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Message from the President

“ESCMID’s success is the result of the society’s unique approach, bringing together clinical microbiologists and infectious disease specialists from all settings under the auspices of one society to tackle today’s challenges in infection-related diseases.”

Mario Poljak
ESCMID President
mario.poljak@escmid.org

One health strategy
ESCMID is a unique scientific and professional society bringing together clinical microbiologists and infectious disease specialists to timely diagnose, treat and prevent infection-related diseases. The society is convinced that with this European approach it is well placed to tackle today’s and future challenges in infectious diseases. ESCMID will continue to foster collaboration and exchange between specialists from a range of disciplines. ESCMID is dedicated to the one health approach – encompassing human, animal and environmental health – which is crucial to solve complex problems such as antimicrobial resistance. This inclusive multidisciplinary strategy is reflected in the society’s structure, its committees and study groups, its annual congress (ESCMID) as well as in its educational, research and professional activities.

International reach
At the same time ESCMID understands it can only successfully fight infectious diseases, which spread across the globe irrespective of borders, if it continuously promotes international cooperation and expands its reach beyond its home turf. The society’s International Affairs Subcommittee drives this internationalization, with main activities in recent years in Eastern/Central Europe, the Asia-Pacific region and Latin America. You can observe the results of this effort, for example, in the location of the society’s workshops, collaborative centres or also at this ESCMID in Vienna, the unique city where east meets west, with its numerous international symposia, meetings and contributions.

Career development
Another priority that is clear from the ESCMID Executive Committee’s work is the rejuvenation of the society. We not only have the youngest committee ever but several other executive functions in the society’s unique approach, bringing together clinical microbiologists and infectious disease specialists from all settings under the auspices of one society to tackle today’s challenges in infection-related diseases.

Mario Poljak
ESCMID President
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Summer School. At ECCMID our study groups organize interactive sessions where our younger members can learn from seasoned experts and network with the society’s more senior members.

Parity commitment
ESCMID’s trainee association (TAE) and parity commission are testifying to our commitment to trainees/young specialists and providing support for groups that risk being underrepresented in training, research and educational activities. In this same sense, ESCMID is committed to offering women opportunities in research and to help them advance their careers. This commitment is clearly yielding results in the increasing percentage of female speakers and chairs at ECCMID, conferences and courses as well as on the society’s boards.

Raising profiles
The society is dedicated to raising the profile of its specialties. Not only does it lobby to make them more attractive and visible for medical graduates, it also strives to continuously improve the professional development and perspectives of its members. ESCMID collaborates with the European Union of Medical Specialists to develop common European curricula and exams for clinical microbiology and infectious diseases and assure that both specialties are recognized across the continent.

Acting as one
Under my presidency the ESCMID Executive Committee continues to abide by the principle of primus inter pares – we decide and act as one family, as we have done over the past years. I value the support of all committee members and other active members committed to the society and I appreciate the assistance provided by the Executive Office. We have made great improvements in recent years, which is especially noticeable in ECCMID’s organization and communication. We encourage all researchers from all backgrounds to join our society and to benefit from the many advantages ESCMID members have. We value your active contributions to our study groups, training programmes, educational courses and the scientific programme of our conferences and annual congress.

This yearbook gives you an overview of the society’s activities. Enjoy your read and thank you for your interest in ESCMID.

Message from the President-elect & Secretary General

“The society has been very active in its educational and research activities, which reflects today’s complex challenges imposed by the nature of infectious diseases.”

Jesus Rodriguez-Bano
ESCMID President-elect and Secretary General
jesus.rodriguez-bano@escmid.org

Membership
It is my pleasure to report that ESCMID’s membership continues to grow – we now have more than 7,300 members. While most of them come from Europe, the proportion of those from other continents [particularly America and Asia but also Oceania and Africa] continues to increase. ESCMID has become a global society regarding its membership, influence and vision – which makes sense as microorganisms also do not stop at national or continental borders.

ECCMID
ECCMID has also been beating all previous records with the number of submitted abstracts and participants on the increase. In fact, ECCMID is the largest meeting combining clinical microbiology and infectious diseases. It is not just the most important platform where the latest data on basic and clinical research, new drugs and diagnostics are presented, it is also the ideal place for networking, finding partners for future projects and exchanges with top experts. The scientific programme covers every aspect of human pathogens and infections, including pathogenesis, epidemiology, infection control, diagnostics and treatment.

Research and education
The society has been active in all its educational and research activities, which reflects today’s complex challenges imposed by the nature of infectious diseases. Over the past years we have been battling with emerging and re-emerging pathogens and antimicrobial resistance, but we have also made significant progress in the treatment of hepatitis C and HIV. We have recognized the increased importance of international health and travel medicine, infectious diseases in refugees, infection control and antimicrobial stewardship. ESCMID is responding to the scientific community’s greater need for education, research and career development by expanding the resources dedicated to its educational offering, observatories, mentorships, research grants, medical guidelines and international collaborative initiatives. This growth is a challenge for everybody at ESCMID, the Executive Committee, the subcommittees, study groups and, of course, the staff at the Executive Office.

Affiliated societies
ESCMID is grateful for the cooperation with its 62 affiliated societies, which help spread our vision and activities throughout the world and facilitate their members’ access to many activities, enlarging a family that shares the motto: managing infections, promoting science.
Message from the Executive Director

“...dedication and team spirit was how we all pulled together under pressure to tackle the challenge of successfully relocating such a large congress at very short notice.”

Judith Zimmermann
ESCMID Executive Director
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Relocating the congress
We had an eventful year. After the ESCMID Executive Committee’s inevitable but nevertheless brave decision to relocate ECCMID 2016 from Istanbul to Amsterdam, everybody at the office was busy pulling all the strings to make it happen at an operational level. Together with Kones, our professional congress organizer (PCO) at the time, we renegotiated all the contracts with partners and suppliers. The goal was to minimize the costs arising in Istanbul and selectively channel our resources in Amsterdam to stage another successful ECCMID, despite the less than optimal circumstances. As keeping the costs down for such a major undertaking was a huge challenge, we prepared ourselves for a relatively modest result.

Successful congress
In fact, ECCMID was able to register another record number of participants and everything ran smoothly. The Opening Ceremony, with a medley of Turkish and European music, was a pleasing prelude, although our solution to hold the Welcome Reception at the exhibition did not go down very well with participants and exhibitors alike, who expressed a preference for a more neutral setting. The relocation at short notice did not noticeably affect the scientific programme, despite the fact that some of the session halls were scattered around the extensive venue. Just finding the poster presentations at the far end of the venue involved quite a journey down long hallways – passing by the booths of affiliated societies and ESCMID Networking. Nevertheless, the excellent sessions and smooth operation were able to meet the high expectations of both the Programme Committee and participants. In the end ECCMID 2016 was a great success, and even the financial aspects turned out to be better than forecast.

More self-contained
Shortly after ECCMID the Executive Office continued to implement a number of changes aimed at making the society more self-contained. We took a decision in 2015 to employ staff directly instead of from a service provider as had been the case so from 1 July 2016 the team had new employment contracts with ESCMID. We also moved into new premises in the heart of Basel. Both developments had a positive effect on team spirit and fuelled the motivation to tackle the challenges we would face. ESCMID then reinforced its team in Basel with two new positions. Marc Balmer joined as Office Administration Manager in April 2016 and molecular biologist Nancy Gents started as Publications and Medical Guidelines Manager in February 2017.

More activities in-house
Another far-reaching decision taken in July 2015 was that ESCMID – in line with a common trend among non-profit organizations – would bring work streams directly in-house. In our case they involved the scientific programme of our annual meeting, while resource-intensive activities, such as registration or hotel management, will continue to be outsourced. Although the Executive Office knew what to expect, it was a challenge to set up new work streams and processes for the venue and exhibition management. But the team embraced its improved bargaining position and entered time-intensive negotiations with external providers with plenty of energy to obtain the best rates for the benefit of the society.

All these efforts undertaken in 2016 to strengthen ESCMID and ECCMID would not have been possible without our resourceful professional team. Such achievements are only possible because the team works as one and because it has the support of its highly valued Executive Committee. We thank all executive members for the trust they continue to place in us.
A look back – again

Every new year seems to pass more quickly than the previous – the society is buzzing with activity. Writing a piece for the yearbook gives me a moment to take a deep breath and look back over the past year, to briefly re-live everything that was going on. Last year I was thrilled by the success of the research grants – which by the way continue to be highly popular with our members (see page 36ff.) and highly productive in terms of publications as well (see page 26ff.). This time last year, the overwhelmingly successful year our study groups had had led me to highlight their excellent work and their collaborative research projects. In 2016 they were again very active (see following pages). This time I decided not to zoom in, but to zoom out.

The big picture

Simply put, a medical society is a network of peers who collaborate to advance knowledge and help translate it into practice. In our daily society business, we are “zoomed in” and deal with one of our 28 study group networks at a time, working on research projects, courses and conferences with them; foster and rely on our networks of reviewers to select the best science from more than 5,000 submitted abstracts for ECCMID and support the brightest scientific ideas with research grants. Every year we also create a new pool of excellent ESCMID faculty – more than 50 people – to fill the broad scientific programme with life. All these activities ultimately lead to the advancement of knowledge and produce scientific publications, of which quite a share are published by our flag-ship journal, Clinical Microbiology and Infection.

ESCMID network

All the above is led and facilitated by the network of ESCMID’s committees and subcommittees. The groups within this network interact with and influence each other and in many cases study groups are the “incubators” of ideas. For example our resistance surveillance group (ESGARS) started a pilot project to extend the successful collection of resistance data from EARS-net within the EU by ECDC to Turkey and Israel supported by ESCMID study group research funding. The success of this pilot led to the foundation of the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) network, a joint initiative of the WHO Regional Office for Europe (WHO/Europe), the Dutch National Institute for Public Health (RIVM) and ESCMID. Other ESCMID funding to our critically ill patients group (ESCCIP) allowed the in-depth exploration of aerosolized antibiotics to treat respiratory infections in mechanically ventilated patients. This project will be presented at ECCMID and already resulted in several publications (see page 27). EUCAST (see page 50ff.) was also originally the network of a study group and has spread its net very successfully worldwide.

Support for our researchers

When supporting individual researchers, e.g. by honouring them with a Young Investigator Award, ground-breaking work can be spread more widely. Last year for example, we honoured the awardee Timothy M. Walker for his work on how genome sequencing can help eradicate tuberculosis as well as Sanne Jespersen for her work on antimicrobial stewardship. Understanding the pathophysiology of diseases helps us respond more effectively with prevention, management, treatment strategies and the development of better diagnostic tools and therapies. Robert A. Bonomo, from Cleveland, Ohio, USA was the recipient of the ESCMID Excellence Award 2016 for his work on antimicrobial resistance which is an area, where many activities within the ESCMID network converge to address the causes of antimicrobial resistance and support the WHO global action plan on AMR (see page 10ff.). I would like to summarize Aristotle: “The whole is greater than the sum of its parts.” We welcome you all to join us to work on the “parts” for the advancement of the “whole”.

A new mix of experience

Finally I would like to thank the Scientific Affairs Subcommittee (SAS) for their unceasing dedication to advance our projects and embrace new ideas. By the end of last year five experienced SAS members completed their terms of office: Hanan Balkhy, Rosemary Barnes, German Bou, Marek Gnadkowski and Hervé Peloux. I am indebted to them for their great work over all these years! Thank you very much! The incoming five new members – Oliver Dyar, Carolina Garcia Vidal, Mona Johannessen, Souha Kanj and Frédéric Laurent – have in the few months since the beginning of this year already proven that they bring in some fresh ideas. Welcome once again! We will all look forward to another productive year, as always strongly supported by the ESCMID office.
ESCMID Fighting Antimicrobial Resistance (AMR)

www.escmid.org/fightingresistance

ESCMID's role in the fight against AMR

• Conducts research and organizes courses and conferences on surveillance, infection control, stewardship
• Holds annual congress ECCMID, the largest platform for AMR research presentations and discussions
• Provides expert advice on One Health antimicrobial resistance policies at national, European and international level (WHO priority list on resistant pathogens)
• Supports and organizes public and specialist awareness campaigns
• Helps assess and speed up the development of new diagnostic methods and drug therapies

Overprescription

Study Group for Antibiotic Policies ESGAP
• Surveys on antibiotic prescribing
• Training on antimicrobial stewardship, diagnosis and management of drug-resistant infections, antimicrobial susceptibility testing and surveillance
• Book on antimicrobial stewardship

Excessive agricultural use & One Health

EUCAST Veterinary Subcommittee on Antimicrobial Susceptibility Testing VetCAST
• Project within joint programming initiative on antimicrobial resistance JPIAMR
• Course on PK and breakpoints in veterinary medicine
• Position paper and roadmap on veterinary PK/PD data

Lack of new antimicrobials

Study Group for Nosocomial Infections ESGNI
• Survey on standards for ID, CM and IC staffing at hospitals
• Courses on hospital-acquired infections

Lack of rapid diagnostics

Study Group for Genomic and Molecular Diagnostics ESGMD
• Participation in project for AMR rapid diagnostic test consortium AMR-RDT within joint programming initiative on AMR JPIAMR

Non-compliance & lack of hygiene

Study Group for Antibiotic Policies ESGAP
• Public campaigns on AMR and antimicrobial stewardship
ESCMID study groups are expert circles with a common, focused interest. You can find an overview of all study groups and their activities as well as the archive of past study groups online at www.escmid.org/studygroups.

One of ESCMID’s top-performing activities as well as the archive of past study groups online at www.escmid.org/studygroups.

Molecular diagnostics (MDx) have become an essential component of clinical and public health microbiology. MDx (e.g. qPCR, multiplexing) allow speedy detection and quantification of microbial nucleic acid targets with greater than ever accuracy. Integration of in-house and commercial MDx in laboratory workflows, together with other new technologies, complement and increasingly replace traditional methods. The growing accessibility to next-generation sequencing (NGS) is further transforming microbiology, genomic diagnostics are being developed and implemented via whole-genome sequencing (WGS) of microbes, allowing precise characterization of taxonomy, virulence and resistance and high-resolution typing. Microbiome analyzers is extending microbiology to explore pathogenesis and physiological infectious and non-infectious diseases, and shotgun metagenomics is a critical step towards culture-independent microbiology.

ESGMD is a cross-cutting study group dedicated to genomic and molecular diagnostics, aiming to serve as the focus of expertise and a hub for all ESCMID professionals working in this field. ESGMD is looking to study the use of molecular and genomic techniques underpinning the diagnosis, treatment, prevention and control of infection, lead the appraisal and implementation of new diagnostics, initiate and coordinate international research projects and promote a growing international community dedicated to genomics, molecular diagnostics and innovative approaches (e.g. microfluidics, automation and proteomics).

