Canada  
Alenaar, Jan-Willem, Australia  
Almirante Gragera, Benito, Spain  
Alp Mese, Emine, Turkey  
Alvarez Martinez, Miriam José, Spain  
Amaro Torres, Francisco, Spain  
Ambrozaitis, Arvydas, Lithuania  
Amer, Fatma, Egypt  
Amoureux, Lucie, France  
Ana, Fernández-Cruz, Spain  
Anahtar, Melis, United States  
Andermann, Tessa, United States  
Andrejak, Claire, France  
Angkasekwinai, Nasikarn, Thailand  
Antachopoulos, Charalampos, Greece  
Anthony, Richard, Netherlands  
Antonelli, Alberto, Italy  
Antoniadou, Anastasia, Greece  
Anwar, Natasha, Pakistan  
Ardanuy, Carmen, Spain  
Arendrup, Maiken Cavling, Denmark  
Arias, Cesar, United States  
Arikan-Akdagli, Sevtap, Turkey  
Arts, Rob, Netherlands  
Ashiru-Oredope, Diane, United Kingdom  
Aubry, Alexandra, France  
Auwaerter, Paul G., United States  
Averbuch, Dina, Israel  
Ayalon, Oshrat, Israel  
Azap, Özlem Kurt, Turkey  
Bahn, Yong-Sun, Korea, Republic of  
Balcells, María Elvira, Chile  
Balode, Arta Olga, Latvia  
Bandera, Alessandra, Italy  
Barac, Aleksandra, Serbia  
Barichello, Tatiana, United States  
Barroso da Silva, Fernando Luis, Brazil  
Baykam, Nurcan, Turkey  
Bayraktar, Banu, Turkey  
Beardsley, Justin, Australia  
Becker, Karsten, Germany  
Becker, Sören Leif, Germany  
Beeching, Nicholas John, United Kingdom  
Beeton, Michael, United Kingdom  
Begovac, Josip, Croatia  
Bekeredjian-Ding, Isabelle, Germany  
Belaunzaran, Maria, Argentina  
Ben-David, Debby, Israel  
Benech, Nicolas, France  
Benfield, Thomas, Denmark  
Benito, Natividad, Spain  
Benschop, Kimberley, Netherlands  
Benzonana, Nur, Turkey  
Beraud, Guillaume, France  
Berger, Angelika, Austria  
Bergin, Colm, Ireland  
Bergman, Scott, United States  
Berkell, Matilda, Belgium  
Besli, Yesim, Turkey  
Bezirtzoglou, Eugenia, Greece  
Bidias, Amel Renaud, Gabon  
Biggs, Patrick, New Zealand  
Birgand, Gabriel, France  
Biswas, Sanjay, India  
Biswas, Kristi, New Zealand  
Bitar, Ibrahim, Czech Republic  
Blanc, Dominique S., Switzerland  
Bleeker-Rovers, Chantal, Netherlands  
Bloom, Sharon, United States  
Bodilsen, Jacob, Denmark  
Bogaerts, Pierre, Belgium  
Boillat-Blanco, Noémie, Switzerland  
Bonnet, Maryline, France  
Bonten, Marc J.M., Netherlands  
Borg, Michael A., Malta  
Borges, Vítor, Portugal  
Borghì, Elisa, Italy  
Bortolaia, Valeria, Denmark  
Bosshard, Philipp, Switzerland  
Botteaux, Anne, Belgium  
Bottieau, Emmanuel, Belgium  
Bouchami, Ons, Portugal  
Bouchez, Valerie, France  
Bouglé, Adrien, France  
Bouiller, Kevin, France  
Boyle, Breida, Ireland  
Brady, Deirdre, Ireland  
Brekke, Hanne, Norway  
Brink, Adrian John, South Africa  
Brodin, Priscille, France  
Broens, Els, Netherlands  
Broenstrup, Mark, Germany  
Brooke, Joanna, United States  
Brosh-Nissimov, Tal, Israel  
Brouwer, Matthijs, Netherlands  
Brouwer, Michael, Netherlands  
Brown, Ashley, United States  
Bruchfeld, Judith, Sweden  
Brüggemann, Roger, Netherlands  
Brugger, Silvio Daniel, Switzerland  
Bruisten, Sylvia, Netherlands  
Budimir, Ana, Croatia  
Buecker, Roland, Germany  
Buetti, Niccolò, Switzerland  
Buhl, Michael, Germany  
Bukovski, Suzana, Croatia  
Buonfrate, Dora, Italy  
Burdet, Charles, France  
Burgmann, Heinz, Austria  
Bush, Karen, United States  
Butaye, Patrick, Belgium  
Buyck, Julien, France  
Calandra, Thierry, Switzerland  
Calbo, Esther, Spain  
Calcagno, Andrea, Italy  
Callon, Domitille, France  
Cambau, Emmanuelle, France  
Camoez, Mariana, Portugal  
Can, Fusun, Turkey  
Canton, Rafael, Spain  
Cappy, Pierre, France  
Carattoli, Alessandra, Italy  
Cardona, Pere-Joan, Spain  
Carevic, Biljana, Norway  
Carmeli, Yehuda, Israel  
Caruana, Giorgia, Switzerland  
Carvalho, Maria J, Portugal  
Carvalho, Agostinho, Portugal  
Cascio, Antonio, Italy  
Cassini, Alessandro, Switzerland  
Castagnola, Elio, Italy  
Castelli, Francesco, Italy  
Cattaneo, Dario, Italy  
Cattoir, Vincent, France  
Cauda, Roberto, Italy  
Cavaco, Lina, Denmark  
Cercenado, Emilia, Spain  
Ceric, Olgica, United States  
Cervera, Carlos, Canada  
Cesta, Novella, Italy  
Cevik, Muge, United Kingdom  
Chai, Louis Yi Ann, Singapore  
Charalampos, Themoula, United Kingdom  
Charani, Esmita, United Kingdom  
Chemaly, Roy, United States  
Cheng, Vincent, China  
Chewapreecha, Claire, Thailand  
Chowdhary, Anuradha, India  
Christaki, Eirini, Greece  
Cilloniz, Catia, Spain  
Cimen, Cansu, Germany  
Cimerman, Sergio, Brazil  
Cinque, Paola, Italy  
Ciofu, Oana, Denmark  
Cirillo, Daniela Maria, Italy  
Cisneros Herreros, Jose Miguel, Spain  
Claas, Eric, Netherlands  
Clark, Tristan, United Kingdom  
Cobat, Aurelie, France  
Coenye, Tom, Belgium  
Cohn, Jennifer, Switzerland  
Coia, John E., Denmark  
Coiras, Mayte, Spain  
Collado, Maria Carmen, Spain  
Colombo, Arnaldo, Brazil  
Conradie, Francesca, South Africa  
Coque, Teresa M., Spain  
Cordero Matia, Elisa, Spain  
Cordoba, Gloria, Denmark  
Corman, Victor, Germany  
Cornely, Oliver A., Germany  
Cos, Paul, Belgium

