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Comings and Goings
in the Executive Committee

SCIENCE AND EDUCATION
EUCAST Breakpoints
Chikungunya Fever Epidemic
on La Réunion

PROFESSIONAL AFFAIRS
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Editors and editorial office:
Peter Schoch,
Managing Director;
Marc Stuvelens,
President Publications Committee;
Dianne White, Publications;
Editorial Office:
ESCMID Executive Office,
P.O. Box, CH-4005 Basel,
Switzerland.
Email: info@escmid.org

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ESCMID Secretariat,
P.O. Box 1131, D-82018 Taufkirchen, Germany
Email: birgit.menzemer@escmid.org

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ESCMID Executive Committee
G. Cornaglia, President,
Verona, IT
S.R. Norrby, Past President,
Stockholm, SE
M. Akova, Ankara, Turkey
H. Aubry-Damon, Professional Affairs Officer, Clinical Microbiology, Maisons Alfort, FR
J. Garau, Education Officer,
Barcelona, ES
E. Nagy, Treasurer, Szeged, HU
R. Read, Professional Affairs Officer, Infectious Diseases, Sheffield, UK
J. Vila, Scientific Affairs Officer,
Barcelona, ES
A. Voss, ESCMID Programme Director, Nijmegen, NL

Ex Officio Members:
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What will ESCMID look like in a couple of years’ time? Divining the future is always a demanding task, even more so in the light of both the astonishing pace and the progress made by our Society over recent years.

Nevertheless, one could certainly bet that ESCMID would further perfect its transition from a restricted circle - albeit one for talented people of good will - to a large, modern scientific society, with all the complexity this entails in terms of both long-term activities and daily management.

Surely, the favourable situation following ESCMID’s rapid growth will be progressively converted into a more robust internal organisation of our Society, which will use its wealth and its strength to reward those that have made this growth possible, namely its members. Attention to the members’ needs will always be at the core of ESCMID’s business, to support their daily professional activities and, ultimately, to foster and improve the good practice of infection sciences throughout Europe.

The progressive widening of Europe as a political concept has now almost completely coincided with the broad-ranging geography of our continent, which poses new formidable challenges in terms of comparing different experiences and of bringing them together in coherent proposals that can serve as common guidelines for all Europeans.

Smoothing the differences and filling the many existing gaps is an integral part of ESCMID’s mission, but we must also accept that its internal diversity is what makes our continent such a well-defined and unique subject, which is at the same time a hallmark of both its complexity and its beauty.

Faced with an international setting of rapidly changing, unstable and often distinctly disquieting equilibria, Europe - as we understand it today - might and, indeed, must represent a pole of attraction for all people. This will certainly constitute a major issue in the years to come, consolidating the role of ESCMID as a major stakeholder in a worldwide scenario.

In 2008, ESCMID will be celebrating the 25th anniversary of its foundation. Our silver jubilee will be an occasion for appreciating how rapid and robust our progress has been, for assessing what formidable challenges we will still have to meet, but also for paying a fitting tribute to those that have written the various chapters of this adventure, the most recent of which bears the name and hallmark of Ragnar Norrby.

Thanking all of them for their impressive achievements and trusting in their ongoing support must represent my first and paramount duty upon entering into a new chapter of the ESCMID saga.
During the last two years ESCMID’s position as the leading organisation for science, education and professional development of Clinical Microbiology and Infectious Diseases has become more and more consolidated. Thanks to very successful congresses, for example the ECCMIDs in Prague, Copenhagen and Nice, the Society now has resources to expand its operations.

The success of the ECCMIDs is obvious in view of an increasing number of delegates and, especially of a larger and larger number of abstracts submitted each year. For example for this year’s ECCMID/ICC we received approximately 2900 abstracts, which is an all-time record. ECCMID is now clearly established as the main European congress for our fields of interest and, in contrast to many other international meetings, it continues to grow.

Surely you have noticed a few design changes in this newsletter. The Executive Committee is pleased to present the new logo in this issue of ESCMID News and in the April issue of CMI. Along these lines, ESCMID printed matter is being redesigned to improve recognition value and readability. For more information please see page 18 of this issue.

ESCMID has increased the staff at the Executive Office in Basel with two persons who, in addition to other tasks, are responsible for educational activities and EU affairs. This has enabled us to enter into a large research project on community-acquired lower respiratory tract infections, GRACE, where ESCMID together with the European Respiratory Society is responsible for the educational work package. Since several years ESCMID also has a grant from the EU Commission for EUCAST, the group which has managed to establish uniformly-accepted European breakpoints for antibiotic susceptibility.

Importantly, the improved financial situation of the Society has also enabled a considerable expansion of funds allocated to ESCMID members in the form of travel grants, awards and training fellowships. There will also be a marked increase of research and educational workshops at the annual congresses, beginning this year in Munich and the number of smaller, more specialised scientific conferences is increasing each year.

This year ESCMID will start making more and more material from workshops, symposia and other Society-sponsored activities available to the membership on the homepage. That programme, which we hope will expand with time, will enable the members including those who did not attend the event, to access lectures and slides.

In the field of professional affairs ESCMID strongly supports the establishment of Clinical Microbiology and Infectious Diseases as recognised medical specialties in all European countries. We also support the concept of Clinical Microbiology as a specialty separate from the wider field of ‘Biopathology’ since we feel that Clinical Microbiology has little in common with Clinical Chemistry and Haematology.

When my two years as President of ESCMID come to an end in April in Munich, it is with great pleasure that I look back at having had this opportunity to serve and to the best of my ability support Clinical Microbiology and Infectious Diseases in Europe. I know that Giuseppe Cornaglia will devote much time and effort to further strengthening ESCMID during his period as President. I wish him success in his endeavour.
ESCMID Assembly of Members 2007

Invitation

Dear ESCMID Member,

On behalf of the Executive Committee, I cordially invite you to the next regular Assembly of Members of the European Society of Clinical Microbiology and Infectious Diseases, which will be held during the 17th European Congress of Clinical Microbiology and Infectious Diseases in Munich.

In addition to the reports of the Executive officers the Agenda also features amendments to the Statutes proposed by the Executive Committee (see Ad 13). I am counting on your attendance and look forward to seeing you in Munich.

Yours sincerely, Ragnar Norrby, President

Date and Time

Sunday, 1 April 2007, 17:45 h – 19:00 h

Location

Lecture Hall 4, International Congress Centre Munich, Messegelände, 81823 Munich, Germany

Agenda

1 Welcome and President’s report (R. Norrby)
2 Report of the Secretary General (P. Francioli)
3 Presentation of the ESCMID Research Fellowships (M. Struelens)
4 Financial report of the Treasurer (E. Nagy)
5 Approval of the accounts (vote) (R. Norrby)
6 Report of the Education Officer (J. Garau)
7 Report of the Professional Affairs Officer, Clinical Microbiology (H. Aubry-Damon)
8 Report of the Professional Affairs Officer, Infectious Diseases (R. Read)
9 Report of the Scientific Affairs Officer (J. Vila)
10 Report of the Chair of the Publication Committee (M. Struelens)
11 Report of the President of the 17th ECCMID/25th ICC (B. Ruf)
12 Report of the Chair of the 17th ECCMID/25th ICC Programme Committee (A. Voss)
13 Amendment to the Statutes (vote) (R. Norrby) (Appendix)
14 Proposal for amendment of the Statutes by Pramod Shah, Germany (Appendix)
15 Formal approval of the actions of the Executive Committee (vote) (R. Norrby)
16 Other business (R. Norrby)
17 Inauguration of the new President (R. Norrby, G. Cornaglia)
Ad 13: Amendment to the Statutes
The Executive Committee proposes the following amendments to the Statutes. Changes compared to the Statutes approved in 2006 are underlined (additions) or crossed-out (deletions).

Statutes of the European Society of Clinical Microbiology and Infectious Diseases (Non-Profit Society)

§ 1 Name and Registered Office
The Society shall carry the name „European Society of Clinical Microbiology and Infectious Diseases“ (ESCMID). The Society shall be subject to the laws of the country in which the Society has its registered office. The registered office of the Society shall be located in Munich. The Society is registered in the Munich Register of Associations under VR 10956.

§ 2 Objects of the Society
The Society shall devote itself to the promotion of research and education in diagnosis and therapy in the fields of clinical microbiology and infectious diseases. The fields of clinical microbiology and infectious diseases encompass the study of the following: the pathogens, pathogenesis, diagnosis, epidemiology, prevention and therapy of infectious diseases, including drug usage policy, infection control, and all other basic and clinical aspects of infection and immunity.

The Society shall strive to bring together persons who are active in the fields of clinical microbiology and infectious diseases in the European countries and beyond. The aims of the Society shall be realised by holding scientific congresses, by arranging exchange visits between members, by enhancing education and teaching, by collaborating in research projects and in professional matters, by publishing various publications (journals, supplements, books, guidelines), by acting as a liaison between professional societies, governments or government agencies and the European Union, and any other activities related to these aims.

The Society shall pursue non-profit purposes exclusively and directly as defined in the paragraph „tax-privileged purposes“ of the German Tax Act. The Society acts exclusively selflessly and does not pursue economical purposes primarily. Funds of the Society shall be used only for purposes within the intentions of the Statutes. The members, relatives or business associates of the members shall receive neither allowances from the funds of the Society nor any other personal financial benefit. No person shall benefit from disproportionately high compensation or from the dispensation of funds for reasons incongruent with the objects of the Society.

§ 3 Membership
The Society consists of individual full (regular), associate, affiliated, corporate and honorary members from any country. All full members shall pay annual membership fees directly to the Society. Affiliated members are members of national scientific societies affiliated to ESCMID. An affiliation fee shall be determined by the Executive Committee and paid annually by the affiliated society. Members of the ESCMID Study Groups who do not pay individual or affiliated membership fees are associate members of ESCMID. They do not pay any membership fees to ESCMID. Corporate membership is open for companies and other organisations who wish to maintain closer ties with ESCMID. Corporate members pay an annual membership fee. They may name two persons of their organisation which shall be of equal rank as regular members in relation to membership rights. Honorary members are elected by the Executive Committee. They shall be full members and exempt from paying membership fees. Membership is, subject to the approval of the Executive Committee, open to all who are interested in clinical microbiology and infectious diseases. The annual membership fees shall be proposed by the Executive Committee and approved by the Assembly of Members. Resignation from the Society must be made in writing no later than 30 November of a given year. Resignation shall be effective as of 31 December of said year. Membership expires on 30 June upon non-payment of fees.

§ 4 Organisation
The Society will be organised by an Executive Committee, a European Council, and an Assembly of Members.

Executive power of the Society is vested in the Executive Committee, which shall consist of the President, the President-elect, the Past President, the Secretary General, the Treasurer, and three four additional members. The selection of candidates to be considered for election to the Executive Committee shall be made by a Nominating Committee. The members of the Executive Committee shall be elected by simple majority from among the members of the Society by a secret ballot. They will be elected for a term of four years and may be re-elected once; whereafter at least four years must elapse before re-election can take place. Thus, the maximum term in office is eight years (except if the member is elected as President-elect during the second term), whereafter at least four years must elapse before re-election can take place. A term starts and ends at the date of the Assembly of Members. The Presidents of the annual Congress of the Society for the current year and the year preceding the Congress, the Editor-in-Chief and the supplement Editor of the Society’s journal will be ad hoc non-voting members of the Executive Committee. The Managing Director will be an ex officio non-voting member of the Executive Committee. Only in exceptional situations may the Executive Committee co-opt up to one additional member from the Society. The co-opted officer is a voting member of the Executive Committee. Candidates to a position in the Executive Committee must have been members of the Society in good standing for at least three years.

No more than two one elected member of the Executive Committee shall come from the same country (*). The Executive Committee shall include at least two members representing the field of clinical microbiology and at least two members representing the field of infectious diseases.

The Executive Committee shall elect a President, a President-elect, a Treasurer and a Secretary General and appoint an ECCMID Programme Director, from either the elected members or the co-opted member of the Executive Committee. The term in office shall be two years for the President, the President-elect and Past President. The President-elect shall be elected at the Executive Committee meeting taking place prior to Assembly of Members at which he/she adopts his/her new office. A President-elect may not be elected in his/her last year in office. The position of the President shall be taken in turn by a specialist in Clinical Microbiology and in Infectious Diseases.
The operating rules of the Society are stated in its Statutes. The Executive Committee shall adopt resolutions with the majority of its members present at the Executive Committee meeting; the President has the casting vote. The quorum shall consist of five members. The Executive Committee may appoint subcommittees for specific purposes.

The Executive Committee shall appoint a Managing Director to assist with the execution of its resolutions and to manage the administrative offices of the Society accordingly.

The Assembly of Members is the supreme body of the Society and shall hold Plenary Meetings. All full members of the Society in good standing shall be entitled to attend the Assembly of Members which is held during the annual congress of the Society. The President, upon resolution of the Executive Committee, shall convene the Assembly of Members in writing stating, at the same time, the Agenda in a personally addressed letter to regular members, honorary members, corporate members as well as chairpersons of the Study Groups and presidents of affiliated societies. The associated and affiliated members, if they are not regular members of ESCMID, shall be informed by the Chairpersons of the Study Groups or presidents of the affiliated societies. The notice period shall be at least six weeks. The period shall start on the day following the dispatch of the convening letter. The date of the postal stamp shall apply. The convocation is deemed to have been received by the member if it has been sent to the last address notified by the member of the Society. The President, upon resolution of the Executive Committee, shall notify members of the Society of an Assembly of Members and of its agenda by an announcement no later than four weeks prior to the date of the Assembly of Members. The Assembly of Members shall discuss the proposals of the Executive Committee and adopt resolutions by simple majority of the members present. Minutes shall be kept of the proceedings at the Assembly of Members, and such minutes shall be signed by the President, the Secretary General and the Managing Director. Any Assembly of Members convened in accordance with the Statutes is recognised as having a quorum, irrespective of the number of members of the Society in attendance. Any regular member (including honorary members and corporate members) shall have a vote; associate and affiliated members shall not be entitled to vote.

The European Council shall strengthen the cooperation and cohesion among the European specialist societies in the infection field and serve as an advisory board to the Executive Committee. Its constituent members are the European societies which signed an affiliation agreement with ESCMID. Each affiliated society is represented in the European Council by its President or a nominee. Affiliation is subject to approval by the Executive Committee. The European Council shall meet during the annual congress of the Society. The President of the Society shall serve as chairperson.

§ 6 Amendments to the Statutes
Amendments to the Statutes can be proposed by a two-third majority vote of the Executive Committee or by a written request signed by at least 50 members of the Society in good standing who are at least in their second year of membership. Amendments to the Statutes can be made by resolution of a majority of members, two-thirds majority of members participating in a secret ballot (in writing or electronically via the internet) or in open voting at an Assembly of Members by a show of hands.

In any matters concerning the interpretation of the Statutes, the decision shall rest with the Executive Committee, who will also resolve any matters concerning the Society that are not covered explicitly by the Statutes.

The President of the Society has the right, upon legal advice and upon the advice of the Executive Committee, to make any amendments to the Statutes that are necessary for registration of the Society or for recognition of its non-profit status by the tax authorities. These amendments must be approved afterwards by the Assembly of Members.

§ 7 Language
The language of the Society and its publications is English. The English version of the Statutes shall be determinative in all cases. The Society shall be subject to the laws of the country in which the Society has its registered office.

§ 8 Bylaws
Administrative details of function and practice of the Society shall be fixed in the Bylaws, which the Executive Committee is entitled to set forth. The operating rules of the Society are stated in the Bylaws and are the responsibility of the Executive Committee.

§ 9 Dissolution
A resolution of two-thirds of the members of the Society shall be necessary to dissolve the Society. If the Society is dissolved, its funds shall be exclusively transferred to a public corporation or other recognised non-profit societies that support medical science and research.

(*) Current members of the Executive Committee are not affected by this amendment. They are allowed to complete two full terms as Executive Officers.

Ad 14: Proposal for Amendment of the Statutes
Pramod Shah, Frankfurt, Germany, proposes the following amendment to the Statutes: ‘All candidates nominated by at least 50 members in good standing will be considered for election to the Executive Committee and will appear on the ballot’.

Legal instruction: According to the Statutes and Bylaws any proposal for amendment of the Statutes must be requested by 50 members in good standing. In addition, the Secretary General must be notified of any proposal requiring a vote at least 60 days prior to the Assembly. These requirements have not been met. The proposal by Pramod Shah can thus be discussed during the Assembly but a vote on amending the Statutes is not yet possible.
Comings and Goings in the Executive Committee

Peter Schoch,
ESCMID Managing Director

Akova, Nagy and Vila Elected

Murat Akova
Elisabeth Nagy
Jordi Vila Estape

The first online election to the ESCMID Executive Committee was open to ESCMID members in good standing as of 1 November 2006 and ran from 24 November 2006 through 9 January 2007. Of the 2934 eligible voters, 613 (20.9%) participated. The following candidates were elected:

**Clinical Microbiology**
- Elisabeth Nagy, Szeged, Hungary (279 votes)
- Jordi Vila Estape, Barcelona, Spain (305 votes)

**Infectious Diseases**
- Murat Akova, Ankara, Turkey (240 votes)

Elisabeth Nagy has been a co-opted member since 2003; Jordi Vila already served a full term as an elected member. We congratulate the new officers on their success. The term of the newly elected officers lasts four years and begins at the Assembly of Members 2007 in Munich.

