ESCMID
Assembly 2001
Minutes

Research
ARPAC:
European Commission
Funding
for ESCMID
Study Groups

Research
Wall of Resistance:
Announcement of
Research Grant

Features
Ebola Virus: Searching
for the Achilles
Heel of the Germ
EBOLA

Ebola viruses, together with Marburg virus, are classified in the negative-stranded RNA virus family Filoviridae. The particles of filoviruses are pleomorphic, yet these viruses are very similar in morphology, sharing a basic worm-like virion structure. In the unpurified state they present themselves in various lengths, however, when purified, Marburg and Ebola are distinguished by their length. There are four known species of Ebola, three of which have caused disease in humans: Ebola-Zaire, Ebola-Sudan and Ebola-Ivory Coast. The fourth subtype, Ebola-Reston (see picture) has been found to cause disease in nonhuman primates, though not in humans.

Ebola virus, named after a river in the Democratic Republic of Congo (formerly Zaire), where it was first identified, came to the attention of the international community in the late 1970s, when it was found to be the causative agent of outbreaks of severe hemorrhagic fever in Zaire and Sudan. Smaller outbreaks have continued to occur periodically, particularly in Central, East and Southern Africa, and there have also been further major outbreaks of Ebola hemorrhagic fever (EHF), for instance, in Zaire in 1995 and, most recently, in Uganda in 2000/2001.

The exact origin and the natural reservoir of the virus remain unknown. Researchers assume, on the basis of available evidence and in comparison with similar viruses, that the virus is zoonotic and is normally maintained in an animal host native to Africa. Several outbreaks where associated with nonhuman primates, which appear to be susceptible hosts and a source of infection for humans. However, primates are unlikely to be the zoonotic reservoir of Ebola virus, given that infection is quickly fatal.

EHF appears sporadically and outbreaks are typically associated with the introduction of the virus into a community via one infected individual followed by person to person transmission, often within a health-care setting.

http://www.uct.ac.za/microbiology/ebopage.html
http://www.cdc.gov/ncidod/dvrd/sph/mnpages/dispages/ebola.htm
Dear Colleagues,

This ESCMID News is the second issue of the new revised edition. I hope that you will enjoy it. Many ESCMID activities have taken place during the spring of this year. The 11th European Congress of Clinical Microbiology and Infectious Diseases was held in Istanbul between 1–4 April 2001 and drew more than 5,000 participants. Highlights of the successful congress are reported in this edition. The minutes of the Assembly of Members that took place on 3 April 2001 in Istanbul are also available in this issue of ESCMID News. The 2001 winners of the prestigious ESCMID Awards are presented with descriptions of their scientific work, and readers can also find announcements for the 2002 ESCMID Awards and ESCMID Research Fellowships. A new award “Wall of Resistance” was given to ESCMID by AstraZeneca on 1 April 2001 in Istanbul. The award of $50,000 will support research in antimicrobial resistance. The ESCMID Study Groups have been very active during the last months, and ESCMID News will now feature descriptions of one or two study groups per issue. Many colleagues are active in the field of antimicrobial resistance and a joint research project in this area (ARPAC) is presented in this issue. Postgraduate education courses are important activities of ESCMID and two new courses are announced. The cooperation between different infection societies continues and is followed up by the Executive Committee and reported back to the membership. The medical specialties are being discussed with the professional organisations in Europe and the readership of ESCMID News will be updated regularly. Ebola remains a major challenge as demonstrated in the most recent outbreak and as discussed in this issue’s feature article. As always, a list of forthcoming events of interest to our members can be found on the last pages. The Editorial team invites you to send manuscripts for the sections of ESCMID News to which you think you might contribute.

Carl Erik Nord
Past President
President Publication Committee
Dear Colleagues,

Infectious diseases are rarely out of the headlines. As I draft this message, AIDS is reported to have claimed 25 million lives since the epidemic began 20 years ago. In contrast, three deaths in Europe from Lassa Fever in the past year have prompted governments to review their management strategies for dealing with the viral haemorrhagic fevers. A particularly virulent form of Plasmodium falciparum malaria in The Gambia has affected many holidaymakers and yet another cruise ship has fallen victim to contamination of its water supply. Less visible are the day-to-day problems of nosocomial infections, which are giving rise to increasing political and public concern. In the UK, it is now mandatory for hospitals to report their MRSA bacteraemia rates and this will shortly also include surgical wound infections. These are likely to be published and league tables of hospital performance made public. Clearly, the need for adequate numbers of competent, well-trained professionals knowledgeable in the diagnosis, management and treatment of infectious disease remains paramount for the health of nations.

As I assume my Presidency, I am pleased to report that the Society is committed to expanding its portfolio of activities in promoting scientific knowledge, education and professional support for those involved in Clinical Microbiology and Infectious Diseases. The Society is increasingly involved in EU related initiatives. Several members were invited delegates to the recent EU conference in Visby, Sweden, to discuss and advise on progress on Antimicrobial Resistance. This event took place some two years after the Copenhagen conference on The Microbial Threat. It was reassuring that much had been achieved or was in progress in relation to this global problem. A further conference on Antibiotic Use in Europe, which is being organised on behalf of the Belgian EU Presidency and actively supported by ESCMID and other key European organisations, will take place in Brussels between 15-17 September 2001.

With regard to professional matters, the Executive Committee has appointed Professor Helen Giamarellou and Professor Giuseppe Cornaglia, both recently elected to the Executive, as the Professional Affairs Officers for Infectious Diseases and Clinical Microbiology, respectively. The Society is an active participant of the UEMS (European Union of Medical Specialties) Sections on Infectious Diseases and Medical Biopathology (which includes Clinical Microbiology). We are also in discussions with EQALM (European Committee for External Quality Assurance Programmes in Laboratory Medicine), ECLM (European Confederation of Laboratory Medicine) and ESCV (European Society for Clinical Virology) to see how we can co-operate as organisations. There have also been recent fruitful discussions with FEMS (Federation of European Microbiological Societies). You will have read the declaration on Co-operation between European Infectious Societies published in the last Newsletter. This was reported at the European Council in Istanbul where it received overwhelming support. ESCMID is committed to the principle of a single high quality annual European congress. We have established a Task Force and are in active discussions with colleagues from FESCI and ISC. We are encouraging dialogue with other organisations in order to seek their views. Following this, we will report back to our membership with recommendations. The importance of achieving added scientific and educational value through co-operation is key to attracting the best original research and high quality speakers. Excellence in turn will attract increasing delegate numbers and pharmaceutical support which remains essential for the success of any congress. From those of you who were among the 5000 delegates attending the highly successful, recent ECCMID in Istanbul, we have received excellent reports on the high quality and diversity of the Scientific Programme. Likewise, the location and the hospitality of our Turkish colleagues was outstanding. On behalf of the Society, I thank Professor Özdem Ang, President of the Congress, and his colleagues for a most memorable event. It is a pleasure to acknowledge the major contributions of Professor Carl Erik Nord who has steered the Society to its present mature state during his recent Presidency. I am delighted that he continues to serve on the Executive, which, as a result of the recent elections, is composed of an impressive team of expertise covering the science and practice of Infectious Diseases and Clinical Microbiology.

In closing, I wish to emphasise that we are reliant on our membership for support and guidance. There is therefore a continuous need to recruit new members to our Society. I believe this is the responsibility of all who belong to ESCMID. I would ask you to pass this copy of the Newsletter to a colleague, and encourage them to join our Society. This can be done by making contact with Peter Schoch at our Executive Office (peter.schoch@escmid.org). May I wish you a successful year and also state that I look forward to seeing you at one of our future meetings and in particular at the next ECCMID in Milan.

Roger Finch
President, ESCMID
In Remembrance of Tom Bergan
1939–2001

Tom Bergan, Professor of Microbiology at Rikshospitalet and University of Oslo, Norway, died on July 19, 2001, after struggling with cancer. He was 61 years old.

After completing his Master of Science in Microbiology at the University of Rochester, New York, in 1965, he received the MD degree from the University of Oslo in 1966. He then went on to do post-doctoral research at the University of Oslo, where he was awarded his PhD degree in 1972. He was appointed honorary doctor (Med. dr. h. c.) at Karolinska Institute, Stockholm, Sweden, in 1993. In addition to his career as a researcher, Tom Bergan also received his licence to practice medicine in the USA in 1967 and in Norway in 1972. In 1977, he was authorized as a consultant of clinical microbiology in Norway.

Tom Bergan was a research fellow at the University of Rochester, New York (1964–1965), as well as at the Kaptein W. Wilhelmsen og Frues Bakteriologiske Institutt, Rikshospitalet, University of Oslo (1967–1971). He served as assistant physician in the Department of Infectious Diseases and Internal Medicine, Ullevål sykehus, Oslo (1971), as well as in the Department of Surgery, Aker Hospital, Oslo (1972), and as assistant physician, general practice, for Lørenskog public health district, Norway (1972). Further, he was assistant professor in the Department of Microbiology, Region-sykehuset and University of Tromso (1973-1975), and in the Department of Microbiology, Institute of Pharmacy, University of Oslo (1975-1982), followed by positions as professor in the Department of Microbiology, Institute of Pharmacy, University of Oslo (1983-1993), and at the Kaptein W. Wilhelmsen og Frues Mikrobiologiske Institute (Institute of Medical Microbiology), Rikshospitalet University of Oslo (1993-2001). In addition, he was visiting professor in the Department of Microbiology, Faculty of Medicine, National University of Singapore (1985-1987), as well as chief physician (1975-1995) and consultant physician (1993–2001) in the Department of Microbiology, Aker Hospital, Oslo.

Tom Bergan’s broad range of scientific and medical commitments and prolific professional status is reflected in the long list of professional societies to which he contributed as a member, including the Norwegian Medical Association, the Norwegian Society of Professional Authors, the New York Academy of Sciences, the American Society for Microbiology, the British Society for the Study of Infectious Diseases, the British Society of Antimicrobial Chemotherapy, the Paul - Ehrlich - Gesellschaft für Antimiroyobielle Therapie, the Scandinavian Society of Antimicrobial Chemotherapy, the European Society of Clinical Microbiology and Infectious Diseases (he was one of the founders of ESCMID in 1981), the Infectious Disease Society of America and the International Society of Infectious Diseases.

He was a member of, and frequently chaired, several committees at the University of Oslo and in the Norwegian Society of Medicine and was further involved in the assessment of professorships in Oslo, Gothenburg, Stockholm and Helsinki.

Tom Bergan is best known internationally in microbiology and infectious diseases through his very active engagement at different meetings. His contributions were invaluable and his presence always advanced the topic under discussion.

Among all his positions can be mentioned:

• President, International Society of Chemotherapy, 1997–2001
• Chairman of the Subcommittee on the Taxonomy of Pseudomonas and Related Organisms, International Union of Microbiological Societies, 1986–1994
• President of the 5th European Congress of Clinical Microbiology and Infectious Diseases, Oslo, 1991
• Chairman of the Norwegian Society of Medical Microbiology, branch of the Norwegian Medical Association, 1991–1993
• Secretary of the Subcommittee on the Taxonomy of Pseudomonas and Related Organisms, 1982–1986
• Secretary-General of the Scandinavian Society of Antimicrobial Chemotherapy 1983–1990
• Secretary-General, International Society of Chemotherapy, 1987–1997
• Member of Subcommittee on the Taxonomy of Pseudomonas and Related Organisms, 1978–1998
• Member of Executive Committee of the European Society of Clinical Microbiology and Infectious Diseases, 1981–1992
• Member of Council of the European Society of Clinical Microbiology and Infectious Diseases, 1994–2001
• Member of Board of the Scandinavian Society of Genitourinary Infections, 1982–1983
• Member of Council of the International Congress of Infectious Diseases, 1983–1988
• Member of Council of the International Society of Chemotherapy, 1983–1990
• Member of Executive Committee of the International Society of Chemotherapy, 1985–2001
• Member of Council of the International Society of Infectious Diseases, 1988–1996
• Member of Executive Committee of the European Network for the Study of Experimental Infections, 1992–1998
• Member of Executive Committee of the Norwegian Society of Medical Microbiology, 1991–2001

As a very popular speaker, Tom Bergan was invited to lecture and/or chair sessions on different microbiological topics in many countries such as Åland, Argentina, Austria, Australia, Belgium, Brazil, Canada, China, Columbia, Croatia,
Czechoslovakia, Czech Republic, Denmark, Egypt, Finland, France, Germany, Great Britain, Greece, Holland, Hong Kong, Hungary, Iceland, India, Ireland, Indonesia, Israel, Italy, Japan, Kenya, Korea (South), Malaysia, Monaco, Norway, Pakistan,Philippines, Poland, Portugal, Puerto Rico, Republic of South Africa, Russia, Saudi Arabia, Singapore, Slovak Republic, Soviet Union, Spain, Sudan, Svalbard, Sweden, Switzerland, Taiwan, Thailand, Turkey, UK, USA, and Yugoslavia.


He has edited 10 textbooks as well as 31 proceedings of symposia, and he published more than 500 scientific and clinical articles in international journals.

Tom Bergan is survived by his wife Bodil, three daughters and their husbands and three grandchildren. He will be sorely missed not only by his family but also by many friends, colleagues and students throughout the world who valued him deeply.

Carl Erik Nord
Past President ESCMID
Ragnar Norrby
Secretary General ESCMID

Call for Contributions

This is the second issue of the new-look ESCMID News. We were pleased with the positive feedback received after the publication of the first issue and we hope that we can maintain that standard. Our aim is to make ESCMID News both informative and interesting to read, and to this end we would like to encourage ESCMID members to play their part by sending contributions. These can take a variety of forms:

- Comments on professional matters, such as training and recognition of professional status in various countries
- Perhaps you have an interesting case report you would like to describe
- Maybe you have attended a meeting or conference that was particularly interesting and you would like to comment on it
- Correspondence: Is there something you feel strongly about? This could be an item that appeared in ESCMID News or something quite unrelated that has pleased or displeased you. Write and let us know.
- Information from our Affiliated Societies is always welcome
- Have you just read a book on any topic related to infection that you would like to tell others about?
- ESCMID News can provide you with a forum for a short article on almost anything related to infectious diseases and microbiology. We may not agree with what you say, but we will always try and find space to publish your views.

ESCMID News is your newsletter! Use it as a platform for expressing your views. ESCMID News can only develop into a lively European forum for information on and discussion of all kinds of professional issues in the infection disciplines with your contributions. Thus, send us your manuscripts to peter.schoch@escmid.org.
Assembly of Members 2001

Minutes

ASSEMBLY OF MEMBERS
APRIL 3, 2001,
ISTANBUL CONVENTION
AND EXHIBITION
CENTRE, ISTANBUL,
TURKEY

The Assembly of Members in the year 2001 was held during the 11th ECCMID.