Our members can benefit by becoming involved in all ESGMD initiatives and help define its future directions. Our board consists of nine well-established professionals covering the gamut of academic, research and clinical laboratories. This is very important in the light of many existing national and international guidelines and standards, the ongoing technological development in laboratory platforms and regulations such as the new CE-IVD directive. We plan to finalize this project in 2017 and disseminate the guidance across the ESCMID community. Even more challenging for ESGMD will be the future development of guidance and quality control for NGS in clinical microbiology.

At present ESGMD already has over 150 members from various disciplines (e.g. microbiology, infectious diseases, public health, bioinformatics) supporting our wide range of activities. Our members can benefit by becoming involved in all ESGMD initiatives and help define its future directions. Our board consists of nine well-established professionals covering the gamut of advanced microbiology with assigned areas of responsibility. We welcome anyone interested in genomics, molecular diagnostics and new technology to join ESGMD. Together we will have a significant impact on this field.

Jacob Moran-Gilad (Chairperson) on behalf of the ESGMD Executive Committee.

Here we look back over the many activities performed by our study groups in the calendar year 2016. The following pages show a selection of major achievements or ongoing activities of the individual study groups. In general the study groups strongly contribute to the scientific programme of ECCMID by proposing symposia, educational workshops and meet-the-expert sessions. They organize the majority of courses/workshops for the ESGMD education programme [see page 56] and publish a number of scientific articles in ESCMID’s name [see page 26ff].
• Organized the meeting “Antimicrobial resistance in microbial biofilms and options for treatment” jointly with ESGB in Ghent, Belgium, 5 – 7 Oct 2016.
• Distributed a study grant of EUR 1,000 annually to foster collaboration across laboratories and help mentor young investigators.
• Runs an annual online course on biofilms.
• Organized the workshop “Anaerobic bacteria: next generation technology meets anaerobic diagnostics” jointly with ESGEM in Groningen, Netherlands, 26 – 28 September 2016.
• Runs the study group research project ‘Investigation of antimicrobial susceptibility patterns of *Prevotella* isolates in European countries’, study coordinator Nurver Ulger Toprak, Turkey. The study results are in the publication stage.
• Runs ENRIA (European network for rapid identification of anaerobes), a joint initiative of seven expert laboratories, supported by ESGAI and ESGEM.
• Published three articles in 2016 on bloodstream infections due to carbapenemase- or ESBL-producing Enterobacteriaceae (see page 26ff.).
• Currently there are nine active international collaborative projects coordinated or co-organized by ESGBIS where many European countries are represented, including BICHROME, the European Sepsis Academy and INCREMENT (for details see the ESGBIS annual report).
• Supports the International *Staphylococcus aureus* collaboration (ISAC) trials initiative.
• (Co-)organized three courses on antimicrobial stewardship and individualized medicine in 2016 (see page 56ff.).
• Have launched, analyzed or published eight surveys in the area of antimicrobials and antimicrobial stewardship.
• Runs the open virtual learning community (OVLC, @ESGAP_ABS), an open-access, web-based resource providing information and tools to promote antimicrobial stewardship among healthcare professionals.
• ESGAP is finalizing a book [published by Elsevier] on Antimicrobial Stewardship, which will be available at ECCMID 2017.
• Partner in the surveillance system for Eastern Europe and Central Asia, CAESAR, in collaboration with WHO Europe and RIVM in the Netherlands. The system is compatible with EARS-Net and focuses on invasive isolates only. ESGARS contributes with microbiological capacity building as well as methodology for surveillance and interpretation of data.
• Co-organized two courses (resistance in *Staphylococcus* and AST & surveillance) in 2016 jointly with several other study groups (see page 56).
• ESGBOR/ESCMID expert Franc Strle, Slovenia, contributes to ID-SA’s Lyme borreliosis medical guideline project.
• Runs study group research project Exploring the genomics tool box for tick-borne bacterial pathogens of the *Borrelia burgdorferi sensu lato* species complex, study coordinator Gabriele Margos, Germany.
• Participated with several members in an ECDC network consultation on Lyme borreliosis surveillance in the EU in January 2016 in Stockholm.
• Contributed to several publications on Clostridium difficile in different scientific journals (see page 29).
• Published the revision of the *Clostridium difficile* diagnosis medical guideline (CM 2016 Aug; 22 Suppl 4 S63-81) and is currently finalizing the one on *Clostridium difficile* infection control.
• Runs two new collaborative projects: standardization of faecal microbiota transplantation (with United European Gastroenterology [UEG]) and European surveillance of CDI (with ECDC).
• Published seven ESGCP articles based on their ongoing projects about aerosolized antibiotics and critically ill returning travelers (these together with ESGITM) [see page 27].

• Just completed systematic review project “Nebulized antibiotics”, study coordinator Jordi Bello, Spain, including an electronic survey (ESGCIP/EPASG) on current practice of nebulizing antibiotics in mechanically ventilated patients.

• Runs the study group EU/NE research project “Prospective evaluation of incidence, risk factors and outcomes for patients with ventilator-associated events in European intensive care units”, study coordinator Leen Lagunes Luna, Spain.

• Published the results of the study group research project ‘Improving and harmonizing Leishmania molecular diagnostics in Europe’, study coordinator Peter Chiodini, United Kingdom. Comparison of Leishmania typing results obtained from 16 European clinical laboratories in 2014. G Van der Auwera, et al. Eurosurveillance, Volume 21, Issue 49, 08 December 2016.

• Co-organized two courses, one on infectious diseases in pregnant women, feotuses and newborns and one on parasitic infections of the Arabian Peninsula with local organizations [see page 57].

• Runs two study group research projects, one on toxoplasmosis in transplant patients and one on molecular epidemiology of malaria in Oman.

• Published seven ESGCIP articles based on their ongoing projects about aerosolized antibiotics and critically ill returning travelers (these together with ESGITM) [see page 27].

• Organized the 11th International Meeting on Microbial Epidemiological Markers (IMMEM XI), Navigating Microbial Genomes: Insights from the Next Generation, 9 – 12 March 2016, Estoril, Portugal with 295 participants from 28 countries, featuring 60 presentations, 5 keynote lectures and 2 discussion panels over the course of three days. 114 Posters were displayed over two days.

• Co-organized four courses/workshops on various topics around diagnostics, resistance and infection prevention & control in Netherlands and France together with several other study groups.


• Organized the workshop “Application of Molecular Diagnostics in Forensic Microbiology”, jointly with ESGMD, 2 – 3 June 2016 in Leuven, Belgium.

• Launched an intersociety task force in post-mortem microbiology with the European Society of Pathology.

• Conducting the pilot study “Targeted 16S-23S rRNA next generation sequencing: useful in identifying an infectious cause of death?”


• Organized the workshop “Application of Molecular Diagnostics in Forensic Microbiology”, jointly with ESGMD, 2 – 3 June 2016 in Leuven, Belgium.

• Launched an intersociety task force in post-mortem microbiology with the European Society of Pathology.

• Conducting the pilot study “Targeted 16S-23S rRNA next generation sequencing: useful in identifying an infectious cause of death?”


• Runs study group research project ‘Epigenetic control of meningeval pathogenicity of Listeria monocytogenes’, study coordinator Marco Rinaldo Oggioni, UK.

• Published – jointly with ESGAP and ESGNI – the article “Staffing for infectious diseases, clinical microbiology and infection control in hospitals in 2015: results of an ESCMID member survey” by Dickstein Y, et al. CMI 2016 Sep;22(9):812.e9-812.e17.

• Runs the study group EU/VAE research project ‘Prospective evaluation of incidence, risk factors and outcomes for patients with ventilator-associated events in European intensive care units’, study coordinator Leen Lagunes Luna, Spain.

• Published – jointly with ESGAP and ESGNI – the article “Staffing for infectious diseases, clinical microbiology and infection control in hospitals in 2015: results of an ESCMID member survey” by Dickstein Y, et al. CMI 2016 Sep;22(9):812.e9-812.e17.

• Runs the study group research project ‘The participation of the elderly in randomized controlled trials of antibiotic treatment’, which is close to completion, study coordinator Mical Paul, Israel.

• Published three articles in 2016 on haemorrhagic fever in travellers and on critically ill returning travellers (see page 28).
• Co-organized the course "PREPAREing for (Re-)Emerging Arbovirus Infections in Europe", 7 – 9 March 2016, Thessaloniki, Greece.
• Runs the study group research project "Infectious diseases screening and vaccination policy for migrants in Europe", study coordinator Sally Hargreaves, United Kingdom.
• Co-edited a special issue of *Clinical Microbiology and Infection* (CMI) on MDR and XDR tuberculosis (C. Lange, E. Cambau).
• Collaborates with EUCAST to determine breakpoints for antituberculous agents and to assess methods for MIC determination, with WHO for leprosy for drug resistance and with EMA and WHO for new antimycobacterial drugs.
• Runs medical guidelines project 'Guidelines for non-tuberculous mycobacteria' jointly with European Respiratory Society, American Thoracic Society and IDSA, study coordinator Emmanuelle Cambau, France.
• Runs the study group research project "Microbiome analysis of drinking water systems: evaluation of new approaches for prevention and control of Legionnaires' disease", study coordinator Maria Luisa Ricci, Italy.
• Runs project to harmonize next-generation sequencing activities, coordinated by Jacob Moran-Gilad. The NGS group agreed on cgMLST as the chosen method for phylogenotyping of *Legionella pneumophila* and is developing an internationally standardized scheme.

• Published – jointly with ESGAP and ESGIE – the article "Staffing for infectious diseases, clinical microbiology and infection control in hospitals in 2015: results of an ESCMID member survey" by Dickstein Y, et al. *CMI* 2016 Sep;22(9):812.e9-812.e17.
• Participates in the European Network in Infection Control and EUCIC, liaison Barry Cookson, United Kingdom.
• A position paper on molecular diagnostics is in production.
• Co-organized jointly with several other study groups three courses/workshops on molecular diagnostics in Maastricht, Groningen and Leuven (see page 56ff.).
• Participates in a JPIAMR-funded project on rapid diagnostics of antimicrobial resistance (AMR-RDT).
• For more information, see page 12.

• Completed collaborative multicentre evaluation of quantitative PCR assays to detect Mycoplasma pneumoniae involving several members of ESGMI from Belgium, Denmark, France, Germany, Israel, the Netherlands, Sweden, UK and US. This study was presented as a poster at the 21st Congress of the IOM and a manuscript is in production.

• Runs two study group research projects in collaboration with ESGBS (one on Staphylococcus capitis and one on intracardiac device infections).
• Sponsored a joint session at the International Symposium for Staphylococci and Staphylococcal Infections (ISSSI), 30 August – 2 September 2016, in Seoul, South Korea.

• Co-organized the course "Challenges in management of viral hepatitises", 14 – 15 October 2016, in Cavtat, Croatia.
• Runs and funds the project 'Low HBV-Replication in Adherent TDF/FTV-treated patients, magnitude and determinants, the LoHRa study, a European surveillance network', study coordinator Karine Lacombe, France.
• Runs the study group research project “Identification, taxonomy and ecology of the Staphylococcus intermedius group, study co-ordinator Arshnee Moodley, United Kingdom.
• Runs the educational project ‘PREPARE-VET’ (PREscriber Perspectives on Antibiotic use and Resistance Education in Europe – VETerinary medicine), to evaluate the quality of education on antimicrobial stewardship for final year veterinary students using a questionnaire, study coordinator Carmen Espinosa Gongora, Denmark.

• Published four articles on child, adolescent and adult vaccination and a summary of vaccine topics from ECCMID 2016 [see page 28].
• Planning the 4th ESCMID Conference on Vaccines – new and old diseases in children and adults – unmet needs; 8 – 10 September 2017, Dubrovnik, Croatia.
• Released annual influenza vaccination

The society’s publications portfolio has seen some major changes over the past year. After Didier Raoult from Aix-Marseille University stepped down as editor-in-chief of the society’s journal Clinical Microbiology and Infection (CMI) after eight years, the main focus was to find a suitable successor. We are very happy that Leonard Leibovici at Rabin Medical Center in Israel has accepted the position, and that thanks to his commitment the journal has a bright future. ESCMID executives discussed their vision for the society’s publications portfolio at a strategy meeting at the beginning of July 2016. The output on ESCMID’s research activities has been increasing over recent years. You will find a comprehensive list of the society’s impressive number of publications at the end of this section.

Society journals
ESCMID offers researchers the option to publish their manuscripts in its two journals: Clinical Microbiology and Infection (CMI) and New Microbes and New Infections (NMNI). In his first year as CMI editor-in-chief Leonard Leibovici has already managed to raise the attractiveness of the journal by revamping its layout, improving the abstract content and focusing on reviews and original papers that have an impact on clinical practice. NMNI Editor-in-Chief Michel Drancourt continues to reduce publication times of the online journal to offer scientists an attractive journal for fast communication of their work.

Medical guidelines
ESCMID’s new and updated medical guidelines are published as supplements to CMI and are freely available on the society’s website. You will find an update on the guidelines the society has published and is currently working on as well as more information on the new tools ESCMID is using to ensure consistency of its guidelines [page 25].

ESCMID publications
For the first time the society is also publishing a list of all scientific publications resulting from its activities over the past year. This includes its medical guidelines, papers on research financed through ESCMID’s research grants and study group research funding as well as publications by the society’s study groups, its Trainee Association, parity commission or committees EUIC and EUCAST. We recorded more than 80 publications in ESCMID’s name over the past year [see page 26ff.]

ESCMID book on antimicrobial stewardship
A book on antimicrobial stewardship produced by ESCMID and ESCMID Study Group for Antibiotic Policies (ESGAP) is due for publication in April 2017. The book has been developed by key experts in the field as a practical hands-on guide to help antimicrobial stewardship team members design and implement their programme in all healthcare settings. It can also be used as an undergraduate and postgraduate training tool for infectious disease specialists, microbiologists, pharmacists, nurses, and any other professionals involved in antimicrobial stewardship.
Clinical Microbiology and Infection (CMI) publishes original research and review articles that assist physicians and clinical microbiologists in their management of patients and the prevention of infectious diseases. In particular, we promote the inclusion of good methods in basic clinical research, and aim to publish interesting and thought-provoking materials that have the potential to change clinical practice.

New style

We also adapted the style and format of our journal to improve author and reader experience and optimized our workflow, resulting in a shorter period between submission and decision.