ESCMID would like to thank the following candidates for running for an office in the Executive Committee and thus making this democratic election possible:

**Clinical Microbiology**
- Michael A. Borg, Guardamangia, Malta
- Katarzyna Dzierzanowska-Fangrat, Warsaw, Poland
- Niels Frimodt-Møller, Copenhagen, Denmark
- Elisabeth Nagy, Szeged, Hungary (co-opted since May 2003)
- Alkiviadis Vatopoulos, Athens, Greece
- Jordi Vila, Barcelona, Spain (running for re-election)

**Infectious Diseases**
- Murat Akova, Ankara, Turkey
- Hanna Nohynek, Helsinki, Finland
- Bernhard Ruf, Leipzig, Germany.

Farewell from Marc Struelens and Patrick Francioli

The new Executive Committee will constitute itself at its first meeting during the 17th ECCMID in Munich and discuss the (re-)assignment of the various portfolios. This meeting will also be the last one attended by Patrick Francioli and Marc Struelens whose terms will definitively end after eight and ten years of executive functions, respectively.

Patrick Francioli’s involvement with ESCMID began in 1997 as Scientific Chairman of the 8th ECCMID 1997 in Lausanne, which at this time was still very much organised by the Local Organising Committee. In April 1999 he was formally co-opted by the Executive Committee where he served until the end of the 15th ECCMID 2005 in Copenhagen as ECCMID Programme Director. He dedicated countless hours to shaping the scientific programme of eight consecutive ECCMIDs, which during his term grew in size and stature and developed into the main platform for the scientific and professional exchange in Europe in the infection disciplines. This was accompanied by the adoption of a more central congress organisation over the years in order to guarantee constant quality of ECCMID independent of its venue. The transition to a new Programme Director took place in 2005: from 2006 on Andreas Voss assumed responsibility as Programme Director and Patrick Francioli served as Secretary General until retirement from the ESCMID Executive in 2007.

Marc Struelens was co-opted to the Executive Committee in 1997 to become a dedicated Scientific Affairs Officer until 2001. During his term the Scientific Advisory Committee was established as a resource of scientific intelligence, if needed. In 2001 he became President-elect, followed by the usual statutory career as President (2003 – 2005) and Past President (2005 – 2007). He steered the Executive effectively and smoothly, building on his strength, which is rare among scientists, of being also an excellent politician. In this context I use ‘political’ in the best sense of the word: deciding and acting in concert after sensible deliberation and committed to quality since human beings matter. This integrity of his approach was the foundation for the success of the Conference on Professional Challenges in Clinical Microbiology and Infectious Diseases, which he organised in 2004 in Leuven. He also made EU Affairs a presidential matter and opened up this new field for ESCMID.

I would like to thank Patrick Francioli and Marc Struelens on behalf of their colleagues in the Executive and the members of the Society for their enthusiasm and spirited contributions to achieving ESCMID’s objectives which are to improve the professional competence of infection specialists and to advocate a solid health policy in Europe.
ESCMID Awardees 2007

Award for Excellence in Clinical Microbiology and Infectious Diseases

E. Richard Moxon
born 1941 in Leeds, United Kingdom; M.B., B.Chir., F.Med. Sci., Professor and Head of the Department of Paediatrics at the University of Oxford, Head of the Molecular Infectious Diseases Group at the Institute of Molecular Medicine and Chairman of the Oxford Vaccine Group, in recognition of his outstanding contributions in the fields of microbial evolution, bacterial pathogenesis and vaccine development. His laboratory has been at the forefront of research on the pathogenesis and prevention of infections caused by Haemophilus influenzae and Neisseria meningitidis, investigations which have facilitated the prevention of childhood infections caused by encapsulated bacteria.

E. Richard Moxon will be presented the ESCMID Excellence Award by Professor Ragnar Norrby, ESCMID President during the 17th ECCMID, on which occasion he will give his award lecture on From Mistaken Identity to a Biomedical Revolution: the Influential Legacy of a Blood-Loving Bacterium.

Research Interests
E. Richard Moxon has a long-standing interest in the biology of Haemophilus influenzae and Neisseria meningitidis, bacteria that are especially important respiratory tract commensals and pathogens of young children. His early laboratory research focussed on the pathogenesis of bacteremia and meningitis using experimental infection of infant rats. Later, molecular genetics and genomics were used to pinpoint the roles of capsular polysaccharide (CPS) and lipopolysaccharide (LPS) in pathogenesis. CPS and LPS are bacterial cell-surface expressed structures which are critical to commensal and virulence behaviour and exhibit variable expression, an observation that lead to the discovery of the 'contingency genes' responsible for microbial host-adaptation through phase-variation of hypermutable, repetitive DNA. CPS and LPS are macromolecules that are the basis of current and candidate vaccines against serious invasive infections (e.g. bacteraemia and septicaemia). His clinical research has been to translate the basic science findings, especially through vaccines trials, to prevent these life-threatening infections.

ESCMID and bioMérieux Award for Advances in Clinical Microbiology

Anna Skoczynska
born 1968 in Warsaw, Poland; PhD, researcher at the National Institute of Public Health, Department of Epidemiology and Clinical Microbiology, Warsaw (currently on her post-doctoral fellowship at the Neisseria Unit, Institute Pasteur, Paris) in recognition of her outstanding contributions to our understanding of the aetiology of bacterial meningitis and the molecular and conventional characterisation of several pathogens involved in this disease.

Anna Skoczynska will be presented her award by Professor Ragnar Norrby, ESCMID President, and Thierry Bernard, Vice President and Head of Corporate & Commercial Operations, bioMérieux at the 17th ECCMID during the ESCMID Award session.

Research Interests
Anna Skoczynska’s research interests have mainly focussed on the molecular characterisation of the three main pathogens associated with bacterial meningitis (Neisseria meningitidis, Streptococcus pneumoniae and Haemophilus influenzae) and their role in invasive diseases. She contributed to setting up a national surveillance system for community-acquired invasive bacterial infections in Poland based on laboratory-confirmed cases and to establishing the National Reference Centre for Bacterial Meningitis. She has introduced a broad panel of molecular techniques, including non-culture methods, to assist in epidemiological investigations of these pathogens at local and national levels and to allow global comparisons. She has also been involved in other projects, e.g. looking at mechanisms of antibiotic resistance and the nationwide investigation of invasive pneumococcal disease in children as a basis for the deployment of a vaccine. Currently she is investigating the pathophysiological effects of different meningococcal strains with altered susceptibility to penicillin on their virulence.
Stijn Blot

born 1968 in Dendermonde, Belgium; PhD, Professor at the Faculty of Medicine and Health Science, Ghent University, researcher at the Ghent University Hospital, Intensive Care Department, in recognition of his outstanding achievements in the field of nosocomial infections, in particular bloodstream infections in critically ill patients. His work, which aims at optimising antibiotic treatment of infections in ICU patients, is of unique relevance to patient care, clinical management and health economics.

Stijn Blot will be presented his award during the ESCMID Awards Session at the 17th ECCMID by Professor Marc Struelens, Chair of the ESCMID Awards Committee. His award lecture is entitled Limiting the Attributable Mortality of Infection and Resistance in the ICU.

Research Interests

Stijn Blot’s research on the epidemiology of nosocomial infections focusses on the clinical impact of infection and resistance in critically ill patients. His work provides insight into the relevance of general disease severity in the prognosis of infected patients and underscores the importance of timely initiation of appropriate antimicrobial therapy in order to limit attributable mortality rates to non-significant proportions. For the purpose of choosing appropriate antimicrobial therapy, he investigates the value of serial surveillance cultures in the ICU to guide empirical therapy while minimising the use of broad-spectrum antimicrobials, and hence, limiting selection pressure.

The Young Investigator Awards are sponsored by Pfizer.
ESCMID Research Fellows

The ESCMID Research Fellowships 2007 will be presented during the Assembly of Members at the 17th ECCMID 2007 in Munich.

Isabelle Bekeredjian-Ding
born 1974 in Heidelberg, Germany; MD, Resident at the Department of Medical Microbiology and Hygiene, University of Heidelberg, Germany

Project
Comparison of early immune recognition of *Staphylococcus aureus* in nasal carriers and non-carriers

Research Interests
Isabelle Bekeredjian-Ding’s main research interest is the recognition of bacteria by the human innate immune system. Her previous focus was on the recognition of defined microbial molecules that activate human immune cells via specialised pattern recognition receptors, e.g. toll-like receptors, thus inducing early immune defences such as the secretion of pro-inflammatory cytokines, antimicrobial peptides and unspecific IgM antibodies. With this background she has now turned to the analysis of the human innate immune response to whole bacteria. Special emphasis is placed on studying the immune response to *Staphylococcus aureus* and on defining the nature of donor-dependent differences in immune responses such as differences in the induction of type I interferon secretion by plasmacytoid dendritic cells that represent very potent mediators of the very early innate immune defence. The goal is to understand the molecular mechanisms relevant for the recognition of *S. aureus* by individual human innate immune cell types such as the plasmacytoid dendritic cell and to clarify whether donor-dependent differences in the response of these cells to *S. aureus* stimulation account for clinical differences such as carrier versus non-carrier status or severity of infection.

Paul D. Cotter
born 1975 in Cork, Ireland; PhD, Researcher at the Microbiology Department, University College Cork, Cork, Ireland

Project
Post-translationally modified peptides produced by Gram-positive bacteria

Research Interests
Paul Cotter’s research focusses on the use of microbiology, molecular biology and biochemistry to carry out investigations in each of three areas: The first involves research of antimicrobial peptides, and the post-translationally modified lantibiotics in particular, with a view to elucidating structure/function relationships and the generation of derivatives with enhanced activity against multi-drug resistant nosocomial pathogens such as MRSA and VRE. Secondly, he is studying the stress resistance mechanisms utilised by Gram-positive pathogenic bacteria with a particular emphasis on characterising the systems that enable *Listeria monocytogenes* to survive in acidic environments such as the stomach and macrophage phagosome. And finally, he has endeavoured to combine his expertise in both of these areas to research antibiotic and lantibiotic resistance mechanisms utilised by, and the cytolitic peptides produced by, Gram-positive pathogens.
Megna Ramaswamy
born 1976 in Mumbai, India; PhD, post-doctoral fellow at the Royal Free Hospital and University College Medical School, Department of Virology, London, United Kingdom

Project
Immunological mediators of herpes simplex virus control in HIV-1 infected individuals receiving highly active antiretroviral therapy

Research Interests
Meghna Ramaswamy’s research interests focus on the epidemiology, pathogenesis and host responses to HSV infections. Previous projects have included i) the development and evaluation of methodologies to detect HSV infection, ii) studies on the epidemiology of HSV genital infection in several distinct populations including STD clinic attendees and HIV-1 infected individuals, iii) sequence analysis of the HSV-2 UL14 gene in clinical isolates from ethnically diverse STD clinic attendees, and iv) determining the impact of HIV infection on HSV-specific T-cell mediated immunity and the effects of antiretroviral therapy on the reconstitution of HSV immunity. As a postdoctoral fellow her current research includes characterisation of the integrase gene to detect HIV-1 subtypes in drug naïve HIV-infected patients, and analysis of HIV-1 minority species in HIV-infected patients failing first line therapy.

Ruhidil Gülsen Özkaya Sahin
born 1973 in Aksaray, Turkey; MD, PhD student at the Hacettepe University, Ankara, Turkey (currently at the Department of Laboratory Medicine, Lund University Medical Faculty, Lund, Sweden)

Project
Investigation of the impact of autoimmune factors on the effector function of anti-HIV neutralising antibodies and neutralising antibody response in macaques and humans as part of a novel therapeutic vaccination trial

Research Interests
Ruhidil Gülsen Özkaya Sahin is a medical specialist in Internal Medicine and Infectious Diseases and is attending a PhD programme in microbiology/virology. She works currently at the Lund University Faculty of Medicine in the Department of Laboratory Medicine, Section of Virology as a postdoctoral research fellow. Her previous interest was on hospital-associated fungal and MRSA infections. More recently her research focuses on the neutralising antibody response to HIV, the role of complement in this response, the impact of autoimmune factors on the effector function of anti-HIV neutralising antibodies and the development of a novel therapeutic HIV-1 vaccine by using apoptotic HIV-1 DNA containing activated T cells.

Lemonica Johanna Koumbi
born 1978 in Graz, Austria; MSc in Human Molecular Genetics, PhD student at the 2nd Department of Paediatrics, University of Athens Medical School, Athens, Greece

Project
Evaluation of the innate and adaptive responses against HBV in neonates born to chronic HBV carrier mothers

Research Interests
The main research interest of Lemonica Koumbi is on the neonatal viral immune responses, in particular against hepatitis B virus (HBV) infection. The aim of her PhD project is to determine whether non-infected infants born to hepatitis B carrier mothers (HBeAg-negative) have encountered hepatitis B virus (HBV) intra-utero or perinatally and to investigate the ability of these neonates to mount T cell specific responses against HBV antigens. Her research focus is on the role of antigen presentation in this context. After completion of her PhD studies she intends to continue investigating dendritic cells, the main antigen presenting cells, and to explore their potential role in preventing paediatric infectious diseases.
ESCMID Awards, Grants and Fellowships 2008: Call for Proposals

ESCMID Award for Excellence in 2008

The European Society of Clinical Microbiology and Infectious Diseases (ESCMID) will present the ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases in the year 2008 to honour a senior scientist for his/her overall achievements in these fields.

Purpose
The purpose of this award is to recognise and reward an outstanding lifetime contribution in the areas of science, education or professional affairs in clinical microbiology and/or infectious diseases.

Award
The award of EUR 10'000 will be presented by the ESCMID President at the 18th ECCMID 2008 in Barcelona. The recipient will be honoured at the occasion of a 40-min lecture to be given by the awardee. The name of the recipient will be published in the Final Programme, ESCMID News and on ESCMID’s website.

Eligibility criteria
Nominees for the award must be senior scientists who are professionally active and prepared to give a keynote lecture during the 18th ECCMID 2008. Members of the ESCMID Executive Committee are ineligible for at least 2 years after retiring from office.

Nomination procedure
All medical schools and institutions active in the field of clinical microbiology and infectious diseases in Europe, ESCMID’s affiliated societies, ESCMID members as well as ESCMID committees and study groups are encouraged to nominate candidates for the award. Each nomination should include:
1. A biographical sketch of the nominee (maximum two pages)
2. A summary and analysis of the nominee’s major contributions to science, education or public health in the field of clinical microbiology and/or infectious diseases
3. A list of the major original publications in refereed journals
4. The complete professional address, including email, phone and fax number
5. In addition, two letters of support from individuals outside the nominating institution should be mailed directly or together with the nomination to the ESCMID Awards Committee.

Seven copies of the nomination package plus a colour passport photograph (in print or electronic) must be received by 1 October 2007.

Selection procedure
The recipient will be determined by the ESCMID Awards Committee and notified by 29 February 2008 at the latest. No correspondence beyond that necessary for the nomination will be accepted. Self-applications will not be considered.

Please send your nomination to:
ESCMID Executive Office
Clarastrasse 57
CH–4005 Basel / Switzerland
Phone +41 61 6867791
Fax +41 61 6867798
Email peter.schoch@escmid.org

ESCMID Young Investigator Award for Research in Clinical Microbiology and Infectious Diseases 2008

ESCMID will sponsor in 2008 up to two ESCMID Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases to recognise outstanding research by younger colleagues in these fields.

Purpose
The purpose of the Young Investigator Award is to acknowledge excellence in research, and to stimulate further research of the highest scientific level.

Awards
The awards of EUR 7500 each, which should be used to support further research, will be presented by the Chair of the ESCMID Awards Committee at the 18th ECCMID 2008 in Barcelona on the occasion of a 20-min lecture to be given by each awardee on topics of their main field of research. In addition, the awardees are expected to write a review paper reflecting their field(s) of research for publication in CMI. The names of the recipients will be published in the Final Programme, ESCMID News and on ESCMID’s website.

Eligibility criteria
Nominees for the award should be born on 1 January 1968 or after. Appropriate research may be based on laboratory investi-
ESCMID provides grants to support young ESCMID members carrying out original research in the field of clinical microbiology and/or infectious diseases.

**Purpose**
The purpose of these fellowships is to foster young and excellent investigators and to promote outstanding research in the fields of clinical microbiology and/or infectious diseases.

**Research grants**
ESCMID funds this grant programme by up to EUR 100’000 per year. The maximum amount granted per project is EUR 20’000.

**Eligibility criteria**
The research project may be based on laboratory investigations, clinical studies, experimental animal studies, or a combination thereof. Nominees must be employed (or have been until recently) in a European laboratory or hospital. Members of the ESCMID Executive Committee are ineligible.

**Nomination procedure**
Nominations must be received no later than 1 October 2007. They must be submitted in writing together with proof of the nominee’s age, and include a CV, a complete list of publications as well as up to five original papers published in 2005, 2006 or 2007 or accepted for publication. The nominations should describe the candidate, his/her career, his/her research interests and personal contributions to the various research projects he or she has been participating in. At least two additional supporting letters should be presented by individuals outside the nominating institution. Self-applications will not be considered. The complete postal and e-mail address, phone and fax number of the nominee must be included. Seven copies of all materials plus one colour photograph (on paper or electronic) must be sent to the ESCMID Awards Committee, who will select the recipients. The recipients will be notified of their awards by 28 February 2008 at the latest. No correspondence beyond that necessary for the nomination will be accepted.