# Abstract Reviewers 2024

Couto, Natacha, United Kingdom  
Cox, Vivian, South Africa  
Craddock, Hillary, Ireland  
Cremieux, Anne-Claude, France  
Cretu, Carmen-Michaela, Romania  
Cruz Mata, Israel, Spain  
Cuellar-Rodriguez, Jennifer, United States  
Cutler, Sally Jane, United Kingdom  
Dagan, Ron, Israel  
Dagne, Daniel Argaw, Switzerland  
Daikos, George L., Greece  
Dalager-Pedersen, Michael, Denmark  
Damasco, Paulo, Brazil  
Dancer, Stephanie J., United Kingdom  
Dandekar, Ajai, United States  
Dannaoui, Eric, France  
Dasilva, Luis, Brasil  
Davido, Benjamin, France  
De Ambrogi, Marco, United Kingdom  
De Angelis, Giulia, Italy  
De Boer, Mark G.J., Netherlands  
De Cock, Pieter, Belgium  
De Jong, Birgitta, Sweden  
De La Camara Llanza, Rafael, Spain  
De Lencastre, Herminia, Portugal  
De Luca, Maia, Italy  
De Swart, Rik, Netherlands  
De With, Katja, Germany  
Dedic, Kanita, Bosnia and Herzegovina  
Defres, Sylviane, United Kingdom  
Del Campo, Rosa, Spain  
Del Fabro, Giovanni, Italy  
Del Rio, Carlos, United States  
Delliere, Sarah, France  
Delogu, Giovanni, Italy  
Den Boon, Saskia, Switzerland  
Denis, Olivier, Belgium  
Denkova-Draghijeva, Elisaveta, Kuwait  
Dessau, Ram B., Denmark  
Dettenkofer, Markus, Germany  
Dhungana, Gunaraj, Nepal  
Di Caro, Antonino, Italy  
Di Domenico, Enea Gino, Italy  
Digiangdomenico, Antonio, United States  
Dinh, Aurélien, France  
Djordjevic, Steven, Australia  
Dlamini, Siphon Kenneth, South Africa  
Do, Thi Thuy, Ireland  
Docobo Perez, Fernando, Spain  
Dolejska, Monika, Czech Republic  
Dominguez Luzon, Maria Angeles, Spain  
Dominguez-Villar, Margarita, United Kingdom  
Donelli, Gianfranco, Italy  
Donker, Tjibbe, Germany  
Dortet, Laurent, France  
Dramowski, Angela, South Africa  
Drevinek, Pavel, Czech Republic  
Drgona, Lubos, Slovakia  
Dubberke, Erik, United States  
Dubreuil, Luc, France  
Dudman, Susanne Gjeruldsen, Norway  
Duim, Birgitta, Netherlands  
Dumke, Roger, Germany  
Dumpis, Uga, Latvia  
Duvignaud, Alexandre, France  
Dwyer, Dominic, Australia  
E Rutstein, Sarah, United States  
Ebner, Julia, Austria  
Eckmann, Christian, Germany  
Eckmanns, Tim, Germany  
Edelstein, Mikhail V., Russian Federation  
Edit, Zsoldiné dr. Urbán, Hungary  
Efstratiou, Androulla, United Kingdom  
Egli, Adrian, Switzerland  
Eikeland, Randi, Norway  
Ekelund, Oskar, Sweden  
Ekkelenkamp, Miquel, Netherlands  
Ene, Luminita, Romania  
Enninga, Jost, France  
Epaulard, Olivier, France  
Eremeeva, Marina, United States  
Ergönül, Önder, Turkey  
Ergunay, Koray, Turkey  
Escolà-Vergé, Laura, Spain  
Esposito, Susanna, Italy  
Essack, Sabiha, South Africa  
Esteban, Jaime, Spain  
Esteves, Francisco, Portugal  
Estevez, Agustin, Spain  
Evans, Krystal, United Kingdom  
Evans, Benjamin, United Kingdom  
Farfan, Mauricio, Chile  
Faria, Nuno Alexandre, Portugal  
Fatahi-Bafghi, Mehdi, Iran, Islamic Republic of  
Favennec, Loic, France  
Fayemiwo, Samuel Adetona, Nigeria  
Fernandez Ruiz, Mario, Spain  
Fernandez-Barat, Laia, Spain  
Fernandez-Hidalgo, Nuria, Spain  
Ferrari, Anna, Italy  
Ferry, Tristan, France  
Figueiredo, Ceu, Portugal  
Filia, Antonietta, Italy  
Filip, Roxana, Romania  
Fingerle, Volker, Germany  
Fischer, Nicole, Germany  
Fitzpatrick, Fidelma, Ireland  
Flisiak, Robert, Poland  
Florent, Morio, France  
Ford, Nathan, Switzerland  
Fortuna Rodrigues, Celia, Portugal  
Foster, Timothy J., Ireland  
Fournier, Pierre-Edouard, France  
Fowotade, Adeola, Nigeria  
Franceschi, Alessia, Italy  
Francois, Bruno, France  
Frank, Ebel, Germany  
Freeman, Jane, United Kingdom  
Freire, Maristela P, Brazil  
Freitas, Ana Raquel, Portugal  
Frey, Pascal M., Switzerland  
Friães, Ana, Portugal  
Friedland, Jon S., United Kingdom  
Frimodt-Moller, Niels, Denmark  
Fuehrer, Hans-Peter, Austria  
G da Silva, Ronni A, Singapore  
Gaia, Valeria, Switzerland  
Galan Ladero, Maria Angeles, Spain  
Galani, Irene, Greece  
Gales, Ana, Brazil  
Garau, Javier, Spain  
Garcia, Pilar, Spain  
Garcia Vidal, Carolina, Spain  
García-Cobos, Silvia, Spain  
García-Contreras, Rodolfo, Mexico  
Gaskell, Katherine, United Kingdom  
Gatermann, Sören G., Germany  
Geerlings, Suzanne, Netherlands  
Georghiou, Sophia, Switzerland  
Gerding, Dale N., United States  
Ghanem-Zoubi, Nesrin, Israel  
Ghoshal, Ujjala, India  
Giacobbe, Daniele Roberto, Italy  
Giamarellos-Bourboulis, Evangelos, Greece  
Giamarellou, Helen, Greece  
Giani, Tommaso, Italy  
Giannella, Maddalena, Italy  
Giannitsioti, Efthymia, Greece  
Giske, Christian, Sweden  
Gits-Muselli, Maud, France  
Gkrania-Klotsas, Erossyni, United Kingdom  
Glasner, Corinna, Netherlands  
Glocker, Erik, Germany  
Gniadkowski, Marek, Poland  
Gobbi, Federico Giovanni, Italy  
Goering, Richard V., United States  
Goldenberg, Simon, United Kingdom  
Gomez Junyent, Joan, Spain  
Gomperts-Boneca, Ivo, France  
González Gutiérrez, Jessica, Spain  
Gonzalez-Candelas, Fernando, Spain  
Goodman, Anna, United Kingdom  
Gopalakrishnan, Ramachandran, India  
Goto, Michihiko, United States  
Gottlieb, Thomas, Australia  
Gow, Neil A. R., United Kingdom  
Goyal, Sagar, United States  
Green, Stefan, United States  
Grobusch, Martin P., Netherlands  
Groll, Andreas H., Germany  
Grossi, Paolo Antonio, Italy  
Grosso, Filipa, Portugal  
Gruell, Henning, Germany  
Grüner, Beate, Germany  
Grupel, Daniel, Israel  
Gudiol, Carlota, Spain  
Guery, Benoit, Switzerland  
Guglielmetti, Lorenzo, France  
Guinea, Jesus, Spain  
Gür, Deniz, Turkey  
Gutierrez Pimentel, Maria Eugenia, Panama  
Gutierrez-Gutierrez, Belen, Spain  
Gyssens, Inge C., Netherlands  
Haeusler, Gabrielle, Australia  
Haeussler, Susanne, Germany  
Hagen, Ferry, Netherlands