1 WELCOME
(C.E. NORD)
Prof Nord welcomed the 97 members attending the Assembly. He observed that the invitation to the Assembly has been correctly sent out as stated in the Statutes. The proposed agenda was accepted without objection.

2 PRESIDENT’S
ADDRESS AND
REPORT
(C.E. NORD)
Membership of ESCMID is growing slowly. The Society currently has 2637 members, an increase of 25 more than the previous year. Italy is by far the best represented country with 399 members, followed by Germany and the US. A large majority (85%) of the membership is European. For a summary of the Society’s achievements in the previous year Prof Nord referred to his annual report which appeared in the spring issue of ESCMID News and in the Final Programme of 11th ECCMID. To avoid repetition with the following reports by the other Officers, he only mentioned that the 14th and 15th ECCMID will take place in Prague in 2004 and Copenhagen in 2005, respectively.

3 ELECTION TO THE
EXECUTIVE
COMMITTEE
(M. P. GLAUSER)
At the end of 2000 elections were held among the members of ESCMID to fill five vacancies on the Executive Committee. The result and the responsibilities as decided at the Executive Committee meeting in February have been announced in ESCMID News. They are repeated here:
- Claude Carbon, France, re-elected for a second term, Education Officer
- Patrick Francioli, Switzerland, co-opted since 1997, ECCMID Programme Director
- S. Ragnar Norrby, Sweden, Secretary General
- Giuseppe Cornaglia, Italy, Professional Affairs Officer, Clinical Microbiology
- Andreas Voss, the Netherlands, Treasurer

Based on the Statutes and the good results achieved in the election the following two members were co-opted to the Executive Committee:
- Helen Giamarelou, Greece, Professional Affairs Officer, Infectious Diseases
- Regine Hakenbeck, Germany, Scientific Affairs Officer

Prof Glauser wished the new members satisfaction and success in their work for the benefit of ESCMID.

4 ESCMID AWARDS
(M. P. GLAUSER)
i) The Guidelines for the ESCMID Award Sub-committee have been changed recently: The Committee is chaired by the Past President (Prof M.P. Glauser) as before. In future he will be assisted by (at least) three members of the Scientific Advisory Committee (SAC), changing every year. For this year’s awards and fellowships these members were Dr P. Huovinen, Finland, Prof G. Palu, Italy, Prof A. Sönnertborg, Sweden, and Prof M. Struelens, Belgium.

ii) The ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases 2001 is given to Prof Patrice Courvalin, France, in recognition of his outstanding contribution in the field of the genetic and molecular basis of antibiotic resistance. This award is sponsored by AstraZeneca.

iii) The ESCMID Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases 2001 are given to Dr David Dockrell, UK, and Dr Shirane Szabo, Hungary, in recognition of their work on the role of apoptosis in infectious disease pathogenesis and the elucidation of the pathogenesis of streptococcal toxic shock syndrome, respectively. These awards were sponsored by Pharmacia.

iv) The ESCMID Research Fellowships 2001 are awarded to Dr Isabella Abbate, Italy, Dr Sibel Ascioglu, Turkey, Dr Claudia Brandt, Germany, Dr Evangelos Giamarellos-Bourboulis, Greece, Dr Joseph Meletiadis, Greece, and Dr Dora Szabo, Hungary.

The three awardees were congratulated on their well deserved awards.

5 FINANCIAL REPORT
BY THE MANAGING
DIRECTOR
(P. SCHOCH)
ESCMID received the official notification from the Financial Authorities in Munich that the pending tax declaration was accepted and that ESCMID’s charity status was fully reinstated, just in time for the Assembly of Members.

In 2000 ESCMID’s total expenses and income amounted to DEM 1,334,230 and DEM 503,744, respectively. Taking into consideration outstanding claims of DEM 940,413 (surplus of 10th ECCMID, tax refunds) these figures demonstrate balanced profit and loss accounts. By December 31, 2000 ESCMID’s total assets and liabilities were DEM 1,538,158 and DEM 183,036, respectively, corresponding to a proven capital of DEM 1,355,122.

In response to a question from the floor Dr Schoch mentioned that from 2002 the financial report will be given in EUR and not in DEM.

6 ACCEPTANCE
OF THE ACCOUNT
AND FORMAL
APPROVAL
(VOTE)
(C.E. NORD)
Prof Nord asked for a vote of approval by hand of the financial report. It was approved unanimously.

7 REPORT OF THE
PROFESSIONAL
AFFAIRS OFFICER
AND PRESIDENT-ELECT
(R. FINCH)
i) EUCAST’s chairman, Prof I. Phillips, will retire at the end of his second term in 2001. Prof Finch
first thanked him on behalf of ESCMID for his commitment and achievements. He has been successful in establishing viable structures for EUCAST as well as in finalising the basic documents for breakpoint determination. The first breakpoint, for linezolid, has now been delivered. It is anticipated that Prof Dr Gunnar Kahlmeter, Sweden, will take over as new chairman. On the occasion of this handover, the strategy, mode of operation and financial situation of EUCAST will be reconsidered.

ii) Affiliation of National Societies: A pilot project with the British Infection Society (BIS) and the Swiss Society of Infectious Diseases (SSID) has been initiated. The Spanish Society of Infectious Diseases and Clinical Microbiology (SEIMC) may join later, while the Swiss Society of Microbiology (SSM), with only a minority of members working in clinical microbiology, has declined. It may join later when subsections for the various microbiological disciplines have been formed. For 5 EUR per member per year affiliated societies benefit from a package consisting of ESCMID News, electronic mailings, mutual links on websites, one postgraduate course supported by ESCMID per year, discount at ECCMID, optional subscription to CMI at membership rate, free business meetings and a free booth at ECCMID. At the end of 2002 the project will be evaluated and, if it proves to be successful, extended to other National Societies in Europe.

A joint task force with the UEMS Section of Infectious Diseases has been established to create a European Board of Accreditation of CME in the field of Infectious Diseases (EBAID). The goal is to have draft guidelines ready for discussion by this autumn.

8 PROPOSAL FOR CO-OPERATION BETWEEN INFECTION SOCIETIES (R. FINCH)

Responding to an initiative of Prof J.-C. Pechere, President-Elect of the International Society of Chemotherapy (ISC), a consensus and discussion paper on the cooperation between European infectious societies has been released in ESCMID News, 1, 2001. It states that

- there is a continuing and expanding need for education, training and harmonisation in the practice of medicine
- national and international societies play an important role in these endeavours by promoting advance and exchange of scientific knowledge
- collaboration between societies is increasing and makes strategic sense
- multiple congresses within the European setting are unnecessary, reduce overall quality and undermine the financial benefit to each organising society.

As a consequence a process of convergence shall be established in promoting a concept of a single world class annual European congress in the infection disciplines.

Proposal from the floor:
Prof T. Bergan, the elected country representative of Norway, put up a proposal which, as he thinks, reflects the spirit of the consensus paper: “ESCMID and FESCI should collaborate to organise, respectively, ECCMID and ECC in alternate years to render only one major European congress per year. Business meetings and sessions by commissions, study groups and the like of either Society should be included”.

Prof Finch clearly stated that ESCMID is constitutionally committed to an annual congress and did not wish to anticipate the wide-ranging discussions with all the interested parties in Europe. He proposed to do without a vote but to include the proposal in the Minutes. Prof Bergan agreed.

Question from the floor: Prof T. Bergan, the elected country representative of Norway, put up a proposal which, as he thinks, reflects the spirit of the consensus paper: “ESCMID and FESCI should collaborate to organise, respectively, ECCMID and ECC in alternate years to render only one major European congress per year. Business meetings and sessions by commissions, study groups and the like of either Society should be included”.

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9 REPORT ON THE EDUCATIONAL ACTIVITIES (P. SCHOC)

In 2000 a total of six Postgraduate Education Courses (PGEC) took place under the auspices of ESCMID. They were supported by approximately DEM 20,000 each, mainly in the form of attendance grants to individual participants:

- 10th PGEC on Lower Respiratory Tract Infections: Problems in Diagnosis and Treatment, Dubrovnik, Sep 27–Oct 1, organised by Prof Smilja Kalenic, Zagreb (27 participants)
- 11th PGEC on Microbiology of Antimicrobial Resistance. A Practical Approach, Palma de Mallorca, June 18–24, organised by Dr Vicente J. Benedit, Palma de Mallorca (20 participants, joint course with SEIMC)
- 12th PGEC on Hospital Epidemiology and Infection Control, Geneva, Aug 25–29, organised by Prof Didier Pittet, Geneva (85 participants, joint course with SHEA, CDC and ESGNI)

Question from the floor: How is the quality of the postgraduate courses supported by ESCMID evaluated? According to Dr Schoech the current Guidelines for Postgraduate Courses require the organiser of an educational course to submit a proposal including the scientific programme, faculty and budget. These documents are the basis for approval by the Executive Committee based on the recommendation by the Educational Officer and the Managing Director. Currently the Guidelines are being revised. It is foreseen that in the future an evaluation after the course may be included, possibly in the form of a questionnaire sent out to the participants and the organiser by e-mail.

Two other projects are still in the planning phase: an Educational Website and a Summer School on the Optimal Use of Antibiotics.

10 REPORT OF THE SCIENTIFIC OFFICER (M. STRUELENS)

ESCMID currently has 11 active Study Groups or Working Parties. In the coming year more em-
phasis will be put on their closer integration into the Society and improved feedback. Currently the foundation of two new Study Groups on Fungal Infections and on HIV is in preparation.

ii) A joint proposal by four ESCMID Study Groups on the Prevention and Control of Antibiotic Resistance (ARPC) has been funded with EUR 700,000 by the EC-DG XII for 2001–2003.

iii) Two Study Groups (ESGNI, ENSEI) were involved in the organisation of three Postgraduate Education Courses in 2000 (see above).

iv) Five Study Groups (ESGEM, ESGMD, EHPSGC, ESGARS, EUWOG) organised a scientific meeting in 2000.

v) ESCMID was involved in the following Guidelines published in 2000:
   - Diagnosis and Treatment of Helicobacter pylori infection (EHPSG)
   - Diagnosis and Treatment of Ventilator-associated Pneumonia (ERS/ESCMID/ESICM/ESA)

vi) ESGMD supported ESCV on the edition of a position paper on QA in Molecular Diagnostics.

11 REPORT OF THE CMI EDITOR-IN-CHIEF (E. BOUZA)

Prof Bouza presented data on the submission of manuscripts, pointing out that there is a steady increase in numbers as well as a further diversification of national origins during the reporting period (Jan 00–Dec 00). The rate of rejection remains stable at about 30%. The acquisition of authoritative editorial and educational material continues to be a priority, as illustrated by the large number of commissioned manuscripts. The publication of supplements and special theme issues has been a successful endeavour; six are in preparation for 2001, as compared to the three published in 2000.

12 REPORT ON THE PUBLICATION COMMITTEE (C.E. NORD)

In August 2000 the Executive Committee decided to replace the CMI Executive Committee by a Publication Committee (PUC) with extended responsibilities to include CMI, ESCMID News, Website, etc. The PUC is chaired by the Past President and involves the President, President-elect, CMI Editor-in-Chief, Managing Director, and for issues involving CMI also the CMI Managing Editor and Publisher. In the absence of Prof Glauser the incumbent Past President, Prof Nord, informed the Assembly about these changes. He referred to the new ESCMID News issued for the first time in March 2000. It will appear in future four times a year with a new layout and new editorial concept. He thanked Prof Bouza and his team as well as the publisher Blackwell Science for their combined efforts to continue to improve the editorial process of CMI.

13 REPORT OF THE 11TH ECCMID 2001 PRESIDENT (O. ANG)

The 11th ECCMID was a big success, with 4882 registered participants. Turkey as the host was the best represented country with 552 delegates, followed by Italy and the UK, with 462 and 310 delegates, respectively. What’s even more important than the number of registrations was the good attendance at the many sessions: The lecture halls were usually full, even early in the morning at 7 a.m.! Prof Ang thanked the many people involved in this success for their invaluable contributions.

Prof Nord then handed over the ‘challenge cup’ to Prof Schito, President of the 12th ECCMID 2002 in Milan, who will keep it in Italy for the year to come.

14 REPORT OF THE ECCMID PROGRAMME DIRECTOR (P. FRANCIOLI)

Prof Francioli emphasised the collaborative efforts of the ECCMID Programme Committee, the Abstract Review Board, the Executive Office, the Local Organising Committee, the sponsoring industry, the PCO and the partner societies that resulted in a competitive and well balanced scientific programme of high academic quality: six keynote lectures, 34 official symposia (including 10 symposia organised by Study Groups and six joint symposia with other professional societies), 20 integrated symposia arranged by the industry, 15 meet-the-expert sessions as well as 18 sessions of free oral communications. The speakers came from 30 different countries. More than 1500 abstracts of free communications were received, some 1250 were accepted by an international review board that reviewed them blindly.

15 RELEASE OF THE EXECUTIVE COMMITTEE (VOTE) (C.E. NORD)

Prof Nord asked for a vote by hand for the release of the Executive Committee. This was approved unanimously.

16 INSTALLMENT OF THE NEW PRESIDENT (C.E. NORD/R. FINCH)

Prof Nord, retiring President, reminded the Assembly that, according to ESCMID’s Statutes, the key responsibility of the President is to ensure that the statutes and bylaws of the Society are enforced and that all resolutions and orders of the Executive Committee are carried out. He then handed the presidency over to Prof Finch by giving him a gavel as sign of his new position and offered him his best wishes for his term. Prof Finch thanked Prof Nord for his dedication and hard work for the Society which has strongly matured during his presidency. Prof Finch declared acceptance of office and mentioned the major goals of his term which are transparency and a sharper public and professional profile for ESCMID.

18 ANY OTHER BUSINESS (R. FINCH)

There were no other points raised. Prof Finch closed the Assembly by calling upon the members present to increase the publicity for ESCMID among their friends. Only a Society with a strong membership base has a voice on professional issues in Europe.

CLOSE OF THE MEETING (R. FINCH)

Prof Finch thanked the Assembly of Members for attending. He adjourned the meeting at 13.45 h.

Basel, May 31, 2001

Roger Finch
President

Carl Erik Nord
Past President

Peter Schoch
Managing Director
ESCMID Awardees 2001

The ESCMID Awards for the year 2001 were presented during the 11th ECCMID in Istanbul.

