CHAPTER - III

ANTIMICROBIAL AGENTS AND CHEMOTHERAPY JOURNAL

The aim of this chapter is to provide information about Antimicrobial Agents Chemotherapy Journal, its Mission, Goals, Scope development of the Antimicrobial Agents and Chemotherapy Journal.

3.1 Introduction

Antimicrobial Agent and Chemotherapy Journal is published by American Society for Microbiology (ASM).

Mission

The ASM is the world's largest scientific society of individuals interested in the microbiological sciences. The mission of the American Society for Microbiology is to advance the microbiological sciences as a vehicle for understanding life processes and to apply and communicate this knowledge for the improvement of health and environmental and economic well being worldwide.

Goals of ASM

The goals of ASM are:
1. To support programs of education, training and public information;
2. To publish journals and books;
3. To convene meetings, workshops and colloquia;
4. To promote the contributions and promise of the microbiological sciences;
5. To recognize achievement and distinction among its practitioners;
6. To set standards of ethical and professional behavior.

The American Society for Microbiology is dedicated to the utilization of microbiological sciences for the promotion of human welfare and for the accumulation of knowledge. These goals demand honesty and truthfulness in all activities sponsored or supported by the Society.
**Governance**

The ASM governance structure has two major components. The first and main component is the ASM Council which is made up of 88 voting members and serves as the Society’s Board of Directors. Each councilor is charged with fiduciary responsibility for the actions and activities of the Society.

The second component is the Council Policy Committee or CPC which is made up of 18 voting members and serves as the Executive Committee of the Board of Directors.

The CPC has full authority to act as interim for the Council; exercises the usual functions of an executive committee; and carries out further duties as provided in the ASM Bylaws. However this authority is “subject to subsequent explanation to and approval by the Council.”

The CPC’s voting members are the ASM officers, the chairs of the 6 major program units or boards, the chair of the American Academy of Microbiology and 6 at large members representing the two Society constituencies: divisions and branches. There are two standing committees which report directly to the CPC: the Communications Committee and the Professional Practice Committee. The chairs of both of these standing committees are ex officio (without vote) members of the CPC.

**ASM Officers**

The President is the chief officer and official representative of the Society. The President presides over all meetings of the Board of Directors and the General Membership Meeting. Makes policy decisions as needed for operation of the Society and calls meetings of the officers and Board of Directors.

The President-Elect, provides secondary leadership for the Society; substitutes for the President when needed; and prepares to serve as President.
A major responsibility is to chair committees that review the main program areas of the Society to determine their effectiveness and to recommend their continuance or discontinuance.

The Secretary prepares the agenda for sessions of the Board of Directors and General Membership Meeting. The Secretary prepares minutes of the meetings; oversees headquarters’ activities by working through the Executive Director; administers and coordinates operations of the Society; interprets policy as needed; and signs grants, contracts, and agreements.

The Treasurer is chair of the Finance Committee and supervises all aspects of the Society’s finances; provides leadership and works with Elective and Executive Officers to prepare, review, and implement the annual budget; and approves other major fiscal transactions.

**Organization**

The Society is governed by a Council comprising elected officers, chairmen of its permanent boards and representatives from 27 scientific divisions and 35 local branches. A Council Policy Committee serves as Executive Committee for the Society.

ASM is comprised of six boards - Education, International, Meetings, Membership, Public and Scientific Affairs, and Publications, plus the American Academy of Microbiology. Boards guide the major ASM programs. Each board has committees with specific assignments within the board’s area of responsibility. In addition there is one standing committee: Communications.

**Membership**

The American Society for Microbiology is the oldest and largest single life science membership organization in the world. Membership has grown from 59 scientists in 1899 to more than 39,000 members today, with more than one third located outside the United States. The members represent 26
disciplines of microbiological specialization plus a division for microbiology educators.

Eligibility for Full Membership is open to any person who is interested in microbiology and holds at least a bachelor’s degree or equivalent experience in microbiology or related field. Many members hold advanced degrees, including a large number at the master’s, PhD, ScD, DrPH and MD level. A regularly matriculated student of microbiology or a related field is eligible to become a student member. There are also separate membership categories for postdoctoral fellows and for transitional scientists in the early years of a career.

Microbiologists study microbes - bacteria, viruses, rickettsiae, mycoplasma, fungi, algae and protozoa - some of which cause diseases, but many of which contribute to the balance of nature or are otherwise beneficial.

Microbiological research includes infectious diseases, recombinant DNA technology, alternative methods of energy production and waste recycling, new sources of food, new drug development, and the etiology of sexually transmitted diseases, among other areas. Microbiology is also concerned with environmental problems and industrial processes.