Submissions

2016 saw a 10% increase in the number of submitted manuscripts, a 16% decrease in the number of accepted articles and an increase of 22% in the total number of article downloads. (Figure 1)

We have shortened considerably the interval from submission to a decision on revision to an average of 30 days in 2016 vs 41 in 2015; from submission to rejection after peer-review (28 days in 2016 vs 45 days in 2015); and from submission to immediate rejection (3 days in 2016 vs 6 days in 2015). (Figure 2)

Survey

To understand the needs of our readers, we conducted a survey [see facing page] in September 2016. The results showed that of the 1,000 responders (from 88 countries), 92% were satisfied with the journal’s content. The three areas deemed the most useful were “infectious diseases” (96%), “bacteriology” (95%) and “epidemiology” (85%).

The most interesting topics for reviews included “New and Emerging Infections” (93%) and “Practice Oriented Reviews in Clinical Microbiology” (88%) and “Practice Oriented Reviews in Infectious Diseases” (80%).

Outlook

Based on this feedback, CMI will introduce a new series of reviews in 2017. These will describe advantages and limitations of techniques used in clinical research and research laboratory work, and include an evidence-based series on how to treat or diagnose patients with a specific disease.

“We’re making efforts to publish material that is helpful to our readers, thought-provoking and interesting. We aim to publish innovative and rigorous research and encourage high standards of scientific reporting.”

Leonard Leibovici
CMI Editor-in-Chief
leonard.leibovici@escmid.org

Clinical Microbiology and Infection (CMI) publishes original research and review articles that assist physicians and clinical microbiologists in their management of patients and the prevention of infectious diseases. In particular, we promote the inclusion of good methods in basic clinical research, and aim to publish interesting and thought-provoking materials that have the potential to change clinical practice.
New Microbes and New Infections

José Álvarez Martínez (Spain) and Wanderly De Souza (Brazil) (19), “First Clinical Case Reports” (17) and “New Microbes in Humans” (10) [Figure 1].

Editorial Board
In 2016 we also established new transparency rules about manuscript submissions and saw changes in the editorial board: Miriam José Álvarez Martínez (Spain) and Wanderly De Souza (Brazil) have left us. We would like to take this opportunity to thank them for their contributions and for the fruitful collaboration. In their place we welcome three new members: Alexandre Alanio (France), Marina Eremeeva (US) and Adam Polkinghorne (Australia). We wish them the best of luck and look forward to working with them.

Outlook
In 2017 NMNI intends to focus first on tightening interactions with CMI as well as other journals. Second we will call for and publish thematic reviews on various topics of interest.

New Microbes and New Infections (NMNI) aims to rapidly disseminate the latest on new genomes, new microbes and new technologies used in the diagnosis of infectious/tropical diseases. The emphasis lies on concise reports and we include free, brief, web-cast-style presentations summarizing the published article.

Submissions
In 2016 the total number of submissions increased by 43%. Of the 203 submissions, 154 were accepted, 13 were rejected and 36 were under revision as of 31 December 2016. Ninety-seven manuscripts were in the new category, “New Species Announcement”, which was introduced to promote the description of new human microbial species [Figure 1]. The remaining top 4 manuscript topics were “Original Research Articles” [39/203], “Taxogenomics” [18], “First Clinical Case Reports” [17] and “New Microbes in Humans” [10] [Figure 1].

As in previous years, in 2016 we developed a core set of guidelines that can be used to improve patient care. In addition, we introduced a new set of tools to ensure a high level of consistency between all guidelines produced by ESCMID. These tools (the GRADE and AGREE II tools) provide a standardized framework to grade the available evidence and evaluate existing guidelines, thereby facilitating the preparation of new and outdated guidelines alike.

First efforts in implementing this approach resulted in the publication of two guidelines in CMI: one guideline concerned the update of the diagnostic guidance document for Clostridium difficile; the other, the diagnosis and treatment of acute bacterial meningitis.

In 2017 these tools will be used by two new drafting groups [DG], which have already initiated their activities. The first DG will focus on developing guidelines for the treatment of invasive infections by multidrug-resistant Gram-negative bacteria. This group is led by Jesús Rodríguez-Baro and Evelina Tacconelli and has 19 members. The second guideline will be a joint effort between the 13-member ESCMID DG, led by Winfried Kern and François Vandenbroucke, and the Infectious Disease Society of America (IDSA). This guideline will address the topic of S. aureus bacteraemia.

The draft guidelines of both groups will be made available for public consultation during 2017 and be finalized and published in 2018.

If you have any questions or proposals for future medical guidelines, please feel free to write to us at william.hope@escmid.org.

“ESCMID continues to work hard to produce the very highest quality Medical Guidelines to ensure patients receive the very best care possible.”

William W. Hope
ESCMID Guidelines Director
william.hope@escmid.org
ESCMID publications

A large survey among European trainees in clinical microbiology and infectious disease on training systems and training adequacy: identifying the gaps and suggesting improvements.

How do physicians cope with controversial topics in existing guidelines for the management of infective endocarditis? Results of an international survey.

ESCMID technical note on isavuconazonium breakpoints for Aspergillus, iraconazole breakpoints for Candida and updates for the antifungal susceptibility testing method documents.

ESCMID medical guidelines publications

Update of the diagnostic guidance document for Cladidocid fide Infection.

Diagnosis and treatment of acute bacteraemia van de Beer D, Calbex I, Dierickx D, Meulbroek K, Van Deun A, Claes L. Clinical infection remains a challenge.

Bloodstream Infections & Sepsis (ESBGS)


A Predictive Model of Mortality in Patients With Bloodstream Infections due to Carbapenemase-Producing Enterobacteriaceae. 


PUBLICATIONS

Aspergillus, levofloxacin, intravenous vs. oral versus as an oral rivaroxaban vs. oral.


How do physicians cope with controversial topics in existing guidelines for the management of infective endocarditis? Results of an international survey.


PUBLICATIONS
Beyond extensively drug-resistant tuberculosis in Lisbon, Portugal: a case of linezolid resistance acquisition presenting as an ilioosseous abscess.

Use of whole-genome sequencing to trace, control and characterize the regional expansion of extended-spectrum β-lactamase producing ST155 Klebsiella pneumoniae.

Beyond extensively drug-resistant tuberculosis in Lisbon, Portugal: a case of linezolid resistance acquisition presenting as an ilioosseous abscess.

Drug Repurposing Approach Identifies Inhibitors of the Prototypic Viral Transcription Factor IE2 that Block Human Cytomegalovirus Replication.

Surface-modified yeast cells: A novel eukaryotic carrier for oral application.

Endoplasmic reticulum chaperone Gp96 controls actomyosin dynamics and protects against pore-forming toxins.

Bacterial Toxins as Pathogen Weapons Against Phagocytes.


In this book, ESGAP, the ESCMID Study Group for Antibiotic Policies, has summarized the best of its international expertise on this topic, building on its international network and more than 15 years of educational courses in the field.

The book includes short practical ‘hands-on’ chapters, encompassing all aspects of antimicrobial stewardship programmes in various settings.

With examples of antimicrobial stewardship experiences worldwide.

Visit www.elsevier.com for more information!
There were 97 applications in 2017 for ESCMID Research Grants, which are awarded for outstanding research projects by young ESCMID members. Fourteen colleagues with basic or applied research projects were chosen. Special thanks to all the experts and reviewers (listed on page 80), who did a tremendous job evaluating all these submissions. As happens every year, one of the Research Grant recipients with a highly rated project proposal is also awarded the ESCMID/FEMS Fellowship and this year it goes to Tiffany Bouchery, Lausanne, Switzerland.

In addition, ESCMID supports young colleagues with merit-based travel grants and free registration to enable them to attend ECCMID. We are giving 104 young scientists travel grants and free registration for ECCMID 2017 in Vienna, where they will present the results of their work. ESCMID also supports its members early in their careers with attendance grants for other ESCMID conferences, the Summer School, post-graduate educational courses and other educational and/or scientific events.

ESCMID supports young clinicians, researchers and established scholars with awards and grants to acknowledge past achievements and provide an incentive for future accomplishments. ESCMID funds its members’ research projects and training in the disciplines of clinical microbiology and infectious diseases with a total of about half a million euros every year. About EUR 330,000 of that is reserved for its grant programme to finance several promising research projects. ESCMID is pleased to announce the recipients of the society’s awards and grants for the year 2017.

**Excellence Award**

The most prestigious award is the ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases. The ESCMID Executive Committee selected Thierry Calandra from the university hospital CHUV in Lausanne to receive this year’s distinction in recognition of his achievements in the treatment of severe infections and sepsis. Thierry Calandra is a world expert in the treatment of severe bacterial and fungal infections in immuno-compromised hosts. A major part of his work relates to sepsis, a field where he is considered one of the most influential opinion leaders. Colleagues around the world describe him as a brilliant man who clearly deserves this award. Thierry Calandra’s expertise in infectious diseases is complemented by his understanding of microbiology and immunology. Thanks to his distinguished credentials he was able to become head of the department of internal medicine at his institution, an accomplishment that few infectious disease specialists will ever reach. Thierry Calandra leads a group of specialists who conduct outstanding research and publish excellent work in top clinical journals. The award pays tribute to his accomplishments in the field. Congratulations!

**Young Investigator Awards**

The Executive Committee selected three recipients for this year’s Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases. The winners are Céline Pulcini, professor at the university hospital in Nancy, France, who is committed to improving antimicrobial stewardship at both a national and international level and is very active in ESCMID’s study group for antimicrobial policies; David Eyre, a microbiologist at the University of Oxford, whose research is focused on the transmission of healthcare-associated infections; and Mario Fernández Ruiz from the university hospital in Madrid, who works on clinical and therapeutic aspects of invasive fungal disease in solid organ transplant recipients. We congratulate the winners and look forward to their valuable contributions to the society in the coming years.

**TAE Awards**

The winners of this year’s TAE Awards for Training Achievements are Aleksandra Barac from the Clinical Center of Serbia in Belgrade and Paola Tatarelli from the university hospital in Genoa.

**ISF Sepsis Award**

Sandra Asner, Head of the Paediatric Infectious Diseases & Vaccinology Unit at the university hospital in Lausanne, is the winner of this year’s ISF Sepsis Award for her abstract addressing the burden of pneumococcal sepsis among children.

You can find details of all recipients of awards and research grants for 2017 on the following pages.
ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases

Thierry Calandra, MD, PhD

Thierry Calandra has selected Thierry Calandra as the 2017 ESCMID Excellence Awardee because he is an outstanding ID clinician and immunologist. Having graduated in medicine from the University of Lausanne, Switzerland, Thierry began his career at the Centre Hospitalier Universitaire Vaudois (CHUV), Lausanne, Switzerland. Following his PhD from the University of Utrecht, the Netherlands, and five years as a senior scientist and assistant professor in the United States, he returned to the CHUV, where he was promoted to Professor of Medicine and Head of the Infectious Diseases Service; a great achievement.

Research interests

Thierry Calandra’s research interests include innate immunity, sepsis and bacterial and fungal infections in critically ill and ICU patients and in immunocompromised hosts. As a clinical investigator, he has led or was closely associated with the design, conducting and analyses of studies and clinical trials on the diagnosis, prevention and treatment of infections in neutropenic cancer patients, surgical and ICU patients and on immunomodulating therapies for patients with sepsis and septic shock.

As a translational scientist, his research projects have focused on innate immunity and on the pathogenesis and treatment of sepsis. He explored the sensing of microbial products (lipopolysaccharide and exotoxins) by pattern recognition molecules and receptors (LPS binding proteins, CD14 and Toll-like receptors) expressed by innate immune cells, and the role played by proinflammatory mediators, particularly the cytokine macrophage migration inhibitory factor, in the host defense response against microbial pathogens.

Publications

Thierry Calandra is both a reviewer for and contributor to numerous influential international journals. Since writing significant papers on this topic in 1993 and 1995 in Nature, Thierry has made an exceptional and sustained contribution to understanding the role of MIF in infectious diseases, the Journal of Infectious Diseases and Intensive Care Medicine, resulting in 28,683 citations and an H index of 72.

Leadership roles

Thierry is, or has been, a member of more than a dozen Swiss and international societies covering his range of interests, from internal medicine, the immunocompromised host, microbiology, infectious diseases, intensive care medicine and macrophage and dendritic cells. In the past 15 years he has contributed particularly to the Société Suisse d’infectiologie, the Fungal Infection Network of Switzerland, the International Immunocompromised Host Society, the European Organization for Research and Treatment of Cancer (EORTC) and the International Sepsis Forum by serving a term as president, chair or council member.

Honours

It is unsurprising that a scientist of this calibre should have received great recognition already. Thierry has won honours and generous funding from the Swiss National Science Foundation [for MIF research] as well as half a dozen awards. His work as investigator or co-investigator is clearly recognized by substantial grants from, among others, the European Community, Sepsis Academy and the Bill & Melinda Gates Foundation. We are pleased to add the ESCMID Excellence Award to this impressive list.

Thierry Calandra will be presented with his award at the 27th ESCMID in Vienna by Mario Poljak, ESCMID President on Sunday, 23 April 2017 at 14.30 – 15.30. During this ceremony he will give his recipient’s lecture: Sepsis: making progress, but not there yet!

AWARDS & GRANTS

ESCMID Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases

Céline Pulcini, Nancy, France

Antimicrobial stewardship: think globally and interdisciplinarily

Céline is a full professor in infectious diseases in Nancy, France, who has shown a very strong interest in antimicrobial stewardship, both at the national and international level. She is secretary of ESGAP (the ESCMID Study Group for Antibiotic Policies), and she coordinates the antimicrobial stewardship working group of the French infectious diseases society (SPILF). The French Ministry of Health, the ECOID and the WHO have all profited from her expertise.

Céline has been researching antimicrobial stewardship and vaccination practices for more than ten years, and she is leading an interdisciplinary research team on these topics. She is author/co-author of more than 130 international publications and has become an associate editor for Clinical Microbiology and Infectious Disease.

Céline will receive her award during the ESCMID Young Investigator Awards Session at ECCMID on 25 April 2017 from 11.30 – 12.30 in Hall K. During the session, she will give her presentation: ‘Antimicrobial stewardship: think globally and interdisciplinarily’.

David Eyre, Oxford, United Kingdom

Tracking the source of Clostridium difficile infection

David studied medicine in Cambridge, then Oxford, where he is currently near completing his specialist training in infectious diseases and microbiology. David obtained his DPhil from the University of Oxford in 2013, funded by a fellowship from NIHR UK, the National Institute for Health Research. During this time, he demonstrated, using whole-genome sequencing, that most Clostridium difficile infections do not arise from other cases in endemic settings. He is currently a NIHR clinical lecturer within the Modernising Medical Microbiology group in Oxford. His previous awards include an IDSA international young investigator award, and the British Infection Association Barnett Christie prize for excellence in original research. His publications have been cited over 1,700 times.

