European Society for Clinical Microbiology and Infectious Diseases

As Europe’s leading society in clinical microbiology and infectious diseases, ESCMID is highly influential in this ever-evolving field. Professor Gunnar Kahlmeter, President, delineates the Society’s role in the diagnosis, treatment and prevention of infection-related diseases
Can you provide an overview of the main activities of the European Society for Clinical Microbiology and Infectious Diseases (ESCMID)?

As a membership-driven society, ESCMID serves the needs of its members in the fields of science, education and in exchange of experiences, ideas and results. ESCMID strives to support members in their professional lives by publishing scientific journals, producing medical guidelines, textbooks, summer school and postgraduate courses and workshops on hot topics. ESCMID caters to young and old alike and its Observership programme offers members the opportunity to go abroad to visit an ESCMID Collaborative Centre and to widen their perspectives and to offer and bring home new influences.

One of our main areas is Research and Education. We organise over 15 courses and conferences a year to disseminate knowledge and exchange ideas.

We offer an online job platform and an EU partner search platform, and a database with comprehensive information on how Clinical Microbiology and Infectious Diseases are organised across Europe. The Trainees Association of ESCMID was founded to increase and support the scientific and medical contribution of young clinical microbiologists and infectious disease specialists over Europe. ESCMID has close ties to national societies in Europe, of which some 30 societies are now formally affiliated with ESCMID. Furthermore, ESCMID leads or participates in several EU-funded research programmes and projects such as the European Committee on Antimicrobial Susceptibility Testing (EUCAST) and the Translational Research on Combating Antimicrobial Resistance (TROCAR) and was a partner in the Genomics to Combat Resistance against Antibiotics in Community-acquired LRTI in Europe (GRADE) Network of Excellence (2006–11).

ESCMID offers the scientific community a peer-reviewed monthly journal, Clinical Microbiology and Infection, which now has a major impact on science in Europe within the infectious diseases field. In 2012 we published a European Manual of Clinical Microbiology, and we are now planning future regular e-updates.

You provide Postgraduate Education Courses (PGECs) and Technical Workshops (PGTWs) to scientists and clinicians as part of your operating procedure. What can individuals hope to gain from these informative sessions?

ESCMID Postgraduate Education Courses (PEC) and Technical Workshops (TW) last two to four days. They are of particular interest to trainees in clinical microbiology and infectious diseases but also to others with an interest in the field of infectious diseases. Through the PEC and TW, participants are able to gain knowledge from a broad range of lectures organised in themes. The Technical Workshops are more focused on practical issues (eg. lab work) than PEC. This allows individuals to gain hands-on experience. An important aspect of ESCMID PECs and TWs is that they gradually harmonise the curricula of clinical microbiology and infectious diseases in European countries.

In June 2012, the 100th PEC was hosted by colleagues in Croatia and I have just participated in the 101st PEC/TW in Madrid with participants from 26 countries, some of whom come from as far away as New Zealand.

The Society actively encourages partnership with other organisations which add value to your endeavours. Could you highlight recent collaborations that are proving mutually beneficial and supporting your development?

It is notable that ESCMID always tries to involve European authorities such as European Centre for Disease Prevention and Control (ECDC), European Medicines Agency (EMA) and European Food Safety Authority (EFSA) in our state-of-the-art workshops and symposia. ESCMID, ECDC and EMA collaborate to maximise the importance and output of the European Committee on Antimicrobial Susceptibility Testing (EUCAST).

We also seek alliances with international societies for medical guidelines, the International Society for Chemotherapy for arranging congresses and the Federation of European Microbiology Societies (FEMS) for arranging thematic workshops.

The European Manual of Clinical Microbiology informs readers on the essentials of clinical microbiology. Can you explain how you deliver resources to the European community to support the study of clinical microbiology and infectious diseases?

All our core activities are available to our members, either as part of the membership fee or at a reduced fee for members. Many of our activities are available also to non-members, either free or at a fee. The entire website of EUCAST (www.eucast.org) is available to all at no cost. ESCMID members are encouraged to consume ESCMID resources in the form of travel and attendance grants, research grants, Observerships, etc., prioritising the young, those presenting science, travelling across borders and so on.

Antimicrobial susceptibility testing in Europe was for many years dominated by recommendations from the Clinical and Laboratory Standards Institute (CLSI), the American standards organisation. Now, it seems that countries in Europe are adopting European recommendations. How was ESCMID involved in this transition?