Award for Excellence in Clinical Microbiology and Infectious Diseases
sponsored by AstraZeneca

PATRICE COURVALIN, BORN 1944 IN OUJDA, MOROCCO
MD, Professor and Head of Antibacterial Agents Unit and of National Reference Center for Antibiotics, Institut Pasteur, Paris, France, in recognition of his outstanding scientific contributions in the field of the genetic and molecular basis of antibiotic resistance.

RESEARCH INTERESTS
Patrice Courvalin’s research has led to a revision of the dogma describing natural dissemination of antibiotic resistance genes. He demonstrated that a wide variety of pathogenic bacteria can promiscuously exchange the genetic material conferring antibiotic resistance, proved that conjugation could account for dissemination of resistance determinants between phylogenetically remote bacterial genera, elucidated the transposition mechanism of conjugative transposons from Gram-positive cocci, and most recently, has obtained direct gene transfer from bacteria to mammalian cells.

Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases
sponsored by Pharmacia

DAVID DOCKRELL, BORN 1965 IN DUBLIN, IRELAND
MD, Clinical Lecturer in Infectious Disease at the University of Sheffield Medical School, UK, in recognition of his outstanding scientific contributions on the role of apoptosis in infectious disease pathogenesis and the clinical manifestations of infections in immunocompromised hosts.

RESEARCH INTERESTS
The two main strands of David Dockrell’s research concern HIV immunopathogenesis and macrophage apoptosis in bacterial infection. He is currently investigating how different stimuli induce activation-induced apoptosis in CD4 and CD8 T-lymphocytes in HIV-seropositive individuals and in particular the role of Fas in these processes. In addition, he is investigating how different antiretroviral regimens modify the enhanced susceptibility of Fas-mediated apoptosis in HIV-seropositive patients. The bacterial work focuses on the induction of macrophage apoptosis in association with Streptococcus pneumoniae infection and its role as a host-mediated phenomenon. He is exploring how host factors, which regulate control of infection, trigger apoptosis and the role of this process in the control of the local inflammatory response.

SHIRANEES SRIKANDAN, BORN 1964 IN WAKEFIELD, UK
PhD, Senior Lecturer and Honorary Consultant in Infectious Diseases at the Imperial College School of Medicine at Hammersmith, London, UK, in recognition of her outstanding scientific contributions to the elucidation of the pathogenesis of the streptococcal toxic shock syndrome.

RESEARCH INTERESTS
Shiranee Srikanthan has set up an experimental system for modelling serious Gram-positive invasive infections using Streptococcus pyogenes as a prime example for the investigation of bacterial pathogenicity. In particular, the role of bacterial superantigens in sepsis has been studied intensively. Using molecular technology she created humanised systems for studying the role that single toxins play in streptococcal shock, both in terms of immune cell activation and in terms of harmful consequence. The work has shown that, at least in the case of invasive streptococcal infection, single toxins clearly can contribute to T cell activation but that other streptococcal virulence factors and host factors are also important in terms of survival. Key differences exist between streptococcal infections which are controlled by the host, and those which are able to invade into deep tissues. Parallel research studies are therefore focusing on the interaction between S. pyogenes and the neutrophil, the primary host defence in this infection.
### ESCMID Fellowships

**ISABELLA ABBATE, BORN 1969 IN ROME, ITALY**  
PhD, BSc, Laboratory of Microbiology, S. Pertini Hospital, Rome, Italy  
Active in the fields of the pathogenesis of persistent viral infections including HIV-1, HCV and HBV infections, the induction of the innate immunity defence as well as of altered patterns of cytokine activation by viruses, and the viral mechanisms of escape from immune responses.

**SIBEL ASCIOGLU, BORN 1967 IN TURKEY**  
MD, Section of Infectious Diseases, Department of Medicine, Hacettepe University School of Medicine, Ankara, Turkey  
Main fields of interest: the improvement of clinical research methodology in invasive fungal infections, the methodology of patient oriented research and rational use of health care.

**CLAUDIA M. BRANDT, BORN 1965 IN BUTZBACH, GERMANY**  
MD, Research Associate, Institute of Medical Microbiology and National Reference Center for Streptococci, Univ. Hospital RWTH Aachen, Germany  
Active in the fields of molecular characterisation of *Streptococcus pyogenes* isolates with special reference to the determination of epidemiological markers and virulence factors and their association with the emergence and re-emergence of *Streptococcus pyogenes*.

**EVANGELOS J. GIAMARELLOS-BOURBOULIS, BORN 1971 IN GREECE**  
MD, PhD, 1st Department of Propedeutic Medicine, Laiko General Hospital, Athens, Greece  
Active in the fields of *in vitro* effects of polyunsaturated fatty acids on multiple-drug resistant nosocomial pathogens and their interactions with antimicrobials, oxidant and antioxidant status after administration of poly-unsaturated fatty acids, and immunomodulation in Gram-negative sepsis.

**JOSEPH MELETIADIS, BORN 1975 IN HANNOVER, GERMANY**  
PhD student, Department of Medical Microbiology, University Medical Center St. Radboud, Nijmegen, The Netherlands  
Research interests: antifungal susceptibility testing, interaction of antifungal agents, animal models and development of molecular diagnostic tools for fungal infections, molecular mechanisms of antifungal resistance, and pharmacology of antifungal drugs.

**DÓRA SZABÓ, BORN 1972 IN BUDAPEST, HUNGARY**  
MD, Institute of Medical Microbiology, Semmelweis University, Budapest, Hungary  
Active in the fields of extended-spectrum β-lactamases: Molecular epidemiology of the strains producing extended-spectrum β-lactamases, *in vitro* and *in vivo* antibiotic susceptibility testing of extended-spectrum β-lactamase producing strains using animal models.
ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases 2002

The European Society of Clinical Microbiology and Infectious Diseases will present the ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases in the year 2002 to honour a senior scientist for his/her overall achievements in the field of clinical microbiology and/or infectious diseases.

PURPOSE
The purpose of this award is to recognise and reward an outstanding contribution to progress in clinical microbiology and/or infectious diseases.

AWARD
The award of EURO 10,000 will be presented by the president of ESCMID at the 12th ECCMID in Milan. The recipient will be honoured at the occasion of a 45-min lecture to be given by the awardee during the 12th ECCMID. The name of the recipient will be published in the Final Programme, ESCMID News, Clinical Microbiology and Infection and on ESCMID’s website.

ELIGIBILITY CRITERIA
Nominees for the award must be senior scientists who are professionally active and prepared to give a plenary lecture in their field of research of 45 min during the 12th ECCMID. Members of the ESCMID Executive Committee or the ESCMID European Council are ineligible until 5 years after resignation.

NOMINATION PROCEDURE
All medical schools and institutions active in the fields of clinical microbiology and infectious diseases in Europe, ESCMID’s European Council, ESCMID members as well as ESCMID committees, study groups and working parties are asked to nominate candidates for the award.

Each nomination should include:
1. A biographical sketch of the nominee (maximum two pages, plus an abstract of 150 words).
2. A summary and analysis of the nominee’s major contributions to research in the fields of clinical microbiology and/or infectious diseases.
3. A list of the major original publications in refereed journals.
4. The complete postal and e-mail address, phone and fax number, and a colour photograph of the nominee (on paper or electronically as tif, jpg or eps file).
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 Award Committee.

Seven copies of the nomination package must be received by 2 November 2001. The recipient of the award will be asked for a manuscript on the research field to which she/he mostly contributed for publication in CMI.

SELECTION PROCEDURE
The recipient will be determined by the ESCMID Award Committee. No correspondence beyond that necessary for the nomination will be accepted. Self-applications will not be considered.

SPONSOR
The ESCMID Award for Excellence in Clinical Microbiology and Infectious Diseases 2002 is sponsored by AstraZeneca.

Please send your nomination to:
ESCMID Award Committee
Hainbuchenstrasse 65
D-82024 Taufkirchen
Germany
Phone + 49-89-612 6162
Fax + 49-89-612 8176
E-mail birgit.menzemer@escmid.org

Orizzonte by Roberto Rampinelli. Art exhibition in the Giorgio Cini Foundation, Venice, during the 3rd International symposium on Nosocomial Infections Today, Nov 5-8, 2000. The exhibition and publication were dedicated to ESCMID and sponsored by Pharmacia.
ESCMID Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases 2002

The European Society of Clinical Microbiology and Infectious Diseases will sponsor in 2002 up to two ESCMID Young Investigator Awards for Research in Clinical Microbiology and Infectious Diseases to recognize outstanding research by younger colleagues in the field of clinical microbiology and/or infectious diseases.

PURPOSE
The purpose of these awards is to acknowledge excellence in research, and to stimulate further research of the highest scientific level.

AWARDS
The awards of EURO 11,500 each, which should be used to support further research, will be presented by the president of ESCMID at the 12th ECCMID in Milan on the occasion of a 20-min lecture to be given by the awardees 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, CMI and on ESCMID’s website.

ELIGIBILITY CRITERIA
Nominees for the award should be born on 1 January 1962 or after. Appropriate research may be based on laboratory investigations, clinical studies, experimental animal studies, or a combination thereof. Nominees must have been employed in a European laboratory or hospital or have a future appointment in one. Members of the ESCMID Executive Committee or the ESCMID European Council are ineligible.

APPLICATION PROCEDURE
Nominations must be received no later than 2 November 2001. 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 1999, 2000 or 2001 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 electronically as tif, jpg or eps file) must be sent to the ESCMID Award Committee, who will select the recipients. No correspondence beyond that necessary for the nomination will be accepted.

SPONSOR
The ESCMID Young Investigator Awards 2002 are sponsored by Pharmacia.

ESCMID Research Fellowships 2002

The European Society of Clinical Microbiology and Infectious Diseases will sponsor the ESCMID Research Fellowships to support further research of young Society members in the fields of clinical microbiology and/or infectious diseases.

PURPOSE
The purpose of these awards is to encourage young investigators and to promote the development of research in the fields of clinical microbiology and/or infectious diseases.

FELLOWSHIPS
Up to five fellowships, each consisting of a cash award of EURO 4,000 will be presented by the president of ESCMID at the Assembly of Members taking place during the 12th ECCMID in Milan. The names of the recipients will be published in the Final Programme, CMI, ESCMID News and on ESCMID’s website.

ELIGIBILITY CRITERIA
Awards will be made on the basis of a detailed research plan to be part of the application. Eligible individuals should not be more than five years beyond their training as post-doctoral students or fellows. Appropriate research may be based on laboratory investigations, clinical studies, experimental animal studies, or a combination thereof. Research must be carried out in a European research laboratory or department. If there are collaborators, applicants must make clear their personal role in planning, undertaking and supporting the planned project. Members of the ESCMID Executive Committee or European Council are ineligible.

APPLICATION PROCEDURE
The deadline for submission is 2 November 2001. Applications must be submitted in writing together with a CV, a list of publications, and two supporting letters, including a specific description of the applicant’s present research and a detailed research plan. Applicants must include their complete postal and e-mail address, telephone and fax number and send four copies of all materials plus one colour photograph (on paper or electronically as tif, jpg or eps file) to the ESCMID Award Committee, who will select the fellows. No correspondence beyond that necessary for the application will be accepted.

Please send your nomination to:
ESCMID Award Committee
Hainbuchenstrasse 65
D-82024 Taufkirchen / Germany
Phone + 49-89-612 6162
Fax + 49-89-612 8176
E-mail birgit.menzemer@escmid.org

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Fax + 49-89-612 8176
E-mail birgit.menzemer@escmid.org
European Study Group on Clostridium difficile

The European Study Group on Clostridium difficile, ES GCD, is one of the more recently instituted study groups in ESCMID and was proposed by Dr Jonathan Brazier, who works at the Anaerobe Reference Unit, Public Health Laboratory, Cardiff, UK. The first meeting was held at the 10th ECCMID in Stockholm where a temporary committee was formed, with Dr Brazier as chairman. The committee was formally elected at the 11th ECCMID in Istanbul and the group also held their first official symposium, entitled ‘Update on Clostridium difficile infection’ at this Congress. This symposium was well attended, with participants and speakers from several European countries.

One of the main aims of the study group is to raise awareness of C. difficile infections in European hospitals. The anaerobe C. difficile is the aetiological agent of pseudomembranous colitis (PMC) and is also a major cause of antibiotic-associated diarrhea. The history of the recognition of the organism and its role in the pathogenesis of gut disease in humans has been reviewed recently by Brazier & Borriello [1]. The organism, originally called Bacillus difficile, was recognised as being part of the gut flora of infants as long ago as 1935, and its ability to liberate toxins in the gut was noted, although not its significance. During the 1970s various disparate studies established that the use of clindamycin was associated with PMC, and that C. difficile strains could produce a powerful cytotoxin. The pathogenic significance of C. difficile was not recognised until a few years later when a number of studies established the link between the presence of C. difficile and especially third generation cephalosporins [2]. There have been various studies in the UK on the extent of C. difficile associated disease. Reports from the PHLS in England and Wales show a steady increase in the numbers of reports of stool samples positive for C. difficile in the last ten years, reaching almost 16,000 in 2000 (see Figure 1).

Figure 1: Clostridium difficile Toxin Positive Reports for England and Wales 1990–20000

There are various kits available commercially for the detection of the toxins, but some of these can only detect toxin A. Most pathogenic strains of C. difficile produce both toxins, but in the UK and the USA, however, strains that are negative for toxin A but positive for toxin B have been shown to cause infections [5]; these strains would not be detected with some of these kits and this would result in an under-diagnosis of the incidence of disease. It is not clear whether such strains are common in other European countries and this is a topic the study group hopes to address.

A variety of both phenotypic and genotypic methods have been used to identify the organism [6] and more recently a PCR ribotyping technique has found favour [1]. This technique was developed in the Public Laboratory, Cardiff, UK.

providing them the opportunity to gain a sharper public profile.