David’s research is focused on identifying sources and risk factors for transmission of healthcare-associated infections, including C. difficile and carbapenem-producing Enterobacteriaceae. His work combines patient and environmental contact data with whole-genome sequencing, aiming to identify rational interventions to reduce spread of healthcare-associated infections.

David will receive his award during the ESCMID Young Investigator Awards Session at ECCMID on 25 April 2017 from 11.30 – 12.30 in Hall K. During the session, he will give his presentation: ‘Tracking the source of Clostridium difficile infection’.

Mario Fernández-Ruiz, Madrid, Spain

Predicting post-transplant infection: to boldly go where no graft has gone before

Mario Fernández-Ruiz received his MD from the Universidad Autónoma de Madrid in 2004 and completed his residency in internal medicine in 2010. He is currently a NIHR clinical lecturer within the Modernising Medical Microbiology group in Oxford. His main research lines include the clinical and therapeutic aspects of invasive fungal disease (particularly candidaemia), as well as the development and validation of immune monitoring strategies aimed at predicting the occurrence of infectious complications in solid organ transplant recipients. In 2014 he was awarded the “Young Interest of the Year” award from the Spanish Society of Internal Medicine.

Mario will receive his award during the ESCMID Young Investigator Awards Session at ECCMID on 25 April 2017 from 11.30 – 12.30 in Hall K. During the session, he will give his presentation: ‘Predicting post-transplant infection: to boldly go where no graft has gone before’.

University Hospital ‘12 de Octubre’, in Madrid.

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ESCMID Research Grants

The following ESCMID members have received a research grant in 2017 for the indicated project.

**Leighann Sherry**
University of Glasgow, School of Medicine, Dentistry and Nursing, Glasgow, United Kingdom
Project: Evaluating biofilm formation and transcriptome analysis of the emerging pathogen *Candida auris*

**Jessica Thompson**
Instituto Gulbenkian de Ciência, Oeiras, Portugal
Project: Microbe-glycan antibodies and malaria protection

**Xaver Sewald**
LMU Munich, Max von Pettenkofer-Institute, Virology, Munich, Germany
Project: Elucidating the mechanism of retrovirus transmission across mucosal barriers

**Vinod Kumar Magadi Gopalaiah**
University Medical Center Groningen, Genetics, Groningen, Netherlands
Project: A “proteo-genomics” approach to human fungal infections

**Mara Mariconti**
University of Pavia, Pavia, Italy
Project: Point-of-care rapid diagnostic tests for the diagnosis of cystic echinococcosis in endemic settings: a field study in Kazakhstan

**Selinda Orr**
Cardiff University, Infection and Immunity, Cardiff, United Kingdom
Project: Modulating the immune response to clear *Candida* infections

**Alexandre Dufour**
Institut Pasteur, Cell Biology and Infection, Paris, France
Project: Amoebactin: an image-based phenotypic screening approach for drug discovery against parasitic diseases

**Celia Fernández Rubio**
Institute of Tropical Health/University of Navarra, Microbiology and Parasitology, Pamplona, Spain
Project: Role of IPS-1 in metastatic leishmaniasis development through *Leishmania* RNA virus

**Ron Geller**
University of Valencia, Instituto Cavanilles de Biodiversidad y Biología Evolutiva, Paterna, Spain
Project: Defining the role of Hsp90 co-chaperones in RSV replication

**Laurence Josset**
Hospices Civils de Lyon, Laboratoire de Virologie Institut des Agents Interfecteurs, Lyon, France
Project: Impact of the respiratory microbiome on influenza severity

**Björn Ferry Koel**
AMC Amsterdam, Medical Microbiology, Amsterdam, Netherlands
Project: Understanding the emergence of epidemic influenza virus variants in humans

**Valentina Palmieri**
Catholic University of the SH, Physics Institute, Rome, Italy
Project: Graphene-based biomimetic cloaks – the next-generation antimicrobial coating for medical devices

**Tiffany Bouchery**
EPFL, FLIP, Unitaris, University of Lausanne, Switzerland
Project: Identification of new anti-hookworm drugs by high-throughput screening of natural compounds

**Agostinho Carvalho**
University of Minho, Life and Health Sciences Research Institute (ILSV), Braga, Portugal
Project: The genetic architecture of the immune response to *Aspergillus fumigatus*: from biological understanding to therapeutic intervention
ISF-ESCMID Sepsis Award

Sandra Asner
CHUV, Faculty of Biology and Medicine, Lausanne, Switzerland

Burden of S. pneumoniae sepsis in children in Switzerland

The International Sepsis Forum (ISF) is an American non-profit public charity with a mission to improve outcomes for patients with sepsis. Its award gives the recipient US $500 and the opportunity to present their work orally during the ISF-ECCMID joint session. Sandra Asner’s successful abstract, addressing the burden of pneumococcal sepsis amongst children in the Swiss Pediatric Sepsis study (SPSS), stems from her collaboration as primary investigator with the Pediatric Infectious Diseases Group of Switzerland (PIGS). She is currently Head of the Pediatric Infectious Diseases & Vaccinology Unit at Lausanne University Hospital in Switzerland, where she is also responsible for teaching and research. Following her medical doctorate in 2008, she specialized in paediatrics and then infectious diseases at Bern University before pursuing a clinical and research fellowship in paediatric infectious diseases at the Hospital for Sick Children in Toronto and obtaining an MSc in Clinical Research from McMaster University, Hamilton, Canada. Sandra Asner’s research focuses on respiratory infections in immunocompromised children and those with cystic fibrosis (CF). Her involvement in the MUCOVIB multicentre project, investigating the contribution of respiratory viruses and intracellular bacteria on bacterial biodiversity changes in CF respiratory microbiota over time, earned her a prestigious grant from the Leenaards Foundation in Switzerland.

Sandra Asner will be presented with her award in the ISF session at the 27th ECCMID in Vienna on Monday, 24 April 2017 at 11:30 in Hall K. After receipt of the award she will give a short presentation about her work.

ESCMID TAE Awards for Training Achievements

Aleksandra Barac
Clinic for Infectious and Tropical Diseases
Clinical Centre of Serbia and Faculty of Medicine
University of Belgrade, Serbia

Paola Tatarelli
Division of Infectious Disease
University of Genoa
IRCCS San Martino-IST
Genoa, Italy

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Are you ready to win battle against Antimicrobial drug resistance (AMR)? Co-sponsored by the American Society for Microbiology (ASM) and the European Society for Clinical Microbiology and Infectious Diseases (ESCMID), this leading conference will provide a unique forum for you to explore the challenges, opportunities and current requirements for antimicrobial drug development for AMR.

Learn more at www.asm.org/AMR

**Professional Affairs Overview**

"It is a great pleasure to be able to influence positively the lives of young and more experienced scientists through the society’s professional affairs programmes. ESCMID is a network that mostly connects people but also organizations to the benefit of everyone in the CM and ID fields."

Maurizio Sanguinetti
Professional Affairs Officer for Clinical Microbiology and Infectious Diseases

Firstly, I would like to express my gratitude to the ESCMID members for electing me to the ESCMID Executive Committee in 2016. At ESCMID 2016, I took over the role of Professional Affairs Officer and the corresponding responsibilities of the portfolio. On this note we warmly welcome the five new Professional Affairs members who started their terms of office in January 2017 (insert box with committee members).

One of the fortes of the society is that we bring individuals together from all over the world to advance healthcare and research. A keystone of this is the observership programme, one of the strongest, most popular and best funded programmes in the society. On the website, you may read the observership reports that testify to the usefulness of the visits for individuals and departments. For this reason, we further increased funding for visits by some 30% in 2016. I am also pleased to report that since 2016, 15 new ECCs have signed up, 13 of which are outside Europe. Clearly, this is the fruit of our efforts to reach out beyond Europe. In 2017 we plan to relaunch the observership webpage to include a search for centres based on up to three core competencies along with other improvements. An integral part of the observership programme are the ECCs and WHO observerships. Due to the large number of excellent applicants, we increased the number of ECOC observers from ten to 15. We also revised the selection procedure to focus more on those in the public health area. Both ECDC and WHO programmes will continue in 2017.

Since autumn 2015 individuals can sign up for mentoring with ESCMID mentors at 25 different centres. First positive progress reports show that the mentoring from those with more experience is useful to their professional development.

In November 2016, I had the opportunity to meet the six-member steering committee of the Trainee Association of ESCMID, four of whom were just elected. I am optimistic that this new team will be able to build on the previous work to improve training conditions. Based on an impetus by the TAE, since January 2017 trainees between 35 and 45 years-of-age can obtain a young scientist membership if they submit training status proof. This helps level the field for those who have longer training times in certain countries or career breaks for various reasons. This year at the TAE Trainees Day, 20 medical students will receive free registration and a place at the round table discussions. We hope this will be an opportunity to attract new talents to the specialty.

In 2016, the Parity Commission published an article on the starting point for the web-based self-evaluation tool for professionals in CM/ID and a place at the round table discussions. We hope this will be an opportunity to attract new talents to the specialty.

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ESCMID Collaborative Centres and Observerships

www.escmid.org/observerships

ESCMID Collaborative Centres and Observerships
Maurizio Sanguinetti
ESCMID Professional Affairs Officer
Maurizio.sanguinetti@escmid.org

The ESCMID Collaborative Centre (ECC) and Observership Programme continues to flourish, reflecting not only the aim of the society to link professionals within Europe but extending it to the whole world. Fifteen new ECCs have joined our ranks since January 2016, compared with seven the previous year, only two within Europe (Ireland and Spain), cementing the presence of ECCs on every continent. This has encouraged many observers in 2016 to visit an ECC on another continent. So while we funded slightly fewer observership visits in 2016, we actually increased funding by almost 30% due to the higher budget allotted for intercontinental visits.

There are currently over 100 active ECCs on all five continents. Last year observers visited 12 countries within Europe and 5 beyond. The table on page 44 shows the top ten hosting centres of 2016. The top three countries hosting observers were Sweden (17), Germany (15) and the United Kingdom (10). Of those it’s important to note that 15 of the observers to Sweden were visiting ECDC (see the report on page 45) and, in Germany, all 14 observers visited the Charité-University Hospital in Berlin where Andrej Trampuz continues to be a very active supporter of the programme. The first ECC in South Africa, Groote Schuur Hospital in Cape Town, hosted nine observers. Of 92 observers, nearly 40% came from countries outside Europe. Needless to say, the top three countries observers came from were European. Spain in double digits with 12, Slovenia with 9 and Italy, with 8 (see map for observers’ country of origin).

Given that this programme is entirely self-selective, it’s interesting to see the number of male observers (40) trails that of females (52). Most people tend to take advantage of the programme in their thirties (57%) but a large proportion is either side of this age group and three observers were over 50 years old. Short visits (4 – 7 days) and medium (10 – 15 days) were preferred by 26 observers each, while 40 spent between 16 days and a month on their assignments. For an overview see the pie charts on page 44. Applications may be rejected for a variety of reasons, including the requested ECC’s lack of capacity, rejection of application due to lack of clear objectives or cancellation by the observer – to mention just three. We thank observership applicants for their understanding of these issues. In 2016, 34% of applications resulted in a visit.

On behalf of the society and all observers, who report highly productive visits, I wish to take this opportunity to thank all the individuals at ECC departments who made these visits possible. We realize that the logistical hurdles, which can include mobilizing department employees, filling out long university forms and providing visitor assistance, can be quite a burden and is additional to the primary functions of the department. We at ESCMID very much appreciate everything the ECCs offer our observers and the preparation involved. We are planning a relaunch of the observership application process during 2017 to better enable applicants find the right ECC by using an interactive map and being able to search according to core competencies and availability. Other upgrades will optimize the application and reimbursement process for observers. For updates and further information, do check the website regularly: escmid.org/observerships.

It is clear from the reports that each observer acts as a positive catalyst within their department, often bringing back valuable knowledge such as how to start an antimicrobial stewardship programme, how to diagnose or treat difficult infections, how to optimize expertise between the clinical microbiology lab and the ward, how to use specific cutting-edge laboratory techniques, the set-up of larger exchange programmes between universities and many other initiatives and good working practices. Observing colleagues in different settings not only broadens the mind but provides impetus for improvement at home. We cannot recommend the experience highly enough.
Observership reports from ECDC

The European Centre for Disease Prevention and Control (ECDC) hosted a group of 15 ESCMID members for the ESCMID ECDC observership initiative between 5 – 9 September 2016 at ECDC’s headquarters in Stockholm, Sweden. Due to the large number of applicants, ESCMID decided to fund five more observers than originally planned and as in the past.

These 15 ESCMID observers were joined by twelve observers from the European Society for Clinical Virology (ESCV) for a five-day orientation programme designed to introduce ECDC’s activities, role and mandate in supporting public health actions to control and prevent infectious disease in the EU and globally.

The 2016 visit covered the general activities of the centre such as surveillance, microbiology support, production of scientific advice and epidemic intelligence to detect emerging communicable disease threats to the EU. Observers also attended presentations on the work of specific programmes at the centre addressing issues such as antimicrobial resistance, vaccine-preventable diseases and influenza. In addition to formal presentations, the programme included several hands-on exercises including producing a rapid risk assessment on an infectious disease threat, analysing EU molecular surveillance data and developing public health guidance using evidence-based approaches. Throughout the programme, participants were encouraged to interact with ECDC experts and share common experiences and challenges within ECDC’s areas of competence.

The ESCMID observers travelled to ECDC from all corners of the globe; in addition to welcoming observers from EU member states, observers attended from Russia, Australia, Benin, Brazil, Malaysia and Oman. Their visit reports are available on ESCMID’s website. This is the fourth year of the ESCMID-ECDC observership initiative and it continues to expand –27 the number of participants in 2016, is greater than the total number of participants from all previous years – and feedback from both ECDC staff and ESCMID observers continues to be positive. Therefore, we are pleased to report that the ECDC observership programme will be repeated again in 2017 from 4 – 8 September 2017. More information can be found at www.escmid.org/ECDC-observer and in the advertisement on page 75.