# Abstract Reviewers 2024

Haggstrom, Douglas, Switzerland  
Hakanen, Antti J., Finland  
Halperin, Ana Verónica, Spain  
Hammerschmidt, Sven, Germany  
Hamprecht, Axel, Germany  
Hansen, Katrine Hartung, Denmark  
Hansen, Sonja, Germany  
Harbarth, Stephan Juergen, Switzerland  
Harboe, Zitta Barrella, Denmark  
Harris, Patrick, Australia  
Harris, Kathryn, United Kingdom  
Harte, Jerrey, Ireland  
Harvala, Heli,  
Hasman, Henrik, Denmark  
Hasse, Barbara, Switzerland  
Hatch, Steven, United States  
Haug, Jon Birger, Norway  
Hays, John, Netherlands  
Hedayati, Mohammad Taghi, Iran, Islamic Republic of  
Hedberg, Maria E., Sweden  
Hedman, Klaus, Finland  
Hegstad, Kristin, Norway  
Hell, Markus, Austria  
Henden, Andrea, Australia  
Hennigan, Oisín, Ireland  
Henningsson, Anna J, Sweden  
Herrmann, Jean Louis, France  
Herwaldt, Loreen, United States  
Higgins, Paul G, Germany  
Hinkula, Jorma, Sweden  
Hirsch, Hans H., Switzerland  
Hites, Maya, Belgium  
Ho, Yeh-Li, Brazil  
Hocquet, Didier, France  
Hoekstra, Pytsje, Netherlands  
Hoellinger, Baptiste, France  
Hoenigl, Martin, Austria  
Hofer, Ursula, United Kingdom  
Holmberg, Ville, Finland  
Holmes, Alison Helen, United Kingdom  
Holten Møller, Camilla, Denmark  
Holzknecht, Barbara Juliane, Denmark  
Hooda, Yogesh, Bangladesh  
Horcajada, Juan P., Spain  
Horgan, Mary, Ireland  
Hrabak, Jaroslav, Czech Republic  
Hryniewicz, Waleria, Poland  
Hsueh, Po-Ren, Taiwan, China  
Hübner, Johannes, Germany  
Hughes, Diarmaid, Sweden  
Humphreys, Hilary, Ireland  
Huovinen, Pentti, Finland  
Hurley, James, Australia  
Husain, Shahid, Canada  
Hussein, Khetam, Israel  
Ianache, Irina-Cristiana, Romania  
Iaria, Chiara, Italy  
Idelevich, Evgeny A., Germany  
Ilori, Elsie, Nigeria  
Imbert, Christine, France  
Inan, Asuman Sengöz, Turkey  
Inglis, Tim, Australia  
Ip, Margaret, Hong-Kong SAR, China  
Iregbu, Kenneth, Nigeria  
Irving, William, United Kingdom  
Isler, Burcu, Australia  
Ison, Michael G, United States  
Italiano, Claire, Australia  
Izquierdo Rodríguez, Elena Mercedes, Spain  
Jacquier, Hervé, France  
Janezic, Sandra, Slovenia  
Jankovic Makek, Mateja, Croatia  
Jansen, Ruud, Netherlands  
Janson, Håkan, Sweden  
Jaulhac, Benoît, France  
Jelicic, Mia, Croatia  
Jensen, Jorgen Skov, Denmark  
Jeverica, Samo, Slovenia  
Jitmuang, Anupop, Thailand  
Johannessen, Mona, Norway  
Johnson, Melissa, United States  
Join-Lambert, Olivier, France  
Jokelainen, Pikka, Denmark  
Jordi, Figuerola, Spain  
Jørgensen, Nis Pedersen, Denmark  
Junie, Lia Monica, Romania  
Kaasch, Achim, Germany  
Kahl, Barbara C., Germany  
Kahlmeter, Gunnar, Sweden  
Kajova, Mikael, Finland  
Kamar, Nassim, France  
Kantele, Anu, Finland  
Kany, Andreas Martin, Germany  
Karatuna, Onur, Sweden  
Katrakou, Aspasia, United States  
Katsounas, Antonios, Germany  
Katz, Ben, United States  
Katz, Mark, Denmark  
Keeley, Alexander, United Kingdom  
Kern, Winfried V., Germany  
Kernif, Tahar, Algeria  
Keske, Siran, Turkey  
Keynan, Yoav, Canada  
Khanna, Nina, Switzerland  
Khatri, Akshay, United States  
Kiernan, Martin, United Kingdom  
Kiertiburanakul, Sasisopin, Thailand  
Kikhney, Judith, Germany  
Kim, Wes, United States  
Kishore, Kamal, New Zealand  
Kline, Kimberley, Switzerland  
Klingspor, Lena, Sweden  
Kluytmans, Jan A.J.W., Netherlands  
Kluytmans-Van den Bergh, Marjolein, Netherlands  
Kocak Tufan, Zeliha, Turkey  
Koch, Birgit, Netherlands  
Kocsis, Béla, Hungary  
Kodan, Parul, India  
Koedel, Uwe, Germany  
Kofteridis, Diamantis, Greece  
Köhler, Philipp, Germany  
Kohli, Mikashmi, Switzerland  
Koliou, Maria, Cyprus  
Kondori, Nahid, Sweden  
Kortbeek, Titia M., Netherlands  
Kostyanev, Tomislav, Denmark  
Koulenti, Despoina, Greece  
Kowalska, Justyna, Poland  
Kozlov, Roman, Russian Federation  
Kraef, Christian, Denmark  
Kramer, Tobias, Germany  
Kranzer, Katharina, Zimbabwe  
Krause, Tyra Grove, Denmark  
Kresken, Michael, Germany  
Krutova, Marcela, Czech Republic  
Kuenzli, Esther, Switzerland  
Kuhl, Sarah, United States  
Kühl, Richard, Switzerland  
Kuijper, Ed J., Netherlands  
Kulchavenya, Ekaterina, Russian Federation  
Kumar, Deepak, India  
Kumar, CP Girish, India  
Kumar, Sunil, Pakistan  
Kuti, Joseph L., United States  
Labarca, Jaime, Chile  
Lackner, Michaela, Austria  
Lagrou, Katrien, Belgium  
Lakatos, Botond, Hungary  
Lam, John, United States  
Lamoth, Frédéric, Switzerland  
Landersdorfer, Cornelia, Australia  
Langford, Bradley, Canada  
Langley, Joanne M, Canada  
Lanternier, Fanny, France  
Larsen, Jesper, Denmark  
Lass-Flörl, Cornelia, Austria  
Last, Katharina, Germany  
Launay, Odile, France  
Laurens, Matthew, United States  
Law, Hwa Lin, Singapore  
Le Doare, Kirsty, United Kingdom  
Le Monnier, Alban, France  
Leal De Almeida, Bianca, Brazil  
Lebeaux, David, France  
Leblebicioglu, Hakan, Turkey  
Lee, Susanne, United Kingdom  
Lehours, Philippe, France  
Leibovici, Leonard, Israel  
Leroux-Roels, Geert, Belgium  
Letaief, Amel, Tunisia  
Lewis, Russell Edward, Italy  
Ley, Serej, Switzerland  
Liapikou, Adamantia, Greece  
LIMA, Ana Lucia L Munhoz, Brazil  
Lina, Bruno, France  
Lina, Gerard, France  
Lincopan, Nilton, Brazil  
Lindemann, Paul Christoer, Norway  
Liotti, Flora Marzia, Italy  
Lisby, Gorm, Denmark  
Liu, Catherine, United States  
Ljungman, Per, Sweden  
Lo Fo Wong, Danilo, Denmark  
Lockhart, Shawn R., United States  
Logue, Catherine, United States  
Longtin, Yves, Canada  
Lopardo, Gustavo Daniel,  
Lopez Cerero, Lorena, Spain  
López Montesinos, Inmaculada, Spain  
Lopez-Cortes, Luis Eduardo, Spain