**Please send your nomination to:**
ESCMID Executive Office
Clarastrasse 57
CH-4005 Basel / Switzerland
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Fax +41 61 6867798
Email peter.schoch@escmid.org

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**ESCMID Research Grants 2008**

ESCMID provides grants to support young ESCMID members carrying out original research in the field of clinical microbiology and/or infectious diseases.

**Purpose**
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**Research grants**
ESCMID funds this grant programme by up to EUR 100’000 per year. The maximum amount granted per project is EUR 20’000.

**Eligibility criteria**
The research project may be based on laboratory investigations, clinical studies, experimental animal studies, or a combination thereof. Nominees must be employed (or have been until recently) in a European laboratory or hospital. Members of the ESCMID Executive Committee are ineligible.

**Nomination procedure**
Nominations must be received no later than 1 October 2007. They must be submitted in writing together with proof of the nominee’s age, and include a CV, a complete list of publications as well as up to five original papers published in 2005, 2006 or 2007 or accepted for publication. The nominations should describe the candidate, his/her career, his/her research interests and personal contributions to the various research projects he or she has been participating in. At least two additional supporting letters should be presented by individuals outside the nominating institution. Self-applications will not be considered. The complete postal and e-mail address, phone and fax number of the nominee must be included. Seven copies of all materials plus one colour photograph (on paper or electronic) must be sent to the ESCMID Awards Committee, who will select the recipients. The recipients will be notified of their awards by 28 February 2008 at the latest. No correspondence beyond that necessary for the nomination will be accepted.

The name of successful recipients and the title of their project will be published in the ESCMID News and on ESCMID’s website.

**Report**
A two-page report must be submitted to ESCMID upon completion of the research project for publication in ESCMID News. This report should include a short introduction summarising current knowledge for the non-specialist, followed by the study hypothesis, the main findings and conclusions from the investigation.

**Please send your application to:**
ESCMID Executive Office
Clarastrasse 57
CH-4005 Basel / Switzerland
Phone +41 61 6867791
Fax +41 61 6867798
Email peter.schoch@escmid.org
ESCMID Training Fellowships 2008

ESCMID provides fellowships to young ESCMID members for advanced training in a clinical or research unit abroad.

Purpose
The purpose of these fellowships is to promote international mobility and support professional development of young scientists or physicians working in clinical microbiology and/or infectious diseases by acquiring scientific, technical or clinical expertise not available in institutions in their country of residence.

Fellowships
ESCMID funds travel and training costs under this programme of up to a total of EUR 50,000 per year. Fellowships will be provided by the Awards Committee after selection based upon detailed applications (see below). The maximum amount provided per fellowship is EUR 600 for travel support plus EUR 1,500 per month as subsistence support for up to 6 months.

Eligibility criteria
Applicants must be ESCMID members and should be born on or after 1 January 1968. Eligible training must be obtained in Europe and may take place in a research laboratory, in a clinical department, or in a public health institution. It can consist of experimental, clinical or other work. Members of the ESCMID Executive Committee are ineligible.

Application procedure
The deadline for submission is 1 October 2007. Applications must be submitted in writing and include:
1) Details of the applicant’s education, professional experience and expertise, including name, professional affiliation, telephone and fax number, CV and list of publications
2) Reason for and objectives of the training abroad
3) Rationale for choosing the host institution and duration of training requested
4) Confirmation letter from the head of the unit where the training is to take place, printed and signed on original letterhead.
5) Time table, including start and end date of training (actual presence in host institution).

Applicants must send seven copies of all materials plus one colour photograph (on paper or electronic) to the ESCMID Awards Committee.

The names of successful applicants and places of foreign training will be published in ESCMID News and on ESCMID’s website.

Report
A short report must be submitted to ESCMID upon completion of the training period. This should have the structure of a mini-paper that may be published in ESCMID News, if appropriate.

Please send your application to:
ESCMID Executive Office
Clarastrasse 57
CH-4005 Basel / Switzerland
Phone +41 61 6867791
Fax +41 61 6867798
Email peter.schoch@escmid.org
Andreas Voss
Braveny trainee/co-worker (1986-1992)
ECCMID Programme Director

With great sadness we must inform our members that our colleague and friend Professor Ilja Braveny, one of the founding fathers of our Society, has passed away on 4 February 2007. His death came suddenly and unexpectedly at an age of only 66 years, only a year after retiring from his position as Professor of Clinical Microbiology and Hygiene at the University Hospital ‘rechts der Isar’, in Munich, Germany.

In the early 1980’s, Ilja Braveny hosted the first informal meetings in the Bavarian alps, led the founding Steering Committee and laid the groundwork for what was later to become ESCMID.

Ilja Braveny had a sharp mind and was driven by his desire to get European experts in the field of Clinical Microbiology and Infectious Diseases to co-operate, in order to let their expertise shine and have their voices heard in the rest of the world. Starting the European Journal of Clinical Microbiology and Infectious Diseases (of which he was Editor-in-Chief until the day of his passing) and being instrumental in the first ECCMIDs (in his view started as an European ICAAC counterpart) were only logical steps resulting from his ambition to advance the European field of Clinical Microbiology and Infections.

Next to his demanding work for the Society and the journal, Ilja Braveny was also known as the author of an antimicrobial therapy pocket book that was published in German, English and French and is still one of the most useful ones around.

On behalf of all who have worked with and/or for him, I can say that Ilja Braveny was a man of good humor and kindness. As an unselfish mentor he enjoyed giving his co-workers opportunities for their own advancement and using his network and connections to support them in their own ambitions.

Ilja Braveny will be remembered and missed by many, especially since the world needs people with character and vision, and the drive to turn them into reality. His professional life certainly was not an easy one at all times and not without conflicts, but, “the gems with the roughest edges are the most precious”.

On behalf of all members of the ESCMID Executive Board we would like to convey our sincerest condolences to Ilja Braveny’s co-workers and especially his family.
We would like to take this opportunity to provide you with the most recent information about the ESCMID membership figures. For the first time the head count passed the 3000 threshold. This is clearly much more than the membership of 41 at the first congress after the Society’s inception in 1983. But given the size of the European professional community in our field this is still not sufficient. To further strengthen the Society and better achieve our goals we want to double the membership within the next few years by making ESCMID more attractive. A first measure will be providing ESCMID members with free access to an online lecture library on our website beginning after the 17th ECCMID in Munich. Other initiatives towards this goal will follow.

As expected most of our members are from Europe with the UK and Germany being the best represented countries. However, a substantial number of members are from other parts of the world as apparent in the right column. The fourth highest number of members is from the US. The distribution of academic degrees among our membership is given in the pie chart below.

### Membership according to academic degree(s):

- **MD**: 47%
- **MD+PhD**: 21%
- **PhD**: 24%
- **other**: 8%

### Countries with Members

- Albania 2
- Algeria 2
- Argentina 7
- Australia 20
- Austria 68
- Bahrein 3
- Belarus 5
- Belgium 148
- Bosnia Herzegovina 8
- Brazil 13
- Bulgaria 17
- Cameroon 1
- Canada 33
- Chile 2
- China 37
- Colombia 0
- Croatia 64
- Cyprus 6
- Czech Republic 32
- Denmark 65
- Dominican Republic 1
- Ecuador 0
- Egypt 4
- Estonia 10
- Finland 37
- France 155
- Georgia 4
- Germany 205
- Ghana 0
- Greece 125
- Guadeloupe 1
- Hungary 40
- Iceland 2
- India 16
- Indonesia 8
- Iran 20
- Ireland 29
- Israel 17
- Italy 168
- Japan 12
- Jordan 1
- Kazakhstan 1
- Kenya 1
- Kuwait 13
- Latvia 23
- Lebanon 2
- Libya 2
- Liechtenstein 1
- Lithuania 8
- Luxembourg 7
- Macedonia 3
- Malta 3
- Mauritius 1
- Mexico 7
- Netherlands 178
- Netherlands Antilles 1
- New Zealand 6
- Nigeria 1
- Norway 47
- Oman 2
- Peru 2
- Philippines 6
- Poland 29
- Portugal 77
- Puerto Rico 1
- Qatar 3
- Republic of Korea 21
- Romania 44
- Russia 34
- Saud Arabia 20
- Serbia&Montenegro 21
- Singapore 7
- Slovak Republic 21
- Slovenia 38
- South Africa 15
- Spain 112
- Sudan 0
- Sweden 147
- Switzerland 143
- Taiwan 11
- Tajikistan 0
- Tanzania 1
- Thailand 4
- Tunisia 2
- Turkey 121
- Uganda 0
- Ukraine 2
- United Arab Emirates 7
- United Kingdom 253
- UNMIK 1
- Uruguay 1
- USA 172
- Venezuela 1
- Zambia 1
- Zimbabwe 1

**Total 3014**
ESCMID is pleased to present the new logo and corporate design in this issue of ESCMID News. The impetus for the change was a need to harmonise ESCMID’s ever-growing number and diversity of publications (course flyers, conference brochures, forms, newsletters, electronic publications, etc.) and to make them more attractive and distinguishable in the wealth of printed matter. During this graphical overhaul it became evident that improvement could also be achieved through a logo redesign, which better represents the essence of our subject. The new logo was selected for a variety of reasons. It has an organic structure and can be regarded as symbolising a growing microbial culture. Alternatively, the logo can also represent a network of people and organisations as they occur within ESCMID. The particular shade of green, referring to the colour of fabrics often seen in operating theatres, was selected as associating ‘medicine’. And last but not least, the new logo, consisting of the emblem and ‘ESCMID’, is clear and clean, and has good brand recognition. It stands for a modern scientific society coping with the needs of its time.

As part of this graphical redesign we are also developing a corporate design manual, which includes electronic templates. The manual, available online later this year, will serve to steer all design work by ESCMID and our collaborating partners. By this we will not only achieve a more uniform public appearance but also streamline the processes allowing us operate more efficiently. Finally the relaunch of the ESCMID website in summer will conclude the process of the new corporate design and provide a more user-friendly interface.
The ESCMID Executive Committee is pleased to announce the set-up of an Online Lecture Library. By the end of 2007 some 50 hours of educational and scientific lectures will be available on the ESCMID website and on DVD. These activities are considered to be a pilot project; if it is successful, the Online Lecture Library will be considerably expanded in 2008.

The events recorded in 2007 will include the:
- eight Educational Workshops organised by ESCMID at the 17th ECCMID in Munich
- 20 plenary lectures at the ESCMID Summer School 2007 in Suceava

The Online Lecture Library will feature:
- the slides with audio stream from the presentations
- transcripts of most lectures
- a versatile and user-friendly webcast player.

The Online Lecture Library will be available free of charge to ESCMID members on the ESCMID website. Non-members have the choice to apply for membership or to buy the material on DVD.
Harmonisation of European Antimicrobial Breakpoints Nearly Finalised

Gunnar Kahlmeter, Chairman, gunnar.kahlmeter@ltkronoberg.se

Derek Brown, Scientific Secretary, dfjb2@cam.ac.uk

Rafael Canton, Clinical Data Co-ordinator, rcanton.hrc@salud.madrid.org

EUCAST, (the European Committee on Antimicrobial Susceptibility Testing) convened by ESCMID and the national breakpoint committees in France, Germany, Norway, Sweden, the Netherlands and the United Kingdom, had a busy year in 2006. EUCAST consists of a Steering Committee (SC) and a General Committee (GC). The GC has one representative from each European country and representatives from ISC and FESCI. The SC has one representative from each of the six convening national committees, two representatives from the GC, and ESCMID-appointed chairman, scientific secretary and clinical data co-ordinator. The SC meets at least four times per year, for two days at each meeting. EUCAST has an official role in the European Medicines Agency (EMEA) in the process of approving new antimicrobials in the European Union. It is financed by ESCMID, the national breakpoint committees in Europe and a grant from the EU (2005-07). EUCAST is currently under review by the ECDC.

Breakpoints for existing drugs
European harmonised breakpoints are now available for aminoglycosides, fluoroquinolones, glycopeptides, linezolid, cephalosporins, aztreonam and carbapenems. During 2007 EUCAST will finalise breakpoints for penicillins (oral and intravenous) and macrolides and a few other miscellaneous drugs.

Breakpoints for new drugs
Using the Standard Operating Procedure (SOP) developed by EMEA, EUCAST and the pharmaceutical industry, EUCAST has addressed three new antimicrobials during 2005 and 2006. Daptomycin and tigecycline were approved by EMEA in 2005 and 2006, respectively, and EUCAST is currently involved in the approval process for a fluoroquinolone and several other drugs.

EMEA and EUCAST
The SOP regulating the role of EUCAST in the EMEA regulatory approval process of new antimicrobials has been revised. The revised SOP is available on the EMEA website (www.emea.europa.eu/pdfs/human/sop/SOP3043en.pdf).

Epidemiological cut-offs and MIC distributions of wild type microorganisms
The database (available on www.eucast.org) of MIC distributions for wild type bacteria is rapidly growing in size. Several drug/species distributions now include more than 50’000 MIC values and the database consists of more than 11’500 MIC distributions of bacteria and fungi from all over the world. MIC data are contributed by human and veterinary medicine, surveillance networks, companies, breakpoint committees, scientific papers etc. The data are made available to the public when the EUCAST harmonisation process is completed for an agent. This means that MIC distributions for aminoglycosides, fluoroquinolones, glycopeptides, linezolid, cephalosporins, aztreonam and carbapenems, daptomycin, tigecycline and fluconazole are currently available. During 2007 MIC data for penicillins, macrolides and miscellaneous drugs will be made available. Anyone in the possession of a defined collection of MIC values (state species, antibiotic, test method, and origin of material [-human, veterinary], etc.) for 10 or more isolates of a microorganism is welcome to submit this to EUCAST.

EUCAST Subcommittees
The EUCAST Antifungal Susceptibility Testing (AFST) Subcommittee, chair Juan-Luis Rodriguez-Tudela, has finalised European breakpoints for fluconazole. These are now open for wider consultation and will be finalised by the subcommittee early in 2007. Breakpoints for antifungal drugs are not currently part of the European SPC. However, the SPC will be revised during 2007 and breakpoints for Candida spp. will most likely be included in the new SPC. The EUCAST AFST subcommittee has now decided to address a series of existing antifungal drugs in order to determine European breakpoints.

The EUCAST Subcommittee on Expert Rules in antimicrobial susceptibility testing, chaired by Roland Leclercq is tasked with harmonising interpretative rules for antimicrobial susceptibility testing in Europe. Their recommendations will be discussed at the ECCMID/ICC meeting in Munich 2007 and finalised later in 2007.

EUCAST breakpoints and EUCAST influence outside EU
During the last year the number of scientific arti-
cles using EUCAST breakpoints has increased. The EUCAST Chairman is the European advisor to CLSI and over the last 5 years the views of EUCAST on breakpoints and epidemiological cut-off values have been presented to CLSI on several occasions. Today, EUCAST breakpoints for third generation cephalosporins are decidedly more reliable in relation to extended-spectrum betalactamases than the CLSI breakpoints.

During 2006, The Serbian Society for Microbiology adopted the EUCAST breakpoint for Serbia. This decision was taken during a Serbian National Workshop on Antibiotic Susceptibility Testing, which was held in Belgrade in October 2006. This meeting was held under the auspices of a European Union project (Strengthening the services of Public Health laboratories in Serbia). Representatives from ESCMID and EUCAST actively participate in the meeting.

**EUCAST at ECCMID 2007**

The annual EUCAST General Committee meeting takes place on Saturday 31st of March at 13.30-15.30 in Meeting Room 3. The meeting is open to everyone who is interested in breakpoints for susceptibility categorisation. The following points are being presented and discussed: the progress of EUCAST, subcommittees on AFST and interpretative rules in AST, implementation of EUCAST breakpoints, EUCAST and EMEA roles in the approval process for new antibiotics and antifungals, CLSI and more.
Male Circumcision

Georges Schmid, M.D., M.Sc.*
Department of HIV/AIDS, WHO,
Geneva/Switzerland, schmidg@ who.int

*The views expressed in this article are those of the author and do not reflect those of the World Health Organization.

In 1907, Professor Paul Ehrlich delivered his Harben lectures to the Royal Institute of Public Health in London (1). In them, he first mentioned the concept of a magic bullet, the ability to design therapeutics specifically tailored for a disease. The 100th year anniversary of Professor Ehrlich's prescient observations finds the announcement of confirmatory findings that male circumcision (MC) markedly decreases the acquisition of HIV infection, the major epidemic of our time. Could MC be a magic bullet?

In 1986, five years after the description of AIDS, the first article suggesting that the lack of MC increased the risk of human immunodeficiency virus (HIV) infection appeared (2). Over the next 15 years, studies, almost exclusively from sub-Saharan Africa where HIV infection quickly became the centre of the world’s HIV epidemic, increasingly supported this contention. The studies were of two epidemiologic types: ecologic and observational. Ecologic studies showed strong correlations between prevalences of MC and rates of HIV infection (3, 4). Observational cross-sectional studies in multiple settings showed that men who were not circumcised had higher rates of infection than men who were circumcised (5). And, most strongly, observational cohort studies confirmed these weaker study design findings (6). A systematic review of observational studies in 2000 found an adjusted relative risk (RR) of 0.42 (95% CI, 0.34-0.54) (7).