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A variety of both phenotypic and genotypic methods have been used to identify the organism [6] and more recently a PCR ribotyping technique has found favour [1]. This technique was developed in the Public Laboratory, Cardiff, UK.
Health Laboratory in Cardiff and uses specific oligonucleotide primers designed to amplify the 16S-23S rRNA gene intergenic spacer region [7]. An example is shown of the ribotyping patterns obtained with this technique in Figure 2. A target of the study group is to standardise the technique to allow comparisons to be made between laboratories and between countries. Using this technique, one PCR ribotype has been found to predominate in UK hospitals [8], but it is not known if this is the situation in other European countries. Another aim of the study group, therefore, is to see whether it is feasible to adopt a standardised PCR ribotyping method and use it to determine whether the common type found in the UK (ribotype 1) is also the predominant ribotype in European hospitals. As a first step, the study group has already started a collection of strains of *Clostridium difficile*. The various participating laboratories are submitting strains to Dr Brazier in Cardiff, who will type them using his PCR ribotyping method. Where treatment of *C. difficile* diarrhoea is needed, either metronidazole or vancomycin are used orally. Metronidazole is preferred now to vancomycin because of the risk of selecting vancomycin-resistant enterococci. Although both of these drugs are usually highly effective, there can be relapses. Generally the relapse is caused by re-infection from the hospital environment, but the possibility of the infecting organism developing resistance to the antibacterial agent cannot be ignored and the study group includes surveillance of antibiotic resistance in its aims. Infection control is an important part of the treatment of *C. difficile* infection. The organism is a sporulating one, with infected patients excreting large numbers of spores and strict hygiene is necessary to reduce the environmental burden and the transmission rate. Currently there are no European guidelines on the prevention and treatment of *C. difficile* infections and the study group will work towards establishing such guidelines.

**SUMMARY**

The newly instituted European Study Group on *Clostridium difficile* (ESGCD) has now appointed officers and a committee. The Chairman is Dr Jon Brazier from the Public Health Laboratory, Cardiff, UK. The aims of the Study Group are centred around raising the profile of *C. difficile* infections, fostering collaboration in centres in different European countries and providing a forum for discussing and disseminating the information.

The major aims initially are:

- to determine the prevalence of nosocomial *C. difficile* infections in European hospitals
- to see if it is feasible to adopt a standardised PCR ribotyping method
- to compare the types of *C. difficile* prevalent in European hospitals
- to provide surveillance on the antimicrobial susceptibility of European strains of *C. difficile*
- to draw up European guidelines on the prevention, diagnosis, treatment and surveillance of *C. difficile* infections

**REFERENCES**


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**Figure 2:** PCR Ribotyping Gel of *Clostridium difficile*

**Figure 3:** *Clostridium difficile* bacterium forming an endospore
One year after the transition to a new Editor-in-Chief seems to be an appropriate point in time to reflect on the status of the Journal. As is customary, each Editor-in-Chief brings to the position a vision for the journal. Of foremost importance is the balance of material in each issue, in order to appeal to the special interests of all readers and all members of the Society as well as to represent the current state of affairs in Microbiology, Basic Science and Infectious Diseases. During the transition period the move to a new publisher took place. This created an inevitable period where things had to be reorganized. We suffered a temporary delay in the publication of monthly issues which has now been resolved, as has the delay in on-line accessibility.

The current volume of CMI is now accessible electronically via PubMed and Blackwell’s website, and prior volumes since 1995 will be accessible soon. The establishment of an impact factor will follow the requisite period of two years after indexing by Medline/Index Medicus, which took place just prior to the transition to a new Editor-in-Chief last year.

Readers will have noticed the introduction of several new manuscript categories during the past year (see below). Although editorial material is commissioned on a regular basis, the Editorial Office also welcomes the submission of Reviews and Editorials as well as Updates and Highlights. Prospective authors are encouraged to consider all manuscript categories, including Continuing Medical Education, as a viable format for their opinions and comments as well as their original observations and research.

Increased efforts have been made to produce supplements to the journal as well as special theme issues, a number of which are in various stages of production and will be forthcoming shortly. Readers are invited to communicate their reaction to these special issues as well as their ideas for others.

CMI, the Official Journal of ESCMID

Manuscript Categories

UPDATE

Updates are concise reports of recent developments and practices in clinical microbiology or in the diagnosis and treatment of infectious diseases. The content should provide practical guidance supported by references to authoritative sources.

- **Length:** 1000-2000 words
- **Figures/Tables:** 1–4
- **References:** maximum 50
- **Abstract:** 250 words

REVIEW

Reviews should be of primary interest to clinical microbiologists, medical microbiologists, immunologists, infectious disease clinicians, public health workers, and others interested
in the pathogenesis, laboratory diagnosis, epidemiology and control of human pathogens. The content should present comprehensive, critical summaries of current knowledge in these fields and should not be limited to a discussion of the author’s work. Reviews should include historical or other background material sufficient for non-specialist readers. If the material is controversial, the coverage must be balanced. Appropriate topics would include: pathogenic mechanisms, specific microbial pathogens or groups of microbial pathogens, clinical and laboratory aspects of newly recognized or re-emerging infectious diseases, recently developed antimicrobial agents and their application, and new diagnostic laboratory technology.

Reviews are generally commissioned, although unsolicited submissions are welcome. All reviews will be subject to peer review.

- Length: 3000-5000 words
- Figures/Tables: only if essential
- References: maximum 10
- Abstract: none

HIGHLIGHT

Relevant subjects are presented in a format that highlights the critical features or main aspects. The content is limited to a concise enumeration of five to ten key points.

- Length: maximum 1000 words
- Figures/Tables: only if essential
- References: maximum 10
- Abstract: none

ORIGINAL ARTICLE

Original articles must describe work that has not been published previously and has not been submitted for publication elsewhere.

- Length: 3000-5000 words
- Figures/Tables: as appropriate
- References: no limit

CONCISE COMMUNICATION

Concise communications present original work in a brief format. These are not considered preliminary communications and thus should contain firm data. Materials and methods should be described in the text rather than in figure legends, tables or footnotes. Concise communications receive the same review and the same priority for publication as full-length original papers.

- Length: maximum 1000 words
- Figures/Tables: 1 or 2
- References: maximum 20
- Abstract: 100 words

CORRESPONDENCE

Letters to the Editor are of two types: The first type comments on articles published previously in the journal and must cite published references to support the writer’s argument. These are referred to the editor who handled the article in question. The corresponding author of the article will be given an opportunity to reply and the two pieces of correspondence will be published together. The second type reports new findings that are not appropriate for publication as either original articles or concise communications. These are referred to an editor according to subject matter and are reviewed by that editor and a reviewer.

- Length: maximum 500 words
- Figures/Tables: if essential (1 maximum)
- References: maximum 5
- Abstract: none

CONTINUING MEDICAL EDUCATION

Diagnosis at first glance

This category includes short clinical cases based on a demonstration of the case in a photograph with a brief description. The case must be presented unsolved and the results will not be included in the title. The final solution will be presented on a different page where the interpretation will be summarized with a brief explanation of the issue.

- Length: 700 words
- Figures: maximum 10
- References: maximum 10
- Abstract: none

Clinical Microbiological cases

Authors are invited to submit instructive, unsolved cases. These will be presented in two separate parts: the first deals with the presentation of the clinical problems and the second with the follow up and solution to the problem.

The first part will include:

- Introduction: 2-3 lines describing the problem on admission.
- Past medical history and epidemiological data if relevant.
- Physical findings.
- Laboratory data and diagnostic techniques.

At the end of this section, the authors will pose a number of questions (between 3 and 5) associated with the case.

On a different page of the journal, the second part will include:

- Clinical outcome. The authors will summarize the final diagnosis and how it was reached and the evolution of the patient after appropriate treatment.
- Discussion. The authors will review the disease process and/or the causal microorganisms involved in the case. Tables and figures should be also included in this section to clarify the text.

- Words: 2000
- Figures: maximum 6
- Tables: 1 or 2
- References: maximum 50

Judith Crane
CMI Managing Editor
Dear Colleagues, Supporters and Members of the European Society of Clinical Microbiology and Infectious Diseases

It is an honour and privilege to invite you to the 12th European Congress of Clinical Microbiology and Infectious Diseases. This congress will be held in Milan, Italy, from 24 to 27 April 2002. ECCMID is now the biggest European meeting in the fields of clinical microbiology and infectious diseases. I am sure that the 12th ECCMID in April 2002 in Milan will carry on the tradition of successful ECCMIDs now established and be a great success like the previous congresses of ESCMID.
Exhibit programme that traditionally enriches all ECCMID’s. We are indeed proud that Milan has been selected for hosting the 12th ECCMID. This occasion will provide the participants and accompanying persons with the opportunity to visit and enjoy this European city and modern Italy, bustling with life, commerce, fashion, music, art and offering vast cultural attractions during the mild onset of spring.

Known internationally as Italy’s ‘business centre’, Milan is not just a working city. In the city itself, there are plenty opportunities for sightseeing, the arts and entertainment. The city centre abounds in works of art and historic monuments, without mentioning fashion boutiques, fairs and restaurants. Centrally located in the city, Fiera Milano is just a few minutes away from the Cathedral, the famous Galleria, the La Scala Opera House, the Sforzesco Castle and the elegant Brera district.

We are confident that the 12th ECCMID will provide a scientifically as well as personally enriching experience for all participants and we warmly invite you to attend this important meeting in April 2002.

Gian Carlo Schito
President 12th ECCMID

For further information please contact:
Administrative Secretariat
12th ECCMID 2002
c/o AKM Congress Service
P.O. Box 6
CH-4005 Basel / Switzerland
Phone: +41 61 686 77 11
Fax: +41 61 686 77 88
E-mail: info@akm.ch
www.escmid.org/eccmid2000

Programme Schedule

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<td>14.00–15.00</td>
<td>Keynote Lectures</td>
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IFAR Symposium at 41st ICAAC 2001

Global White Paper on Bacterial Resistance in Community-Acquired Respiratory Tract Infections

You are invited to join the International Forum on Antibiotic Resistance (IFAR) symposium immediately preceding the 41st Inter-science Conference on Antimicrobial Agents and Chemotherapy. This CME-accredited symposium has the support of the European Society of Clinical Microbiology and Infectious Diseases, the International Society for Infectious Diseases and the Infectious Diseases Society of America. The symposium will preview the first publication of the IFAR Group, the Global White Paper on Bacterial Resistance in Community-Acquired Respiratory Tract Infections, together with a discussion on the public health response to antimicrobial resistance in the United States by the US Centers for Disease Control and Prevention.

The Global White Paper is a direct response to the recognition that many recommendations and calls for action to combat bacterial resistance have been made in recent years, but relatively few systematic interventions have been implemented and audited. The IFAR group comprises recognized international experts from a variety of fields, including infectious diseases, microbiology, epidemiology, health economics, outcomes research, and patient advocacy. The aim of this ambitious initiative is to critically evaluate our current knowledge with a view to addressing gaps in our understanding of bacterial resistance and how it can best be controlled.

In previewing the Global White Paper, the IFAR Symposium will:
- Define the principles of good microbiologic surveillance and evaluate how surveillance data can best be interpreted and used to support strategies to control resistance.
- Critically assess our understanding of the clinical and socioeconomic impact of resistance in community-acquired RTIs.
- Review the key factors driving resistance and assess the link between resistance and antimicrobial usage.
- Explore the role of the patient in resistance spread and control, and the potential benefits of shared decision-making in this setting.
- Explain the challenges in applying our understanding of resistance to disease management and to the development of clinical decision-support systems, such as published guidelines.
- Review strategic recommendations for resistance control, explore how and where these have been translated into interventions, and highlight where these efforts have been effective.

We welcome all parties interested in moving the resistance debate forward to participate in this innovative and influential meeting.

Jointly sponsored by the Dannefjeller Memorial Educational Foundation and Adelphi Communications. The IFAR and the Global White Paper have been made possible by an unrestricted educational grant from Aventis Pharma. The IFAR would like to stress that the sole focus of this initiative is the threat of antimicrobial resistance world-wide and that no commercial aspects have been considered.

Le Calle by Roberto Rampinelli. Art exhibition in the Giorgio Cini Foundation, Venice, during the 3rd International symposium on Nosocomial Infections Today, Nov 5–8, 2000. The exhibition and publication were dedicated to ESCMID and sponsored by Pharmacia.
Announcement of a Research Grant by AstraZeneca and ESCMID

The European Society of Clinical Microbiology and Infectious Diseases (ESCMID) is pleased to announce an unrestricted research grant of USD 50,000 by AstraZeneca for research in the field of antibiotic resistance. The research grant was “built” at 11th ECCMID 2001 by international delegates breaking down a Wall of Resistance – an enormous puzzle, which symbolised the research fund. When they removed a piece of the Wall, AstraZeneca pledged a dollar amount to the research grant. The objective of this research grant is to contribute to overcoming antibiotic resistance. Appropriate projects may be laboratory or clinically based, or a combination thereof. However, proposals with clear clinical relevance will be preferred.

APPLICATION
Applications are to be submitted in writing. They must contain a detailed research plan, a description of the applicant’s present research, his or her CV, a list of publications plus two supporting letters. Applicants must include their complete postal and e-mail address, telephone and fax number and send five copies of all materials plus one colour photograph (if possible electronically) to the ESCMID Executive Office. Members of the ESCMID Executive Committee or the ESCMID European Council are ineligible. The selection of the recipient will be made by an ad hoc Award Committee of ESCMID Officers. No correspondence beyond that necessary for the application will be accepted. The deadline for submission is December 31, 2001. A decision can be expected by January 31, 2002.

Please send your application to:
ESCMID Executive Office
PO Box 6
Clarastrasse 57
CH-4005 Basel
Switzerland
E-mail: peter.schoch@escmid.org

Antibiotic Resistance – Prevention and Control (ARPAC)

European Commission Funding for ESCMID Study Groups to Develop New Strategies

In response to the Council Resolution and recommendations from the EU Conference on The Microbial Threat held in 1998 in Copenhagen, the ESCMID executive stimulated the development of a multi-study group proposal to address the need for a multi-disciplinary, Europe-wide approach to surveillance and control of antimicrobial resistance.

With the support of a start-up grant given to ESGAP, four ESCMID study groups successfully applied to the European Commission for funding under the Quality of Life thematic programme of the 5th Framework for Research and Development (DG XII) to carry out a three year Concerted Action study into the ‘Development of Strategies for Control and Prevention of Antibiotic Resistance in European Hospitals’. This involved close collaboration between ESGAP, ESGARS, ESGNI and ESGEM, coordinated by Dr. Fiona MacKenzie (Aberdeen, Scotland). The proposal is currently going through the ‘contract negotiation’ stage and the research is due to start towards the end of 2001. The project is known by its acronym, ‘ARPAC’ (Antibiotic Resistance – Prevention and Control). It provides an exciting opportunity for ESCMID and the ESCMID membership to make a real difference in trying to curb the evolution of antibiotic resistance in an evidence based manner.