ESCMID-supported observers to visit ECDC in 2016:

- Abdullah Al-Hatmi, Ibri, Oman
- Mahoutondji Yves Thierry Banogou, Abomey-Calavi, Benin
- Wendy Braaars, London, United Kingdom
- Alejandro Dorado Garcia, Utrecht, Netherlands
- Gereltuya Dorj, Ulaanbaatar, Mongolia
- Karen Gail Hawke, South Australia, Australia
- Dewesh Kumar, Jodhpur, India
- Alexander Malogolovkin, Pokrov, Russian Federation
- Anastasia Pavelkovich, Tallinn, Estonia
- Joao Perdigao, Lisbon, Portugal
- Ana Marli Sartori, Sao Paulo, Brazil
- Garyfallia Syridou, Marousi, Athens, Greece
- Santosh Thapa, Fort Worth, United States
- Paul Otieno Yonga, Nairobi, Kenya
- Rafaqat Ahmad Zahi, Kuala Lumpur, Malaysia

Top 10 ESCMID Collaborative Centres

<table>
<thead>
<tr>
<th>Visiting Name</th>
<th>Host Department</th>
<th>Institute</th>
<th>City, Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Marc J. Struelens</td>
<td>European Centre for Disease Prevention and Control</td>
<td>ECDC</td>
<td>Stockholm, Sweden</td>
</tr>
<tr>
<td>9 Andrej Trampuz</td>
<td>Center for Musculoskeletal Surgery</td>
<td>Charité – University Medicine</td>
<td>Berlin, Germany</td>
</tr>
<tr>
<td>8 Prof De Marc Mendelson</td>
<td>Division of Infectious Diseases &amp; HIV/Medicine</td>
<td>Groote Schuur Hospital, University of Cape Town</td>
<td>Cape Town, South Africa</td>
</tr>
<tr>
<td>7 Jacques P. Mein</td>
<td>Clinical Microbiology &amp; Infectious Diseases</td>
<td>University of Cape Town</td>
<td>Cape Town, South Africa</td>
</tr>
<tr>
<td>6 Dr Elie Destrade</td>
<td>Service of Infectious Diseases, Department of Medicine</td>
<td>Lausanne University Hospital</td>
<td>Lausanne, Switzerland</td>
</tr>
<tr>
<td>5 William Hope</td>
<td>Molecular and Clinical Pharmacology</td>
<td>University of Liverpool</td>
<td>Liverpool, United Kingdom</td>
</tr>
<tr>
<td>4 Sofia Brouet</td>
<td>Clinical Microbiology and Infectious Diseases</td>
<td>Hospital General Universitario</td>
<td>Gregorio Maranon</td>
</tr>
<tr>
<td>3 Jesús Rodríguez-Baeza</td>
<td>Infectious Diseases</td>
<td>Hospital Universitario Virgen Macarena</td>
<td>Seville, Spain</td>
</tr>
<tr>
<td>3 Bridget Atkinson</td>
<td>Bone Infection Unit</td>
<td>Nuffield Orthopaedic Centre, Oxford University Hospitals NHS Trust</td>
<td>Headington, United Kingdom</td>
</tr>
<tr>
<td>3 Anuradha Chowdhury</td>
<td>Medical Mycology</td>
<td>Vallabhbhai Patel Chest Institute, University of Delhi</td>
<td>Delhi, India</td>
</tr>
</tbody>
</table>

Figure 3. Gender of observers in 2015

<table>
<thead>
<tr>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>56%</td>
<td>44%</td>
</tr>
</tbody>
</table>

Figure 4. Age distribution of observers in 2015

<table>
<thead>
<tr>
<th>20 – 29 years</th>
<th>30 – 39 years</th>
<th>40 – 49 years</th>
<th>&gt; 50 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>28%</td>
<td>44%</td>
<td>22%</td>
<td>5%</td>
</tr>
</tbody>
</table>

Figure 5. Length of observership in 2015

<table>
<thead>
<tr>
<th>4 – 7 days</th>
<th>10 – 15 days</th>
<th>16 – 31 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>56%</td>
<td>28%</td>
<td>18%</td>
</tr>
</tbody>
</table>
The mentorship programme was launched in 2014. Currently, 25 ESCMID Mentorship Centres (EMCs) are registered with ESCMID throughout the world. There are eleven ongoing mentorships and two that are just being completed. Progress reports from the mentees have so far been very positive.

Getting career advice and acquiring specific expertise from a well-established specialist are two of the main motivations for doing a mentorship. Any ESCMID member who is still at an early career stage has the opportunity to be mentored for a maximum of two years by a senior expert at one of the EMCs. A typical example is a mentor being mentored through her research project from the current phase of approval by the ethics committee through the planned activities of case inclusion, statistical analyses and publication.

Up to EUR 3,000 will be reimbursed against original receipts for costs incurred over the maximum two-year period, including telephone bills, telephone conference invoices and travel costs (train, air ticket).

Increasing the selection of ESCMID Mentorship Centres is important to us. If your centre has experience in mentorship or is a centre of excellence in a specific area of infectious diseases, clinical microbiology or infection control, please apply to be recognized as an ESCMID Mentorship Centre and contribute to the research and career development of up-and-coming scientists. Applications are easily submitted online at www.escmid.org/mentorship. A maximum of three mentees will be approved per mentor since the commitment requires a certain amount of time from the mentor.

Mentorships are open to ESCMID members only (full membership and young scientist membership) and a member may only apply for one mentorship. Applications must be submitted online at least three months before the intended mentorship starts. There are no age or country restrictions. Every application is subject to review and approval by ESCMID and this process is undertaken by email, phone or in person at an EMC. Take advantage of this new program to discover your strengths and fulfill your potential. Apply now.

The Parity Commission’s (PC) primary aim is to promote fairness in the working environment of all clinical microbiology and infectious disease professionals. It undertakes its own research and examines the research of others to find out what and where the problems are, raises awareness of the issues, develops strategies both to address them and encourage change, diversity and mentornotry. Closer to home, the Parity Commission exerts its influence to increase diversity at ESCMID events and activities, including educational courses and workshops, the Summer School and ECCMID itself. Its involvement leads to insights, which in turn can be translated into guidelines for best practice to obtain a balanced professional population.

We wish to thank Dan Otelea, whose term expired at the end of 2016, and warmly welcome Alexandra Mailles from the French Public Health Agency in Saint-Maurice, France, to work with us in the Commission. The open call for a new member yielded many excellently-qualified applicants and we appreciate the willingness of members to take an active role in our work.

Based on quantitative and qualitative surveys commissioned by the PC, CM published an open-access article entitled “Inequality dynamics among CM & ID specialists” in September 2016. This study explores the social, cultural, psychological, and organizational factors associated with inequality in the workplace among clinical microbiologists (CM) and infectious disease (ID) specialists at similarly representative hospitals in five European regions. The study shows that discrimination occurs at all the institutions in all the countries, though it is generally not explicit and uses disrespectful micro-behaviours that are hard to respond to when they occur. Inequality, for example, affects loans, distribution of research funds as well as gender and country representation of boards and conference faculty. Parenthood has a major impact on women’s careers as women are still mainly responsible for family care. Responses to discrimination range from reactive to surrender strategies. The PC presents an effective model for diagnosing discriminatory behaviours in a medical professional setting. The identification of inequality drivers may help national ID/CM societies to further reduce discrimination.

A particularly exciting initiative following on from the above work (but also based on extensive research from other sources) is the development of a web-based self-evaluation tool for promoting equality in the CM/ID sector. Aimed at leaders, HR staff and enlightened CM/ID professionals, the project is intended to lay the groundwork to take action for equality within hospitals/departments through 1) raising awareness, 2) tools for assessments, and 3) tools for designing and negotiating measures. In addition to awareness, attitudes and dynamics, the tool will provide perceptions of work/life balance and horizontal/vertical segregation. The review process is underway and first interviews were conducted in January with selected institutions. We plan to have a beta-version after ECCMID 2017.

In 2016 the PC launched a blog to look at disparity due to gender or provenance. It offers the opportunity to delve deeper into specific aspects of the imbalance whose existence has been proven. The important themes tackled so far include the gulf between privilege and merit, why it exists and how other areas of society manage to reduce it, attitudes towards foreigners, even in temporary posts, unconscious bias, including hiring and promotion choices, developing tools to increase diversity and documenting the cost of non-diverse systems. Perhaps the most crucial topic, particularly for gender balance, is the issue of career interruptions by women having children. It is quite possible that much of the bias against promoting women in their scientific careers stems from this conundrum. Feel free to contribute your own experience of good practice for gender and geographic balance and being denied access to the professional assets essential to make progress in your career by commenting on the blog at http://profession-issues.escmid.org.

For further information about Parity Commission activities such as publications, projects or simply to contact us, please visit the ESCMID website (www.escmid.org/parity).
Trainee Association of ESCMID (TAE)

The Trainee Association of ESCMID (TAE) aims both to improve the training in clinical microbiology (CM) and infectious diseases (ID) and to create a large network of young professionals to facilitate and promote international collaboration and effective use of resources. TAE reaches out to address the concerns of trainees and the challenges they are facing.

This past year TAE representatives have attended meetings of both UEMS-MM and UEMS-ID sections as well as the ESCMID Educational Subcommittee to represent the interests of trainees. One representative joined the Education Work Group within EUCIC, which is developing a European educational programme. Furthermore, we co-organized a Postgraduate Education Course about "Challenges in the management of viral hepatitis."

During ECCMID 2016 TAE organized the Trainees Day with over 80 participants. Two round tables sessions were held with recognized experts in CM and ID as discussion leaders. The TAE awards in Training Achievements were presented and Young Investigator Awardees gave presentations on their research achievements. At ECCMID 2017 the TAE Trainees Day is again taking place with this format. TAE was also co-organizer of the ECCMID symposium "Affordable healthcare" and the educational workshop "Undersgraduate and postgraduate training and assessments in the infection field".

In 2016 TAE published the results of a large survey among European trainees in CM and ID on training systems and training adequacy. This survey showed extremely diverse training conditions in various countries, identified perceived gaps in training and areas for improvement. This year we published a second paper containing survey results on the work-life balance of trainees, including working conditions, burnout, parenthood and quality of life. Currently, we are launching a new survey that will elaborate on the trainee’s experiences of supervision, mentorship and management. We gratefully thank all our colleagues for their continual feedback and together we can improve our training and participation in international activities.

The Trainee Association of ESCMID (TAE) welcomes suggestions and contributions. Feel free to contact us at any time: davidsyong@gmail.com

European Committee on Infection Control (EUCIC)

Infection Prevention & Control: an ESCMID priority!
www.escmid.org/eucic

Evelina Toccanelli, EUCIC Chair
evelina.toccanelli@escmid.org

Nico T. Mutters, EUCIC Scientific Coordinator
eucic@escmid.org

We are pleased to announce that the European Committee on Infection Control (EUCIC) in collaboration with ESGN and ESGAP has made substantial progress over the past year. EUCIC has further expanded its reach, creating a strong network in Europe currently covering more than 80% of all European countries (see map). Its stakeholder board includes EUCIC, WHO, EUNETIPS, HIS, IFIC and EU-PHA. For a complete list of all members and committees please see http://escmid.org/eucic.

EUCIC is the second standing committee initiated by ESCMID to contribute to global efforts to standardize and harmonize infection prevention and control measures (IPCM) across Europe. To achieve its goals, EUCIC is developing new educational and training tools and promoting research projects.

EUCIC activities in 2016

• The EUCIC Educational Working Group completed the organization of the EUCIC Certificate in Infection Control, which aims to train individuals in current infection prevention and control practices and provide them with a meta-competence, comprising the areas of CM, ID and IC and a European perspective. EUCIC excellence centres and training centres are under selection. Information on the education programme and modalities of certification will be provided during ECCMID and available at the ESCMID booth.
• The first EUCIC course took place from 29 May to 1 June 2016: “Let’s Get Practical!” held at the University Medical Center Groningen. The participants rated it very highly.
• EUCIC, ESGAP and EUCASIT investigated in which countries selective reporting of antibiotic susceptibility testing results has already been implemented on a large scale (regional and national) and how it has been organized. The survey was recently published in the International Journal of Antimicrobial Agents.
• The “STOP-Negative” project team began its work to perform a gap analysis on the major limitations of implementing infection control measures against multidrug-resistant Gram-negative pathogens. The project currently involves the EUCIC national committees. National societies working in the field of infection control have been asked to contribute with their evaluation of major local limitations.
• EUCIC together with the Imperial College London launched the PERCEPT-R project on the perception of antimicrobial resistance in Europe. In this study we aim to investigate the perceptions of European infection control specialists regarding AMR and the role cultural, contextual and behavioural aspects play in its prevention.
• EUCIC and ESGAP organized a number of activities to promote prudent use of antibiotics in Europe and support the EUCIC European Antimicrobial Awareness Day initiative. EUCIC/ESGAP activities included events at healthcare institutions and public campaigns on antimicrobial resistance, surveillance and antibiotic stewardship programmes in different European countries.
• EUCIC members were also actively involved in providing proposals for this year’s ECCMID. Infection control educational workshops and symposia have been highlighted in the ECCMID programme.

We are aware that there is plenty to do and we look forward to making further progress against infection in 2017 with all our partners. Suggestions and contributions are very welcome!

Feel free to contact us at any time: eucic@escmid.org
EUCAST provides breakpoints and antimicrobial susceptibility testing methods. ESCMID is the administrative, financial and scientific framework for EUCAST. ESCMID (www.escmid.org), the ESCMID Föderverein (www.escmid-fv.org) and the European Centre for Disease Prevention and Control (ECDC, www.ecdc.europa.eu) supported EUCAST financially in 2016. ESCMID supports the development of the EUCAST disk diffusion method.

EUCAST Steering Committee

The Steering Committee met five times during 2016 and dealt with many aspects of breakpoints and antimicrobial susceptibility testing. "Visiting" General Committee members, European Medicines Agency (EMA) representatives and/or ECDC representatives attended most meetings. Three groups from pharmaceutical companies presented data on new agents. In 2016 Chairman Rafael Cantón was replaced by a new incoming chairman, Christian Giske and Cantón became the new clinical data co-ordinator. Moreover, the long-serving scientific secretary Derek Brown, present since the inception of EUCAST, was replaced by John Turnidge. Gunnar Förderverein (UK), Gerard Lina (France), Sören Gutermann (Germany), Christoffer Lindemann (Norway), and Johan Mouton (Netherlands).

EUCAST General Committee

The annual open meeting for national representatives on the General Committee was held during ECCMID and the preceding year’s activity and future plans were reviewed. The General Committee representatives who left the Steering Committee, Jan Verhaegen (Belgium) and Iztok Strumbelj (Slovenia), were replaced by Arjana Kahlmeter was appointed technical data co-ordinator. Other regular members were Alasdair MacGowan (UK), Gerald Lina (France), Sören Gutermann (Germany), Christoffer Lindemann (Norway), and Johan Mouton (Netherlands).