# Abstract Reviewers 2024

López-Medrano Pérez, Francisco, Spain  
Lora-Tamayo, Jaime, Spain  
Lorè, Nicola Ivan, Italy  
Lortholary, Olivier, France  
Lucidi, Massimiliano, Italy  
Ludovisi, Serena, Italy  
Lundgren, Jens D., Denmark  
Luque, Sonia, Spain  
Luyt, Charles-Edouard, France  
Lytsy, Birgitta, Sweden  
MacFadden, Derek, Canada  
MacGowan, Alasdair P., United Kingdom  
Macia Romero, Maria Dolores, Spain  
MacKenzie, Colin R.,  
Maddocks, Sarah, United Kingdom  
Mado, Larry, United States  
Maertens, Kirsten, Belgium  
Maertens, Johan, Belgium  
Mailles, Alexandra, France  
Mairpady Shambat, Srikanth, Switzerland  
Malani, Preeti, United States  
Malhotra-Kumar, Surbhi, Belgium  
Mallet, Maxime, France  
Mallon, Patrick, Ireland  
Maltezou, Helena, Greece  
Mani, Reeta S, India  
Manuel, Oriol, Switzerland  
Maraolo, Alberto Enrico, Italy  
Marchand, Sandrine, France  
Mardani, Masoud, Iran, Islamic Republic of  
Marekovic, Ivana, Croatia  
Mares, Mihai, Romania  
Margalit, Ili, Israel  
Markowicz, Mateusz, Austria  
Marks, Michael, United Kingdom  
Martineau, Adrian, United Kingdom  
Martinez, Miguel J., Spain  
Martinez, Esteban, Spain  
Martinez Gili, Laura, United Kingdom  
Martinez Medina, Dalila, Peru  
Martinez-Martinez, Luis, Spain  
Martin-Loeches, Ignacio, Ireland  
Martins, Marta, Ireland  
Mårtson, Anne-Grete, United Kingdom  
Marwick, Charis, United Kingdom  
Marzolini, Catia, Switzerland  
Massanella, Marta, Spain  
Massey, Ruth, United Kingdom  
Matteelli, Alberto, Italy  
Mattoo, Seema, United States  
Maurer, Florian, Switzerland  
Maver Vodincar, Polona, Slovenia  
Mc Gann, Patrick, United States  
McCallin, Shawna, Switzerland  
McCreary, Erin, United States  
McGeer, Allison, Canada  
McNally, Alan, United Kingdom  
Megarbane, Bruno, France  
Megraud, Francis, France  
Meiring, James, United Kingdom  
Meletiadis, Joseph, Greece  
Melhem, Marcia, Brazil  
Melo, Raquel, Portugal  
Menchinelli, Giulia, Italy  
Menni, Cristina, United Kingdom  
Mer, Mervyn, South Africa  
Meschiari, Marianna, Italy  
Mestres, Carlos, South Africa  
Mestrovic, Tomislav, Croatia  
Meszner, Zsófia, Hungary  
Mielke, Martin, Germany  
Mikulska, Malgorzata, Italy  
Millon, Laurence, France  
Minarovits, Janos, Hungary  
Minor, Philip, United Kingdom  
Miotto, Paolo, Italy  
Mischnik, Alexander, Germany  
Moleleki, Malefu, South Africa  
Molina, Jean-Michel, France  
Molina Gil-Bermejo, José, Spain  
Mölling, Paula, Sweden  
Mondelli, Mario Umberto, Italy  
Montravers, Philippe, France  
Moore, Catherine, United Kingdom  
Moore, Catrin, United Kingdom  
Mora Montes, Hector Manuel, Mexico  
Morace, Giulia, Italy  
Moran-Gilad, Jacob, Israel  
Mora-Rillo, Marta, Spain  
Morch, Kristine, Norway  
Morel, Chantal, Switzerland  
Moreno Guillen, Santiago, Spain  
Moreno Lozano, Cristina, United Kingdom  
Moriarty, Thomas Fintan, Switzerland  
Morte Romea, Elena, Spain  
Moser, Claus, Denmark  
Mossong, Joel, Luxembourg  
Mougkou, Aikaterini, Sweden  
Mueller, Nicolas, Switzerland  
Muller, Anouk Edwina, Netherlands  
Munita, Jose, Chile  
Munoz-Almagro, Carmen, Spain  
Murillo, Oscar, Spain  
Murri, Rita, Italy  
Murugaiyan, Jayaseelan, India  
Naas, Thierry, France  
Nagarajan, Niranjan, Singapore  
Nambatya, Winnie, Uganda  
Nasim, Asma, Pakistan  
Nau, Roland, Germany  
Naucler, Pontus, Sweden  
Navon-Venezia, Shiri, Israel  
Neofytos, Dionysios, Switzerland  
Neoh, Chin Fen, Australia  
Nesher, Lior, Israel  
Neumayr, Andreas, Switzerland  
Nguyen Van, Jean-Claude, France  
Nielsen, Elisabet, Sweden  
Niemann, Stefan, Germany  
Niesters, Hubert G.M., Netherlands  
Nimrichter, Leonardo, Brazil  
Nir-Paz, Ran, Israel  
Nohynek, Hanna M., Finland  
Norrby-Teglund, Anna, Sweden  
Nosanchuk, Joshua, United States  
Novais, Angela, Portugal  
Novais, Carla, Portugal  
Nurjadi, Dennis, Germany  
Obiero, Christina, Kenya  
Ocias, Lukas, Denmark  
Octavia, Sophie, Singapore  
Oggioni, Marco Rinaldo, United Kingdom  
Oliver, Antonio, Spain  
Ombelet, Sien, Belgium  
Ong, Catherine, Singapore  
Ong, David, Netherlands  
Oprea, Cristiana, Romania  
Ostergaard, Christian, Denmark  
Ostrowsky, Belinda, United States  
O'Sullivan, Denise, United Kingdom  
Otelea, Dan, Romania  
Oude Munnink, Bas, Netherlands  
Outterson, Kevin, United States  
Overesch, Gudrun, Switzerland  
Oviaño, Marina, Spain  
Özgür, Kurt, Turkey  
Özkaya Sahin, Gülsen, Sweden  
Pagliara, Stefano, United Kingdom  
Paiva, Jose Artur, Portugal  
Paixão, Paulo, Portugal  
Pál, Tibor, Hungary  
Palacios Baena, Zaira R., Spain  
Palos, Carlos, Portugal  
Palucci, Ivana, Italy  
Pano-Pardo, Jose, Spain  
Papadopoulos, Antonios, Greece  
Papagiannitsis, Costas, Greece  
Papa-Konidari, Anna, Greece  
Papan, Cihan, Germany  
Papanicolaou, Genovefa, United States  
Papaparaskevas, Joseph, Greece  
Papic, Neven, Croatia  
Parczewski, Milosz, Poland  
Pardi, Norbert, United States  
Paredes, Roger, Spain  
Pas, Suzan D., Netherlands  
Pascual Hernandez, Alvaro, Spain  
Pasolli, Edoardo, Italy  
Pasqualotto, Alessandro, Brazil  
Patel, Sanjay, United Kingdom  
Patel, Robin, United States  
Patsoula, Eleni, Greece  
Paul, Mical, Israel  
Pawlotsky, Jean-Michel, France  
Payne, Lara, United Kingdom  
Pea, Federico, Italy  
Peel, Trisha, Australia  
Peier-Smadja, Nathan, France  
Peixe, Luisa Maria Vieira, Portugal  
Pellejero, Galadriel, Spain  
Peppelenbosch, Maikel, Netherlands  
Pereira, José Manuel, Portugal  
Perez, Federico, United States  
Pérez-Ugarte, Arantxa, Spain  
Peter, Silke, Germany  
Petersen, Eskild, Denmark  
Petrosillo, Nicola, Italy  
Petzold, Markus, Germany  
Pezzani, Maria Diletta, Italy  
Pierard, Denis, Belgium