OBJECTIVES AND AIMS
The overall objective of the project is to lay the foundations for a better understanding of the emergence and epidemiology of antibiotic resistance in human pathogens and to evaluate and harmonise strategies for prevention and control of antibiotic resistant pathogens in European hospitals. The aims of the project are:

* To identify antibiotic policies and prescription patterns associated with lower resistance rates
* To identify infection control policy associated with low incidence rates of ‘Alert organisms’ i.e. transmissible antibiotic-resistant strains.

Ultimately, ARPAC will make recommendations on which specific measures, such as antibiotic policies and infection control policies, lead to low rates of antibiotic resistance. Once these have been made they will be discussed at a broad-based international consensus conference, and selected strategies will form the
Numerous programmes across Europe are independently carrying out surveillance of antibiotic-resistant bacteria. Others are investigating the standardisation of methods used to track resistant human bacterial pathogens and resistance mechanisms, whilst still others are investigating current guidelines on either hospital antibiotic policies or hospital infection control policies. As of yet, no Europe-wide vehicles operate to assess the effectiveness of control measures in decreasing the incidence of antibiotic resistance. For the first time, this concerted action proposes to explore the variability of all these individual parameters and to investigate the relationships between them. ARPAC does not intend to create yet another new surveillance project. Rather, it aims to build upon the expertise generated by the existing programmes and to gather complementary information through targeted surveys.

THE STUDY GROUPS

Individual study groups will be responsible for specific areas of the project and are represented on the project steering committee. ESGARS (responsible partner H. Goossens) will compile an inventory of antibiotic resistance data and develop a strategy for collection, collation, critical assessment and dissemination of resistance data. ESGAP (responsible partner I.M. Gould) will compile an inventory of antibiotic consumption, prescribing habits, policies and stewardship in European hospitals. ESGNI (responsible partner M.J. Struelens) will compile an inventory of European hospital policies and practices for controlling transmissible antibiotic resistant micro-organisms. ESEGEM (responsible partner K. Towner) will develop a DNA typing database and data exchange format for tracking epidemic antibiotic-resistant micro-organisms. All of the assimilated data will be modelled by a medical statistician. The study’s prime concern is the identification of a) antibiotic policies associated with lower resistance rates as well as b) infection control policies associated with low incidence rates of transmissible antibiotic resistant bacterial pathogens.

ESCMID MEMBERSHIP INVOLVEMENT

The success of this research project relies entirely on the willingness of you, the ESCMID membership, to participate in this study and to provide data. The required data will be gathered via a series of questionnaires, which will be mailed to all ESCMID members, starting at the end of this year. The interim results of the analysis of the survey data and modelling of successful policies will first be reviewed within study groups and then presented and discussed with all interested colleagues at upcoming ECCMIDs. Significant findings will be published. The project will be directed by a steering committee, the members of which have been involved with the writing and design of the proposal on behalf of the participating study groups. The steering committee consists of the following people: I.M. Gould (Scotland), M.J. Struelens (Belgium), H. Goossens (Belgium), K. Towner (England), J. van der Meer (The Netherlands), V. Krcmery (Slovak Republic), G. Kahlmeter (Sweden), B. Cookson (England), P.J. van den Broek (The Netherlands), P. Gerner Smidt (Denmark), J. Vila (Spain), G. Cornaglia (Italy), F. Baquero (Spain).

The project will be co-ordinated by Ian Gould and Fiona MacKenzie and any queries regarding the project should be sent to f.m.mackenzie@abdn.ac.uk

Fiona M. MacKenzie, Marc J. Struelens, Ian M. Gould

17th ESCMID Postgraduate Education Course

Training Course in Hospital Epidemiology
Brugge, Belgium, November 7–10, 2001
Jointly organised by SHEA, CDC and ESGNI

For further information please contact:
Dr. Bart Gordts, Dept. of Microbiology and Infection Control, AZ Sint JAN, Ruddershove 10, B-8000 Brugge.
Fax: +32 50 42609, E-mail: bart.gordts@azbrugge.be, Internet: www.azbrugge.be/html/symposia/SHEACDC
ECCMID: Meeting Point of East and West?

One of the missions of the European Society of Clinical Microbiology and Infectious Diseases is to support specialists across Europe in their personal endeavours to acquire knowledge and develop their skills. The major vehicle for this educational objective is ECCMID, the best attended and most well supported European congress for professionals in the fields of clinical microbiology and infectious diseases.

In this context, “European” is intended to include Europe in its entirety, including East and West, the regions at the centre as well as those on the periphery. The legitimate question, whether ECCMID meets this objective and has an impact in promoting education in the East as well as in the West, is foremost in our minds. At first glance the answer is not obvious. The number of delegates as well as the number of presentations (submitted communications and invited speeches) from Eastern European countries is lower than we would like. The reasons for this are manifold. Unfortunately, as indicated by a much lower average number of publications in international peer-reviewed journals, these colleagues often lack the resources necessary to conduct the high quality and competitive research projects to which they aspire. And, clearly documented by the large number of requests received for complimentary congress registration each year, many of our colleagues in Eastern European countries lack the financial support necessary to attend the major European scientific congress in their professional discipline.

ESCMID has been approached for preventing Eastern European colleagues from attending ECCMID by not offering more complimentary registrations, for rejecting too many submitted abstracts and for not inviting more speakers from these countries. In light of our continuing efforts to support and encourage colleagues from Eastern Europe, we take these comments very seriously and would like to establish an understanding from our own perspective.

i) All abstracts have been subjected to an impartial review where the referees have been blinded with respect to the submitting authors and their countries of origin. These referees include two or three experts from the appropriate field, and they make their assessments independently. Thus, it is impossible for abstracts to be rejected on the basis of origin.

ii) Selection of speakers is based on the quality of research output. Although research of world standard is rare in some countries due to financial limitations or political restrictions, efforts are made to ensure global representation among the invited speakers.

iii) Within the confines of economic feasibility, we will continue to offer up to 40 complimentary registrations and travel grants to young scientists who have submitted an excellent abstract, independent of their country of origin.

We are of course aware that the full resolution of problems related to access, participation and recognition is linked to the political situation in the countries concerned. At present, professional education still falls under the authority of national governments. Maintenance of national institutions with resources adequate to support competitive research and high quality training programmes thus remains essential. We encourage young colleagues in their endeavours to take charge by developing a professional and competitive attitude, believing that they will be financially and professionally independent in the near future. In the meantime, we will continue to support our Eastern European colleagues as peers.

To demonstrate its commitment to fostering scientific development in Eastern Europe, the ESCMID Executive Committee has chosen Prague as the venue for the 14th ECCMID in 2004. Furthermore, in its tradition of sponsoring high level Postgraduate Education Courses organised by ESCMID members, ESCMID Study Groups or National Societies, ESCMID has supported two such courses in Dubrovnik and Warsaw in 2000. The Society would be pleased to receive more requests for sponsorship of such educational activities from Eastern European countries. ESCMID welcomes joint sessions at international and regional meetings, as demonstrated by our recent support of the 4th International IACMAC Symposium on Antimicrobial Therapy in Moscow. Similarly, in accordance with a recent agreement with the Open Russian Consortia, 300 Russian institutions will be granted immediate access to CMI, the official journal of the Society (see page 24).

In closing, the European Society of Clinical Microbiology and Infectious Diseases believes that their annual congress is indeed a meeting point of East and West and will be even more so in the future. The ECCMID Organising Committee is committed to this concept alongside its commitment to scientific excellence.

Peter Schoch
ESCMID Managing Director
Clinical Microbiology and Infection: Closing the Information Gap

In a novel initiative, Clinical Microbiology and Infection will be made available free of charge within 60 developing countries as of January 2002. The official journal of the European Society of Clinical Microbiology and Infectious Diseases will thus reach an audience far wider than its membership and those able to attend the yearly Congresses. A group of scientists and students from participating institutions, yet to be identified by the WHO, formerly without the means to subscribe to the Society’s official journal, will now have access to the original research results and editorial literature published in CMI, and will have the opportunity to submit their own work for possible publication in the future.

This initiative is one aspect of the establishment of the Health InterNetwork which is a project introduced at the UN Millennium Summit by United Nations Secretary-General Kofi Annan. The World Health Organization is at the forefront of the Network which aims to strengthen public health services by coordinating the dissemination of information to public health workers and researchers as well as to those responsible for public health policy at a national level.

Blackwell Publishing, the publisher of CMI, was targeted as one of the six largest publishers of biomedical journals to be included in the initiative. Dr Gro Harlem Brundtland, Director-General of the WHO, is responsible for coordinating the efforts of the participating publishers. The consequence of this three-year model project will be an unprecedented availability of the highest quality scientific literature. As such, it is the most important step to date toward eliminating the information gap between wealthy and developing countries in the biomedical domain.

In a second initiative, also in the spirit of open access, the readership of Clinical Microbiology and Infection will soon be extended to institutions within the Russian Federation. An agreement was reached in July 2001 between the Open Russian Consortia and Blackwell Publishing. The initial accord, sponsored by the Russian Foundation for Basic Research, will allow 300 Russian institutions to have immediate access to CMI, in addition to other journals published by Blackwell. The expectation is to extend this availability to 500 Russian institutions in the future, as well as to sites in Belarus and the Ukraine.

The European Society of Clinical Microbiology and Infectious Diseases and the Editorial Board of CMI is proud to be involved in these breakthrough efforts to foster global communication and to establish equality within the biomedical community.

Judith Crane
CMI Managing Editor

Affiliation with ESCMID

Short Presentation of the Swiss Society for Infectious Diseases (SSID)

In 2001 ESCMID has started an affiliation project of national societies in clinical microbiology and infectious diseases (see ESCMID News 1-2001). A pilot scheme is ongoing with the Swiss Society for Infectious Diseases (SSID) and the British Infection Society (BIS). They were offered to present their activities in ESCMID News. In this issue we start with SSID, BIS follows later.

Swiss Society for Infectious Diseases Presentation of our Activities

The Swiss Society for Infectious Diseases, newly affiliated to ESCMID, is supporting many activities related to infectious diseases, including:
- two one-day meetings in Berne (24 January 2001 and 7 November 2001) with project presentations and discussions of clinical issues relevant to Switzerland.
- an annual meeting, usually held jointly with other societies. In 2002 it will take place in Fribourg and include poster and slide presentations.
- a postgraduate education course on HIV, sponsored by ESCMID, probably taking place in March 2002.

Our website www.sginf.ch includes a complete members’ directory, schedules of upcoming events, rules and regulations related to the Society and, starting in July 2002, a slide repository with images and presentations related to infectious diseases. On our website you will also find lectures that were given by our members in Power Point format.
Ebola Virus

Searching for the Achilles Heel of the Germ

Congo, April 1995: one week exactly after an Italian nun at the Kikwit Hospital in the south of Zaire had nursed a severely sick patient with fever and massive hemorrhages, she started feeling a throbbing pain behind the eyeballs. In the course of the day, the pain extended to the whole head, and strong joint aches developed. Forty-eight hours later, the nun felt nauseous and had to vomit, while fever set in and climbed rapidly to 41 °C. Vomiting became intense while fever set in and finally evolved into dry retching. The nurse took to her bed, herself a patient by now. The other nurses noticed that their colleague was strangely apathetic, and that her face had become a rigid mask, almost devoid of signs of life. Her skin became yellowish, a conspicuous sclera icterus developed, while at the same time petechial hemorrhages appeared and spread to the entire body within a few hours. The microscopic bleeding spots evolved into extended hematomas. Seeping hemorrhages from all body orifices, from the nose to the vagina, were further evidence of perturbed homeostasis. On the seventh day, the patient fell into irreversible shock and died. As was found out later, the young nun had died of an infection with the Ebola virus. This marked the beginning of an epidemic that, for this small Congolese town, was like an apocalypse. Six weeks later, 244 people had died a gruesome death. Most of them had been patients of the district hospital. Seventy-one persons survived the catastrophe as by miracle. So far, seven out of ten patients who became infected with the pathogen in tropical Africa shared the fate of the Italian nun. Since no effective antiviral drugs are presently available, any discrepancies in the course of the disease takes in different patients can only be explained, if at all, by the kind of palliative treatment they received, and this raises the question whether there might be certain risk factors promoting a fatal outcome of the infection. Are there endogenous factors determining the course of the disease, and could they serve as a basis for a therapeutic strategy?

A German-French group of researchers has now tackled this hypothesis for the first time. The experimental material used consisted of blood samples collected in 1996 during two Ebola epidemics in Gabon. A total of 24 persons were examined, most of them relatives of Ebola victims who had cared for these patients until their death, without any protective measures, and who, therefore, had almost certainly come into contact with infectious body fluids such as blood, saliva, perspiration, and vomitus. The investigators analysed serum and cell samples that had been collected over a period of three weeks, using a whole battery of the most modern laboratory techniques available. They found that persons who had not fallen victim to Ebola fever themselves presented a characteristic pattern of immunological transmitter substances. The plasma concentrations of the pro-inflammatory cytokines interleukin-1-beta, interleukin-6 and Tumor Necrosis Factor-alpha were increased markedly. This was also true of the chemokines MCP-1, MIP1-alpha and MIP1-beta. Interestingly, these chemokines were not detectable in the blood of the patients who had died from the disease. The pro-inflammatory transmitter substances may therefore be seen as a kind of immunologic early warning system. They trigger a whole chain of nonspecific defence mechanisms, apparently capable of stopping the uncontrolled proliferation of the Ebola virus in leukocytes and endothelial cells - at least until immune cells and specific antibodies directed against viral proteins have had time to take over.

Two observations provide evidence that the modified laboratory parameters found in the blood of the contact persons were caused by infection with the Ebola virus and not with another pathogen. First, these individuals initially produced Ebola specific IgM antibodies, followed, within three weeks, by IgG antibodies. Furthermore, using a highly sensitive PCR method specially developed for this purpose, the researchers were able to detect viral RNA in isolated blood cells. This is the first demonstration that Ebola virus can also lead to a clinically silent infection. And this in turn has significant implications for the steps to be followed in case of an outbreak, since unrecognised virus carriers may infect other persons via blood or body excreta. The results of the research in Gabon also clearly show that death or survival was not dependent on mutant viruses, a possibility that
What then are the actual virulence factors of the Ebola virus? Considering the relatively simple structure of the organism - the virus consists of no more than eight different proteins, enveloping a single-stranded viral RNA - it would seem easy for virologists to answer this question. In addition, the different subtypes of the virus, Zaire, Sudan, Ivory Coast and Reston, differ only in minimal parts of their genome, which is only 19 kilobases long, so that any results obtained with one variant should be equally applicable to the other types.