EUCAST Network Laboratories

EUCAST has two loosely constructed networks of microbiology laboratories with particular expertise and training in EUCAST antimicrobial susceptibility testing for bacteria and fungi respectively. EUCAST Network Laboratories, listed on the EUCAST website, are committed to help develop, validate and troubleshoot EUCAST methods and/or to help train and educate other laboratories in EUCAST methods. These laboratories also play an important role in the development of improved methods and/or assist clinical breakpoint development by providing MIC datasets.

EUCAST breakpoints

Version 7.0 of the MIC and zone diameter breakpoint tables for bacteria and fungi tables were published on the EUCAST website in January 2017. Breakpoints for new agents are set by EUCAST as part of the marketing authorization process by the EMA. In the past year breakpoints have been set for cetotaxame-tazobactam and those for several other agents are in progress.

Breakpoints were published for some less commonly isolated organisms, Aerococcus spp. and Kingella kingae, and work on Aeromonas spp. and Plesiomonas spp. is ongoing. Among older agents, nitrooxide breakpoints have been set for Enterobacteriaceae and temocillin breakpoints are currently under discussion.

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EUCAST breakpoint development and validation

EUCAST breakpoints and susceptibility testing methods are being reviewed in collaboration with CLSI. Fluoroquinolone breakpoints were revised during 2016, and revision is ongoing for carbapenems, amnoglycosides and tigecycline.

EUCAST disk diffusion method

Studies are underway at the EUCAST Development Laboratory (Växjö, Sweden) in collaboration with EUCAST Network Laboratories to develop EUCAST susceptibility testing methods. Ongoing projects include disk diffusion methods and zone diameter breakpoints for new agents and for organisms currently without recommendations. In addition, work on problem areas, such as fosfomycin susceptibility tests, is in progress. QC ranges are being established for new agents and organisms and older QC ranges may be revised if required.

EUCAST website

Website documents are continuously updated. All significant changes are highlighted in the News section on the homepage and a list of all changes is available via the Website changes link below the contents list. Documents updated this year include breakpoint tables, QC tables, SOPs, files listing calibration and validation of disk diffusion testing vs. MIC, reading guides and method descriptions, frequently asked questions, compliance of manufacturers and validation documents for MIC and inhibition zone diameter correlations.

EUCAST consultations

Proposed changes to intrinsic resistance tables were accepted following public consultation, and a process is ongoing for changes to expert rules. Review of the EUCAST guidelines on detection of resistance mechanisms has been completed and a new version sent for public consultation in February 2017. A summary of consultations can be found on the website (http://www.eucast.org/documents/consultations/).

EUCAST documents

Many of the EUCAST documents on the website have been updated in the past year and this is an ongoing process. Rational documents giving background data and the rationale for EUCAST breakpoints continue to be developed. All EUCAST documents are freely available from the EUCAST website.

Figure 1. Visits for EUCAST.org 2014–2016

Antifungal Susceptibility Testing Subcommittee (AFST)

The AFST continued with their work on breakpoints and methods for antifungal agents. The AFST General Subcommittee met once, during ECCMID 2016 in Amsterdam. The AFST Steering Committee met twice for 1.5-day meetings and once during ECCMID. The structure of the AFST Steering Committee is described in detail in the EUCAST SOP 4.1 which can be found on the EUCAST website. Current members are Maiken Cavling Arendrup (Chair), Jesús Guinea (Scientific Secretary), Joseph Meletiadis (Data Coordinator), Johan Mouton (EUCAST Steering Committee Representative), Petr Hamal (EUCAST AFST Representative from the Czech Republic (2016–2018)) and Katrien Lagrou (EUCAST AFST Representative from Belgium (2015–2017)).

An important task over the last year was to improve susceptibility testing for Aspergillus and make it more suitable to use in the routine lab, given the fact that azole resistant strains continue to be reported in the environment and clinical samples across the globe and that the reference dilution method is technically demanding. The EUCAST AFST worked on evaluating azole screening in a blind multicentre study and selecting appropriate QC strains for quality control of such plates. The results are promising and will be published during 2017. Moreover, spectrophotometer reading of Aspergillus microdilution trays has been evaluated and also appears promising provided a 95% growth inhibition endpoint is adopted (Meletiadis J, Leth Mortensen K, Verweij P, Mouton JW, Arendrup MC. CM 2017; 23(2): 98-103. doi: 10.1016/j.cmi.2016.10.017). Furthermore, visual, spectrophotometric, colorimetric and agar dilution assays are under evaluation for echinocandins susceptibility testing of Aspergillus species.

EUCAST Steering Committee April 2016

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As part of the regular review of EUCAST documents, the posaconazole rationale documents for Candida and Aspergillus have been reviewed. In addition, a document for routine and extended inter- nal quality control for antifungal susceptibility, as recommended by EUCAST, has been published.

An important event in 2015 was the formation of the “EUCAST Network Laboratories” as two separate loosely constructed networks of microbiology laboratories and this was further expanded in 2016. These labs have particular expertise and training in EUCAST Antimicrobial Susceptibility Testing (AST) for bacteria and EUCAST Antifungal Susceptibility Testing (AFST) methods, respectively. EUCAST Network Laboratories are committed to help develop, validate and troubleshoot EUCAST AST/AFST methods and/or to help train and educate other laboratories in EUCAST methods. These laboratories will also play an important role in the development of improved methods and/or assist clinical breakpoint development by providing species-specific MIC datasets. For more information and for laboratories interested in participating, please visit The EUCAST AST Network Laboratories on the eucast.org website. Currently 11 mycology laboratories have been adopted by the network and more are warmly welcomed.

Veterinary subcommittee on antimicrobial susceptibility testing (VetCAST)
The subcommittee, chaired by Dik Mevius, was established at ECCMID in 2015 and is a standing committee to deal with all aspects of breakpoint setting and antimicrobial susceptibility testing related to veterinary use of antimicrobial agents. VetCAST received funding in October from the call for transnational networks/work- ing groups within the Joint Programming Initiative on Antimicrobial Resistance (4th joint call, JPAMR).

Subcommittee on antimicrobial susceptibility testing by whole genome sequencing (WGS)
This subcommittee, chaired by Neil Woodford, was established following ECCMID in 2015. A document was completed during 2016 covering the role of WGS in antimicrobial susceptibility testing of bacteria, the sensitivity and specificity of WGS compared with standard phenotypic methods, how WGS may be applied in clinical microbiology laboratories, the implications for phenotypic and other genotypic methods in current use, the presentation and clinical implications of WGS, the epidemiological implications of using WGS and the drivers and barriers to routine use of WGS. The document was published in Clinical Microbiology and Infection in January 2017 (Ellington MJ, Ekelund U, Aarestrup FM, et al. The role of whole genome sequencing in antimicrobial susceptibility testing of bacteria: report from the EUCAST Subcommittee. CMI 2017;23(1):2-22.)

Subcommittee on anti-mycobacterial agents
Chaired by Emmanuelle Cambau, this subcommittee was established during 2016 with the objectives to develop reference susceptibility testing method guidelines, to interact with the EUCAST Steering Committee in the setting of breakpoints for antimycobacterial agents and to define the relevance of molecular testing. The work so far has resulted in a publication in Clinical Microbiology and Infection on state-of-the-art susceptibility testing of M. tuberculosis (Schön T, Miotto P, Köser CU, et al. Mycobacterium tuberculosis drug-resistance testing: challenges, recent developments and perspectives. CMI 2017;23(3):154-160).

Subcommittee on wild type MIC distributions and epidemiologi- cal cut-off values (ECOFFs)
The subcommittee, chaired by Gunnar Kahlmeter, was established early in 2016 with the remit to define the following aspects of ECOFFs: standards for MIC distributions required for their calculation, the methods used to set them and the conditions for their revision. The subcommittee has almost finalized a proposal for how to accept MIC distributions (http://www.eucast.org/mic_distributions_and_ecoffs/) and how to define ECOFFs, including tentatively. Wide consultation on the SOP is now underway.

4th Conference on Vaccines
New and old diseases in children and adults – unmet needs
Dubrovnik, Croatia
8 – 10 September 2017

Organizing Committee
Ron Dagan, Conference Chair, Beer Sheva, Israel
Robb Butler, WHO, Copenhagen, Denmark
Susanna Esposito, ESCMID Vaccine Group Chair & WAdid President, Perugia, Italy
Lucia Pastore-Celentano, ECDC, Stockholm, Sweden
Mario Poljak, ESCMID President, Ljubljana, Slovenia

Contact: dubrovnik2017@escmid.org
Find more information and registration information on our website www.escmid.org/dubrovnik2017

Including:
- Equity in immunization – principles and policy considerations
- Vaccine-preventable diseases – exposing the gaps
- Vaccines for new global threats
- Old foe – new solution? Is a new tuberculosis vaccine still a dream?
- Progress in RSV vaccines
- Have we learnt to communicate better?
- New approaches for implementation of vaccines
- New vaccines for old diseases
- Innovative approaches for vaccines against old diseases
ESCMID Educational Activities

"We believe that appropriate education of young members is essential to improve the quality of patient care."

Evelina Tacconelli
ESCMID Education Officer
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Reflecting the trend in other ESCMID sectors, the education programme is expanding both numerically and geographically as well as breaking new ground. From 27 proposals [21 last year] from ESCMID Study Groups, ESCMID offered 18 (16 last year) highly attractive educational events covering different topics in CM, ID and Infection Control (IC). For the first time they were evenly distributed between post-graduate courses and technical workshops, all of which were highly rated by participants. Another first was the technical workshop ESCMID hosted in South Africa, namely on the diagnosis and management of drug-resistant tuberculosis [held in Cape Town from 18 – 19 January 2016]. It was very successful and ESCMID will reinforce its engagement on other continents even more in the future! Another technical workshop in Al Ain, United Arab Emirates on parasitic infections in the Arabian Peninsula was the first in that region, too. The Netherlands hosted the most events with two courses and two workshops while Germany, France and Croatia hosted two courses each. All the others were held in cities across Europe including Thessaloniki, Gothenburg, Lyngby, Bertinoro, Leuven and Seville.

The newly formed study groups for veterinary microbiology (ESGVIM) and forensic and post-mortem microbiology (ESGFMR) have already made their debut contribution to the education programme by organizing courses. The courses on antimicrobial stewardship in veterinary medicine and the application of molecular diagnostics in forensic microbiology were organized with great success in Gothenburg and Leuven, respectively.

The number of participants varied depending on the type and format of the course. Most of the educational courses attracted between 30 and 40 participants, whereas the attendance numbers for technical workshops were a little smaller in order to guarantee close interaction during practical sessions.

15th ESCMID Summer School – another record-breaking highlight!

The 15th Summer School took place in Seville, Spain, from 2 – 9 July 2016. Once again, the event covered a broad range of topics in CM, ID and IC and attracted a record-breaking number of 78 participants from 29 countries all over the world! As usual the Summer School programme included lectures by international experts on a diverse, highly interesting topics in infectious diseases and clinical microbiology, workshops and student presentations, all in a friendly atmosphere. The participants not only had the opportunity to attend the state-of-the-art lectures by experts in these fields and network with renowned specialists, but also enjoyed the sightseeing activities in the beautiful city of Seville.

ESCMID supports its young scientist members

We believe that appropriate education of young members is essential to improve quality of patient care and reduce medical errors. All ESCMID educational events implement a translational and multifaceted approach to education. This year ESCMID once again provided numerous grants for younger colleagues to attend courses and workshops. We are aware that they often experience economic difficulties and for this reason ESCMID is glad to support funding for educational events. The education programme provides excellent opportunities for young members to extend their training and interact with international experts. While attending courses and workshops in person brings the most benefit, all members have access to the ESCMID eLibrary, which includes presentations of all our educational activities and is available to ESCMID members at www.escmid.org/elibrary.

Outlook for 2017

Once again the education programme looks very exciting. See the calendar section on the society’s website for full details on the 2017 education programme ([www.escmid.org/calendar]). We are working on a range of projects in 2017 to provide even more value to our members. First, we have already launched our new event platform at https://escmid.pulselinks.com. The portal displays all our educational activities in an attractive and user friendly way. A further benefit is that the local course organizers and the ESCMID office can work more efficiently since all processes have been mapped out in one single system and that will improve the quality of services provided to our members. We are also working in collaboration with experts and study group members on a new plan for e-learning. The recently established steering committee intends to launch pilot projects in the coming months.

I am very pleased to announce that the next Summer School will be held in Borstel, Germany, from 1 – 8 July 2017. Registration is open and details can be found online at www.escmid.org/education.

Starting this year, we shall also present an annual, multi-modal education programme focused on infection control. Details are provided on the EUCIC page www.escmid.org/eucic. We have already contacted all the study groups and affiliated societies to ask for their ideas for the 2018 programme to be submitted by the end of May 2017 so we can meet our mid-July deadline for the full programme. Individual members are welcome to contact us with their own ideas for future courses and workshops and, of course, we highly recommend taking part in this year’s programme.

I would like to end by thanking all members of the Education Subcommittee for their work and help in building the ESCMID Education Programme.

ESCMID WHO Observership in 2017

Visit the WHO Regional Office for Europe and discover their programmes!

A group of 10 observers (ESCMID members) are offered a three-day programme at the WHO Regional Office for Europe, Division of Health Emergencies and Communicable Diseases (DEC) in Copenhagen, Denmark.

Applications for a three-day visit from 24 – 26 October 2017 will be accepted from 15 May 2017.