# Abstract Reviewers 2024

Pierrotti, Ligia, Brazil  
Piersigilli, Fiammetta, Belgium  
Pina-Vaz, Cidália, Portugal  
Pirnay, Jean-Paul, Belgium  
Pirs, Mateja, Slovenia  
Pistello, Mauro, Italy  
Pitout, Johann, Canada  
Platt, Andrew, United States  
Poeta, Patricia, Portugal  
Poirel, Laurent, Switzerland  
Pomba, Maria Constança, Portugal  
Ponath, Falk, Germany  
Poojary, Aruna, India  
Popescu, Corneliu Petru, Romania  
Portillo, Maria Eugenia, Spain  
Poulakou, Garyfallia, Greece  
Pournaras, Spyros, Greece  
Povoa, Pedro, Portugal  
Power, Nicholas, Ireland  
Prat Aymerich, Cristina, Netherlands  
Prendki, Virginie, Switzerland  
Presterl, Elisabeth, Austria  
Prins, Jan M., Netherlands  
Proctor, Richard A., United States  
Puca, Edmond, Albania  
Pujol, Miquel, Spain  
Pulcini, Céline, France  
Puolakkainen, Mirja, Finland  
Queiroz-Telles, Flavio, Brazil  
Raglio, Annibale, Italy  
Raka, Lul,  
Ramage, Gordon, United Kingdom  
Ramasubramanian, Venkatasubramanian, India  
Ramirez, Mario, Portugal  
Rantakokko-Jalava, Kaisu Hellevi, Finland  
Rao, Gauri, United States  
Rasa, Huseyin Kemal, Turkey  
Rasigade, Jean-Philippe, France  
Rasmussen, Thomas A, Denmark  
Ratho, Radha Kanta, India  
Rawson, Timothy, United Kingdom  
Raymaekers, Marijke, Belgium  
Recanatini, Claudia, Netherlands  
Reuveille, Fany, France  
Reigadas, Elena, Spain  
Rello, Jordi, Spain  
Renk, Hanna, Germany  
Repetto, Ernestina Carla, Belgium  
Retamar Gentil, Pilar,  
Reuter, Sandra, Germany  
Rex, John H., United States  
Rey, David, France  
Richert, Laura, France  
Rieg, Siegbert, Germany  
Rivero-Juarez, Antonio, Spain  
Rizzi, Valentina, Italy  
Robert-Gangneux, Florence, France  
Robinson, Keven, United States  
Roca, Ignasi, Spain  
Rock, Clare, United States  
Rockstroh, Juergen, Germany  
Rodrigues, Liliana, Portugal  
Rodrigues, Charlene, United Kingdom  
Rodrigues, Camilla, India  
Rodriguez Martinez, Jose Manuel, Spain  
Rodriguez Villalobos, Hector, Belgium  
Rodríguez-Baño, Jesús, Spain  
Rodriguez-Nava, Guillermo, United States  
Rodriguez-Sanchez, Belen, Spain  
Roger, Thierry, Switzerland  
Roger, Claire, France  
Rogers, Thomas R., Ireland  
Rogers, Benjamin, Australia  
Rohde, Holger, Germany  
Rojas Coy, Laura Jimena, United States  
Romdhani, Meriam, Tunisia  
Römling, Ute Maria, Sweden  
Rosado, Maria Manuela, Italy  
Rosch, Jason, United States  
Rose, Warren, United States  
Rossen, John W. A., Netherlands  
Rossolini, Gian Maria, Italy  
Roussel-Gaillard, Tiphaine, France  
Ruesen, Carolien, Netherlands  
Ruiz-Camps, Isabel, Spain  
Rupali, Priscilla, India  
Ruppe, Etienne, France  
Ruta, Simona, Romania  
Ruybal, Paula, Argentina  
Ryom, Lene, Denmark  
Saegeman, Veroniek, Belgium  
Safadi, Marco, Brazil  
Safdar, Nasia, United States  
Said, Zeinab, Egypt  
Sa-Leao, Raquel, Portugal  
Salje, Jeanne, Sweden  
Salmanton-Garcia, Jon, Germany  
Sambri, Vittorio, Italy  
Samuel, Kariuki, Kenya  
Samuelsen, Orjan, Norway  
Sanchez Garcia, Miguel, Spain  
Sánchez-Martínez, Francesca, Spain  
Sandulescu, Oana, Romania  
Sanglard, Dominique, Switzerland  
Sanguinetti, Maurizio, Italy  
Santangelo, Rosaria, Italy  
Santolaya, María, Chile  
Santos Abrahão, Jonatas, Brazil  
São-José, Carlos, Portugal  
Savelkoul, Paul, Netherlands  
Savulescu, Camelia, France  
Sayiner, Ayca Arzu, Turkey  
Schaer, Kirsten, Ireland  
Schaumburg, Frieder, Germany  
Scheithauer, Simone, Germany  
Schelenz, Silke, United Kingdom  
Schneider, Ue Vest, Denmark  
Schoelen, Teske, Netherlands  
Schön, Thomas, Sweden  
Schooley, Robert, United States  
Schreiber, Peter Werner, Switzerland  
Schrenzel, Jacques, Switzerland  
Schürch, Anita, Netherlands  
Schwabber, Mitchell, Israel  
Schwartz, Eli, Israel  
Schwartz, Stefan, Germany  
Schweitzer, Valentijn, Netherlands  
Schweizer, Marin, United States  
Scudeller, Luigia, Italy  
Seale, Holly, Australia  
Seas, Carlos, Peru  
Seaton, Ronald Andrew, United Kingdom  
Segal, Esther, Israel  
Seme, Katja, Slovenia  
Seth-Smith, Helena, Switzerland  
Sevestre, Jacques, France  
Shams, Saeed, Iran, Islamic Republic of  
Sherry, Norelle, Australia  
Sherwin, Catherine, United States  
Shibl, Atef Mohamed, Saudi Arabia  
Shin, Jong Hee, Korea, Republic of  
Shin, Eui-Cheol, Korea, Republic of  
Shittu, Adebayo, Nigeria  
Siemens, Nikolai, Germany  
Simkins-Cohen, Jacques, United States  
Simões, Daniel, Portugal  
Simonsen, Gunnar Skov, Norway  
Simsek Yavuz, Serap, Turkey  
Sintchenko, Vitali, Australia  
Sipahi, Oguz Resat, Turkey  
Skevaki, Chrysanthi, Germany  
Skiada, Anna, Greece  
Skov, Robert Leo, Denmark  
Smani, Younes, Spain  
Smeesters, Pierre, Belgium  
Snydman, David R., United States  
Snygg-Martin, Ulrika, Sweden  
Soki, Jozsef, Hungary  
Solbrig, Marylou V., United States  
Soriano, Alex, Spain  
Sousa, Ricardo, Portugal  
Spaan, Andrés N., Netherlands  
Spellerberg, Barbara, Germany  
Spelman, Denis, Australia  
Spiller, Brad, United Kingdom  
Spriet, Isabel, Belgium  
Sramkova, Anna, Czech Republic  
Stahl, Jean Paul, France  
Stefanelli, Paola, Italy  
Steens, Ines, Sweden  
Stegger, Marc, Denmark  
Šterbenc, Anja, Slovenia  
Stoesser, Nicole, United Kingdom  
Stone, Neil, United Kingdom  
Strahilevitz, Jacob, Israel  
Street, Teresa, United Kingdom  
Strle, Franc, Slovenia  
Struelens, Marc J., Sweden  
Stupica, Daša, Slovenia  
Suetens, Carl, Sweden  
Sulaiman, Helmi, Malaysia  
Sun, Caitlyn, Australia  
Sunavala, Ayesha, India  
Sundqvist, Martin, Sweden  
Sundsford, Arnfinn, Norway  
Suputtamongkol, Yupin, Thailand  
Syed Omar, Sharifah Faridah, Malaysia  
Tacconelli, Evelina, Italy  
Tagini, Florian, Switzerland