Despite this accumulating evidence that some scientists believed was sufficient to recommend MC as a means of HIV prevention, there remained uncertainty among most scientists and all national and international public health and scientific agencies. This uncertainty largely centred on one fear—that men who were circumcised had differing sexual practices than men who were not. Despite design and statistical adjustments in many of the studies, it was impossible to know for certain that it was circumcision that afforded protection and not less risky sexual behaviour. To eliminate this fear, well-conducted randomised controlled intervention trials were needed. They commenced in 2002, and we now have the results. The studies are three in number, and they are consistent in their findings.

In 2005, the results of the first trial were reported (8). This, a French/South African study by Bertran Auvert et al. and sponsored by ANRS, the National Institute for Communicable Diseases, Johannesburg, South Africa, and the Institut National de la Santé et de la Recherche Médicale, randomised 3,274 men to receive circumcision or not. The men were followed over a mean of 18.1 months, and HIV infection rates were measured. The trial was stopped prematurely by the study’s Data and Safety Monitoring Board (DSMB) because of high efficacy and the attendant decision that to continue the study was unethical - the results were conclusive without continuing the trial until its end. This study showed a 61% (95% CI, 34-77%) protective effect against HIV infection (protective effect = 1 - RR) among the men who were circumcised in an adjusted intention-to-treat analysis; and a 76% (95% CI, 56-86%) protective effect in an as-treated analysis (the intention-to-treat analysis analysing by how the men were randomised, with the as-treated analysis analysing by men who did not adhere to the randomisation, because some men who were randomised not to be circumcised subsequently wanted, and had, circumcisions, or some men randomised to receive circumcision did not).

In February, 2007, the results of the second and third studies, similar in study design, were reported. One, an American/Kenyan study by Robert Bailey et al. and sponsored by the American National Institutes of Health (NIH) and the Canadian Institutes for Health Research randomised 2,784 men (9). The other, an American/Ugandan study by Ronald Gray et al. and sponsored by the NIH, randomised 4,996 men to receive circumcision or not (10). Each of these trials was also stopped prematurely on 12 December 2006, by their DSMB because of high efficacy. The Kenyan study found a protective effect of 53% (95% CI, 22-72%) in the adjusted intention-to-treat analysis and a protective effect of 60% (95% CI, 32-77%) in the as-treated analysis. The Ugandan study found a protective effect of 51% (95% CI, 16-72%) in the adjusted intention-to-treat analysis and 55% (95% CI, 22-75%) in the as-treated analysis. The findings of the studies are similar, and remarkably similar to the protective effect of 58% found in the systematic review of observational studies (7).

What will these trial results mean to HIV prevention efforts in the world? The effect sizes of these trials are big. To health personnel who have laboured to prevent HIV infection in the develop-
ing world with behavioural modification interventions, e.g., partner reduction or condom use, with modest success, to have a biological intervention that can prevent approximately one in two infections, or more depending on the type of analysis, offers a remarkable, additional prevention mode—an effect that would be found quite acceptable for an HIV vaccine. The widespread implementation of MC in southern sub-Saharan Africa, where prevalences of MC are generally low and HIV high, could prevent 2'000'000 infections over a 10-year period (11). In other areas of the world, where prevalences of MC and HIV infection are more variable, the impact would be less. On 6 – 8 March 2007, a WHO/UNAIDS meeting of technical and public health experts, and policy makers, took place in Montreux, Switzerland to review results of the studies and their international public health implications; their policy recommendation on whether to endorse MC as a means of HIV prevention are available on the internet (www.who.int/hiv/en). Impact of MC for HIV prevention is already being felt in unusual ways. For instance, a trial of Merck’s HIV-1 vaccine announced 8 February will offer male participants MC (www.fhcrc.org/about/ne/news/2007/02/08/africa_HIV_study.html), a decision that will complicate sample size, study design, and funding considerations.

Is MC a reasonable means of HIV prevention in the developing world? Surprising to some, multiple studies have consistently shown that populations that do not traditionally circumcise will readily accept MC. In sub-Saharan Africa, among 13 studies, 65% of men were willing to be circumcised and 69% of women favoured MC for their male partners (12). Improved hygiene, sexual satisfaction, and (partial) protection from HIV (and selected other STIs) are cited as principal reasons (12). MC is a cost-effective intervention. Modeling in a part of South Africa with high HIV prevalence (25.6%) shows that for 1’000 MC performed, over a 20-year period 308 HIV infections would be averted at a cost of USD 181 per HIV infection averted (13), a figure quite competitive with other HIV prevention measures. Moreover, circumcision is affordable, as the cost of circumcision was USD 47 in the South African trial (8). Exactly how medical services can be enhanced to more widely offer MC is uncertain, but models exist, others are under development, and some societies, e.g., Swaziland, have already been offering MC on a limited basis. Importantly, any programme that offers MC for HIV prevention services must successfully communicate that MC does not offer complete protection against HIV infection (Figure 1) and that other behavioural prevention measures must be maintained or adopted. That men might adopt riskier sexual behaviours following circumcision under the mistaken belief that they are protected against acquiring HIV infection (‘risk compensation’) is perhaps the biggest prevention risk MC programmes will face (14).

What about Europe? Throughout Europe, MC is uncommon. HIV incidence is low enough that MC for HIV prevention purposes is unlikely to be a reasonable measure. Increasingly, however, data are showing additional benefits of MC. Some, such as lessened risk of urinary tract infection (15), occur only when MC is performed neonatally while others, such as prevention of STIs (16) or penile/cervical cancer (15), may occur if MC is performed at any age. The studies showing that MC protects against HIV may prompt reconsideration of MC within Europe for additional reasons. Male circumcision, highly effective for HIV prevention, may in the end not fit Professor Ehrlich’s concept of a magic bullet because it turns out to broadly protect against many infectious diseases. It seems unlikely Professor Ehrlich would be disappointed.

References
1. Ehrlich P. Experimental researches on specific therapeutics. HK Lewis, London, 1908
Two New ESCMID Study Groups

Study Group on Viral Hepatitis

Dominique Salmon, ESGVH Chair, dominique.salmon@cch.ap-hop-paris.fr

Andy Hoepelman, ESGVH Co-chair and Secretary, i.m.hoepelman@umcutrecht.nl

Will Irving, ESGVH Treasurer, will.irving@nottingham.ac.uk

Charles Boucher, ESGVH Executive Committee Member, c.boucher@umcutrecht.nl

We would like to announce the formation of the ESCMID Study Group on Viral Hepatitis (ESGVH). Whilst once the domain mostly of hepatologists, patients with chronic viral hepatitis are increasingly being managed by infectious diseases physicians and clinical virologists. Over approximately the last five years, there have been considerable developments in the management of patients with hepatitis B and C virus infections, including those co-infected with HIV. The time is therefore appropriate for the development of this special interest group within ESCMID.

The objectives of the group are:
1. to advance scientific knowledge and disseminate professional guidelines on viral hepatitis amongst clinicians active in the fields of Clinical Microbiology and Infectious Diseases
2. to contribute to the educational activities and congresses of the Society, and to develop proposals for Postgraduate Education Courses and ECCMID symposia
3. to stimulate collaboration between ESCMID and the European Association for the Study of the Liver (EASL)
4. to stimulate collaboration between ESCMID and other international societies active in Infectious Diseases and interested in research in viral hepatitis and patient care
5. to stimulate collaboration between ESCMID and international societies focussing on HIV.

The first activity of this new group is a business meeting during the 17th ECCMID / 25th ICC 2007 in Munich, which was announced in the ESCMID Online News on 6 February 2007. We are planning to organise a joint meeting at the 3rd European Virology congress in September later this year, with the theme of antiviral resistance. It is our intention that there will be an official symposium on viral hepatitis at the ECCMID Barcelona in spring 2008, with the main focus yet to be decided. From a research perspective, we aim to meet the EASL Executive at their meeting in April in Barcelona to discuss possible initiatives.

The organisers would be delighted to receive suggestions from the ESCMID membership regarding the development of this special interest group, whether related to education, research, or any other appropriate field of endeavour. Please feel free to contact any of us via e-mail. We look forward to the establishment of a thriving and stimulating pan-European viral hepatitis study group.

Study Group on Food- and Water-borne Infections

Kevin Kerr (on behalf of the Steering Group)
Hull York Medical School, University of Bradford, UK kevin.kerr@hdft.nhs.uk

Present situation in the field
Food- and waterborne infections (FWI) remain a major cause of morbidity and mortality worldwide. In addition to established pathogens, new microorganisms, e.g. Cyclospora cayetanensis have emerged in recent years as causes of FWI and there are an ever-increasing number of candidate organisms such as enterotoxigenic Bacteroides fragilis. The laboratory diagnosis of FWI, especially in the traveller returning from areas where these infections are more prevalent, is thus becoming more difficult and there is a necessity for new diagnostic techniques.

Management of FWI is becoming ever more problematic because many pathogens manifest resistance to multiple antimicrobial agents – resistance which may have emerged in response to the use of antimicrobials in agriculture. Furthermore, with some aetiological agents, such as Cryptosporidium hominis, the range of therapeutic agents has always been very narrow and given the potential for life-threatening infection in some vulnerable patient groups, there is a pressing need for new drugs to treat FWI.

Attention is being paid to alternatives to conventional antimicrobial agents for the prevention and treatment of FWI, such as probiotics and prebiotics but the evidence base to underpin the use of these is narrow and further studies are essential.

The elucidation of the epidemiology of FWI is becoming increasingly complex, at least in part, because of trends in food distribution and retailing at an international level. International collaborative networks which use discriminative, reproducible and standardised methods for strain typing of FWI-associated pathogens are of key importance for the early detection of clusters of infection related to particular food products.

Over recent decades there have been substantial changes in the way that food is purchased, stored and prepared by consumers and access to independent objective, but user-friendly, information on safe storage and preparation of food products is needed. This, in turn, could encourage consumers to acknowledge their own responsibilities in eating safely.

Given the foregoing it is apparent that there is significant scope for a very wide range of scientific, clinical and epidemio-
Launch of New Centre in 2007

Professor Richard James, Director
richard.james@nottingham.ac.uk

Professor Roger Finch, Clinical Co-Director
roger.finch@nottingham.ac.uk

The Centre for Healthcare Associated Infections at the University of Nottingham, UK has research staff from seven Schools and two research Institutes of the University, as well as the local National Health Service, that allows a unique holistic approach to research in healthcare associated infections (HCAI). Detailed information about the new Centre can be found at http://hcai.nottingham.ac.uk.

The vision for the Centre is to:
- become a recognised Centre of excellence carrying out both high quality basic and translational research programmes with the major pathogens responsible for healthcare associated infections – C. difficile, S. aureus and Pseudomonas aeruginosa.
- introduce a unique multidisciplinary social science and economics dimension to the problem of HCAI
- leverage additional sources of research funding in what is currently an under-funded research area that will inevitably grow in importance – current research funding of groups in the Centre totals £8'179'324
- attract PhD students and research staff to want to work in the Centre
- act as an independent source of scientific advice and expertise on HCAI to a variety of stakeholders including the media
- generate positive publicity (local, national and international) for the Centre and the University.

Launch of New Centre on 5 January 2007 was supported by generous sponsorship from AstraZeneca, BioKnex, Genzyme, Merck Biosciences, Smith Nephew and by the Dean of the Faculty of Medicine & Health Sciences, University of Nottingham. It attracted a high quality audience of >200 delegates that included researchers from industry, universities and the NHS; NHS clinicians and Infection Control nurses; senior representatives of research funding bodies, the Department of Health and the Health Protection Agency; patient support groups; venture capitalists, solicitors and a member of the House of Lords. Lectures from four distinguished external speakers flanked seven presentations from Centre staff that showcased the quality and breadth of our research. The lecture abstracts and slides can be viewed via the Centre website. An evaluation of the Launch Symposium will be completed shortly but preliminary information indicates considerable support for making the Symposium a biannual event.

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Media interest in the new Centre was very high with coverage of our research featured on national and local TV, national and regional radio stations and in newspaper articles. Research strengths in the new Centre include:
- world leading expertise in the development of genetic tools for clostridia that for the first time allows knockout mutations of specific genes to be readily obtained. This has enormous potential for the study of virulence determinants in C. difficile.
- development of novel antibacterial agents such as quorum sensing inhibitors in S. aureus, the ViREp microarray for the identification of S. aureus strains and the detection of antibiotic resistance genes and virulence determinants such as PVL.
Multilocus Sequence Typing among Representative Methicillin-resistant *Staphylococcus aureus* Strains from Greece

Vassiliki Chini, University of Patras, Greece  
vchini@med.upatras.gr

**Defining the scope of the work**

Staphylococcal typing is important for studying nosocomial and community outbreaks, defining the relationship between isolates. The most widely-used molecular typing method for methicillin-resistant *Staphylococcus aureus* (MRSA) is pulsed-field gel electrophoresis (PFGE). A major disadvantage of PFGE is the difficulty of comparing the results from different laboratories (1). For this reason, there was a need for a method that allows the unambiguous identification of clones without the exchange of reference strains.

Multilocus sequence typing (MLST) relates organisms on the basis of the nucleotide sequences of ~450 bp internal fragments of seven conserved housekeeping genes. For each gene fragment, the different sequences are assigned as distinct alleles at each of the seven housekeeping loci (the allelic profile or sequence type, ST) (1). As there are many alleles at each seven loci, isolates are highly unlikely to have the same allelic profile by chance and isolates with the same allelic profile can be assigned as members of the same clone (1). A major advantage of MLST is the ability to compare the results obtained in different studies via the internet, in freely accessible databases of nucleotide sequences that provide the basis of a common language for bacterial typing (2).

Protein A, encoded by the *spa* gene, is a surface protein of *S. aureus*, with the ability to bind to the Fc chain of IgG, inhibiting the phagocytosis of the bacteria by professional phagocytes. The *spa* gene is a highly discriminatory and stable single-locus marker that reflects excellent macro- and micro-variation in *S. aureus* populations (3). DNA sequencing of the polymorphic X or short sequence repeat (SSR) region (4) of *spa* has been proposed for the typing of *S. aureus* (5). The diversity of the SSR region seems to arise from deletion and duplication of the repetitive units and also by point mutation (6). The sequencing of the *spa* SSR region combines advantages of a sequencing-based system, and it may be more rapid for outbreak investigation in the hospital setting since it involves a single locus (3).

In the Laboratory of Microbiology at the University of Patras the methods applied for MRSA typing were electrophoresis of *CiaI* restriction fragments and hybridisation with *mecA* and *Tn554* probes; PFGE of *SmaI* DNA digests; and SCC* mec* and *agr* typing with multiplex PCR. There is a constant follow up in typing all MRSA since 1997, resulting in the characterisation of three major clones, with concrete phenotypic and genotypic profiles, present also in the rest of Europe (7,8,9).

**Experimental objectives**

A fellowship for ‘training in a foreign laboratory’ enabled me to pursue a one-month training on MLST in the Centre National de Référence des Staphylocoques, situated in Lyon, France. Training included learning the techniques of MLST and *spa* typing and applying these methods to test 22 representative MRSA strains isolated and previously characterised in my laboratory in Greece.

The 22 representative MRSA strains were selected according to their phenotypic characteristics (antibiotic resistance profiles), SCC*mec* and *agr* types, PFGE and the presence of toxin genes (8,9). Bacterial cultures in Brain Heart Infusion broth (BHI), after overnight incubation at 37°C, were used for the DNA extraction, applying the phenol: chloroform method (10). Amplification of *gyrA* was used to confirm the quality of DNA extracts and the absence of PCR inhibitors.

**Methods**

For both the MLST and the *spa* typing, genes were first amplified by PCR, followed by purification and sequencing by using the BigDye Terminator chemistry (BigDye Terminator v3.1 cycle sequencing kit, Applied Biosystems, USA) and the ABI 3730 XL Capillary Sequencing (Applied Biosystems, USA) devices.

For MLST, the allelic profile of each strain was obtained by sequencing internal fragments of seven housekeeping genes (*arcC, aroE, glpF, gmk, pta, tpi, yqiL*) and entering them on the MLST home page (http://saureus.mlst.net) where seven numbers, representing the allelic profile, were assigned. The Sequence Type (ST) was defined by the allelic profile numbers (1,2). To determine genetic relationships and clonal complexes, MLST data were analysed with the e-BURST software (http://saureus.mlst.net/eburst). The algorithm places STs, which share five out of seven MLST alleles, in a common clonal complex (11).

In addition, *spa* typing was performed as described by Harmsen (12). The X region of the *spa* gene was amplified by PCR and sequenced. The *spa* types were determined with the Ridom Staph...
Multilocus sequence typing for CE, Peacock SJ, Spratt BG.


Results

Six PFGE types, six MLST STs, ten spa types and three agr allele types were detected among the 22 MRSA strains (Table 1). All six STs belonged to different clonal complexes and were related to the PFGE types.

Eight strains belonged to the European clone ST80 and agr allele type 3, carried the Panton-Valentine leukocidin (PVL) genes and were resistant to kanamycin and fusidic acid. Seven out of eight had the spa type t044 and the rest the t131. Four strains belonged to a newly-characterised clone in Greece, the ST377, agr group 1 and spa type t355, positive for the PVL and hlb genes and resistant to kanamycin, tobramycin and gentamicin.