More information will be available on the ESCMID website in due course.

www.escmid.org/WHO_Observer

www.euro.who.int
ESCMID Courses and Workshops

Population Modelling and Dose Optimization with Pmetrics and BestDose: Antimicrobial Applications
ESCMID Postgraduate Technical Workshop
13 – 15 April 2016, Lyon, France
Organized by the ESCMID PK/PD of Anti-infectives Study Group (EPASG), University Claude Bernard, Lyon, France, University of Seville, Seville, Spain, University of Liverpool, Liverpool, United Kingdom, Laboratory of Applied Pharmacokinetics and Bioinformatics (LAPKBI), Los Angeles, CA, United States, University of Southern California (USC), Los Angeles, CA, United States, Children’s Hospital, Los Angeles, CA, United States, University of Queensland, Brisbane, Australia

Infection Prevention and Control: Let’s Get Practical!
ESCMID Postgraduate Technical Workshop
29 May – 1 June 2016, Groningen, Netherlands
Organized by the European Committee on Infection Control (EUCIC), ESCMID Study Group for Epidemiological Markers (ESGEM), ESCMID Study Group for Molecular Diagnostics (ESGMD), University Medical Center Groningen (UMCG)

Application of Molecular Diagnostics in Forensic Microbiology
ESCMID Postgraduate Technical Workshop
2 – 3 June 2016, Leuven, Belgium
Organized by the ESCMID Study Group for Forensic and Post-mortem Microbiology (ESGFO), ESCMID Study Group for Molecular Diagnostics (ESGMD)

Individualized Medicine in Infectious Diseases: a Practical Approach
ESCMID Postgraduate Education Course
3 – 4 June 2016, Tubingen, Germany
Organized by the ESCMID Parity Commission, ESCMID PK/PD of Anti-infectives Study Group (EPASG), ESCMID Study Group for Antibiotic Policies (ESGAP)

Virology and Resistance in Staphylococcus aureus: 2016 State of the Art
ESCMID Postgraduate Education Course
28 June – 1 July 2016, Lyon, France
Organized by the ESCMID Study Group for Staphylococci and Staphylococcal Diseases (ESGS), European Committee on Antimicrobial Susceptibility Testing (EUCAST), ESCMID Study Group for Antimicrobial Resistance Surveillance (ESGARS), ESCMID Study Group for Bloodstream Infections and Sepsis (ESGBIS), ESCMID Study Group for Epidemiological Markers (ESGEM), ESCMID PK/PD of Anti-infectives Study Group (EPASG)

Medical Biofilm Techniques 2016
ESCMID Postgraduate Technical Workshop
22 – 25 August 2016, Lyngby, Denmark
Organized by the ESCMID Study Group for Biofilms (ESGB)

Antimicrobial Stewardship in Veterinary Medicine
ESCMID Postgraduate Education Course
11 – 12 September 2016, Gothenburg, Sweden
Organized by the ESCMID Study Group for Veterinary Microbiology (ESGVM), ESCMID Study Group for Antimicrobial Policies (ESGAP), University of Copenhagen, Ross University School of Veterinary Medicine, Faculty of Veterinary Medicine, University of Lisbon, University of Gothenburg, ULCare – University of Copenhagen Center for Control of Antibiotic Resistance, CAFÉ – Centre for Anti-biotic Resistance Research at University of Gothenburg

Antimicrobial Susceptibility Testing and Surveillance: from Laboratory to Clinic. A EUCAST, ESGARS and EPASG Perspective
ESCMID Postgraduate Technical Workshop
20 – 23 September 2016, Bochum, Germany
Organized by the ESCMID Parity Commission, ESCMID PK/PD of Anti-infectives Study Group (EPASG), ESCMID Study Group for Antibiotic Policies (ESGAP)

Infectious Diseases in Pregnant Women, Fetuses and Newborns
ESCMID Postgraduate Education Course
25 – 29 September 2016, Bertiinoro, Italy
Organized by the ESCMID Study Group for Clinical Parasitology (ESGCP), University of Brescia, University of Bologna, University of Pavia, Società Italiana di Malattie Infettive e Tropicali (SIMIT), Associazione Microbiologi Clinici Italiani (AMCLI), Società Italiana di Neonatologia (SIN)

Anaerobic Bacteria: Next Generation Technology Meets Anaerobic Diagnostics
ESCMID Postgraduate Technical Workshop
26 – 29 September 2016, Groningen, Netherlands
Organized by the ESCMID Study Group for Anaerobic Infections (ESGAN), ESCMID Study Group for Epidemiological Markers (ESGEM), University Medical Center Groningen (UMCG), University of Szeged

Difficult-to-Treat Mycobacterial Infections
ESCMID Postgraduate Education Course
28 – 30 September 2016, Brac, Croatia
Organized by the ESCMID Study Group on Mycobacterial Infections (ESGMC), Croatian Society on Clinical Microbiology of the Croatian Medical Association

Challenges in the Management of Viral Hepatitis
ESCMID Postgraduate Education Course
14 – 15 October 2016, Cavit, Croatia
Organized by the ESCMID Study Group for Viral Hepatitis (ESGVH), Trainee Association of ESCMID (TAE), Croatian Society for Infectious Diseases (HDIB), French Society for Infectious Diseases (SPFLF), Infectious Diseases and Clinical Microbiology Specialty Society of Turkey (ESKMB), University of Zagreb, School of Medicine, WHO Country Office in Croatia

Better Methods for Clinical Studies in Infectious Diseases and Clinical Microbiology: a Hands-on Workshop
ESCMID Postgraduate Technical Workshop
26 – 28 October 2016, Seville, Spain
Organized by the ESCMID Study Group for Infections in the Elderly (ESGIE), ESCMID Study Group for Bloodstream Infections and Sepsis (ESGBIS)

Capacity-building Workshop: Applications of MALDI-TOF Mass-Spectrometry in Clinical Microbiology
ESCMID Postgraduate Education Course
13 – 15 March 2017, Basel, Switzerland
Organized by the ESCMID Study Group for Epidemiological Markers (ESGEM), ESCMID Study Group for Molecular Diagnostics (ESGMD), Clinical Microbiology, University Hospital Basel, Basel, Switzerland

Hospital-Acquired Infections: Understanding the Magnitude and Needed Interventions
ESCMID Postgraduate Education Course
24 – 25 March 2017, Muscat, Oman
Organized by the ESCMID Study Group for Infections in Critically Ill Patients (ESGCIIP), ESCMID Study Group for Nosocomial Infections (ESGNI), European Committee on Infection Control (EUCIC), CDIERES, Vall d’Hebron Institute of Research, Barcelona, Spain, ECC Center for Infection Control, Ministry of National Guard Health Affairs, Riyadh, Saudi Arabia, The Royal Hospital, Muscat, Oman

Improving the Diagnosis of Bloodstream Infections – Advancing Technology and Quality for Better Care
ESCMID Postgraduate Education Course
28 – 31 March 2017, Nice, France
Organized by the ESCMID Study Group for Bloodstream Infections and Sepsis (ESGBIS), ESCMID Fungal Infection Study Group (ESGFM), ESCMID Study Group for Biofilms (ESGBIS), ESCMID Study Group for Molecular Diagnostics (ESGEM), ESCMID Study Group for Staphylococci and Staphylococcal Diseases (ESGMC), University of Nice-Sofia Antipolis/Université Côte d’Azur

PREPARING for (Re)Emerging Arbovirus Infections in Europe
ESCMID Postgraduate Education Course
29 – 31 March 2017, Zagreb, Croatia
Organized by the University of Oxford, Erasmus MC, University Medical Center Rotterdam, University of Antwerp, Royal Brompton and Harefield NHS Trust, ESCMID Study Group for Infections in Travellers and Migrants (ESGITM)
ESCMID’s 15th Summer School was held in Seville from 2 – 9 July 2016. The event venue was Hotel Alcora, located on the periphery of Seville – a comfortable hotel with a beautiful view of the city. As many as 78 participants from 29 countries attended this event – the highest number the Summer School has ever reached! ESCMID financed 20 delegates with an attendance grant. In addition, SAIF (Andalusian Society of Infectious Diseases) and SEIMC (Spanish Society of Infectious Diseases and Clinical Microbiology) also generously contributed with additional grants. The Summer School targets young MDs at the end of their specialty training as well as biologists, pharmacists, PhD students and postdoctoral fellows working in the infection field.

Jesús Rodríguez Baño (Seville), Álvaro Pascual (Seville) and Maurizio Sanguinetti (Rome) co-directed this Summer School with the help of Zaira Palacios (Scientific Secretary) and Thomas Greif (ESCMID Education Manager). The scientific programme was really comprehensive, including many diverse topics in infectious diseases and clinical microbiology which were reviewed by international experts in interactive lectures. There were also small group tutorials on how to interpret an antibiogram, antimicrobial stewardship, fungal infections and interpretation of HIV, HCV and HBV resistance tests. The educational activities were oriented towards clinical practice whenever appropriate. Overall 35 national and international experts were invited as faculty members to interact with the students during the event. All students had the opportunity to present a clinical case or research in which they were involved. These presentations offered the opportunity to discuss additional aspects and provided the students with a pleasant experience which helped them to improve their presentation skills by receiving feedback from the experts in the field. We were really happy with the high level of presentations and the quality of comments made by the students.

Of course we also found some time for sightseeing in beautiful Seville – we visited the Reales Alcázares and enjoyed a leisurely boat trip along the Guadalquivir river, which was definitely helpful in facilitating networking between students and faculty and creating a friendly atmosphere, which is one of the key features of the ESCMID Summer Schools.

This year the 16th ESCMID Summer School will take place in Borstel, Germany, from 1 – 8 July 2017. The programme is extremely interesting, covering the most challenging and hot topics in our fields. So please do not hesitate to apply for the next Summer School or send your junior colleagues – it will be an exciting experience to learn, network and be actively involved in one of ESCMID’s liveliest educational events!
ESCMID/ASM conference reviews strategies to fight AMR

ESCMID together with the American Society for Microbiology (ASM) held a joint conference in Vienna from 21 – 23 September 2016. The objective of the conference was to help researchers accelerate the development of new antimicrobials and shed light on the challenges associated with antimicrobial resistance.

Several key presentations at the conference highlighted important issues in the field of antimicrobials: the optimization of drug development, strategies to overcome regulatory hurdles, public-private partnerships, innovative trial design, approaches to decrease resistance in new molecules or better access to safe and effective treatment for special populations, including children and pregnant women.

**Regulation of innovative approaches to tackle resistance**

Widespread drug resistance to antibiotics was the central theme of the conference. John H. Rex stressed that all future clinical trials need to be designed with antimicrobial resistance in mind. Wild-type bacteria – which are susceptible to most antibiotics – have become rare, while those which have developed usual drug resistance (UDR) are more common, Rex explained.

He warned that one of the most frightening prospects is that UDR bacteria have the potential to evolve into multidrug-resistant (MDR) bacteria or microorganisms with extensive multidrug resistance. Driving an organism back into the less dangerous UDR category requires new antimicrobials, while the development of new antibiotics is more challenging in the context of widespread antimicrobial resistance. As Rex suggested, new clinical trial designs and strategies need to be devised and made to work.

Edward M. Cox, Director at the Office of Antimicrobial Products at the U.S. Food and Drug Administration, explored some of the issues that contribute to the lack of antimicrobials in development.

Despite progress with some recent approvals, tough scientific and economic hurdles remain, so that most new molecules in phase I clinical trials never make it to phase II, Cox stated. While innovation is difficult to achieve in such a mature field, we need innovative approaches to develop a new generation of antimicrobials that meet the challenge of resistance.

Cox’s European counterpart, Marco Cavaleri, Head of Anti-Infectives and Vaccines at the European Medicines Agency, outlined the recent evolution of regulatory standards for the approval of new antimicrobials in the European Union. He particularly elaborated on the specific development to tackle MDR pathogens in areas of unmet needs, new guidelines on pharmacokinetics and pharmacodynamics (PK/PD) of antibacterial agents, alternative therapies and harmonization efforts.

In his presentation, Arnold Louie from the University of Florida presented a roadmap of PK/PD principles for decreasing the development of drug resistance in antimicrobials. He suggested combating resistance for single drug regimens by hitting the bacteria hard and fast. Louie recommends using higher dosages for a shorter duration to rapidly reduce the total population and cut the use of antibiotics.

**Women and children don’t always come first**

Antimicrobial drugs behave very differently within the organ systems of a newborn compared to an adult, so clinical trial results cannot be extrapolated for this population. As John van den Anker from the University Children’s Hospital in Basel explained, it is also difficult to predict how a pregnant woman and her unborn child will react to emergency antimicrobial therapy.

Standard clinical trials fail to provide data on drug toxicity and efficacy in pregnant women and children because it is unethical to enrol them in trials.

He also highlighted the irony that infants and children are not only excluded from most clinical trials of antimicrobials, but also from accessing orphan drugs due to clauses restricting their use to adults. The International Neonatal Consortium, established in 2015, called for greater sharing of data, knowledge and expertise to advance innovation in the field of antimicrobials for the non-adult population.

John Bradley from the University of California in San Diego explored in greater detail the challenges clinicians and researchers face when treating neonates with severe infections. It is not uncommon for premature babies to weigh only 500 grams, which makes any calculation of dosage per kilogram of body weight virtually impossible. Bradley emphasized the dilemma faced by paediatric investigators and parents when making treatment decisions based on very scant published evidence.

**New positive initiatives emerging**

In his presentation, Mike Sharland from the University of London confirmed the lack of a global consensus on how to conduct clinical trials in children with severe infection, and a paucity of guidance on how to develop and test new antibiotics for use in children and neonates. He did, however, also report that promising studies are now emerging, including strategic trials to re-evaluate older antibiotics for children.

He called for new initiatives in Europe and the U.S. to recognize the need for detailed data on newly developed antibiotics and older drugs that have never been tested in this population.

Although discussions centred on the issues and challenges surrounding antimicrobials, the speakers presented strategies to overcome the hurdles and develop more innovative approaches to tackle antimicrobial resistance. The conference provided solutions to some of the issues outlined by the recent high-level United Nations meeting on AMR.
MENA Regional Conference on Public Health and Infectious Diseases, Beirut, Lebanon, 4 – 5 March 2017
The 26th edition of the European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) was held in Amsterdam, Netherlands, from 9 – 12 April 2016. Last year’s ECCMID had already suffered an unfortunate setback before we began assessing abstracts and developing the final programme. For the first time in ECCMID’s history, the organizers were forced to relocate the congress at short notice. I can assure you we did not take this decision, only that the Middle East and Asia. Unexpectedly the situation seemed to become rather unstable with political unrest in the whole region and unprecedented flows of refugees. In October 2015, we decided to relocate the congress to Amsterdam. Despite the initial turmoil, the congress continued to establish itself well beyond its original European base. It has, in fact, become the largest of its kind, bringing together clinicians, scientists, public health experts and delegates from diagnostic and drug companies and other experts in infection and microbiology from around the globe.

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The congress featured more than 200 sessions covering the entire field of infectious diseases and clinical microbiology, including 11 keynote lectures, more than 100 symposia and oral sessions, 20 educational workshops and 20 meet-the-expert sessions. It also offered attendees 26 industry-organized symposia and 157 exhibitors. In addition, ECCMID offered delegates attractive formats, including poster and ePoster sessions, a networking corner, as well as a platform for smaller biotechnology companies to present their drug pipeline.

As many as 11,640 people from 123 countries attended ECCMID in Amsterdam, with the top countries of provenance being the United Kingdom, the Netherlands, the United States, France, Germany, Spain, Italy, Belgium, Switzerland and Russia. This is testimony to the fact that the congress continues to establish itself well beyond its original European base. It has, in fact, become the largest of its kind, bringing together clinicians, scientists, public health experts and delegates from diagnostic and drug companies and other experts in infection and microbiology from around the globe.