# Abstract Reviewers 2024

Takkinen, Johanna, Sweden  
Tamarozzi, Francesca, Italy  
Tambic Andrasevic, Arjana, Croatia  
Tambyah, Paul A., Singapore  
Tängdén, Thomas, Sweden  
Taori, Surabhi, United Kingdom  
Tartari, Ermira, Switzerland  
Tateda, Kazuhiro, Japan  
Tattevin, Pierre, France  
Taylan Özkan, Aysegül, Turkey  
Tedeschi, Sara, Italy  
Tegnell, Anders, Sweden  
Telles, João Paulo, Brazil  
Templeton, Kate, United Kingdom  
Tenson, Tanel, Estonia  
Teschner, Daniel, Germany  
Theuretzbacher, Ursula, Austria  
Thompson, George, United States  
Tleyjeh, Imad, Saudi Arabia  
Tomas Carmona, Maria del Mar, Spain  
Torres, Antoni, Spain  
Torres, Juan Pablo, Chile  
Tostmann, Alma, Netherlands  
Toubiana, Julie, France  
Trcek, Janja, Slovenia  
Trubiano, Jason, Australia  
Tsalik, Ephraim, United States  
Tschudin Sutter, Sarah, Switzerland  
Tsiodras, Sotirios, Greece  
Tsioutis, Constantinos, Cyprus  
Tunney, Michael, United Kingdom  
Turner, Paul, Cambodia  
Turnidge, John D., Australia  
Tzanakaki, Georgina, Greece  
Uckay, Ilker Hasan, Switzerland  
Ullmann, Andrew J., Germany  
Ullum, Henrik, Denmark  
Uribe Pulido, Natalí, Colombia  
Vaidya, Viplov, India  
Vale, Ana, Ireland  
Van Alphen, Lieke, Netherlands  
Van Asten, Suzanne Aura Victoria, Netherlands  
Van Bambeke, Francoise, Belgium  
Van Braeckel, Eva, Belgium  
Van De Beek, Diederik, Netherlands  
Van Delden, Christian, Switzerland  
Van den Bogaart, Erika, Netherlands  
Van den Nest, Miriam, Austria  
Van der Hoek, Wim, Netherlands  
Van Der Linden, Paul Diederik, Netherlands  
Van Der Meer, Jos W.M., Netherlands  
Van Dijck, Patrick, Belgium  
Van Doorn, H. Rogier, Vietnam  
Van Duin, David, United States  
Van Ingen, Jakko, Netherlands  
Van Leer Buter, Coretta, Netherlands  
Van Lieshout, Lisette, Netherlands  
Van Lint, Philippe, Belgium  
Van Mourik, Maaïke S.M., Netherlands  
Van Nieuwkoop, Cees, Netherlands  
Van Prehn, Jorey, Netherlands  
Van Schaik, Willem, United Kingdom  
Van Welzen, Berend Joost, Netherlands  
Van Werkhoven, Cornelis H., Netherlands  
Vandenbroucke-Grauls, Christina, Netherlands  
Vandenesch, Francois, France  
Vanlerberghe, Veerle, Belgium  
Vatcheva-Dobrevska, Rossitza, Bulgaria  
Vega, Silvio, Panama  
Veloo, Alida C.M., Netherlands  
Verbon, Annelies, Netherlands  
Vergnano, Stefania, United Kingdom  
Verweij, Jaco J., Netherlands  
Veziris, Nicolas, France  
Viale, Pierluigi, Italy  
Vila, Alejandro Jose, Argentina  
Villamil Gomez, Wilmer Ernesto, Colombia  
Villegas, Maria Virginia, Colombia  
Viveiros, Miguel, Portugal  
Vlahovic-Palcevski, Vera, Croatia  
Vognbjerg Sydenham, Thomas, Denmark  
Voordouw, Bettie, Netherlands  
Vos, Margreet C., Netherlands  
Voss, Andreas, Netherlands  
Vourli, Sofia, Greece  
Wagenlehner, Florian, Germany  
Waghmare, Alpina, United States  
Wai, Sun Nyunt, Sweden  
Walczak, Andrew, Australia  
Walker, Timothy, Vietnam  
Wallon, Martine, France  
Walsh, Thomas, United States  
Walsh, Fiona, Ireland  
Walti, Carla, Switzerland  
Wang, Minggui, China  
Warrell, Clare, United Kingdom  
Warren-Gash, Charlotte, United Kingdom  
Warris, Adilia, United Kingdom  
Wauters, Joost, Belgium  
Wechsler-Fördös, Agnes, Austria  
Weese, Scott, Canada  
Weisser Rohacek, Maja, Switzerland  
Wejse, Christian, Denmark  
Welte, Tobias, Germany  
Wendel, Andreas Friedrich, Germany  
Werner, Guido, Germany  
Wertheim, Heiman, Netherlands  
Westendorp, Willeke, Netherlands  
Westh, Henrik, Denmark  
White, Lewis, United Kingdom  
Wicha, Sebastian, Germany  
Wichmann, Dominic, Germany  
Widmer, Andreas F., Switzerland  
Wilcox, Mark H., United Kingdom  
Williams, Phoebe, Australia  
Williams, Craig, United Kingdom  
Willinger, Birgit, Austria  
Willmann, Matthias, Germany  
Wilson, Michael L., United States  
Wittebole, Xavier, Belgium  
Wiu Coia, Camilla, Denmark  
Woerther, Paul-Louis, France  
Wolfe, Cameron Robert, United States  
Wong, Grace, Hong-Kong SAR, China  
Wootton, Mandy, United Kingdom  
Wouthuyzen-Bakker, Marjan, Netherlands  
Wyllie, Anne, United States  
Yagel, Yael, Israel  
Yahara, Koji, Japan  
Yahav, Dafna, Israel  
Yang, Wang, China  
Yong, Michelle, Australia  
Yonga, Paul Otieno, Kenya  
Young, Jeremy, United States  
Yurdaydin, Cihan, Turkey  
Yusuf, Erlangga, Belgium  
Zaccarin, Matthias, Denmark  
Zackular, Joseph, United States  
Zadoks, Ruth, Australia  
Zajkowska, Joanna Maria, Poland  
Zarebska-Michaluk, Dorota, Poland  
Zarrilli, Raaele, Italy  
Zeitlinger, Markus, Austria  
Zhou, Kai, China  
Zidovec Lepej, Snjezana, Croatia  
Zimmermann, Stefan, Germany  
Zingg, Walter, Switzerland  
Ziyade, Nihan, Turkey  
Zohar, Iris, Israel



# Abstract Categories and Subcategories

## **1. Viral infection & disease (incl COVID-19)**

- [1a. HIV/AIDS \(incl diagnostics & epidemiology, anti-retroviral drugs, vaccines, treatment & susceptibility/resistance\)](#)
- [1b. Viral hepatitis \(incl diagnostics & epidemiology, antiviral drugs, vaccines, treatment & susceptibility/resistance\)](#)
- [1c. Influenza and respiratory viruses \(incl diagnostics & epidemiology, antiviral drugs, vaccines, treatment & susceptibility/resistance\)](#)
- [1d. Herpesviruses \(incl diagnostics & epidemiology, antiviral drugs, treatment & susceptibility/resistance, excl clinical studies in immunocompromised hosts\)](#)
- [1e. Emerging/re-emerging, vector-borne and zoonotic viral diseases \(other than COVID\)](#)
- [1f. Diagnostic virology \(other than respiratory viruses, herpesviruses, hepatitis & HIV\)](#)
- [1g. Viral epidemiology – general, prevalence studies, molecular and genomic epidemiology \(other than respiratory viruses, herpesviruses, hepatitis & HIV\)](#)
- [1h. Antiviral drugs, treatment, susceptibility/resistance \(other than respiratory viruses, herpesviruses, hepatitis & HIV\)](#)
- [1i. Basic and applied virology \(incl in vitro and in vivo models, novel methods\)](#)
- [1j. COVID-19 \(incl virology, epidemiology, evolution, immune response, diagnosis, treatment, vaccination, prevention, response and societal impact\)](#)