In practice, the question is rather more difficult to answer, because the most stringent biosafety measures have to be observed in handling the pathogen. Only laboratories with the highest level of safety (P4 facilities) are allowed to handle these viruses. No suitable animal models are available. A breakthrough could therefore only be achieved by sequencing the entire genome of the pathogen and, subsequently, synthesising and analysing the different components of the virus in vitro. Following this strategy, a team of American and German researchers headed by Christopher F. Basler of the Mount Sinai School of Medicine in New York, recently reported that the viral protein called VP35 inhibits the production of endogenous interferon in the body. The scientists used a complex detection system, straight from the molecular-biology drawing board, in which a genetically engineered variant of an adenovirus plays the main role. The modified virus lacks the enzyme neuraminidase. Unlike the wild type, this attenuated adenovirus grows poorly in kidney cells. This is because the double-stranded viral RNA activates certain transcription factors, which in turn release the transcription of nucleotide sequences coding for the various interferons. In the cell nucleus, the interferon synthesised by the cell then promotes the

Where does the Ebola virus hide?

After the end of an epidemic, the pathogen disappears as rapidly and unexpectedly as it made its appearance in isolated areas: as of yet, this riddle has not been solved by the infectious disease specialists who have been searching for years now for the reservoir of the Ebola and Marburg viruses.

Epidemiologic and virologic investigations carried out during and after the last epidemics in the Congo and Gabon have, for the first time, brought to light a few facts which might provide pieces that can fill in a mosaic picture revealing a possible, if still hypothetical, ‘way of life’ of the Ebola virus. There is abundant circumstantial evidence to indicate that the natural habitat of the two filoviruses is the tropical rain forest. Thus, all epidemics so far have appeared in the rain forest or in the transition zones between rain forest and savanna. It seems that, in the wild, the virus circulates between small mammals and highly specialized insects, both dwelling either predominantly or exclusively in the canopy of the rain forest. According to this scenario, small arboreal mammals would be the actual reservoir of the virus, and blood sucking insects its vectors.

The yellow fever virus represents another example of a pathogen with such a ‘sylvatic’ cycle: it normally reproduces in various monkey species and can be transmitted to humans by certain mosquitoes with a predilection for the blood of these monkeys. If this scheme is correct, there is no infectious risk for humans as long as the Ebola virus remains undisturbed in its ecological niche. It is only when the habitat of host and vector alike is disturbed, or even destroyed - for instance, when rain forests are burned down for cultivation purposes or for gold digging - that the pathogen jumps species to humans. It also has been shown that an infection may occur via blood and other body fluids of monkeys when they are hunted, slaughtered and eaten, as is still the custom in central Africa.

Further findings indicate that the virus’s habitat is in the tree tops and not on the ground. For instance, time and again primatologists have witnessed epidemics in chimpanzees during which the animals died from massive generalized hemorrhages, and many signs point to the Ebola virus as the causative agent: chimpanzees usually spend most of their time in tree crowns and are therefore prone to bites by blood-sucking mosquitoes dwelling there; and, as omnivores, they may also infect themselves through contact with the bloody meat of small prey.
transcription of other gene sequences coding for important proteins that have antiviral properties. As a result, the deficient adenoviruses decay. Yet, when the different Ebola virus proteins were added one by one to the cell culture, the VP35 protein was found to have the capacity to restore fully the proliferation of the mutant adenovirus. The most likely explanation is that VP35 blocks the synthesis of the transcription factors IRF-3 and NFκB, with the effect of interfering no longer being synthesized. The results obtained in this model based on genetic engineering fit well with the observations of Ebola patients from Gabon: there, the researchers had been astonished to find that the blood samples contained no interferon.

The Ebola virus, however, seems to interfere not only with certain components of the immune response, it also exerts a cytotoxic effect on the cells in which it replicates. This is especially true for endothelial cells. The triggering factor seems to be an envelope protein of the virus, characterised by a high degree of glycosylation. This glycoprotein causes lesions resulting in a sort of ‘moth-eaten’ appearance of the vascular wall. Surface changes in the endothelial cells lead to a loss of their intimate contact with neighbouring cells, which is followed by extravasation. These cytotoxic lesions serve the pathogen well: the destroyed cells release copies of the virus, and these ‘young’ viruses rapidly invade new cells. The cycle of infection and replication spins increasingly faster.

The team of Gary J. Nabel at the vaccine research center of the National Institute of Health in Bethesda, Maryland, follows a very different approach. There, scientists have been looking for several years for an efficient vaccine against the Ebola virus, and they now believe they have achieved a breakthrough. The American researchers first developed a DNA vaccine. This consisted of no more than certain parts of the naked genetic material of the Ebola virus, packaged into a plasmid. In an animal model, this DNA vaccine induced a straightforward antibody-mediated immune response.

In a second round of vaccination, the scientists administered a further ‘dose’ of Ebola antigen to the cynomolgus monkeys used as experimental animals, with the help of an adenovirus modified by genetic engineering. This resulted in a 20-fold increase in antibody concentration. When the animals were subsequently infected with Ebola virus, they did not get sick, because the neutralizing antibodies protected them. But there is a catch: the entire vaccination procedure took almost six months. In case of

The epidemiology of Ebola

The Ebola epidemic that erupted in Uganda in mid-September 2000 was declared officially terminated by the WHO in February 2001, when 42 days (equivalent to twice the maximum incubation time) had elapsed since the release of the last patient treated without any new cases appearing. Totalling 428 cases, 173 of them with fatal outcome, this was the most severe epidemic so far with this filovirus. Since September 17, 2000, when a young woman with an Ebola infection bled to death after giving birth in a mission hospital in Gulu, 300 km north of the capital Kampala, the epidemic had spread in several waves. First, several members of the family of the patient got sick and died; then, within a few days, the hospital was the center of an explosive outbreak. Medical personnel as well as other patients in the hospital got infected. Such a wave of nosocomial infections implies that basic rules of hospital hygiene had not been respected.

As in previous epidemics in the Sudan and the Congo, the patients leave such a hospital panic stricken, as soon as rumours about unusual deaths reach them. As a result, the pathogen is carried back, in a third wave, to the villages of the patients. The outbreak of a satellite epidemic in the District of Masindi, 120 km south west of Gulu can be explained exactly in this way. There, a total of 27 persons had become sick, and 19 of them died. Since care of deceased members of the family is a task usually taken over by women, their risk of infection is particularly high. This explains why nearly two thirds of all fatalities were women.

The traditional funeral ceremonies in the villages often play the role of a ‘virus-swivel’, contributing to the dissemination of the pathogen: the body of the dead person is laid out in state for several days; it is washed thoroughly and the mourners then plunge their hands one after the other into a washing basin, as a sign of solidarity.

A second satellite epidemic broke out in a way completely unforeseen by the health authorities at the end of October 2000, in the town of Mbarara, 250 km south of Kampala, a two-day journey from Gulu. It could be shown that the deadly pathogen was carried there by a soldier stationed in Gulu, who had left his garrison and infected several other military personnel as well as civilians in Mbarara. The case-fatality rate was particularly high in this case: four of the five patients died.

As the director of the public health service, Francis Omaswa, was forced to admit, the lack in personnel, equipment and disposable sterile material at the hospitals in Gulu and Masindi contributed in a decisive way to the development of the epidemic from a few isolated cases to a worst-case scenario. But the military authorities, to which the civil administration of the district of Gulu is subordinated, and the Health Ministry in Kampala will also have to face the question why weeks passed before anyone knew about the extent of the catastrophe in the capital: it was only on October 11, almost a month after the index case, that the population and the world at large were first informed about the new, and by now uncontrolled, epidemic.

With 40%, the death rate of the most recent epidemic is significantly lower than that of previous epidemics. Since the Ebola variant isolated in Uganda is related to the virus originally found in the Sudan, the lethality can be compared only with those of the 1976 and 1979 epidemics in the Sudan, which ranged between 55-60%. The low case-fatality rate of the recent epidemic is presumably related to better palliative measures and, in particular, to early and aggressive rehydration. This would also explain the quite different death rates in the three affected regions. In the reference hospital in Gulu, in which the majority of patients were treated, the case-fatality rate was 38%, whereas in Masindi it was 70%, and in Mbarara nearly 80%.
a new outbreak, such a vaccine would therefore be utterly useless. And any vision of vaccinating the entire population of a region at risk against Ebola virus as a preventive measure is unrealistic: the countries concerned are not even able to provide their children with routine vaccinations against such diseases as poliomyelitis or measles on a regular basis. A highly complicated, and therefore expensive, Ebola vaccine is thus outside the realm of practicable health-care measures.

Research towards improving the management of patients with hemorrhagic fever or reliable surveillance and information systems for infectious diseases would serve the needs of Ebola-afflicted countries far better. The numbers of the recent epidemic in Uganda speak for themselves: 26 members of the hospital personnel in Gulu, the epicentre of the epidemic, were infected while nursing patients; of these, 18 died, including the senior physician. The Health Ministry in Kampala took nearly a month to comprehend the extent of the catastrophe. By then, 57 persons had contracted the disease and 31 had already died the same terrible death as the Italian nun. Ebola epidemics of such magnitude as the one that ended in February in Uganda thrive on the desolate social and economic conditions. As long as countless people have to live from hand to mouth, as in northern Uganda, and death is omnipresent in the form of malaria, AIDS, cholera and other mass epidemics, as long as armed conflicts force tens of thousands into flight and hospitals pose a threat to health because of general apathy and indifference, the deciphering of the viral genome or new insights on pathophysiology obtained with the most sophisticated techniques available will remain ineffectual in the future too.


Hermann Feldmeier
Resistance to Antibiotics: What can be done?

By Andreas Widmer

On February 25, 1966, one could read in Time Magazine: ‘Most experts believe that by the year 2000 viral and bacterial infections will have disappeared from our life’. This statement reflects the widespread euphoria reigning 40 years ago because of the successes achieved by therapy with antibiotics. Today, the situation is quite different. What can we do against growing resistance to antibiotics?

On July 11, 1997, the Centers for Disease Control and Prevention (CDC), Atlanta, USA reported the first instance of a *Staphylococcus aureus* with intermediate susceptibility to vancomycin (1). This meant that an antibiotic efficacious in all cases of *Staphylococcus aureus* infections was no longer available. The euphoria had vanished for good. The situation is similar with regard to other bacteria, as strains are being found that are no longer susceptible to the available antibiotics. The ability of micro-organisms to adapt to the presence of antibiotics through the acquisition of resistance genes had been widely underestimated.

Measures to counter the spread of bacterial resistance are urgently required. A multifaceted approach is required to combat resistance (Figures 1 and 2): First, the emergence of multi-resistant pathogens should be prevented through prudent use of antimicrobial agents. Second, carriers of multi-resistant strains should be isolated based on published guidelines by authorities such as the CDC. Third, use of antibiotics as growth promoters should be restricted or eliminated to avoid unnecessary exposure to resistant pathogens in the food chain.

**MULTI-RESISTANT PNEUMOCOCCI**

The most common pathogens isolated in infections such as otitis media, acute sinusitis, acute exacerbations of chronic obstructive pulmonary disease (COPD) and pneumonia are pneumococci. In 1940, when penicillin was first introduced into medicine, all pneumococci were highly susceptible to this antibiotic. By the mid sixties, the first isolates of pneumococci with reduced susceptibility to penicillin were described. Today, penicillin-resistant pneumococci are widespread throughout the world. According to the Alexander project, 3% of the strains tested in Switzerland in 1996 were resistant to penicillin, and this number had increased to 11% by 1999. Whilst, compared with France, where pneumococcal resistance to penicillin reaches 58%, this number is still low, the increase between 1996 and 1999 is rather alarming (2).

Pneumococci acquire their resistance to penicillin in a stepwise process, through a succession of point mutations located in the part of their genome that codes for the so-called penicillin-binding proteins (PBP). Penicillin inhibits the bacterial PBP and induces cell death by preventing the last step in cell wall synthesis. When penicillin and penicillin-like antibiotics exert a constant selective pressure on pneumococci, this leads to the selection of mutants with increasingly weaker penicillin binding propensity and thus lower susceptibility to penicillin.

Pneumococci resistant to penicillin are often resistant to other antibiotics as well (so-called cross-resistance). This is especially true for macrolides, trimethoprim / sulfamethoxazole and tetracyclines, which are often used as an alternative to penicillin in upper respiratory tract infections. The new fluoroquinolones (gatifloxacin, gemifloxacin, levofloxacin and moxifloxacin) exert effective activity against pneumococci. However, indiscriminate use of this class of antibacterials could lead to the emergence and rapid spread of resistance against them. Quinolones inhibit the gyrase and the topoisomerase IV of the bacteria, two proteins necessary for the replication of the genetic material during cell division. A series of spontaneous mutations can lead to modifications in these proteins, and this progressively reduces their susceptibility to fluoroquinolones. In patients treated with fluoroquinolones, mutated strains have a selective advantage and may therefore spread and achieve an even higher degree of resistance through further mutations.

Figure 1: Resistance acquired by spontaneous mutations. Through the constant use of antibiotics, susceptible bacteria are killed. However, germs that have become resistant as a result of spontaneous mutations can still multiply. Additional mutations may further reduce their susceptibility to antibiotics. Eventually, bacteria that have become highly resistant are transmitted to other patients. This development can only be prevented by an effective policy of restricted use of antibiotics.
The spread of bacteria that have become resistant through spontaneous mutations may be prevented if we do not offer them a selective advantage over non-resistant strains of the same species, as is the case when antibiotics are used at a constant rate in a given bacterial ecosystem – whether in a hospital or in the community as a whole. This means that we should use antibiotics only where and when they are needed, i.e. not in order to treat viral infections of the respiratory tract and not for needless prophylaxis. It also means applying antibiotic treatment for as long as necessary but no longer. And finally, it means well-targeted treatment, using selective antibiotics with a narrow spectrum of action.

METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

A very different type of procedure is indicated to control the spread of methicillin-resistant Staphylococcus aureus (MRSA). At the time of the introduction of methicillin (1960) all S. aureus were susceptible to this antibiotic. But an S. aureus strain resistant to methicillin was reported as early as 1961. Resistant strains then spread rapidly in hospitals throughout the world. A multi-centre study carried out in hospitals in 10 European countries in 1990/91 showed that a total of 1.8% of all S. aureus isolates were resistant to methicillin. The proportion of MRSA among all S. aureus strains varied strongly between the different countries. In Scandinavian countries the proportion was less than 1%, whereas in Spain, Italy and France it was above 30%. In most Swiss hospitals, less than 4% of S. aureus isolates are methicillin resistant. In Geneva, however, the proportion reaches 25%. The numbers are on the increase throughout the world (3). Wherever the proportion of MRSA is high, all patients with a suspected staphylococcal infection should be treated with vancomycin until the results of susceptibility tests are available. This represents a serious disadvantage for patient and hospital alike, since this antibiotic is less efficacious against staphylococci than methicillin, causes more side effects, and can only be administered by infusion.