**Attendees**

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**Scientific programme**

The ECCMID Programme Committee aimed for the scientific programme to be balanced and attractive for all attendees, with presentations on diagnostics, prevention and treatments in bacteriology, virology, mycology and parasitology as well as infection control. The congress featured more than 290 sessions covering the entire field of infectious diseases and clinical microbiology, including 11 keynote lectures, more than 100 symposia and oral sessions, 20 educational workshops and 20 meet-the-expert sessions. It also offered attendees 26 industry-organized symposia and 157 exhibitors. In addition, ECCMID offered delegates attractive formats, including poster and ePoster sessions, a networking corner, as well as a platform for smaller biotechnology companies to present their drug pipeline.

**Abstracts**

We had to reject almost a quarter of the nearly 5,000 abstracts submitted – a healthy ratio in my view that serves to maintain the top-level quality of the presentations. The congress attendees were obviously happy with the range and choice of presentations. More than 3,000 abstracts were presented, including 2,500 as printed or electronic posters.
Highlights
The highlights of last year’s congress included the keynote speech by Robert A. Bonomo from the U.S., the winner of the 2016 ESCMID Excellence Award, for his outstanding lifetime achievements in the field of antimicrobial resistance (AMR). AMR remained one of the key topics at last year’s congress with very popular sessions on antimicrobial resistance, susceptibility and stewardship in Gram-positive and Gram-negative bacteria as well as one-health strategies to fight AMR. But we also had crowd-drawing sessions on infection control and prevention, sepsis, fungal diagnostics and treatment, emerging viruses, novel diagnostic techniques and the microbiome, to name just a few. A record number of 69 late-breaking abstracts accepted for presentation – reported in three dedicated oral sessions, including the two special tracks on colistin resistance and refugee health – attracted many interested delegates.

Outlook
I want to take this opportunity to thank everybody who made ECCMID 2016 such a success. My thanks in particular go to my friends and colleagues on the programme committee, who spent considerable time and effort to develop such an attractive programme, to all the dedicated reviewers who helped assess the submitted abstracts, and to the people in the ECCMID Executive Office, whom I kept busy all the time and who solved every problem in a highly professional manner. Looking back on what we achieved in Amsterdam, I have a good feeling about what we can do in Vienna this year.
Impressions ECCMID 2016
Since mid-2014 the ESCMID International Affairs Subcommittee has been developing the Society’s international relations. Strong links have been forged on every continent, particularly in the Far East (China, Korea, Japan), Middle East, India, former USSR Euro-Asian Republics and South and Central America by contributing to (or indeed organizing) conferences, symposia and training as well as establishing ESCMID Collaborative Centres (ECC). Of the 15 new ECCs during 2016, only two are in Europe (Spain and Ireland). More work needs to be done to get a foothold in Africa and South East Asia. Cooperation throughout Europe, including the Russian Federation, is well established and needs to be extended across the North American continent.

“Since mid-2014 the International Affairs Subcommittee has continued to initiate and nurture relationships across the globe. Thanks to our continued efforts ESCMID has been able to extend its reach and presence in all continents.”

Giuseppe Cornaglia
ESCMID International Affairs Director
giuseppe.cornaglia@escmid.org

ESCMID Observerships
Update and improve your clinical and laboratory skills!

The ESCMID Observership programme is an opportunity for ESCMID members to visit an ESCMID Collaborative Centre and to learn good clinical and laboratory practice.

Apply anytime throughout the year for a visit in another country between one day and one month.

www.escmid.org/observerships

ESCMID Mentorships
Improve your career and skills and benefit from experienced professionals in the field of CM and ID.

ESCMID members can be mentored by an ESCMID mentorship centre for one or two years by a mentor from our pool of centres. Apply now!

www.escmid.org/mentorships
**Middle East & North Africa**

The MENA region is a hotbed for many well-known and emerging infectious diseases. Due to political instability and migratory flows, the region might contribute greatly to the global spread of infectious diseases. The first MENA conference ESCMID organized took place in March in Beirut, Lebanon and brought together local scientists and renowned international experts to address this important issue for global health. An ECC focusing on animal health opened in Cairo, Egypt.

Past and future events
- 1st Gulf Congress of Clinical Microbiology and Infectious Diseases, Dubai, UAE, 4 – 7 May 2016
- MENA Regional Conference on Public Health and Infectious Diseases, Beirut, Lebanon, Mar 04 – 05, 2017
- 2nd Gulf Congress of Clinical Microbiology and Infectious Diseases, Bahrain, UAE, 1 – 4 November 2017

**Russia**

The Institute of Antimicrobial Chemotherapy (IAC) within Smolensk State Medical University (SSMU) is the first ECC in Russia. There is a plan for the affiliation of tuberculosis (TB) reference laboratories in the Russian Federation to the ECC programme so as foster exchange visits of specialists. The organization of a post-graduate course in Russia on the diagnosis and management of TB drug resistance is also being planned (ESGMYC, WHO Russia, MoH and other institutes or organizations of the Russian Federation).

Former USSR Asian Republics: Giuseppe Cornaglia visited Tashkent, Uzbekistan (following up on last year’s lecture on ESCMID by Adalat Abdullajiev) where he met key local opinion leaders. He also travelled to Baku, Azerbaijan to lecture at the local medical school and meet with top CM and ID professionals.

ESCMID participated in the 16th APCCMI, the Asia Pacific Congress of Clinical Microbiology & Infection in Melbourne, Australia, with a symposium on “Resistances in the Microbial World”. The Royal Women’s Hospital in Victoria, Australia became the latest ECC in that region.

Past and future events
- CIDSCON 2016, Varanasi, India, 26 – 28 August 2016
- 2nd International Conference on Infections and their Prevention, Nanjing, China, 19 – 20 November 2016
- APSIC 2017, Bangkok, Thailand, 12 – 15 February 2017
- 41st Congress of Indian Association of Medical Microbiologists (IAMM) Microcon, Ranchi, India, 22 – 26 November 2017
- Symposium “Drug Resistance in the Microbial World” (GC, MP, PRH), 30th ICC, Taipei 24 – 27 November 2017

**South & Central America**

ESCMID participated in the Congresso Paulista de Infectologia, which took place from 24 – 27 August 2016 in Santos, Brazil. Asociación Panamericana de Infectología held a joint workshop with ESCMID in April 2016 in Panama during the API Congress. Two hospitals in the Dominican Republic and one each in Panama, Mexico, Argentina and Chile became ECCs.

Past and future events
- Congresso Paulista de Infectologia, Santos, Brazil, 24 – 27 August 2016
- ESCMID/API symposium on Hepatitis in the API Congress, Ciudad de Panama, Panama, 16 – 20 May 2017
- Brazilian Congress on Infectious Diseases, Rio de Janeiro, Brazil, September 2017
- ESCMID/API/SEIME Conference on Antimicrobial Resistance, Havana, Cuba, September 2018
- ESCMID/API/SEIME Conference on Antimicrobial Resistance, Havana, Cuba, September 2018

**Western Pacific**

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- 2nd Gulf Congress of Clinical Microbiology and Infectious Diseases, Bahrain, UAE, 1 – 4 November 2017

**Asia**

ESCMID co-organized a large conference on infections and their prevention in China together with the Chinese Medical Association, the International Society for Infectious Diseases and The Lancet Infectious Diseases. Zhongshan Hospital in Shanghai became the latest addition to the ECC programme in China. A postgraduate course will be held in Taiwan in May and a symposium in November, both on antimicrobial resistance. ESCMID was represented at the annual meeting of the Korean Society of Clinical Microbiology in October, and the Research Institute of Bacterial Resistance at Yonsei University in South Korea in now an ECC.

Japan: there will be a one-hour oral session at ECCMID chaired by two members of the JSC, Japanese Society of Chemotherapy.

India: two ESCMID speakers participated on 26 August at CIDSCON 2016 held in Varanasi, India, reviewing the year in ID and the year in CM. Meanwhile, the Vallabhbhai Patel Chest Institute (VPCI) in Delhi became an ECC and two more joined the programme in Iran.
ESCMID can look back on 2016 as a successful year where it made progress in all its activities on an organizational and operational level. The bottom line of its financial accounts was dent by a one-off charge due to its decision to relocate ECCMID 2016 from Istanbul to Amsterdam because of the unstable geopolitical situation in Turkey. Because of these relocation costs, it had to budget a worst-case scenario loss of EUR 1.5 million instead of the originally expected profit of EUR 106,000 for 2016. In the end the registration figures for ECCMID 2016 were considerably higher than predicted and other contributions partially made up for the relocation charge. In addition, reversed accruals and the positive effects of cost savings within the society’s organization resulted in a relatively minor loss of EUR 167,000 for 2016.

Higher investments in education and professional affairs

Expenses for key activities increased by 18% to EUR 2.9 million in 2016 with the highest increase observed in the education portfolio (+32%), reflecting a move to a more centralized in-house processing of the society’s educational courses. In addition to the financial support of course organizers, in 2016 ESCMID started to use a software tool to optimize the in-house organization of courses and workshops. Spending on communications increased by 29% as the society began to raise its profile and visibility among policy makers and continued to better communicate progress in its education, research and conference activities. Higher expenses in the professional affairs portfolio in particular (+20%) reflect the continuously increasing interest in the popular Observership programme. Spending on scientific affairs, the largest portfolio, increased slightly (+7%), while spending in publications remained almost unchanged (+3%).

Switch to a more transparent NPO accounting standard

To adapt the society’s financial structure to its organizational growth, ESCMID will switch its financial reporting to GAAP FER 21, an accounting standard for non-profit organizations. The recommendations for NPOs will help improve the informative value and transparency of societies’ financial statements and reporting. The reporting standard takes into account the non-profit basis and the different procurement of funds typical for NPOs. The financial reports are complemented with statements on changes in equity and an informative performance report, both of which are more relevant for charitable organizations.

Outlook: science and professional development remain central

For 2017 ESCMID has budgeted about the same expenses as in 2016. The largest share will be spent on scientific affairs, followed by professional affairs and education. As already announced in the previous yearbook, ESCMID is organizing ECCMID 2017 in-house except for registration and hotel management, which are outsourced. Therefore the society expects the 2017 profit generated from ECCMID to increase compared with past years. ESCMID forecasts a positive result in 2017.

ESCMID-ECDC Observerships in 2017

Visit ECDC and find out about the organization!

A group of 15 observers (ESCMID members) are offered a five-day programme at the European Centre for Disease Prevention and Control (ECDC) in Stockholm, Sweden. 4 – 8 September 2017

Applications accepted from: 2 May 2017, 12:00 CET

Applicants should be 45 years-of-age or younger and active in the infectious disease and public health fields beyond a regional level.

To apply, visit the ESCMID website.

www.escmid.org/ECDC_Observer

www.ecdc.europa.eu
Forthcoming Events

Postgraduate Education Courses and Workshops
Receive state-of-the-art knowledge from expert educators. Gather hands-on experience in your field of interest. Discuss your work with senior and peer colleagues.

- 27 – 28 May
  Antimicrobial Resistance Across Europe and the Far East: Issues and Solutions
  Taipei, Taiwan
  ESCMID Postgraduate Education Course

- 1 – 2 Jun
  Advanced Technical Workshop: Infection and Resistance Prevention in the Regional Healthcare Network
  Groningen, Netherlands
  ESCMID Postgraduate Technical Workshop

- 1 – 3 Jun
  Sepsis 2017: from Pathogenesis to Treatment
  Amsterdam, Netherlands
  ESCMID Postgraduate Education Course

- 7 – 9 Jun
  Update on Infections Associated with Orthopaedic Implants: Diagnosis and Management
  Pamplona, Spain
  ESCMID Postgraduate Education Course

- 8 – 9 Jun
  Viral Infections in Immuno-compromised Patients
  Bratislava, Slovakia
  ESCMID Postgraduate Education Course

- 6 – 8 Sep
  Omics of Host and Pathogens During Infections
  Grenoble, France
  ESCMID Postgraduate Education Course

- 7 – 8 Sep
  Management of Infections in Septic Shock Patients
  Turin, Italy
  ESCMID Postgraduate Education Course

- 14 – 15 Sep
  Emerging Antibiotic Resistance in Gram-Negative Bacteria: Problems and Solutions
  Fribourg, Switzerland
  ESCMID Postgraduate Education Course

- 1 – 4 Oct
  Migration Medicine
  Palermo, Italy
  ESCMID Postgraduate Education Course

- 5 – 7 Oct
  Antimicrobial Stewardship: Principles and Practice
  Istanbul, Turkey
  ESCMID Postgraduate Education Course

- 10 – 13 Oct
  Capacity-building Workshop: Whole Genome Sequencing for Clinical Microbiology and Hospital Epidemiology
  Freiburg, Germany
  ESCMID Postgraduate Technical Workshop

- 30 Oct – 1 Nov
  Regional Capacity-building for Integration of Next Generation Sequencing in the Clinical Microlab
  Herzliya, Israel
  ESCMID Postgraduate Education Course

- 2 – 4 Nov
  Antibiotic Therapy in Practice
  Madrid, Spain
  ESCMID Postgraduate Technical Workshop

ESCMID Summer School
An intense one-week course covering diverse topics in the infection field. The high faculty-student ratio and the high level of interactivity make it so popular.

- 1 – 8 Jul
  16th ESCMID Summer School
  Berstel, Germany

ESCMID Conferences
Get the latest news about your field of work delivered from selected experts. Exchange ideas with your colleagues on hot topics.

- 8 – 10 Sep
  4th Conference on Vaccines
  Dubrovnik, Croatia

Future ECCMIDs

- 22 – 25 Apr 2017
  27th ECCMID
  Vienna, Austria

- 21 – 24 Apr 2018
  28th ECCMID
  Madrid, Spain

- 13 – 16 Apr 2019
  29th ECCMID
  Amsterdam, Netherlands

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A big thank you to all our dedicated reviewers!
Special thanks go to microbiologist and photographer Ángel Ros Die who let us use his photographs.

My name is Ángel Ros Die and I work as a microbiologist at the Microbiology Service of the University Hospital Dr. Peset in Valencia, Spain. My hobby, photography, has been with me for many years and in the department, with the collaboration of all my colleagues, I have been able to put together a comprehensive collection of more than 5,000 scientific photographs. I have obtained prizes (3rd in 2010, 2014 and 2nd in 2016) in the scientific photography contest of the Faculty of Sciences of the National University of Distance Education in Madrid. I exhibited some of my photographs under the title “Microbiology in images” at the Faculty of Medicine of the University of Valencia. A selection of my pictures can be viewed on my website: http://www.angelrosdie.com/