Four strains belonged to ST30 and agr type 3. Three of them were spa type t021, harboured the tst and the eeg genes and were resistant only to lactams, while the fourth strain was spa type t018, carried additionally the hlb gene and was resistant to lactams, kanamycin, tobramycin and gentamicin. Three strains belonged to the ST225, agr group 2, t033, carried the eeg genes and had a multiresistant phenotype. Two strains characterised as ST239, agr group 1, carried only the see gene and had a multiresistant phenotype, too, but each of them belonged to a different spa type (t037 and t1866, which was a new spa type). Finally, one isolate belonged to ST217, agr type 1, spa type t032, harboured the eeg, sec and sel genes and was resistant to erythromycin and ciprofloxacin.

As planned, the ‘training in a foreign laboratory’ yielded a good knowledge transfer and the successful collection of phenotypic and molecular characteristics data of the 22 MRSA clones previously identified in Greece.

Table 1: Results of genotypic and phenotypic characterisation of the 22 MRSA strains

<table>
<thead>
<tr>
<th>PFGE/agr/SCCmec</th>
<th>Antibiotic resistance</th>
<th>Toxin genes</th>
<th>No of strains</th>
<th>spa type</th>
<th>MLST</th>
</tr>
</thead>
<tbody>
<tr>
<td>C/agr3/Iv</td>
<td>K/FA</td>
<td>lukS-PV/lukF-PV</td>
<td>7</td>
<td>t044</td>
<td>ST80</td>
</tr>
<tr>
<td>G/agr1/Iv</td>
<td>K/TM/GM</td>
<td>lukS-PV/lukF-PV, hlb</td>
<td>4</td>
<td>t355</td>
<td>ST37</td>
</tr>
<tr>
<td>A/agr3/Iivar</td>
<td>-lactams</td>
<td>tst, eeg, hlb</td>
<td>3</td>
<td>t021</td>
<td>ST30</td>
</tr>
<tr>
<td>H/agr2</td>
<td>multiresistance</td>
<td>eeg</td>
<td>3</td>
<td>t033</td>
<td>ST225</td>
</tr>
<tr>
<td>B/agr1/Ii</td>
<td>multiresistance</td>
<td>sea</td>
<td>1</td>
<td>t037</td>
<td>ST239</td>
</tr>
<tr>
<td>F/agr1</td>
<td>E/CIP</td>
<td>eeg, sec, sel</td>
<td>1</td>
<td>t1866 (new spa type)</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>22</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 K: kanamycin; FA: fusidic acid; TM: tobramycin; GM: gentamicin; E: erythromycin; CIP: ciprofloxacin; multiresistance: resistance to more than three antibiotic groups

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SCIENCE AND EDUCATION

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ESCMID-SHEA Hospital Epidemiology Course 2006

Maja Rupnik, Institute of Public Health, Centre for Microbiology, Maribor, Slovenia, maja.rupnik@zzv-mb.si

Karin Tegmark Wisell, Karolinska University Hospital, Stockholm, Sweden, karin.tegmark-wisell@karolinska.se

The 9th ESCMID-SHEA Training Course in Hospital Epidemiology was held in Baden, Austria, from 25–28 November 2006. The 2006 course consisted of a basic module, that was recently revised, and a newly-created applied module. The aim of the basic module was to give an overview of important hospital epidemiology topics such as: basic epidemiology, organising an infection control team, outbreak recognition and management, surveillance, surgical site infections, sterilisation and disinfection, catheter-related infections, nosocomial diarrhoea, specific important pathogens (MRSA, Mycobacterium tuberculosis, multiresistant bacteria, Clostridium difficile), role of molecular typing and hand hygiene. Besides lectures, teaching took place with interactive, hands-on and problem-based sessions. Some common and unusual examples from real life illustrated that not only professional but also communicative skills are important in hospital infection control when interacting with health care workers, administration and the community. The applied module was aimed at participants who already had attended the basic module in previous years and have experience in hospital epidemiology and infection control. The issues covered were modelling, surveillance, control of antibiotic use, MRSA, Legionella, endoscopes and disinfection, ventilator-associated pneumonia and ICU infections. Here the teaching mode was mainly interactive and problem-based.

Most of the participants were clinicians (physicians and infection-control nurses) but there were also representatives from academic institutions and from the industry. As usual, a large number of countries were represented. Among 29 countries one could interact with colleagues from Western, Central, and Eastern Europe, but furthermore Iceland, Malta, China, Korea and Australia. One of the especially interesting sessions was therefore the international forum on infection control, in which ten participants from different countries presented their respective institution, infection-control practice and current problems. It was obvious that some common themes were constantly present regardless of the country of origin!

Despite a very intense schedule with morning sessions starting at 8 am and on some days evening sessions ending at 10 pm, the organisers also found time for a few well-organised social events such as a guided tour of Baden.

The ESCMID-SHEA Training Course in Hospital Epidemiology is a course of great tradition and excellence that is highly recommended to both physicians and nurses training/working in this field. All participants appreciated the input of local organisers and of the faculty, who were not only excellent speakers and instructors, but were always open for questions and discussions.

On behalf of the students we express our gratitude to all the organising institutions for an excellent course and on behalf of the students receiving attendance grants we express our gratitude to ESCMID for financial support towards attending this course.
Plagues have always awakened interdisciplinary interest far beyond the area of infectious medicine. The historical meaning of plagues, the social and economical factors determining the origin and spread of epidemics and the footrace to identify the pathogen have inspired authors time and again in the past decades to write on this subject. Now a new book has enriched this genre and has all attributes of becoming a standard work. Irwin Sherman, Professor Emeritus for Biology at the University of California, has obviously evaluated a meticulously gathered pool of material in order to write a 430-page book that is informative as well as downright entertaining to read.

The author begins his work with a chapter on the evolution of infectious diseases by showing that plagues are the price that was paid because our ancestors had changed from nomads to settled farmers and city dwellers. A summary follows of historically recorded plagues of ancient Greece, for which even until today no specific pathogen can be attributed. Subsequently, Sherman presents the great plagues of the past centuries: the Black Death, smallpox, cholera, relapsing fever, leprosy, syphilis, tuberculosis and malaria. A description follows of plagues that were or are still a health threat in Africa (sleeping sickness, onchocerciasis or river blindness, dracoutiasis or guinea worm disease) or the North American continent (yellow fever, hookworm, tertian malaria). Infectious diseases – occurring worldwide or only on single continents – that are today plainly a challenge for infectious diseases medicine (AIDS, influenza, Creutzfeldt-Jakob disease, West Nile fever, Ebola and other haemorrhagic fevers) take up a particularly large part. The thematic spectrum is complemented by a review of the discovery era of anti-infectives. Unusual for the infectious diseases specialist is a chapter about non-infectious diseases that have also written history as plagues. Among these Sherman counts rickets, scurvy, beriberi and pellagra. The book closes with an appendix of the biological fundamentals of pathogen-host interaction, extensive annotations to each chapter and a detailed index.

Each disease-specific chapter is organised in a similar way. First the author deals with the historical aspects, and then he follows with the contemporary context, which makes also these days spreading of the disease possible. This is followed by information about the current geographical distribution if the disease, its epidemiology, microbiology of the pathogen and immune response. Weaved throughout the text are biographies of well-known personalities, who have suffered from that specific disease or died from it, as well as numerous anecdotes. Noteworthy is the depiction of the effect of plagues in paintings, literature and music. A special ‘treat’ are the numerous children’s rhymes, which show to what extent infectious diseases earlier influenced our daily life. For example, the rhyme that children in the USA sang during the Spanish Flu of 1918:

„I had a little bird
And its name was Enza.
I opened the window
And in flew Enza.“

Unfortunately, among the abundance of data, small mistakes have crept in. For example in the section about *Schistosoma mansoni*, it is stated that the adult worms live in the blood vessels of the liver and lay their eggs there - when in fact they live in the venules of the large intestine. The vaccination with BCG does not lead to a negative tuberculine test, and cholera has not returned slowly to South America after 100 years of absence, but rather at the beginning of the 1990’s has newly stormed the continent with a fulminant epidemic. I suppose that the majority of these minor errors remain unnoticed by the interested reader.
La Réunion, a 2'517 square kilometer large volcanic island in the Indian Ocean is regarded as a tourist’s dream. The impressive scenery, the exuberant vegetation, culinary specialities and the safety of a French overseas Département turned the tropical island over the decades into an exotic holiday paradise. The first signs that it was a deceptive idyll emerged in March 2005. Like writing on the wall, first individuals became ill, then dozens with high fever, arthralgia and petechial bleeding. The diagnosis was Chikungunya fever, up until then an unknown viral infection on Réunion.

At the end of 2004 the virus, transmitted by different types of culicidae, had caused an outbreak in East Africa. At the beginning of 2005 it reached the Comoros. A short time later alarm signals came from Madagascar and Mauritius, where several thousand people had become ill within a brief period of time. The French island Mayotte was also affected. The inhabitants of Réunion felt safe, because the local public health authorities saw no reason to warn about the emerging infection. Although there was an increase of illnesses during the rainy season, with increasing dry weather the vector population declined along with the number of cases. All the same around 3'600 people had taken ill up until September 2005, representing a half percent of the population.

Doctors and the population checked off the infection with the exotic name as a one-time episode. And even for economic reasons the officials seemed to be counselled not to make a big deal of the Chikungunya epidemic: the exotic Département lives primarily from tourism (more than 400'000 visitors a year) – and they will not come to a vacation resort if a viral infection is rampant, for which there is neither a vaccine nor a specific treatment available.

The actual catastrophe began in January 2006. Within a short time the number of new cases escalated, reaching the horrendous number of 25’000 in the second week. Doctors could not keep up with the house visits; the hospitals were confronted with hundreds of seriously ill patients; and public life collapsed to a great extent. France sent entomologists and infectious disease epidemiologists, who took on the fight against the epidemic on Réunion. It wasn’t until May when the first measures showed success: the incidence first sank to 8’000 and then to 1’000 cases per week – still an alarming rate.

When the medical crisis manager took balance at the end of July 2006, the true extent of the tragedy became clear. Over a time frame of 18 months 264’000 people (one out of three residents) had fallen ill with Chikungunya fever. And although the mother country had invested around EUR 100 million in measures to fight against the epidemic, 237 people had died.

The infectious disease catastrophe on Réunion can be explained by the combination of several factors: in its original home in East Africa the Chikungunya virus circulates in a sylvatic cycle among primates. Mosquitoes, which exclusively suck on monkey blood, keep the transmission going. Occasionally the pathogen ‘jumps over’ to a human being, but generally the disease is limited to individual cases. In contrast to this sylvatic cycle, a periurban virus vector cycle developed on Réunion. Anthropophile mosquitoes maintained the momentum of the infectious carousel. On the islands in the Indian Ocean this is typically Aedes aegypti, a notorious vector of a dozen different types of viruses.

However, this species is not widespread on Réunion. As entomological studies showed, A. albopictus, a close relative of A. aegypti, overtook the role as a pathogen transmitter. A blood-sucking mosquito, which up until now was assumed to be annoying but not dangerous. Entomologists held

**Spread of Chikungunya to the Indian Ocean Islands**

Hermann Feldmeier,
Charité University Medicine Berlin,
hermann.feldmeier@charite.de

Chikungunya is a word from the language of the Makonde, who live in Tanzania and Mozambique. It roughly means ‘to bend over in pain’. A fitting description, since after an incubation period of two to six days there is a sudden rise in temperature and extremely strong limb pain. The polyarthralgia develops symmetrically and can affect all articulations. Conjunctivitis is common, too. A few days later a maculopapulous exanthema appears on the skin, sometimes also petechial bleeding. Complications such as encephalitis or hepatitis were seldom in East Africa up until then, but these occurred unexpectedly frequently on Réunion. The observation that an infected mother can transmit the pathogen to her child during birth is also new. A few days later the babies then took ill with signs of meningitis.

Every year around 1.5 million people come from the islands of the Indian Ocean to the European continent. Chikungunya epidemics such as the one in 2005 on Réunion are therefore a risk for the introduction of the pathogen into Europe. In southern France for example there are different species of culicidae, which can transmit the Chikungunya virus. If people with a high viral load travel during the summer months to such an area, a local spread of the virus is possible. The some 60 imported cases of Chikungunya fever, that were diagnosed in travellers who had returned from Réunion and Mayotte in France between March 2005 and February 2006, have not lead to indigenous cases. Only one nurse took ill, infecting herself while taking a blood sample from an acutely ill patient.
The diagnosis of the Chikungunya infection results from the detection of specific antibodies of the IgM and IgG class. Virus isolation or PCR are reserved for special laboratories and are successful only during the first days of the illness. After the infection protective immunity develops, presumably lifelong. There is no specific antiviral therapy and treatment is only symptomatic.

A. albopictus breeds in the smallest pool of water and is not choosy in selecting its habitats: a vase not completely emptied standing on the patio, rain water collected in a leaf, an empty beverage can at the roadside or an old tire are enough so that within a week a new generation of mosquitoes emerges from the eggs deposited there. Since A. albopictus mosquitoes prefer to sting during the day, safety measures that are effective against mosquitoes active by night, such as sleeping under a mosquito net, do not help. The insect is also resistant to a multitude of insecticides.

Although the virus had in all likelihood been introduced from nearby East Africa, sequencing of the RNA from isolates of the island showed an entire array of differences in comparison to the East African reference strain. For example, multiple mutations in the E1-envelope protein were detectable. These could enable the virus to more easily invade the A. albopictus mosquitoes and more efficiently proliferate into the cells of the insect. Such an adaptation would explain the extremely high incidence of new cases during the epidemic.

French researchers found other point mutations in seriously ill patients. These patients had organ manifestations such as encephalitis, which up to now had been unknown with Chikungunya. Here the RNA changes were localised in non-structural proteins. It is tempting to speculate that by this mutation the virulence of the pathogen increases, which in turn would explain the high percentage of the seriously ill and the fatalities on Réunion.

The low problem awareness of the population – at least in the beginning phase of the epidemic – paved the way for an explosive increase of incidences. It was much too late that one was prepared to eliminate water reservoirs at home and in the environment that had served as breeding pools for A. albopictus. Obviously the local public health authorities also initially reacted much too slack to the threat. From the beginning patients should have been strictly isolated and lying under a mosquito net.
Is There a Need for More Cohesion?

Michael Morgan, MD, FRCPath
Consultant Microbiologist
University Hospital of North Durham, UK
michael@michaelmorgan4.wanadoo.co.uk

Introduction — This review aims to examine the current state of hospital-acquired infection (HAI) in Europe through a Medline search of English language articles and abstracts published since the turn of the millennium. Issues examined include surveillance and audit, design and management, decontamination and hospital hygiene, isolation facilities, antibiotic control as well as guidelines and quality management. The review is not intended to be comprehensive but provides a flavour of the current state of infection control in Europe and offers some conclusions and recommendations for the future.

Survveillance and audit

Status of infection control policies and organisation in European hospitals, 2001: the ARPAC study — This Antimicrobial Resistance Prevention and Control (ARPAC) study conducted by four ESCMID Study Groups and funded by the European Community assessed the organisation, components and human resources of infection control (IC) programmes in European hospitals. A formal IC programme existed in 72% of hospitals, and a multidisciplinary IC committee was operational in 90%. Trained IC nurses (ICNs) were present in 80% of hospitals (ranging from 54% in south-east and central-eastern Europe, to 100% in northern Europe), whereas 74% had one or more trained IC doctors (ICDs) (ranging from 46% in south-east Europe to 84% in western Europe). Median staffing levels were 2.33 ICDs/1000 beds and 0.94 ICNs/1000 beds. Significantly, findings showed that IC programmes in European hospitals suffer from major deficiencies in human resources and policies. Staffing levels for ICNs were below recommended standards in the majority of hospitals. Education programmes were incomplete and often not supported by audit of performance. Hand hygiene procedures were sub-standard in one-third of centres. The authors concluded that strengthening of IC policies in European hospitals should be a public health priority.