## **2. Bacterial infection & disease**

- [2a. Tuberculosis and other mycobacterial infections \(incl epidemiology, clinical, diagnostics, antimycobacterial drugs, susceptibility testing, treatment & prevention\)](#)
- [2b. Severe sepsis, bacteraemia & endocarditis \(incl epidemiology, diagnosis, host bio-markers, treatment and outcome prediction\)](#)
- [2c. Community-acquired respiratory infections \(incl epidemiology, clinical features, imaging, treatment & prevention\)](#)
- [2d. Community-acquired abdominal/gastrointestinal, urinary tract & genital infections \(incl epidemiology, clinical, imaging, treatment & prevention\)](#)
- [2e. Community acquired skin, soft tissue, bone & joint infections \(incl epidemiology, clinical, imaging, treatment & prevention, excl prostheses\)](#)
- [2f. Community acquired nervous system and other multi-system bacterial infections \(incl epidemiology, clinical, imaging, treatment & prevention\)](#)
- [2g. Zoonotic bacterial infections \(incl foodborne, waterborne and vector-borne pathogens, veterinary microbiology and One Health aspects, excl AMR\)](#)
- [2h. Other intracellular or rare bacteria](#)

## **3. Bacterial susceptibility & resistance**

- [3a. Resistance surveillance & epidemiology: MRSA, VRE & other Gram-positives](#)
- [3b. Resistance surveillance & epidemiology: Gram-negatives](#)
- [3c. Susceptibility testing methods \(incl assay validation, phenotypic assays and comparative studies, excl TB\)](#)
- [3d. Resistance mechanisms \(incl in vitro and in vivo studies, mobile elements, excl TB\)](#)
- [3e. Resistance detection/prediction approaches \(rapid and/or molecular assays, resistome analysis, inference methods\)](#)
- [3f. Clinical outcome of resistant infections \(retrospective and prospective studies, excl clinical trials of new drugs\)](#)
- [3g. Spread of resistance \(incl carriage, reservoirs, ecology, models, excl nosocomial transmission\)](#)
- [3h. Policy aspects of AMR \(incl societal impact, economics, mitigation\)](#)

## **4. Diagnostic microbiology**

- [4a. Diagnostic bacteriology \(incl culture based, traditional and general microbiology, serology, excl AST methods\)](#)
- [4b. Laboratory management \(incl automation, data management, QC/QA, regulatory aspects\)](#)
- [4c. MALDI-TOF and other proteomic methods](#)
- [4d. Molecular diagnostics \(incl POCT and syndromic testing\)](#)
- [4e. Strain typing and surveillance \(incl molecular, genomic and other advanced methods\)](#)
- [4f. Whole genome sequencing \(incl pathogen characterisation, diagnostics, excl typing\)](#)
- [4g. Microbiome studies \(incl clinical and diagnostic studies, One Health aspects\)](#)
- [4h. Clinical metagenomics](#)
- [4i. Bioinformatics tools & pipelines](#)
- [4j. Other novel diagnostic technologies](#)

## **5. New antibacterial agents, PK/PD & Stewardship**

- [5a. Mechanisms of action & spectrum, new compounds, preclinical data & basic pharmacology \(incl drug design, investigational and non-traditional therapeutics\)](#)
- [5b. Pharmacokinetics/pharmacodynamics of antibacterial drugs & therapeutic drug monitoring \(incl lab methods, models, in vitro and in vivo studies\)](#)
- [5c. New or repurposed antibacterial agents: clinical studies and randomised trials](#)
- [5d. Antimicrobial stewardship and prescribing \(incl interventions, monitoring, impact, decision-support/prediction tools, behavioural aspects\)](#)
- [5e. Safety, hypersensitivity and adverse effects of treatment](#)
- [5f. Pharmacoepidemiology / pharmacoconomics \(incl cost-effectiveness, modelling, data tools\)](#)

## **6. Fungal infection & disease**

- [6a. Fungal disease epidemiology](#)
- [6b. Diagnostic mycology \(incl traditional, molecular and other methods\)](#)
- [6c. Antifungal susceptibility testing & resistance \(incl surveillance, mechanisms\)](#)
- [6d. Antifungal drugs & treatment \(incl pre-clinical studies and clinical trials\)](#)
- [6e. Basic mycology \(incl in vitro and in vivo studies, pathogenesis, virulence, mycobiome\)](#)

## **7. Parasitic diseases & global health**

- [7a. Parasitic disease epidemiology](#)
- [7b. Diagnostic parasitology \(incl traditional, molecular and other methods\)](#)
- [7c. Antiparasitic susceptibility & drug resistance \(incl surveillance, mechanism\)](#)
- [7d. Antiparasitic drugs & treatment \(incl pre-clinical studies and clinical trials\)](#)
- [7e. Travel medicine, migrant and refugee health](#)
- [7f. Food & water safety, environmental health, vector epidemiology](#)
- [7g. Global and public health & health security \(incl policy-making, climate change, biosafety/biosecurity\)](#)
- [7h. Infections in low-resource settings \(incl epidemiology, burden, health infrastructure, health disparities and vulnerable populations\)](#)

## **8. Healthcare-associated infections, infection prevention & control**

- [8a. Intravascular catheter-related infections \(incl epidemiology, prevention\)](#)
- [8b. Other foreign-body and implant-associated infections \(incl PJI\)](#)
- [8c. Surgical site infections](#)
- [8d. Healthcare-associated pneumonia \(incl VAP\)](#)
- [8e. Hospital epidemiology, transmission, surveillance & screening \(incl hospital environment\)](#)
- [8f. Other healthcare associated infections \(incl CDI, hospital outbreaks\)](#)
- [8g. Infection control interventions and trials \(incl microbiota transplantation\)](#)
- [8h. Disinfection & biocides](#)
- [8i. Healthcare workers and infection prevention \(incl vaccination, protective equipment, behavioural aspects, training and practices\)](#)

## **9. Experimental microbiology, microbial pathogenesis & biofilms**

- [9a. Microbial pathogenesis & virulence](#)
- [9b. Host-pathogen interaction \(incl basic microbiome studies, animal models\)](#)
- [9c. Pre-clinical biofilm studies](#)
- [9d. Experimental and cellular microbiology](#)
- [9e. Basic science studies using Omics \(in vitro and in vivo\)](#)

## **10. Immunology, immune compromise & vaccinology**

- [10a. Host genetics: susceptibility to infection & primary immunodeficiency](#)
- [10b. Infections in immunocompromised hosts \(incl epidemiology, clinical features, diagnosis, treatment, excl fungal infections\)](#)
- [10c. General vaccinology \(incl in vitro and in vivo studies, policy, social aspects\)](#)
- [10d. Antiviral vaccines \(excl influenza, respiratory and bloodborne viruses and COVID-19\)](#)
- [10e. Antibacterial vaccines](#)
- [10f. Other preventive modalities \(incl new vaccine technologies, antibody-based treatments\)](#)
- [10g. Immune response to infection \(incl in vitro, animal and human studies, laboratory assessment of immunity and response, excl sepsis biomarkers\)](#)