MRSA synthesise a supplementary PBP (so-called PBP2a) not found in methicillin-susceptible staphylococci. This protein is not inhibited by penicillin. The corresponding genetic information is coded by the mecA gene. The origin of this gene is unknown. It cannot have been acquired by way of simple mutation of existing genes, but must have been introduced into the chromosome of MRSA from outside.

Patients and hospital personnel can be colonised by MRSA in the nose, the throat, on the skin and in the perianal region. In a hospital, the asymptomatic carriers constitute a reservoir of MRSA, which can spread by direct and indirect contact, colonising more patients and causing nosocomial infections. MRSA may also be introduced into nursing homes, where the diminished immune defence of the inhabitants facilitates the spread of the strains. When nursing home residents are admitted into a hospital for acute treatment, they take their strain of MRSA into the hospital and the number of colonised and infected patients increases. If a hospital is free of MRSA, it can remain so until a strain is imported into its environment, generally via a patient. The most efficient procedure for controlling the MRSA problem is therefore to identify the patients who are carriers of MRSA (4). Many hospitals in Switzerland now perform screening tests on patients from regions with a high prevalence of MRSA. This is done by taking swabs from the throat, nose and skin. Patients in which MRSA are thus detected are isolated to avoid any transmission to other patients. Furthermore, one can attempt to decontaminate the patients who carry MRSA. To achieve this, contaminated patients undergo a daily washing routine and a pharyngeal douche with disinfectant products, and they apply an antibiotic cream to the nose. They are released from isolation if no MRSA are detected any more in several successive tests.

These two examples show that the diversity in the germs’ resistance mechanisms requires defence strategies adapted to each specific case. An appropriate policy for antibiotic therapy and well-targeted screening and isolation measures must be worked out by specialists of infectious diseases and the hygiene sections of hospitals and must be carried out in conjunction with all concerned parties in the health care system.

REFERENCES

1 CDC. Reduced susceptibility of Staphylococcus aureus to vancomycin–Japan 1996. MMWR 1997; 46: 624-626

Andreas Widmer, MD and MS, is a specialist in infectious diseases and infection control and registrar at the University Hospital of Basel, Switzerland. He is a prominent member of the ESCMID Study Group on Nosocomial Infections.
News in Brief

**Prions and Transmissible Spongiform Encephalopathies**

**BSE IN SPAIN**
The effects of BSE continue to reverberate in a number of European countries. The health regulations of the EU now state that any cows or bulls dying in accidents or of natural causes have to be incinerated. This has had some surprising effects, including a lack of food for Spanish vultures. In nature reserves near Madrid dead cattle were left out to feed two endangered species of vultures (Black and Griffon), but this has had to be stopped. The vultures are now being fed on dead sheep.

Spain has now joined the countries that have had cases of BSE, with eight cases diagnosed in recent months. This follows the introduction of tests to detect the presence of prions in nervous tissue of cattle over 30 months of age. Of concern is a case in a cow aged 25 months, which has led to discussions as to whether Spain, like Germany, should reduce the age limit of testing. The handling of the situation has led to criticism of the ministers of health and farming, who have issued contradictory messages. A BSE crisis committee has now been set up.

_X. Bosch, BMJ 2001; 322:192_

**VCJD IN AUSTRALIA AND IN AN ELDERLY PATIENT IN UK**
A 74-year-old man in Sydney, Australia, has recently died of suspected vCJD. The brain tissue is being examined to confirm the presence of a TSE. No cases of BSE or of vCJD have been identified in Australia so far, but the man spent 6 weeks in the UK and France in 1993.

_Sydney Telegraph_

In the UK a case of vCJD has been confirmed by histological examination of the brain tissue in a 74-year-old man. Previous cases of vCJD have been in younger patients, and the authors emphasise that this case is unlikely to be unique. The current surveillance programmes target a younger age group, and, since vCJD can only be confirmed by histology, cases in older age groups could be missed. Dementias are relatively common in the aged, and, unless brain tissue is examined, a spongiform encephalopathy will not be detected. The authors point out that this case has implications for the public health services and underlines the importance of investigating all patients, irrespective of their age, with progressive neuropsychiatric disorders.

_Lorains et al., Lancet 2001; 357:1339_

**TESTS FOR PRION PROTEINS**
Tests for the presence of abnormal prion protein remain a major target and several tests have been approved in the EU. In a paper in _Nature_, a group from France reports that they have found one of these tests to be of similar sensitivity to the mouse assay, and to have the advantage of speed and convenience. Bayer scientists have reported that they now have a viable purification process for the removal of abnormal PrP from plasma-derived products. They used a new Western Blot technique and claim that the results are efficient enough to allow this to be used commercially.


**ORIGINS OF BSE**
Workers in New Zealand suggest that BSE in cattle did not, as has been believed, come from sheep scrapie, but may have originated in infected antelopes imported from Africa into the UK during the 1970s and subsequently fed to cattle. TSEs are known to infect a wide range of animals, including antelope, and to produce a similar degenerative or wasting disease.

_BBC News, 18th April, 2001_

**TSE’S IN AMERICA**
The authorities in the USA seem confident that BSE does not pose a threat to the American consumer, but there are a number of reports that could cause concern to some. Deer and elk in the USA have been found to be suffering from a TSE which produces a fatal wasting disease similar to BSE. This disease has been known since the 1960s and was first seen in farmed elk in 1990. CDC have stated that there is no evidence of this disease passing to humans; this kind of statement will strike a familiar chord with the British public! Nevertheless, a programme has been instituted by the US Agriculture Department to cull and destroy any infected animals on deer and elk farms. In spite of a ban by the FDA on the feeding of products from ruminants to other ruminants, a feed manufacturer admitted that ground meat and bone from cattle has been fed to over 1,000 Texas cattle. In addition, the FDA found that one quarter of rendering plants and feed mills had strongly positive tuberculin reactions and are receiving chemoprophylaxis. The source of the outbreak has not been identified.


**Infectious Diseases and Outbreaks**

**TUBERCULOSIS IN THE UK**
Two outbreaks of tuberculosis have been reported in the UK, one in a community college in Leicester and one in north London. In the college outbreak 44 students, four family contacts and two teachers have tested positive. An additional 40 students had strongly positive tuberculin reactions and are receiving chemoprophylaxis. The source of the outbreak has not been identified.

_CDR Weekly, 3rd May, 2001_
in patients who did not respond to steroids in an attempt to clarify whether these patients carried the virus. CMV was found in 7/19 of these patients and five of the seven responded well to antiviral treatment, indicating a pathogenic role for CMV.

Cottone et al., Am J Gastroenterol 2001; 96: 773-5

MULTIDRUG-RESISTANT TUBERCULOSIS

Resistance to anti-tuberculosis drugs is a major problem in many parts of the world. A WHO study shows that resistance to the two first line drugs, isoniazid and rifampicin, is alarmingly high in eastern Europe, especially in Estonia, Russia and Latvia. Resistance is also high in China and Iran. The high rate of resistance in previously treated people in Estonia indicates poor control of treatment, a situation, the authors say, that poses a threat to other countries. Of some encouragement is the finding that resistance has declined in France and the US.

Espinal et al., New Eng J Med 2001; 344: 1294-1303

A meeting was held at the Royal Society in London, UK in April to discuss the problem of multidrug resistance (MDR) in strains of tuberculosis. Concern was expressed that MDR will increase in Africa because of the high burden of AIDS. Immigration from areas with a high incidence of MDR poses a threat and this has resulted in increased cases of MDR in Denmark and Israel. The WHO DOTS (Direct Observation Treatment Shortcourse) strategy was highlighted as both cost effective and therapeutically effective. ‘DOTS: TB cure for all’ was used by the WHO as a slogan on World Tuberculosis Day (March 24th). Although DOTS can be highly effective, a recent publication by Walley et al. has shown that the term itself can be misleading since, in rural areas, it is not always possible to observe the patients directly. Nevertheless, the strategy includes more than just direct observation and short course therapy; microscopic examination of sputum samples is mandatory and the treatment is standardised. Health workers are trained to keep accurate records and supplies of drugs are uninterrupted. Overall, in spite of some shortcomings, DOTS has reduced the failure rate of TB treatment substantially.


PENICILLIN/CEFTIRAXONE RESISTANCE IN STREPTOCOCCUS MITIS

Resistance to antibacterial drugs has been increasing among viridans group streptococci, formerly highly susceptible to β-lactam drugs. A recent report from Cleveland, Ohio, US, describes a case of endocarditis in a child aged 22 months, caused by S. mitis that was highly resistant to penicillin and ceftriaxone (MICs 4 mg/l). Such cases are rare, this being the first one reported in an otherwise healthy child. The only risk factor seemed to be group day care attendance.

Sabella et al., J Am Med Assoc 2001; 285: 2195

RESISTANCE SEEN TO LINEZOLID

Vancomycin-resistant Enterococcus faecium (VRE) have been reported with resistance to the new oxazolidinone drug, linezolid. One of the strengths of this drug is its activity against a range of resistant Gram-positive cocci, including VRE. Resistance to linezolid was extremely rare in clinical trials,
but a recent paper reports that linezolid-resistant VRE were isolated from five patients who had been treated long-term with linezolid. All had responded to linezolid therapy initially, but three of the five patients subsequently became unresponsive.

Gonzales et al., Lancet 2001; 357: 1179

RESISTANCE TO SULPHONAMIDE IN ESCHERICHIA COLI PERSISTS

A recent report looked at consecutive isolates of E. coli from a London hospital in 1991, when the prescribing of sulphonamides was common, and in 1999, when the prescribing of sulphonamides had decreased dramatically. There was no significant corresponding decrease in the incidence of sulphonamide resistance in the two groups of isolates. The authors suggest that the reason for the persistence of resistance in the absence of the antibacterial pressure is that the gene responsible for the resistance is located on a type 1 integron that carries several resistance determinants, including tetracycline and ampicillin.

Emme et al., Lancet 2001; 357: 1325

METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

A baby who had no known exposure to any carriers of MRSA has been reported to have developed an infection involving a MRSA while undergoing treatment with β-lactam antibiotics in a Utrecht hospital. This indicates that horizontal gene transfer between other staphylococcal species may have taken place. The authors found that the mecA DNA present in the infecting strain of MRSA was identical to that in a strain of Staphylococcus epidermidis also present in the baby.

Wielanders et al., Lancet 2001; 357: 1674

A group from Oxford University, UK, has studied the genetic relationship between invasive and non-invasive strains of S. aureus and found that the most successful MRSA strains are genetically related to the most aggressive and virulent strains.

Day et al., Science 2001; 292: 114

ANTIBIOTIC-RESISTANT BACTERIA COMMON IN CHILDREN

A study carried out in the UK looked at the incidence of drug-resistant bacteria in 539 healthy children aged 7–9 years by collecting stool and mouth samples. The children were all attending a clinic for a seven-year follow-up study. S. aureus were isolated from 37% of the children and 3% of these were resistant to chloramphenicol or tetracycline and 2% were MRSA. There was a high incidence of Haemophilus (72%), 17% of which were resistant to ampicillin, 13.3% were resistant to erythromycin and 1.9% were resistant to tetracycline. There were 17 Gram-negative isolates with resistance to cefazidime, six of which produced an extended spectrum β-lactamase.

Millar et al., J. Antimicrob Chemother 2001; 47: 605-10

DRUG RESISTANCE IN HIV

A report from a collaborative group in the UK indicates that the transmission of drug-resistant HIV-1 has increased between 1994 and August 2000. The patients had not received anti-retroviral therapy at the time of testing, indicating the transmission of resistant isolates rather than the development of resistance.


Pharmaceutical Companies and Compounds

ORPHAN DRUG STATUS FOR RIBAVIRIN

The European Medicines Evaluation Agency (EMEA) has recently recommended that intravenous ribavirin (Virazole™, ICN Pharmaceuticals) be given orphan drug status for the treatment of haemorrhagic fever with renal syndrome. This disease is recognised by the WHO as a rare, acute disease which is endemic in a band encompassing Norway, Sweden, Finland, Russia and Japan. There is no current therapy for this disease, but intravenous ribavirin has been shown to produce a sevenfold reduction in mortality.

BMJ 2001; 322: 1179

CASPOFUNGIN APPROVED BY FDA

The intravenous antifungal agent caspofungin (Cancidas®, Merck), a novel echinocandin compound which inhibits β-glucan synthesis in the fungal cell wall, has received approval from the FDA for the treatment of invasive aspergillosis. The drug is approved for use in patients who have failed therapy or are intolerant of other therapies.

Day et al., Science 2001; 292: 114

EUROPEAN APPROVAL FOR TREATMENT FOR PERIODONTAL DISEASE

A doxycycline slow-release formulation for the topical treatment of periodontal disease, Atrix™ (Atrix) has received marketing approval in Germany, Sweden and Denmark. Atrix has used their drug delivery system to produce a gel containing doxycycline. The gel conforms to the shape of the periodontal pocket, solidifies and releases doxycycline over a period of seven days.

BMJ 2001; 322: 1179

FLUOROQUINOLONES LICENSED FOR OPHTHALMIC USE

InSite Vision Inc. has licensed two second generation fluorquinolones from SSP Co. Ltd. in Tokyo for marketing in Europe and the US. InSite Vision will use their drug delivery system, which allows a slow gradual release of the drug into the eye.

BMJ 2001; 322: 1179

Vaccines

MENINGOCOCCAL C VACCINE

A report in the Lancet from the UK PHLS shows that the meningococcal C conjugate vaccine has shown a 97% efficacy in teenagers and a 92% efficacy in young children. The vaccine resulted in a dramatic reduction in the cases of meningococcal meningitis in adolescents.
with a significant but less marked reduction in cases in 1-2 year old children. The authors note that there has been an increase in disease caused by serogroup B meningococcus. Isolates were being monitored to check that this increase was not caused by capsule-switching in response to selection by the vaccine.

Ramsay et al., Lancet 2001; 357: 195-6

A license has been granted to Chiron Corporation to market the vaccine (Menjugate™) in Canada. The vaccine was approved under an expedited review in response to the increase in cases of the disease in Canada.