Surveillance and infection control in an ICU — In this prospective study, set in a 2000-bed, university-affiliated hospital in Rome, Italy, Orsi et al. set out to evaluate the effect of an infection control programme on the incidence of HAI and associated mortality in the ICU. Regular infection control team (ICT) surveillance meetings were held with ICU personnel. Criteria for invasive procedures, particularly central venous catheters (CVCs), were modified. ICU care was restricted to a team of specialist physicians and nurses and ICU antimicrobial therapy policies were modified. Five hundred thirty-seven patients were included in the study. Between 2000 and 2001, CVC exposure (82.8% vs 71.3%; P < .05) and mechanical ventilation duration (11.2 vs 9.6 days) decreased. The HAI rate decreased from 28.7% in 2000 to 21.3% in 2001 (P < .05). The crude mortality rate decreased from 41.2% in 2000 to 32.9% in 2001 (P < .05). The most commonly isolated microorganisms were non-fermentative Gram-negative organisms and staphylococci (particularly MRSA). Mortality was associated with infection (relative risk = 2.11; 95% CI: 1.72-2.59; P < .05). The authors concluded that routine surveillance for HAI, coupled with new measures to prevent infections and a revised policy for antimicrobial therapy, was associated with a reduction in ICU HAI's and mortality. Orsi GB, Raponi M, Franchi C, et al. Infect Control Hosp Epidemiol. 2005; 26: 321-5

Relationship between hospital infection and long-term mortality in general surgery: a prospective follow-up study — This Spanish prospective study involved 1431 patients admitted to a general surgery department and followed up for a median of 6.3 years after discharge (7679 person-years of follow-up). Information was collected on underlying conditions, including severity of illness, and healthcare-related variables. There were 172 deaths during the follow-up period after hospital discharge (2/100 person-years). Follow-up was complete in 91% of the cohort. The death rate in patients with any HAI was 5.3/100 person-years, and the relative rate was 3.07 (95% CI: 2.20-4.24). After adjusting for the main predictors of mortality, an effect modification by the presence of chronic disease...
was found (P = 0.01). Among patients without any underlying chronic disease, HAI was related to a significantly higher long-term mortality (RR = 2.47, 95% CI: 1.24-4.91). In these patients, surgical wound infection yielded a RR of mortality of 3.44 (95% CI: 1.63-7.27). Among patients with underlying chronic disease no association between hospital infection and long-term mortality was found. No evidence of an important modification of the relative rate along the follow-up period was observed. The authors conclude that surgical patients without chronic disease developing HAI have an increased risk of long-term mortality. Cosano A, Martinez-Gonzalez MA, et al. J Hosp Infect. 2002; 52: 122-29

Decontamination and hospital hygiene

Healthcare workers’ hand decontamination practices: compliance with recommended guidelines — This paper from Cork, Ireland, reports a study of healthcare workers’ handwashing/hand hygiene practices from a behavioural perspective. The Pre-disposing, Reinforcing, Enabling Constructs in Educational Diagnosis and Evaluation Health Education Theory was used as the theoretical framework, and the data were collected in 2001. Healthcare workers’ handwashing practices (observation of behaviour, n = 314) and their predisposition (attitudes, beliefs and knowledge) towards compliance with hand hygiene guidelines (questionnaire, n = 62) were studied. Nurses, doctors, physiothera-

Handwashing – still an important factor in preventing HAI

Building new hospitals: a UK infection control perspective — Many hospitals continue to experience problems months or years after occupying new premises; some of these could have been avoided by infection control involvement earlier in the project.

Infection control input is vital throughout the planning, design and building stages of a new hospital project, and must continue through the commissioning and decommissioning process.

The planning and building of the new University College London Hospital has provided a challenge to the ICT to ensure all areas are easy to clean, air flows are correct and appropriate and that there is enough opportunity for handwashing. Stockley et al. outline the seven-year process in this paper. The importance of infection control must be recognised by the chief executive of the hospital trust and project teams overseeing the development. Clinical user groups and contractors must also be made aware of infection control issues. It is vital that good working relationships are built up between the ICT and all these parties. ICTs need training in how to read design plans, how to write effective specifications, and in other areas with which they may be unfamiliar. The importance of documentation and record keeping is paramount. External or independent validation of processes should be available, particularly in commissioning processes. Building design in relation to infection control needs stricter national regulations, allowing ICTs to focus on more local usage issues. The authors concluded that further research is needed to provide evidence regarding the relationship between building design and the prevalence of infection. Stockley JM, Constantine CE, Orr KE. J Hosp Infect. 2006; 62: 285-99

The funding and organisation of infection control in National Health Service (NHS) hospital trusts: a study of infection control professionals’ views — The problems associated with HAI have been causing increasing concern in England in recent years. This paper reports the results of a nationwide survey of hospital infection control professionals’ views concerning the organisational structures used to manage and obtain funding for control of infection. A complex picture with significant variation between hospitals emerges. Although government policy dictates that specific funding for hospital infection control is formally made available, it is not always the case that infection control professionals have adequate resources to undertake their roles. In some cases this reflects the failure of hospitals’ infection control budgetary mechanisms; in others it reflects the effects of decentralising budgets to directorate or ward level. Some use was made of informal mechanisms either to supplement or to substitute for the formal ones. But almost all infection control professionals still believed they were constrained in their ability to protect the hospital population from the risk of infectious disease. It is clear that recent government announcements that increased effort will be made to support local structures and thereby improve the control of HAI are to be welcomed. Croxson B, Allen P, Roberts JA, Archibald K, Crawshaw S, Taylor L. Health Serv Manage Res. 2003; 16: 71-84
Evidence that hospital hygiene is important in the control of methicillin-resistant Staphylococcus aureus — Observational and microbiological data were collected from the patients and environment of a male general surgical ward in the UK over a period of 27 months from January 1998. Isolates of methicillin-resistant Staphylococcus aureus (MRSA) from patients and environment were typed by antibiogram, bacteriophage and pulsed field gel electrophoresis (PFGE) of chromosomal DNA. In September 1999, an intervention was put in place, which included increasing the domestic cleaning time by 57 hours per week, with emphasis on removal of dust by vacuum cleaning, and allocation of responsibility for the routine cleaning of shared medical equipment. From January 1998 to September 1999, despite standard infection control measures (emphasis on hand hygiene, isolation of affected patients and staggered closure and cleaning of ward bays), 69 patients acquired a strain of E-MRSA16. This strain was also widespread in the ward environment. Typing confirmed that isolates from patients and environment were indistinguishable from one another and that the outbreak was due to a single strain. This strain was responsible for postoperative infection in approximately one third of the patients who acquired it. In the six months following the intervention, only three patients were colonised with the outbreak MRSA and monthly surveys failed to detect this strain in the environment. Thorough and continuous attention to ward hygiene and removal of dust was needed, to terminate a prolonged outbreak of MRSA infection on a general surgical ward, in addition to standard infection control measures. Control of HAI with MRSA requires a combination of measures, none of which are completely effective alone. Rampling A, Wiseman S, Davis L, et al. J Hosp Infect. 2001; 49: 109-16

Isolation facilities

An audit of the use of isolation facilities in a UK NHS Trust — To aid the ongoing battle against HAI in the UK, all acute NHS trusts should have audit data about how dedicated isolation beds within the trust are being used. In a previously published audit, the authors demonstrated that one-third of patients admitted to a dedicated isolation room in Tayside were not thought to be an infection risk by experienced healthcare staff. Since this audit, Tayside’s isolation facilities have moved from a small peripheral ‘fever’ hospital to a large central teaching hospital site. At the time of this move, and using the above audit data, a guideline for general practitioners and hospital doctors regarding the admission of patients to an isolation bed was designed and implemented. The results show that by all three criteria used, the utilization of isolation beds has deteriorated following the move, mainly due to the increased admission of general medical, boarders’ and low-risk infection patients. At a time when HAIs are increasing, NHS trusts should ensure that dedicated isolation beds are used appropriately. Damji S, Barlow GD, Patterson L, et al. J Hosp Infect. 2005; 60: 213-7

A purpose built MRSA cohort unit — The control of HAI, in particular MRSA remains a challenge. This Irish hospital has established a purpose built 11-bed cohort unit with on-site rehabilitation for care of patients colonised with MRSA, in an attempt to improve their quality of care. Prior to the opening of this unit a number of concerns were voiced and the aim of this study was to address these. First, to establish if patient cohorting reduces the likelihood of successful decolonisation, second, to evaluate the risk of staff colonisation, and finally to see if successful environmental control of MRSA is possible. There were 88 admissions in the first six months; 62 patients were colonised with MRSA, and 26 patients (10 surgical, 16 medical) had MRSA infections. Twenty-three of 88 patients (26%) were successfully decolonised, which compares favourably with an eradication rate of 20% for the rest of the hospital. Twenty staff members participated in weekly screening. Five staff members colonised with MRSA were detected and all were successfully decolonised. Environmental control was achieved with a combination of a daily detergent cleaning and a once weekly cleaning with phenolic disinfectant. The preliminary data...
suggest that, despite cohorting patients colonised with MRSA, with proper education and supervised cleaning protocols, it is possible to control environmental MRSA load, successfully decolonise patients and limit the risk of staff colonisation. Fitzpatrick F, Murphy OM, Brady A, et al. 20: J Hosp Infect. 2000; 46: 271-9

Antibiotic control

The concept of ‘colonisation resistance’ dictates that antibiotics destroy the sensitive (and friendly) bacteria within the human micro-flora, allowing the resistant ones to proliferate. Thus, antibiotic pressure is the major factor driving the proliferation of multi-resistant bacteria in our hospitals. It follows that antibiotic control is central to the success of any infection control program. Potentially, all antibiotics may be associated with superinfection. However, the cephalosporins, perhaps more so than any other class of drugs, have been associated with superinfection with MRSA, vancomycin resistant enterococci (VRE), *Clostridium difficile* enterocolitis and resistant Gram-negative rods, including those producing extended-spectrum beta-lactamas (ESBLs). Furthermore, control of the use of cephalosporins, generally resulted in reduction of the rates of superinfection with the above organisms. Different cephalosporins have different propensities for promoting superinfection, including *C. difficile* associated diarrhoea (CDAD), with the higher generation drugs (3rd and 4th) being the worst offenders. Demographically, we are witnessing an increasing proportion of hospitalised elderly people who are much more susceptible to the above superinfections, especially CDAD, than their younger counterparts. The use of effective antimicrobial prophylaxis in surgery is also critical if reduction of post-operative surgical site infection is to be achieved. Morgan M. Surgery and Cephalosporins: A Marriage Made In Heaven Or Time For Divorce? The Internet Journal of Surgery. 2006; 8 (1)

Report of the Consensus Conference on Antibiotic Resistance Prevention and Control (ARPAC) — The ARPAC Concerted Action project was funded by the European Commission and conducted by four study groups of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID). The ARPAC Consensus Conference, entitled Control of Antibiotic Resistance in European Hospitals—informing future evidence-based practice, was held in Amsterdam in November 2004. The conference delivered a set of four high-priority recommendations likely to have a significant impact on antimicrobial resistance. These consisted of: (i) Recommendations for hospitals, (ii) Recommendations for national health authorities, (iii) Recommendations for European health authorities, (iv) Recommendations for future research.

Each of the above recommendations were further categorised into four subsets related to: (a) Surveillance of antimicrobial resistance, (b) Antibiotic policies in European hospitals, (c) Antibiotic prescribing and consumption in European hospitals, (d) Infection control policies for containment of antimicrobial resistance, including the role of molecular typing.

For the first time, ARPAC has provided a pan-European picture, albeit a snapshot, of the attempts being made to control antimicrobial resistance. Of course, the ARPAC project did not attempt to answer all possible questions; indeed, it probably posed more questions than it answered. MacKenzie FM, Struelens MJ, Towner KJ et al. Clin Microbiol Infect. 2005; 11: 938-954

Antimicrobial drug use and infection control practic-es associated with the prevalence of methicillin-resis-tant *Staphylococcus aureus* in European hospi-tals — This study highlighted significant associations between MRSA prevalence, antimicrobial use and various key infection control parameters, all of which showed significant geographical variations. MRSA prevalence and antimicrobial consumption data were provided by 128 hospitals, and showed a strong statistical relationship between macrolide use and MRSA prevalence. Use of (i) third-generation cephalosporins, (ii) all antimicrobial agents, and (iii) all antimicrobial agents except glycopeptidases was also associated with MRSA prevalence. Infection control policy recommendations associated with lower MRSA prevalence rates were (i) use of alcohol-based solutions for hand hygiene (mean difference 10.3%, 99% CI 1.2–10.3), and (ii) placement of MRSA patients in single rooms (mean difference 11.2%, 99% CI 1.4–20.9). MacKenzie FM, Bruce J, Struelens MJ, et al. on behalf of the ARPAC Steering Group. Clin Microbiol Infect. 2007; 13: 269–276

Risk-factors for acquisition of extended-spectrum beta-lactamase-producing *Escherichia coli* among hospitalised patients — This study was conducted between 1996 and 2002 in Barcelona, Spain. A significant increase was observed in the incidence of extended-spectrum beta-lactamase-producing *E. coli* (ESBL–EC) colonisation or infection during the study period (1.65 episodes/100 000 patient-days in 1996 to 12.6 episodes/100 000 patient-days in 2002; p 0.01). Infection developed in 70 (68%) patients (75 episodes), with surgical site (44%) and
urinary tract (17%) infections being the most frequent. PFGE showed extensive clonal diversity among the isolates. A case-control study and multivariate analysis identified female gender (OR 2.1; p 0.01), use of a nasogastric tube (OR 3.5; p 0.001) and previous antibiotic therapy (OR 3.9; p <0.001) as independent variables associated with acquisition of ESBL-EC.


Guidelines and quality management

Prevention of ventilator-associated pneumonia: review of national and international guidelines — Both in the USA and in Europe the most frequent HAI in intensive care units is the ventilator-associated pneumonia (VAP). The risk for nosocomial pneumonia is six to twenty-one times higher for ventilated patients than for patients breathing without artificial help. Recent studies indicate that infections are mostly endogenous and initiated by microaspiration of bacteria from the oropharynx. A comparison of guidelines of the US CDC with those of the German Robert Koch-Institut reveals deviating recommendations. Differences concern especially the changing of respiratory tubes, the use of filters and of closed humidifying systems. Additionally there are not yet recommendations for every aspect of infection prevention. However, recent studies show that regular surveillance of infections, further training of staff members and critically considering the invasive use of medical devices are able to reduce the rate of HAIs and especially VAP. Panknin HT. Pflüge Z. 2006; 59; 2-8 (suppl)

Can quality circles improve hospital-acquired infection control? — The objective of this German prospective controlled intervention study was to improve process quality concerning the prevention of HAIs in surgical departments and ICUs by a continuous quality improvement (CQI) approach based mainly on quality circles. During two intervention periods (each 10 months) four external physicians with training in hospital epidemiology and infection control introduced and supervised quality circles in the intervention hospitals. Process quality was assessed by interviewing senior staff members before the first and after the second intervention period using standardised questionnaires. The gold standard process quality was defined on the basis of the CDC/HICPAC-guidelines for the prevention of HAIs. Fifty quality circle sessions were performed in the four intervention hospitals of which 28 were dealing directly with key subjects in infection control. In the intervention hospitals, 19.8% of evaluated aspects of process quality (concerning the prevention of HAIs) were improved compared to only 6.9% in the control hospitals (P<0.05). Sixty-six point seven percent of positive changes in process quality were initiated by the results of the quality circles. The authors conclude that a CQI approach based on infection control quality circles can lead to substantial progress in the prevention of HAIs. Forster DH, Krause G, Gastmeier P, et al. J Hosp Infect. 2000; 45: 302-10

Conclusions and recommendations

HAIs are a universal feature in all European hospitals and their aetiologies and epidemiologies are similar across Member States. The good news is that HAIs are preventable with an attendant reduction in morbidity, mortality and cost. However, there is a need for more integration, standardisation and cohesion in the management of HAIs within Europe. To this effect, European organisations and networks such as the ECDC, ESCMID, ARPAC, EARSS and HELICS have all made important contributions. However, as recently highlighted by the ARPAC steering group, IC programmes in European hospitals suffer from major deficiencies in human resources and policies and there is still much work to be done. Successful infection control is a complex and multifactorial task requiring active and enthusiastic ICTs to tackle multiple issues such as involvement in hospital design, surveillance and audit, education and training, supervision of hand-washing and hospital hygiene, formulation of guidelines and quality management, etc. In addition, antibiotic selection pressure is all-important in the aetiology of HAIs and successful antibiotic control as well as the implementation of effective surgical prophylaxis regimes, requires the inclusion and active participation of pharmacists and clinicians.
One of the major roles of ESCMID is to promote the exchange of career development opportunities and educational activities between European Countries. We are delighted, therefore, to announce the introduction of a platform for advertising and seeking training and job opportunities on the ESCMID website. The ESCMID Training and Career Centre can be found within the ‘Awards and Jobs’ section of the ESCMID portal. If you have a moment, please take the time to take a look at how we are trying to make this platform useful for all our members and trainees.

The ESCMID Training and Career Centre has three major functions. First of all, it is a site where institutions can advertise jobs and where ESCMID members looking for jobs in all countries served by ESCMID can browse for relevant opportunities in Clinical Microbiology and Infectious Diseases. The jobs available span both clinical and non-clinical (scientific) opportunities. Secondly, the site has a portal for individuals who are seeking short- or long-term exchange positions. We suggest that such exchange positions can run from anything between three months and twelve months. This is available for junior trainees but also for senior doctors. The system runs so that individuals and also institutions can lodge opportunities for exchange visits across Europe. Finally, the website offers a formal system for advertising available trainee positions (i.e. traineeships in both microbiology and infectious diseases) which junior ESCMID members can use to look for relevant training positions across Europe.

Clearly there remain some barriers to effective and free exchange of career development opportunities. Language is obviously an important question, but it will be up to individual institutions to make sure that an individual entering the faculty or programme is able to operate effectively within the local environment. At least initially, we envisage that individuals seeking positions and exchange opportunities will seek out opportunities only within those institutions for which they have the relevant language skills.

Financial issues are also a potential problem, but we have linked all of these sites to ESCMID funding programmes which to some extent can be used to assist trainees in the expenses for travel and associated costs.

We are very excited about this new initiative and we hope that all ESCMID members will at least visit the site and look at its potential for career development, especially the junior trainees, who can only benefit from enjoying the experience offered in other European countries.

Robert Read, Professional Affairs Officer, Clinical Microbiology
Is Europe prepared for the challenges in the field of infection?