## **11. Other**

- [11a. Professional affairs and career development](#)
- [11b. Publishing, ethics, other academic affairs](#)
- [11c. Medical education for CM/ID](#)
- [11d. Digital health and infection \(incl AI, data mining, informatics\)](#)
- [11e. Diversity and equality](#)
- [11f. Advocacy and role of patients](#)

## **12. Case reports and case series (n<10)**

- [12a. Viral infections](#)
- [12b. Bacterial infections](#)
- [12c. Fungal infections](#)
- [12d. Parasitic infections](#)
- [12e. Other unusual clinical situations](#)

## **13. Late Breakers**



# Important Addresses

## **ESCMID President**

Prof. Annelies Zinkernagel  
University Hospital of Zurich  
University of Zurich  
Departement of Infectious Diseases  
and Hospital Epidemiology  
Zurich, Switzerland

## **ESCMID Global Programme Director**

Prof. Jacob Moran-Gilad  
Ben-Gurion University  
Dept. of Health Systems Management  
Beer Sheva, Israel

## **Associate Programme Director**

Dr. Giulia de Angelis  
Catholic University of the Sacred Heart  
Institute of Microbiology  
Rome, Italy

## **Scientific Secretariat**

ESCMID Executive Office  
Aeschenvorstadt 55  
4051 Basel  
Switzerland  
Phone: +41 61 508 01 72  
E-Mail: [eccmid@escmid.org](mailto:eccmid@escmid.org)  
Web: [www.escmid.org](http://www.escmid.org)

## Urine brilliance: urine TB LAM's role in challenging AIDS cases from LMIC's perspective

U.A. Zainulabid<sup>1,2</sup>, X.K. Cheong<sup>3</sup>, F.R. Hussin<sup>3</sup>, P. Periyasamy<sup>3</sup>

<sup>1</sup>International Islamic University Malaysia - Kuantan (Malaysia), <sup>2</sup>Hospital Canselor Tuanku Muhriz - Cheras (Malaysia) - Kuala Lumpur (Malaysia), <sup>3</sup>Hospital Canselor Tuanku Muhriz - Kuala Lumpur (Malaysia)

Presenting author email: ummuafeera@iiu.edu.my

### Background

The identification of reliable markers for active tuberculosis (TB) diagnosis is pivotal, especially in challenging scenarios, particularly in low- and middle-income countries (LMICs), where co-infections, notably among individuals with AIDS, pose significant diagnostic challenges. Lipoarabinomannan (LAM), an immunogenic virulence factor released from metabolically active or degrading mycobacteria, presents a promising avenue for overcoming these hurdles. In this study, we present a case series that underscores the intricacies of TB diagnosis, specifically focusing on individuals co-infected with AIDS in LMICs.

### Case(s) description

Our primary objective is to elucidate the diagnostic potential of urine LAM, strategically addressing challenges posed by atypical presentations and co-existing infections, particularly in the context of AIDS within LMICs. Several cases demonstrate the probability of TB, indicated through clinical presentation, where urine TB lipoarabinomannan (LAM) testing yielded positive results. One notable case involves prolonged undetected genitourinary tuberculosis spanning multiple years, emphasizing the difficulty of early diagnosis. Another case pertains to an AIDS patient initially suspected of CNS lymphoma, with a negative TB workup; however, the subsequent discovery of progressive TB occurred towards the end of the patient's life, aligning with the availability of TB LAM testing at our centre. Additionally, an AIDS patient diagnosed with cryptococcal meningitis tested positive for TB LAM, revealing the diagnostic challenges of concurrent infections. A comprehensive CT thorax-abdomen-pelvis revealed multiple lymphadenopathies, responding favourably to antituberculosis treatment. The last case involves an elderly lady with talaromyces co-infected with TB, substantiated by ancillary investigations.

### Discussion

Recognizing the imperative to avoid missing TB diagnoses in this vulnerable population, particularly in LMICs, we underscore the significance of urine TB LAM testing. Positive outcomes from LAM testing emphasize its potential for detecting TB amidst the backdrop of concurrent opportunistic infections in AIDS individuals within LMICs. The exploration of innovative methods, such as urine LAM testing, emerges as a crucial strategy to mitigate the risk of overlooking TB in this complex clinical context, ultimately enhancing health outcomes for individuals living with HIV in resource-limited settings.

### References

Huerga H, et al. (2019) Diagnostic value of the urine lipoarabinomannan assay in HIV-positive, ambulatory patients with CD4 below 200 cells/ $\mu$ l in 2 low-resource settings: A prospective observational study. *PLoS Med* 16(4): e1002792.

P4049 | 01035

## A unique case of *Listeria monocytogenes* superinfection of tuberculous lymphadenitis

F. Sangiorgi<sup>1</sup>, G.M. Leanza<sup>1</sup>, A. Carbone<sup>1</sup>, F. Catania<sup>1</sup>, E. Magrini<sup>1</sup>, I. Palucci<sup>2</sup>, G. Menchinelli<sup>2</sup>, G. Maiuro<sup>2</sup>, A.R. Losito<sup>2</sup>, F. Taccari<sup>2</sup>

<sup>1</sup>Dipartimento di Sicurezza e Bioetica - Sezione di Malattie Infettive, Università Cattolica del Sacro Cuore - Rome (Italy), <sup>2</sup>Dipartimento di Scienze di Laboratorio e Infettivologiche, Fondazione Policlinico Universitario A. Gemelli IRCCS - Rome (Italy)

Presenting author email: sangiorgi.flavio@gmail.com

### Background

Lymphadenitis due to *Listeria monocytogenes* (LM) is rarely described. We present a case of lymphadenitis due to LM and *Mycobacterium tuberculosis* (MTB), which, to our knowledge, has never been described.

### Case(s) description

A 59-year-old woman from Mexico, with a history of recurrent otitis, presented to the Emergency Department with a 2-week history of erythematous and painful swelling in the right retromandibular site (Figure 1). Admission blood samples showed mild neutrophilia, raised C-reactive protein (74 mg/l, normal value <5 mg/l) and hyperglycemia (402 mg/dL). Ultrasound of the right neck showed multiple hypoechoic, enlarged lymph nodes from which a subcutaneous large hypoechoic collection originated, via a fistula (Figure 2). The infectious disease specialist performed an ultrasound-guided needle aspiration of the collection (Figure 3) and the drained material tested positive at the nucleic acid amplification test for MTB (acid-fast bacilli smear microscopy was negative and, later, culture became positive). Three induced sputum and bronchoalveolar lavage fluid had negative nucleic acid amplification test, smear, and culture. The HIV test was negative. A standard quadruple antitubercular treatment, including rifampicin, isoniazid, ethambutol, and pyrazinamide, was started. LM also grew in the culture of the drained material. Therefore trimethoprim/sulfamethoxazole was added for 10 days with improvement of the local inflammation in the right retromandibular site.

### Discussion

Tuberculous lymphadenitis is one of the most common extrapulmonary manifestations of tuberculosis. Bacterial superinfection of tuberculous lymphadenitis has been rarely reported. Overall, only 19 cases of LM-associated lymphadenitis have been reported<sup>1</sup>. The most frequent predisposing condition of LM-associated lymphadenitis is diabetes mellitus, as in our patient in whom a new diagnosis of diabetes was made. Co-infection of MTB and LM infection has only been reported twice<sup>2,3</sup>, but at sites other than lymph nodes. An ultrasound-guided needle aspiration performed promptly by an infectious disease specialist, with a careful selection of tests to be sent, may be relevant to correctly and quickly frame the aetiology of a lymphadenomegaly.