PNEUMOCOCCAL VACCINE
A pneumococcal conjugate vaccine (Prevenar®), made by Wyeth Lederle Vaccines, has just received marketing authorisation from the EU. The vaccine is designed to protect infants and young children against invasive pneumococcal disease caused by Streptococcus pneumoniae serotypes 4, 6B, 9V, 14, 18C, 19F and 23F and thus covers 71% to 86% of the common disease-causing serotypes.

COMBINED DTP/HEPATITIS/POLIO VACCINE NOT APPROVED
A combined vaccine for infants against diphtheria, tetanus, pertussis, hepatitis B and polio, produced by Glaxo SmithKline (GSK), was not approved by the FDA. The panel decided by six votes to five that company studies did not show sufficient protection against all five diseases. The company claims that a major advantage in the use of this vaccine (Infanrix DTPa-HepB-IPV®) would be the reduction in the numbers of injections needed by infants from nine to three.

FD A REQUESTS MORE INFORMATION ON LYME DISEASE VACCINE
An advisory committee of the FDA has requested more safety data on another vaccine made by GSK, LYMIrix™, for protection against Lyme disease, following a number of reports that the vaccine can trigger severe autoimmune arthritis. The vaccine contains a recombinant outer surface protein (OspA) of the spirochete responsible for Lyme disease, Borrelia burgdorferi. There were indications, prior to the licensing of the vaccine, that OspA can trigger arthritis in a small percentage of late-stage patients with Lyme disease, but these studies were not substantiated or repeated. The Committee was unhappy with the post-marketing studies carried out by GSK and have called for more active surveillance.

European Matters
EUROPEAN MARKET
Two recent reports show that pharmaceuticals remain a major market and growth area in Europe. The market for pharmaceuticals in Europe has shown good growth (9%) in the year ending April 2001, overtaking Japan to become the second largest world market - $51 billion. The growth in the North American market is even greater, 15%, with total sales of $108 billion. Ireland is the largest exporter per capita of pharmaceutical products, but is one of the lowest consumers. Germany, Luxembourg and Denmark are the greatest spenders per capita, and Portugal, Greece and Spain the lowest.

NEW ANTIBIOTICS DATABASE
A new, peer-reviewed antibiotics database has been launched on the internet by the Johns Hopkins Medical Institution. It contains diagnostic criteria and options for therapy, taking into account the best currently available information, and will be constantly updated. The site requires you to register, but this is free. It also contains a good news section, the content is mainly American, but is extremely comprehensive and contains much of interest.

REPORT ON BIOTERRORISM NOW AVAILABLE
The American Society for Microbiology has a report entitled ‘Bioterrorism Threats to our Future: The Role of the Clinical Microbiology Laboratory in Detection, Identification, and Confirmation of Biological Agents’ available for free downloading on its web site. The report presents the results of a conference held on this topic in San Antonio, Texas, in October, 2000 and covers the role of the clinical microbiologist and other medical professionals in the recognition of possible bioterrorism events. The report starts with a fascinating delineation of a fictitious scenario of how an outbreak of plague could be spread and indicates how, in some situations, especially if small cities or rural areas have been targeted, it may take some time before an unexpected organism would be recognised. Commercially available identification systems, widely used, are not good at identifying uncommon or slow growing organisms; expert clinical microbiologists are needed and these are often in short supply. Many people becoming sick in a short time interval will often be the trigger but team effort is required to recognise the significance of this event. The importance of a bioterrorism response plan and training for staff in its requirements are emphasised in the report as is the assessment of risk to laboratory personnel and general safety issues regarding the handling of samples.

Pamela Hunter Medical Writer
Forthcoming events

**ESCMID events:**

**7–10 November 2001**
17th ESCMID Postgraduate Education Course: Training Course in Hospital Epidemiology, Brugge, Belgium

Contact: Dr. Bart Gords
Dept. of Microbiology and Infection Control
AZ Sint JAN
Ruddershove 10
B-8000 Brugge
Fax: +32-50-42609,
E-mail: bart.gords@azbrugge.be
Internet: www.azbrugge.be/html/symposio/HEACDC

**22–23 April 2002**
18th ESCMID Postgraduate Education Course: Diagnostics, Characterisation and Epidemiology of Beta-Lactamases, Orta San Giulio, Italy

Contact: Giusseppe Cornaglia, MD
Dept. of Pathology
(Microbiology Section), University of Verona,
Strada Le Grazie
8 – 37134 Verona, Italy
Phone: +39-045-584 606,
Fax: +39-045-584 606,
E-mail: giusseppe.comaglia@univr.it

**24–27 September 2001**
41st Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), Chicago, IL, USA

Contact: ASM Conferences
Phone: +1-202-942 9248
Fax: +1-202-942 9340
Internet: www.asmusa.org

**27–28 September 2001**
21 September 2001 Global White Paper on Bacterial Resistance in Community-Acquired Respiratory Tract Infections – IFAR Symposium at the 41st ICAAC 2001 (see below), Chicago, IL, USA

Contact: Julie Griffith
Fax: +31-35-542 9333
E-mail: molecule@wens.nl

**11–12 October 2001**
European Meeting on Molecular Diagnostics, Scheveningen, The Hague, The Netherlands

Contact: European Meeting on Molecular Diagnostics
c/o Wens Travel
Phone: +31-35-542 9444
Fax: +31-35-542 9333
E-mail: molecule@wens.nl

**15–17 November 2001**
European Conference on Antibiotic Use in Europe, Brussels, Belgium

Contact: Dr. Isabelle Bauraind
Phone: +32 (2) 210 47 99
Fax: +32 (2) 210 47 91
Internet: esc@www.uia.ac.be/esc/

**17–19 March 2002**
Medical Biollms 2002, International Conference, Tokyo, Japan

Contact: Secretariat of BIOFILMS 2002, c/o Quantum, Inc.
Phone: +81-3-5684 1634
Fax: +81-3-5684 1650
Internet: www.vinet.or.jp/BIOFILMS2002

**11–12 October 2001**
Annual Infectious Disease Educational Associates (7th IDEAS) Conference on Infectious Diseases and Infection Control, Harssburg, PA, USA

Contact: Nancy Gibson
Phone: +1-412-656-4064

**17–19 October 2001**
Vaccines of the Future: From Rationale Design to Clinical Development, Paris, France

Contact: Institut Pasteur
Fax: 33 (0) 1 4061 3405
E-mail: euroconf@pasteur.fr

**21 October 2001**
21–24 October 2001 2nd International Meeting on Antimicrobial Chemotherapy in Clinical Practice (ACCP), Santa Margherita, Portofino, Italy

Contact: Progetti di Congress Studio Srl
Phone: +39-02-319 6951
Fax: +39-02-3360 4939
Internet: www.multimedia.it/congress_studio/ACCP

**28–30 October 2001**
3rd International Paediatric Infectious Diseases Conference, Monterey, CA, USA

Contact: Paediatric Infectious Diseases Society
Phone: +1-703-299 6764
Fax: +1-703-299 2040
E-mail: aweddie@idsociety.org

Other events:

**22–25 September 2001**
41st Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), Chicago, IL, USA

Contact: ASM Conferences
Phone: +1-202-942 9248
Fax: +1-202-942 9340
Internet: www.asmusa.org

**27–28 September 2001**
2nd International Conference on Infection in the Immunocompromised Child, Dublin, Ireland

Contact: Index Communications
Fax: +44-01-794-511 331
E-mail: icms@dial.pipex.com

**30 September – 4 October 2001**
53rd Meeting of the German Society for Hygiene and Microbiology, Aachen, Germany

Contact: Prof. Dr. Rudolf Lütticken
Fax: +49-241-801 9791
E-mail: www.dghm-2001.de

**10–14 October 2001**
3rd International Conference on Emerging Zoonoses, Noordwijk, The Netherlands

Contact: Emerging Zoonoses 2001 Secretariat
Fax: +972-3-517 5150
E-mail: www.zoonoses2001.com

**11–15 November 2001**
50th Annual Meeting of the American Society of Tropical Medicine and Hygiene (ASTMH), Atlanta, GA, USA

Contact: ASTMH Headquarters
Fax: +1-847-480 9592
E-mail: www.astmh.org
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<td>10th International Congress on Infectious Diseases (ICID), Singapore</td>
<td>Singapore</td>
<td>International Society for Infectious Diseases Phone: +1-617-277 0551 Fax: +1-617-731 1541 Internet: <a href="http://www.isid.org">www.isid.org</a></td>
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<td>17–21 March 2001</td>
<td>Annual Meeting of the International Society for Antiviral Research, Prague, Czech Republic</td>
<td>Prague, Czech Republic</td>
<td>Prof. Dr. Brent C. Korba Phone: +1-301-309 6145 ext 27 Fax: +1-301-309 1553 Internet: <a href="http://www.isar-icar.com">www.isar-icar.com</a></td>
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<tr>
<td>7–9 April 2002</td>
<td>4th European Congress of Chemotherapy and Infection (ECC), Paris, France</td>
<td>Paris, France</td>
<td>Congrex Sweden Phone: +46-8-459 6600 Fax: +46-8-661 1925 Internet: <a href="http://www.congress.com/ecc-4">www.congress.com/ecc-4</a></td>
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<td>19–23 May 2002</td>
<td>102nd American Society for Microbiology (ASM) General Meeting, Salt Lake City, UT, USA</td>
<td>Salt Lake City, UT, USA</td>
<td>ASM Conferences Phone: +1-202-942 9248 Fax: +1-202-942 9340 Internet: <a href="http://www.asmusa.org">www.asmusa.org</a></td>
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<td>8–12 December 2002</td>
<td>3rd European Congress on Tropical Medicine, Lisbon, Portugal</td>
<td>Lisbon, Portugal</td>
<td>Steven Talboom, K.I.T. GmbH Phone: +39-30-2460 301 Fax: +39-30-2460-310 E-mail: <a href="mailto:tropical2002@kit.de">tropical2002@kit.de</a></td>
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<td>15–19 September 2002</td>
<td>5th International Conference of the Hospital Infection Society (HIS), Edinburgh, UK</td>
<td>Edinburgh, UK</td>
<td>HIS 2002 c/o Concorde Services LTD. Phone: +44-141-331 0123 Fax: +44-141-331 0234 E-mail: <a href="mailto:his2002@concorde.co.uk">his2002@concorde.co.uk</a></td>
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<td>19–24 October 2002</td>
<td>4th International Conference on Therapies for Viral Hepatitis, Isla Verde, Carolina, Puerto Rico</td>
<td>Isla Verde, Carolina, Puerto Rico</td>
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<td>1–5 December 2002</td>
<td>8th Western Pacific Congress of Chemotherapy and Infectious Diseases, Perth, Australia</td>
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<td>13th Annual Scientific Meeting of SHEA, Arlington, VA, USA</td>
<td>Arlington, VA, USA</td>
<td>SHEA Meetings Department Phone: +1-856-423 7222 Fax: +1-856-423 3420 Internet: <a href="http://www.shea-online.org">www.shea-online.org</a></td>
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<td>7–10 June 2003</td>
<td>23rd International Congress of Chemotherapy (ICC), Durban, South Africa</td>
<td>Durban, South Africa</td>
<td>SHEA Meetings Department Phone: +1-856-423 7222 Fax: +1-856-423 3420 Internet: <a href="http://www.shea-online.org">www.shea-online.org</a></td>
</tr>
<tr>
<td>18–21 November 2001</td>
<td>Resistance to Antimicrobial Agents, Cannes, France</td>
<td>Cannes, France</td>
<td>Omega Studio Phone: +33-02-349 4935 Fax: +33-02-331 5959 Internet: <a href="http://www.raa2001.com">www.raa2001.com</a></td>
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<td>22–24 November 2001</td>
<td>2nd Balkan Conference of Microbiology, Thessaloniki, Greece</td>
<td>Thessaloniki, Greece</td>
<td>Prof. N. J. Legakis Phone: +30-1-721 3387 Fax: +30-1-724 6180 E-mail: <a href="mailto:siorasgs@otenet.gr">siorasgs@otenet.gr</a></td>
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<td>28–30 November 2001</td>
<td>8th Conference of the Federation of Infection Societies (FIS), Manchester, UK</td>
<td>Manchester, UK</td>
<td>FIS 2001 Conference Secretariat c/o Index Communications Phone: +44-1794-511 331 Fax: +44-1794-511 455 E-mail: <a href="mailto:FISLCMS@dial.pipex.com">FISLCMS@dial.pipex.com</a></td>
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<td>12–14 December 2001</td>
<td>5th International Symposium on Febrile Neutropenia, Brussels, Belgium</td>
<td>Brussels, Belgium</td>
<td>Prof. J. Klastersky Phone: +32-2-541 3201 Fax: +32-2-541 3202 Internet: <a href="http://www.febrileneutropenia.org">www.febrileneutropenia.org</a></td>
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<tr>
<td>14–16 December 2001</td>
<td>1st International Meeting on Penems, Carbapenems and Related Compounds, Venice, Italy</td>
<td>Venice, Italy</td>
<td>Progetti di Congress Studio Srl Phone: +39-02-319 6951 Fax: +39-02-3360 4939 E-mail: <a href="mailto:info@congress-studio.it">info@congress-studio.it</a></td>
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<tr>
<td>23–26 January 2002</td>
<td>10th International Conference on Macrolides, Azalides, Streptogramins, Ketolides and Oxazolidinones (ICMAS-KO 6), Bologna, Italy</td>
<td>Bologna, Italy</td>
<td>ICMAS-KO 6 Secretariat Phone: +1-404-816 2125 Fax: +1-404-816 2175 Internet: <a href="http://www.icmas-ko.org">www.icmas-ko.org</a></td>
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<td>1–5 November 2002</td>
<td>1st Asian Congress of Pediatric Infectious Diseases, Pattaya, Chonburi, Thailand</td>
<td>Pattaya, Thailand</td>
<td>Pediatric Infectious Disease Society of Thailand (PIDST) Internet: <a href="http://www.pidst.org">www.pidst.org</a></td>
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<tr>
<td>10–13 November 2002</td>
<td>7th Conference of the Hospital Infection Society (HIS), Durban, South Africa</td>
<td>Durban, South Africa</td>
<td>SHEA Meetings Department Phone: +1-856-423 7222 Fax: +1-856-423 3420 Internet: <a href="http://www.shea-online.org">www.shea-online.org</a></td>
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<td>23–26 October 2002</td>
<td>4th International Meeting on the Therapy of Infections (IMI), Florence, Italy</td>
<td>Florence, Italy</td>
<td>SHEA Meetings Department Phone: +1-856-423 7222 Fax: +1-856-423 3420 Internet: <a href="http://www.shea-online.org">www.shea-online.org</a></td>
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