Infectious diseases threaten the health of the citizens of the European Community. Therefore, preventing the transmission of emerging pathogens and the resurgence of others, as well as enhancing the rapid and co-ordinated response capability to these threats, is a responsibility shared among national health authorities and the European Commission.

The emergence of HIV and AIDS, re-emergence of tuberculosis, and appearance of variant Creutzfeldt Jacob disease serve to illustrate the diversity of the threats to health that are posed by microorganisms, such as bacteria and viruses and the range of factors influencing their spread. Epidemiological surveillance of these and other communicable diseases can bring about interventions that contribute to the reduction of morbidity and/or mortality. The introduction of strict quality and safety criteria for the handling of substances of human origin is another important public health measure.

The Community’s public health programme related to ‘Threats to health’ endeavours to address these issues. It specifically aims to: further the development of a variety of communicable disease surveillance networks and early warning and rapid response systems (Decision 2119/98/EC); address the problems of antimicrobial resistance and bioterrorism; and develop strategies for preventing and responding to communicable disease (e.g. influenza preparedness and protection against intentional epidemics) and non-communicable disease threats. It also addresses issues related to the quality and safety of substances of human origin (e.g. blood, tissues and cells, and organs), as specifically referred to in Article 152 of the EC Treaty, in order to prevent the transmission of pathogens by these therapeutic materials.

There is a strong need, however, for prioritisation. Europe has to concentrate on new emerging threats as well as on existing threats that are still spreading. Infectious diseases such as HIV and hepatitis C already have a strong and appropriate focus. During 2006 I have and continue to lead a new policy focus on hepatitis B, the most infectious and most prevalent virus. With the support of many of my colleagues from various political groups we have ensured the awareness of the EU Member States and the Commission. Also the European Centre of Disease Control is now prioritising on this widening disease area.

ECDC: are its structures and capacities adequate?

The European Centre for Disease Prevention and Control is an EU agency that has been created to help strengthen Europe’s defences against infectious diseases, such as influenza, SARS and HIV/AIDS.

In today’s world, infectious disease outbreaks can spread internationally with alarming speed. Cooperation between national disease control agencies is vital if we are to meet the health challenges of the 21st century. It was for this reason that, in the spring of 2004, the European Parliament and the Council of the European Union passed the regulation creating the ECDC. ECDC’s mission is to identify, assess and communicate current and emerging threats to human health posed by infectious diseases.

In order to achieve this mission, ECDC works in partnership with national health protection bodies across Europe to strengthen and develop continent-wide disease surveillance and early warning systems. By working with experts throughout Europe, ECDC aims to pool Europe’s health knowledge, so as to develop authoritative scientific opinions about the risks posed by current and emerging infectious diseases.
As mentioned before, the ECDC will be effective when it will be able to focus on the most prevalent and infectious communicable diseases. Resources are limited and we therefore need to ensure that we categorise the seriousness of infectious diseases.

**What is the state of implementation of the European Commission’s and Council’s recommendation on the prudent use of antimicrobials?**

The overuse and misuse of antibiotics have accelerated the development and spread of bacteria and other micro-organisms which are resistant to this treatment. This poses a serious danger to public health, as traditional treatments for various medical conditions are rendered ineffective.

In 2001, the Commission launched a strategy to combat the threat of antimicrobial resistance to human, animal and plant health, which includes data collection, surveillance, research, awareness-raising activities and the phasing out of antibiotics for non-medical use in animals. The Recommendation on the prudent use of antibiotics adopted in 2002 was a component in this strategy, outlining clear-cut measures in human medicine that Member States could take to reduce antimicrobial resistance.

The Commission has summarised the main actions taken at Member State and Community level in a report to the Council highlighting the areas of the Recommendation needing further attention. The report is supported by a Commission Staff Working Paper providing a more detailed analysis. The report outlines a variety of measures already taken by Member States in line with the Recommendation, including improved surveillance of antibiotic use and resistance, and closer cooperation between different professionals on this issue. Member States have taken good steps forward in putting measures in place against antimicrobial resistance. However, some key areas need to be better addressed, in particular infection control, reducing self-medication of antibiotics and educating citizens on the proper use of antimicrobial treatments.

Health care institutions are strongly recommended to step up infection control measures to counter the spread of ‘super-bugs’ such as MRSA. Not only emergence but also spread is an important driver of the problem of resistance and the Commission is taking initiative in the area of infection control. Finally, the importance of international cooperation on antimicrobial resistance, due to the global nature of the problem, is emphasised.

**Is research and development in the field of new antimicrobials being fostered by the EU?**

The STOA Report recommends containment of antibiotic resistance rather than searching for new drugs. In January 2007, The European Parliament’s Scientific Technology Options Assessment (STOA) committee recommended that resources allocated to the serious problem of increasing antibiotic resistance would be better spent on action to combat further resistance than research into new antibiotic drugs.

The STOA interdisciplinary working group on antibiotic resistance began its work in March 2006 and produced an interim report in September 2006 identifying a number of policy options to tackle the rise of antibiotic resistance. These policy options have been based on four areas where the EU has a mandate to take action: coordination, standardisation, stimulation and research.

Previous reports on antibiotic resistance have frequently advocated increased research into the development of new antibiotic drugs, but this approach is rejected in this latest report. Three reasons are given as to why pursuing new drugs is not the best option: resistance is currently outrunning antibacterial research, leading to a high risk situation that needs addressing urgently; the ability of new antibacterials to treat infections will be reduced if resistance is not contained by the time they reach the market; and there is no guarantee that new drugs will be discovered or developed in time.

**FP7 – What are the funding opportunities for research?**

FP7 was launched on 1 January 2007 and will run until 2013. The objective of health research under FP7 is to improve the health of European citizens and boost the competitiveness of health-related industries and businesses, while addressing global health issues such as *anti-microbial resistance*, HIV/AIDS, malaria, tuberculosis and emerging pandemics.

Emphasis will be given to the following activities:
- Biotechnology, generic tools and technologies for human health - producing knowledge that will be applied in the area of health and medicine;
- Translating research for human health - making sure that basic discoveries have practical benefits and improve the quality of life;
- Optimising the delivery of health care to European citizens - ensuring that the results of biomedical research will ultimately reach the citizens.

Budget: The EU Member States have earmarked a total of EUR 6 billion for funding health over the duration of FP7.

**What developments are there in the area of European recognition of professional qualifications?**

Seeking to create a level playing field, the EU has introduced various instruments aimed at promot-
The stage has been set for a new EU Health Strategy over recent years. In 2000 the European Commission adopted a initiative ‘Enabling Good Health for All – A Reflection Process for a new EU Health Strategy’. The reflection process generated a broad debate amongst stakeholders, attracting around 200 responses from national and regional authorities, NGOs, universities, individual citizens and the private sector.

Key outcomes of the consultation were that stakeholders want a comprehensive approach to health that mainstreams health concerns into all Community policies; that they see a need to bridge health inequalities across the EU; that the EU should take a much stronger role in global health; that the EU should focus on health promotion; that it should tackle key issues such as mental health and cross-border matters; and that the EU, its Member States and stakeholders should work together to deliver concrete results.

Building on the responses to the consultation and on latest policy developments, a new EU Health Strategy is being developed. The new Strategy is planned to be adopted in 2007 and will be focussed around three elements: core issues which need to be addressed in order to protect and improve health in Europe, health threats, information and monitoring.

Despite the various recent and current policy initiatives and legislation, there is a disconnect between the various dossiers and the EU bodies and units in charge of the dossiers.

Improvements in the area of further education are being understood by EU and national decision makers as a priority – a lack of a model seems to be the current problem.

The EU should ensure that a common and reliable system of continued medical education will be established. This should be a system, in which the level of qualifications can be assessed across Europe. For a long time this has been an objective of the EU and it is time to prioritise on this objective.

Is there a role of the EU in the accreditation of continuing medical education?

Member States committed to a ‘challenging modernisation of the education system’ during the Lisbon summit in 2000. EU Member States, Commissioner and Parliament generally recognise the need for harmonisation and progress in educational systems and particularly for medical professions (see box).

A New EU Health Strategy and Public Health Programme

Helmut Walerius, European Commission, Health Threats Unit, helmut.walerius@ec.europa.eu

New EU Health Strategy

The stage has been set for a new EU Health Strategy over recent years. In 2000 the European Commission adopted a first health strategy which gave rise to the Public Health Programme (2003-2008), setting out a framework for action on health determinants, health threats, information and monitoring.

In late 2004, the European Commission consulted stakeholders on what future action the EU should take in the field of health through the initiative ‘Enabling Good Health for All – A Reflection Process for a new EU Health Strategy’. The reflection process generated a broad debate amongst stakeholders, attracting around 200 responses from national and regional authorities, NGOs, universities, individual citizens and the private sector.

Key outcomes of the consultation were that stakeholders want a comprehensive approach to health that mainstreams health concerns into all Community policies; that they see a need to bridge health inequalities across the EU; that the EU should take a much stronger role in global health; that the EU should focus on health promotion; that it should tackle key issues such as mental health and cross-border matters; and that the EU, its Member States and stakeholders should work together to deliver concrete results.

Building on the responses to the consultation and on latest policy developments, a new EU Health Strategy is being developed. The new Strategy is planned to be adopted in 2007 and will be focussed around three elements: core issues which need to be addressed in order to protect and improve health in Europe, health in all policies, and global issues. General objectives will be defined for these elements to guide the direction of work and to set goals for achieving real change.

The new EU Health Strategy will be brought forward in the context of new developments in the areas of health services, health threats, and health in all policies. These three broad areas of work have all gained a high profile at European Level in recent years and will play an important role in the strategic framework.

The European Commission consulted stakeholders on a discussion document for a new Health Strategy at the beginning of the year.

European Member States have the prime responsibility for protecting and improving the health of their citizens. As part of
that responsibility, it is for them to decide on the organisation and delivery of health services and medical care. However there are a number of health issues, notably those with a cross-border or international dimension, such as prevention of pandemics or movement of patients or health professionals where Member States cannot effectively act alone and where cooperative action at the EU level is indispensable.

There are also a wide range of health issues where the EU has a key role in undertaking actions which add value to and complement the work done by Member States in making European citizens healthier and safer. In recent years the EU, in partnership with Member States, has made important progress in improving and protecting health. Important achievements have included, for example, legislation on tobacco advertising and on blood products, and the launch of the European Centre for Disease Control (ECDC). EU action can be valuable in creating pan-European networks of expertise which enable exchange of best practice, in fields such as e-health, nanotechnology, rare disease treatments, or virtual centres of excellence. Work is already taking place in some of these areas, but there is great potential for further development.

Improving the health and well-being of European citizens is also important for the European Union. Achieving the strategic social and economic objectives of prosperity, solidarity and security requires a population in good health. In relation to prosperity, population health is a key factor for productivity and growth, and this is reflected in the Lisbon agenda. In relation to solidarity, reducing inequalities across the enlarged EU in terms of life expectancy, health status and provision of high-quality health services is part of achieving the goal of a more cohesive Europe. And in terms of security, EU action on cross-border health threats from communicable diseases such as avian flu continues to be vital.

This highlights the need for a new overarching, strategic framework to set aims and objectives to guide future work on health, and to put in place the right instruments and actions to achieve them, building on the work that is already being done at the EU level. The new EU Health Strategy will be designed to enable the closest possible cooperation with Member States to improve health in Europe in the decade to come.

**New EU Health Programme**

The EU is currently developing, as part of the new Health Strategy, a new Programme of Community Action in the field of Health 2007-2013. The Programme will set the framework for the European Commission’s funding of projects relating to health between 2007 and 2013.


The proposal has three broad objectives. These objectives align future health action with the overall Community objectives of prosperity, solidarity and security. This will help to create synergies with other Community programmes and policies.

The objectives are to:

- Improve citizens’ health security
- Promote health for prosperity and solidarity
- Generate and Disseminate Health Knowledge.

Under objective one, actions will be taken to protect citizens against health threats including working to develop EU and Member State capacity to respond to threats. Objective one will also cover actions such as those in the field of patient safety, injuries and accidents, and community legislation on blood, tissues and cells and in relation to the International Health Regulation.

Under objective two, actions will be taken to foster healthy active ageing and to help bridge inequalities, with a particular emphasis on the newer Member States. It will incorporate action to foster cooperation between health systems on cross-border issues such as patient mobility and health professionals. Objective two will also cover action on health determinants such as nutrition, alcohol, tobacco and drug consumption as well as the quality of social and physical environments.

Under objective three, actions will be taken to exchange knowledge and best practice in areas where the Community can provide genuine added-value in bringing together expertise from different countries, e.g. rare diseases and cross-border issues related to cooperation between health systems. It will provide for action on gender health and children’s health. It will also cover key issues of common interest to all Member States such as mental health. Objective three will also allow for action to expand EU health monitoring and develop indicators and tools as well as ways of disseminating information to citizens in a user-friendly manner, such as the health portal.

The proposal reduces work on surveillance of communicable diseases which passes largely to the ECDC.

The programme proposal is broad enough to be able to accommodate key health issues as well as those which may arise unexpectedly and need urgent attention.

The general implementation rules for the new programme are planned to remain similar to those applied for the current programme 2003-2008. Support by the European Commission to projects selected for funding under the new Programme will be given as co-financing. The European Commission contribution, in general, will be 60% of the eligible costs of a project. It is envisaged to make greater use of calls for tender under the new Programme.

The programme now has to be adopted by the European Parliament and the Council. Once it is adopted, it will replace the current one 2003-2008. The timing depends very much on whether or not the Parliament and the Council can agree quickly on the programme. The Council reached a political agreement at the end of November. The European Parliament is currently deliberating in second reading on the proposal.

**Work plan 2007 of the current EU Public Health Action Programme 2003-2008**

Following the adoption by the European Commission of the current Public Health Programme’s 2007 Work Plan on 12 February 2007, the Public Health Executive Agency (PHEA) published a Call for Proposals on 16 February 2007 (see http://ec.europa.eu/
The deadline for submitting applications is 21 May 2007. After that date, the Public Health Executive Agency will start the evaluation of the submitted proposals. The selection procedure is expected to last until autumn 2007. The Work Plan 2007 is focussed on the following themes:

Health Information
- Developing, coordinating and operating the EU health information and knowledge system
- Developing mechanisms for reporting and analysis of health issues and producing public health reports
- Developing strategies for information exchange and responding to non-communicable health threats
- eHealth
- Information on the environment and health
- Supporting the exchange of information and experience on good practice
- Health impact and health technology assessment
- Actions to improve health information and knowledge for the development of public health

Health determinants
- Supporting key Community strategies on addictive substances
- Integrative approaches on lifestyles
- Public health actions to address wider determinants of health
- Disease and injuries prevention
- Capacity building

The planned total operating budget for 2007 is EUR 41’870’000. Up to 10% of the operating budget is planned to be spent on call for tenders. The total indicative amount planned for call for proposals is EUR 33’888’000. Normal financial Community contribution to projects can be up to 60%.

The World CDC Belt (W-CDC)

Michel Tibayrenc, MD, PhD
Representative Office of the Institut de Recherche pour le Développement
Bangkok, Thailand
michel.tibayrenc@ird.fr

Utopia: what has not happened yet (the author)

Abstract
It is proposed to establish around the world a warning belt against infectious diseases and major pandemics composed of five major centres with walls patterned after the US Centers for Disease Control. It would include the US CDC, a considerably enlarged version of the European CDC, extended to Turkey and former USSR, the planned Asean CDC extended to countries of the subregion, and two centres to be designed, in Africa and in South America. This World CDC belt (W-CDC) would permit an efficient control of epidemics of medical/veterinary relevance, would boost advanced research in the field and would allow efficient technology transfer and sophisticated training to the benefit of southern countries. Financing would come: (i) from private industries (ii) from international/governmental agencies and charities, and would be better invested in such a rational enterprise than in the multiple, anarchic initiatives that have recently been undertaken toward reaching the same goal.

Infectious diseases still are by far the main factor of mortality and they are now receiving much topicality due to the threat of major pandemics (1, 2). They have a very important aspect: by nature they are transmissible. This particularity calls for specific means of control. Infectious diseases do not stop at political borders (3). This means that their control should be highly coordinated among all countries of the world. The recent outbreaks of SARS and even more, bird flu, have illustrated that an epidemic, that was born on the other side of the planet, can reach the Western world in a matter of weeks or even days if the pathogen was brought by air transportation. However, politicians are slow in reacting to these threats (4) and the reality is that there is no world system worthy of the name for controlling further peril. The strong efforts of WHO toward better international coordination (see the International Health Regulations system, www.who.int/csr/ihr/en/) deserve to be emphasised, as well as the welcome initiative of the European Union to establish a European Centre for Disease Control or ECDC (5). However, we are still a far cry from a truly integrated world system, something like the US Centers for Disease Control, or more exactly, its branch specialised in infectious diseases, the National Center for Infectious Diseases, but on the scale of the entire planet. The NCID is a large federal organisation that is staffed with roughly 2’000 people. Its originality is its
three-fold mission: research, specialised training, and surveillance/control. I have long proposed (3, 6) creating a centralised structure in Europe patterned after the US CDC, with a comparable size and a similar triple function. Indeed, the ECDC cannot be compared with the US CDC. It is a small administration with only 60 staff members, devoted to surveillance only. Although a very valuable first step, it could be dramatically insufficient in the advent of a major pandemic (7).