For a long time European countries either subscribed to the recommendations from CLSI or one of the six European systems. EUCAST was formed by ESCMID in the mid 1990s. In 2001 EUCAST was reformed and the six major national breakpoint committees were convinced of their responsibility for European harmonisation. Since 2002, EUCAST has managed to harmonise susceptibility testing criteria and methods across Europe and is now on contract with ECDC and EMA to act as the advisors on aspects of antimicrobial resistance. EUCAST’s free access webpage contains a wealth of reference data and recommendations and everything one needs to perform high-quality susceptibility testing, and at no cost to the user. No wonder it is popular.

Resistance to antibiotics is a growing concern on a global scale. How is the GRACE project exploring the viable alternatives to current treatment?

The GRACE project (www.grace-lrti.org) focused on community-acquired lower respiratory tract infection (LRTI) in primary care in Europe. A total of 3,401 patients were recruited from 14 centres and formed the study population. Samples for microbiological examination which included the use of rapid diagnostics, virus isolation and molecular studies aimed at virus discovery. Antibiotic use was evaluated and compared. The genomic profile of the study population was explored to analyse host susceptibility to LRTI by specific pathogens – notably Streptococcus pneumoniae. In addition, the economic burden of LRTI was evaluated.

ESCMID collaborated with the European Respiratory Society (ERS) in developing an online modular curriculum relevant to the basic science and clinical practice, including antibiotic management, of LRTI. The research outputs have been substantial.

How is TROCAR investigating new and emerging highly virulent strains of infectious disease? What has the project revealed so far?

ESCMID is a partner of the TROCAR project, funded by the EU Seventh Framework Programme (FP7). The main objective is to understand the spread and dynamics of High Risk Clones (HiRIC), eg, bacterial clones that associate mechanisms of resistance to antibiotics of critical clinical importance and with (i) the ability to efficiently transmit among hospitalised patients; or with (ii) particular ability to produce severe or invasive infections; or with (iii) the ability to efficiently colonize human hosts during long periods of time. The results of TROCAR will provide insights into novel genetic structures carrying resistance determinants and new information on the linkage between...
resistance and virulence genes as well as ability to disseminate in clinically-relevant MDR strains.

**ESCMID is Europe’s leading society in clinical microbiology and infectious diseases. What has enabled this accolade? What have been the Society’s biggest successes?**

ESCMID has had a number of major successes over the many years. ECCMID, its yearly congress, has steadily grown in size and importance. It has become the natural arena for colleagues to gather, present and discuss their scientific results, plan new studies, meet for committee decisions and try to influence the professional life of each other in a desired direction. ECCMID is of great importance to the success of ESCMID.

The birth and implementation of European breakpoints and susceptibility testing criteria through EUCAST, has been a much appreciated endeavour of ESCMID and for me of major personal satisfaction and pride.

Among the young, ESCMID is appreciated for its generosity with grants, low fees for congresses and courses and our yearly week of summer school, most recently in Innsbruck, Austria.

However, the key to all of our success is the tireless, enthusiastic and unpaid work of our colleagues.

**ESCMID has been in operation for over 25 years. How are you learning from the past and looking ahead to the coming years?**

The fields of microbiology and infectious diseases are constantly expanding and changing. New microorganisms are discovered, old diseases take on new appearances, antibiotic discovery and development exploded and almost died over the last 60 years, and new diagnostics appear at an exhilarating speed.

I have been in clinical microbiology for 40 years and half of the diseases I work with were not discovered when I started my career in 1972 (HIV, Hepatitis B, Hepatitis C, Campylobacter, Helicobacter antimicrobial multiresistance, only to mention a few). The need for change is reflected in our everyday work in laboratories and patient wards. It is reflected in the needs of our colleagues and members. To be successful, ESCMID and the European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) must be acutely aware of and rapidly respond to these changes, irrespective of whether they are good (as the development of new diagnostics) or bad (as with the rapid increase in multiresistance and the frightening lack of antimicrobials). But there are other needs that ESCMID must try to deal with. Politicians in Europe have been led to believe that ‘big is beautiful’; amalgamation of laboratory services is a bandwagon sweeping across Europe.

ESCMID needs to keep up with what goes on in diagnostic microbiology and in infectious diseases, act on the needs of our colleagues and members and encourage the streamlining of our specialties and the curricula across European borders. We must try to influence those countries which have still not understood the importance of following the European Union of Medical Specialists (UEMS) recommendations to institute medical microbiology and infectious diseases as full and separate specialties. Common specialties and curricula are prerequisites for an open job market across European borders.

Keeping up with and catering to the everyday needs of our colleagues becomes even more important in periods when the economy fails. However, ESCMID is primarily driven by the zest and hard work of its executive officers, committee chairmen, scientific and guideline editors and colleagues organising PECs and TWs. All of them work for the good of their colleagues without thought of personal remuneration. That is how ESCMID survives through good and bad times.