It is worth noting that the strongest initiative in this domain is coming from a region of the world that is far less wealthy than the European Union with its 27 countries: ASEAN (Association of Southeast Asian Nations), groups together Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand, and Vietnam. These ten countries plan to group their resources to set up a large structure comparable to the US CDC, with the same triple mission, the ASEAN CDC (8).

I advocate here that the appropriate response to the infectious peril is a warning belt of comparable structures to the US and ASEAN CDCs throughout the world, structures that should be tightly integrated and interconnected, with clearly defined task distribution and geographical responsibility. This belt should comprise at least the existing US CDC, plus the ASEAN CDC that should include Asian countries outside the ASEAN (China, India, Korea, Japan, and others), and a considerably enlarged version of the European CDC, extended to Turkey and the former USSR (3, 6-8). A comparable center in South America as well as one in Africa should complete the system. An African CDC is even more desirable, given that this region of the world is suffering more than others from the curse of epidemics.

Large centers of this type, with advanced research and information facilities, especially those that would be located in southern countries, would create many jobs requiring considerable expertise, would highly stimulate local research and advanced scientific education, and would fuel local surveillance and control systems. This would help counter the distressing brain drain of young talents from the south toward industrial countries.

These centers should not limit themselves to classical biomedical research, which is not a sufficient answer to the challenge. They should rather strongly engage themselves in groundbreaking, multidisciplinary research. A difficult equilibrium between hard vs human sciences (anthropology, sociology, economy), high-tech vs. traditional know-how, and bench vs field studies should be fostered in this World CDC belt. At present, this is being done nowhere in the world (8).

It is impossible to logically demonstrate that such an enterprise is ‘indispensable’. This is definitively a matter of political and medical vision. However, *reductio ad absurdum* is easy: one may consider for example that the Pasteur Institute in Paris is not ‘indispensable’. Probably the hundreds of thousands of people who have had their lives saved thanks to the actions of this institute would have a different opinion. Moreover, stating that the conception of large centers with walls and triple-function advanced research/surveillance/professional training is wrong, amounts to saying that the US CDC is a failure.

Although a costly enterprise, the CDC belt would certainly be less financially damageable than the economical disasters generated by a major pandemic, or even than the human and economical costs of the present distressing situation. It is well known that the insurance is costly only before the accident. Even if establishing a CDC belt would be expensive, it would remain far less costly than advanced research in particle physics or fusion energy. Money would be amortised by the fact that the CDC belt would be used to control epidemics of veterinary relevance as well. This is all the more desirable, given that human and animal pathogens are frequently the same or overlapping. Bird flu, tuberculosis and trypanosomiasis are examples.

Major pay-offs can be expected from the enterprise, which means that the private industry should have interest in investing in such a megaproject. Indeed, infectious diseases are a huge commercial market. Advanced research in this field concerns news drugs, sophisticated diagnostic kits and pharmacogenetics, all sources for new patents. Many governmental, private and charitable enterprises have been recently launched to fight against the infectious threat: Bill and Melinda Gates Foundation, Global Alliance for Vaccines and Immunisation, Anti-Malaria Initiative in Africa, among others (9). All these anarchically structured sources of financing would be better invested in a unique, tightly coordinated and focussed, enterprise such as the World CDC belt.

The CDC belt is not a utopia. It is only a matter of political will and of priority definition.

The present proposal expresses the author’s personal view.

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4. The Editor / Dangerous state of denial / Nature 2005 / 433: 91
Affiliated Society Portraits

Polish Society of Epidemiology and Infectious Diseases

Krzysztof Simon, Society President,
Wroclaw Medical University,
krzysimon@poczta.onet.pl
Magorzata Inglot, Society Secretary,
minglot@k.pl

The Polish Society of Epidemiology and Infectious Diseases has acted since 1956. The Society has 1250 members, mainly specialists in epidemiology and infectious diseases. It consists of 13 divisions located in main academic centres. The main fields of interest of the Society are: infectious hepatology, HIV/AIDS-related problems, nosocomial infections, sepsis, and epidemiological surveillance of infectious diseases in Poland.

The main aims of the Society are: widespread of knowledge in infectious diseases and epidemiology, postgraduate education of physicians, cooperation with similar associations and institutions in Poland and abroad.

Every three years a general congress with participation of leading Polish and foreign scientists and physicians is organised. During these meetings the Governing Board is elected. Moreover, every year other conferences: ‘Forum of Infections’, ‘Hepatology Workshop’, ‘Current Infectious Problems’, ‘Chronic Infections’, ‘Travel Medicine’, are organised by local divisions.

The official scientific journal of the Society is Przegląd Epidemiologiczny, indexed in Medline. Current information about activities of our Society is presented on the website: www.pteilchz.org.pl.

French Society for Microbiology

Henri Monteil, SFM President
henri.monteil@medecine.u-strasbg.fr

The French Society for Microbiology (SFM) was founded in 1937. It is a non-profit association recognised as such in 1993. The Society is affiliated to the Federation of European Microbiological Societies (FEMS) and to the International Union of Microbiological Societies (IUMS). Since 2005, it has been affiliated to ESCMID for its activity in the field of Clinical Microbiology. However, the scope of our Society is much larger and the eleven sections include: microbial ecology, genetics and physiology, hygiene, food microbiology, industrial microbiology and biotechnology, mycology, taxonomy, genetics of populations, virology, antimicrobial agents, clinical virology and clinical microbiology. These last three sections are specifically involved in Clinical Microbiology, and together they are the most important sections of the Society, representing about half the members.

In 2006, the Clinical Microbiology section organised a seminar on Pseudomonas spp. and other non-fermentative Gram-negative rods. During this one-day seminar, all aspects of these bacteria were covered: taxonomy of Pseudomonas and Burkholderia; physiopathology of B. cepacia; proteomics of P. aeruginosa and its molecular targets focussed on biofilms; animal models for pulmonary infection with P. aeruginosa; type III secretion system; and quorum sensing occurring during pathogenesis of pneumonia. Moreover, some open communications concluded this colloquium.

In December 2006, the section of antimicrobial agents organised a meeting, Omics and Antimicrobial Agents. This covered the following topics: genomes of mycobacteria and therapeutic strategy; integromics; pathogenicity islands of Acinetobacter baumannii and antibiotics; bacterial proteomics and antibiotic profiling; proteomics of Aspergillus fumigatus and novel antifungals; emerging viruses and genomics; kinomics and antimalarials; genetic predisposition to infectious diseases; comparative genomics; and Legionella pneumophila. Since 2006, this meeting has traditionally been followed by a two-day meeting called RICAI (Réunion Interdisciplinaire de Chimiothérapie Anti-Infectieuse) at the Palais des Congrès de Paris. This meeting takes place under the auspices of SPILF (Société de Pathologie Infectieuse de Langue Française) and of the SFM’s section of antimicrobial drugs. The meeting’s purpose is to facilitate exchange and information on antimicrobial chemotherapy, infectious diseases and medical microbiology. RICAI’s major asset is to gather specialists of complementary
disciplines involved in the treatment of infectious diseases, from basic to clinical aspects.

In 2007, the SFM will organise its triennial meeting in Nantes (30 May – 1 June). Five colloquia will be dedicated to the following clinical microbiology topics: microbiological safety, Helicobacter pylori, advances in molecular diagnosis, clinical veterinary medicine, and the 150th anniversary of Escherichia coli’s discovery. Several poster sessions will take place during the meeting.

The SFM publishes a quarterly bulletin which includes general papers and reviews on microbiology, news of the Society and on microbiology in Europe and in the world. Further information is available on the dedicated website (www.sfm.asso.fr).

The ‘Comité de l’Antibiogramme de la SFM’ is one of the six national committees constituting the steering committee of EUCAST which is in charge of the harmonisation of antibiotic breakpoints in Europe. R. Leclercq of SFM has been nominated by EUCAST to set up the ‘expert rules’ subcommittee.

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The Macedonian Microbiological Society

Milena Petrovska, Professor of Microbiology and Parasitology, President of the Macedonian Microbiological Society; milena.petrovska@microbiology.com.mk

The Macedonian Microbiological Society (MMS) was founded in 1986 as a non-profit professional organisation and a section of the Macedonian Medical Association (www.mld.org.mk). This Society unites medical microbiologists in their common aim to improve the control of infectious diseases in Macedonia and to provide a higher quality of microbiological diagnosis of human infections. Furthermore, water, food and environmental control, as well as sanitary control of people involved in areas where microorganisms are a potential risk are a further concern of MMS.

The Macedonian Microbiological Society has 90 regular members - medical microbiologists and six biologists with specialisation in medical microbiology who are associate members. There are eight PhDs and nine MScs in the Society. A significant number of the members have spent several months of education in well-known microbiology laboratories in the European Union and other European countries as well as the USA. Younger members regularly participate in ESCMID’s and other associations’ summer schools. The Society is a member of the Federation of Microbiological Societies (FEMS), The Balkan Association of Microbiology (BAM), The International Union of Microbiological Societies (IUMS) and The Federation of European Societies for Chemotherapy and for Infections (FESCI). Some MMS members also have individual memberships in societies specialised in other areas (dermatology, gynecology, respiratory diseases, immunology, etc.).

MMS organises national congresses with international participation every 4 years. The third congress (www.microbiology.com.mk) was held from 17-20 May 2006 in Ohrid where 250 Macedonian and 80 foreign participants took part. Other regular activities include at least three meetings per year, organised as one- or two-day symposia, workshops or seminars with regular participation of specialists in related fields (infectious diseases, epidemiologists, internists, surgeons, gynecologists and primary care doctors). Since establishing the Macedonian system of accreditation of professional meetings, the meetings of the Society have been certified as CME by the Doctors’ Chamber of Macedonia. Some of the themes of the meetings were: methods and protocols of microbiology diagnosis of infections and infectious diseases in respiratory, urinary, genital, gastrointestinal-tract, soft tissue and sepsis hospital infections; incidence of emerging microorganisms (virulence and resistance of MRSA, Pseudomonas aeruginosa, Helicobacter pylori, Escherichia coli, Enterococcus, Pneumococcus, Chlamydia, Toxoplasma, Candida, ESBL in Enterobacteriaceae, Brucella, HIV, bacterial adherence, antimicrobial resistance, antibiotic policy and consumption, etc.).

According to the Macedonian legislation of health professions from 2006, only graduated medical doctors can specialise in Medical Microbiol-
The Turkish Microbiological Society was founded in 1931 and its 75th anniversary was celebrated by scientific and social events last year. The Turkish Microbiological Society pursues its mission to uphold and increase the scientific quality and performance of the member microbiologists, as well as defend their professional interests. In addition to ESCMID, the Society is affiliated to the International Union of Microbiological Societies (IUMS), Federation of European Microbiological Societies (FEMS), International Federation of Infection Control (IFIC), World Association of Societies of Pathology & Laboratory Medicine (WASPaLM), the Federation of the European Societies for Chemotherapy and for Infection (FESCI) and is a Professional Member of the Clinical and Laboratory Standards Institute (CLSI, formerly NCCLS).

For three quarters of a century, the Society membership has included medical, dental and veterinary doctors as well as biologists, pharmacists and chemists with MScs and PhDs, who are either specialised or have earned their degrees in Microbiology, Clinical Microbiology and Infectious Diseases or Public Health. The members are kept up-to-date by way of many symposia and monthly scientific meetings, concerning basic and current issues in bacteriology, mycobacteriology, virology, mycology, parasitology and epidemiology. The national branch congress is held by the Turkish Microbiological Society every two years. Currently there are 16 study groups within the Society, some of which focus on bacterial genetics, anaerobes, Chlamydia, Brucella, Nocardia, influenza virus, and human papilloma virus, while some others work on issues such as standardisation of antimicrobial susceptibility tests and quality control. These study groups, beside other activities, organise issue-specific symposia open to all members. The members are informed of the activities of the Society through the web (www.tmc-online.org).

The Turkish Microbiological Society is a scientific society but it is also recognised as the specialty society for Medical (Clinical) Microbiology in Turkey by the governmental authorities. The Society Board [Turkish Board for Medical (Clinical) Microbiology], established in 2004, conducted its first examinations for certification of microbiologists in 2006 and planned the following examinations to take place yearly. The Society is represented in the Microbiology Comission of the Section of Medical Biopathology of the European Union of Medical Specialists (UEMS).

The Journal of the Turkish Microbiological Society and Turkish Journal of Infection are the two quarterly-published journals of the Society and its monthly bulletin is Microbiology - Turkish Microbiological Society News. A total of 56 books have been published by the Society, including books on important public health related subjects, such as viral hepatitis, brucellosis, anthrax, tuberculosis and sexually-transmitted diseases; books for postgraduate education in microbiology, such as PCR in diagnosis of infectious diseases or antimicrobial chemotherapy; as well as Turkish translations of the CLSI documents M2, M7, and M100 since 1997. The Society has a fellowship fund and selects a young microbiologist member each year to support his/her practical training and certification.

The headquarters is in Istanbul. In 2006 15 representative bodies were set up to facilitate contact with members in all regions of Turkey and more effectively communicate both scientific and social activities of the Society.

The 11th ECCMID in 2001 took place in Istanbul, as well as many other international congresses in Microbiology (First World Congress on Vaccines and Immunisation, XXIII. World Congress of Pathology and Laboratory Medicine, Third Balkan Conference of Microbiology, and Sixth Congress of the International Federation of Infection Control). Thirteen FEMS Symposia before and after this date had been hosted by the Turkish Microbiological Society in Turkey. The Society will be busy again in 2008. The world congresses of the International Union of Microbiological Societies (IUMS) with three divisional meetings on Bacteriology & Applied Microbiology and Mycology and Virology on 5 - 9 and 10 - 15 August 2008, respectively, will be held in Istanbul. Information for the IUMS Congresses may be found on the relevant website (www.iums2008.org). Istanbul will be glad to welcome all participants.
ESCMID Events

2 – 4 June 2007
42nd Postgraduate Education Course
Role of Anaerobic Bacteria in Infections: Diagnostics, Antibiotic Resistance and New Therapeutic Options, Szeged, Hungary

1 – 6 July 2007
6th ESCMID Summer School
Suceava, Romania

7 – 8 September 2007
45th ESCMID Postgraduate Education Course
A Modern Approach to the Management of Sexually Transmitted Diseases
St. Petersburg, Russia

15 September 2007
3rd GRACE Postgraduate Course
From Cough to Asthma: the Role of Infection
Stockholm, Sweden

7 – 11 October 2007
3rd ESCMID / FEMS Conference
New Frontiers in Microbiology and Infection: Streptococcus pneumoniae
Villars-sur-Ollon, Switzerland

22 – 24 October 2007
1st GRACE Workshop
LRTI – Current Concepts in Pathogenesis, Microbiology, Epidemiology and Economic Impact, Prague, Czech Republic

7 – 9 November 2007
43rd ESCMID Postgraduate Technical Workshop and International Symposium:
Bacterial Adaptation Mechanisms: Biofilms, Hypermutability and Antibiotic Resistance
Palma de Mallorca, Spain

8 – 9 November 2007
46th ESCMID Postgraduate Education Course
Update on Invasive Fungal Infections Epidemiology, Therapy, Diagnosis and Antifungal Susceptibility Testing, Innsbruck, Austria

10 – 13 November 2007
44th ESCMID Postgraduate Education Course
ESCMID-SHEA Training Course in Hospital Epidemiology, Prague, Czech Republic

18 – 20 November 2007
2nd ESCMID Conference on Pseudomonas aeruginosa, Barcelona, Spain

19 – 22 April 2008
18th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)
Barcelona, Spain
Contact: AKM Congress Service
Phone: +41 61 686 77 11
Email: info@akm.ch
Internet: www.akm.ch/eccmid2008

16 – 19 May 2009
19th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)
Helsinki, Finland
Contact: AKM Congress Service
Phone: +41 61 686 77 11
Email: info@akm.ch

Endorsed by ESCMID

8 – 9 June 2007
12th International Symposium on Infections in the Critically Ill Patient
Amsterdam, the Netherlands
Contact: Marisol Estudillo
Phone +34 93-206 57 94
Email: marisol.estudillo@momentum-spain.com
Internet: www.infections-online.com/

2 – 5 September 2007
14th International Workshop on Campylobacter, Helicobacter and Related Organisms (CHRO)
Rotterdam, the Netherlands
Contact: Jaap Wagenaar
Email: info@chro2007.nl
Internet: www.chro2007.nl/

20 – 22 September 2007
XX International Workshop of the EHSG
Istanbul, Turkey
Contact: European Helicobacter Study Group
Email: francis.meugraud@chu-bordeaux.fr
www.helicobacter.org/

14 – 17 May 2008
8th International Meeting on Microbial Epidemiological Markers
Zakopane, Poland
Contact: Waleria Hryniewicz
Internet: www.immem-8.org
ESCMID's mission is to improve the diagnosis, treatment and prevention of infectious diseases by promoting and supporting research, education and training in the infection disciplines. This is achieved by scientific exchange, educational programmes, grants and awards, certification and consultation with professional and government agencies.

Front page: Fumigation was one of the preventative measures used during the Réunion Chikungunya outbreak to control the carrier mosquito population of *A. albopictus*. For the full article see page 30 of this issue. Image courtesy of Pierre Formenty / WHO.

Below: Informal meeting of some Executive Committee members at the 16th ECCMID Programme Committee meeting in 2005 in Nice.