Microbiology boasts some of the most illustrious names in the annals of science - Pasteur, Koch, Fleming, Leeuwenhoek, Lister, Jenner and Salk - and some of the greatest achievements for mankind. Within the 20th century, a third of all Nobel Prizes in Physiology or Medicine have been bestowed upon microbiologists.

Link is given for information about how to join ASM and for general information about Student, Transitional, Postdoctoral, and Full membership; ASM Branches; the ASM Branch Lectureships Program; ASM Archives; Underrepresented Members; the ASM Career Portal and Career Development and Job Placement Services.
Meetings

The Society hosts three annual meetings. At the General Meeting, held each May, microbiologists exchange information and gain insight across a variety of scientific disciplines and also conduct the business of the Society. Additionally, the Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC), the premier meeting on infectious diseases, and the Biodefense Research Conference are held each year. Other scientific opportunities include topical Conferences held globally, live teleconferences, and webinars. CME accreditation and other types of accreditation for multiple disciplines are provided by ASM.

Education

The Education Board offers programs and resources for students and faculty from the middle school to higher education levels. These include career information, fellowship opportunities, summer institutes for graduate students and teachers, conferences for undergraduate faculty, and an online collection of digital resources for teaching microbiology.

Public Affairs

The Public and Scientific Affairs Board for the Public Affairs Office monitors and responds to public policy issues related to research, public health, clinical, environmental and other issues involving microbiology. The Public Policy page has links to policy statements, reports, policy alerts that request action by members, information about Congress and issue specific pages on biodefense and clinical microbiology.

International Affairs

Link here to find information on ASM’s international programs, international committees, and other useful information for our international members.
American Academy of Microbiology

The Academy is the honorific leadership group within the ASM. The mission of the Academy is to recognize scientists for outstanding contributions to microbiology and provide microbiological expertise in the service of science and the public. The Academy administers ASM’s awards and certification programs, convenes several colloquia a year for in-depth analysis of critical issues in microbiology, and honors distinguished scientists by electing them to Fellowship in the Academy.

Media Information/Public Communications

Press releases, press activities at ASM meetings, and Microbe World website with access to daily podcasts and other resources.

Professional Practice

The Professional Practice Committee will oversee professional activities, provide a mechanism for coordinated communication with members and ASM leadership, and advocate for the professional needs of practitioners.

American College of Microbiology

The College administers highly stringent certification examinations for clinical and industrial microbiologists and immunologists and accredits postdoctoral training programs in clinical microbiology and immunology.

Highlights

ASM Articles in the Spotlight

ASM Articles in the Spotlight. The ASM journals Eukaryotic Cell, Infection and Immunity, and the Journal of Virology highlight current articles of interest in their Spotlight sections:
New Evidence for Prion Hypothesis

The question of whether the genetic information behind transmissible spongiform encephalopathy is encoded by nucleic acid or by the aberrantly folded prion protein is a major controversy.

Compound Inhibits KSHV Replication

Kaposi’s sarcoma afflicts roughly 20% of AIDS patients, and is progressive, and fatal. Despite its dramatic decrease in frequency since the advent of highly active antiretroviral therapy (HAART), Kaposi’s sarcoma remains the most common AIDS-associated cancer in the United States.

CRISPR-Cas Immune Genes in Arms Race with Rapidly Evolving Viruses

The CRISPR-Cas is an adaptive immune system of archaea and bacteria.

Methanogen Metabolic Model Could Boost Carbon Cycle Understanding

Methanogenic archaea are unique in their ability to grow on low-energy substrates, such as acetic acid.

Biggest Complex in Parasite’s Respiratory Chain Unnecessary in Mammalian Host

Is complex I of the mitochondrial electron transport chain expressed and functioning in the actively dividing bloodstream stage of *Trypanosoma brucei*?

ASM Journals’- Related Inquiry

Institutional quotes should be directed to asmjournals@subscriptionoffice.com. Inquiries related to institutional claims (online & print), invoice requests, agent orders, lost online activation
instructions, and back volume sales should be directed to asmjournals@subscriptionoffice.com.

Inquiries about member service issues, member claims, and back volume sales to members should be directed to service@asmusa.org. Pay-Per-View inquiries should be directed to journals@asmusa.org. Questions or inquiries related to manuscript submission or the peer review process should be directed to the appropriate journal production editor.

**ASM News**

ASM publishes news letters like:

**PPC Strategic Plan Approved**

The Professional Practice Committee (PPC), chaired by Peter Gilligan, Ph.D., D (ABMM), has finalized its strategic plan for 2011-2013.

**Peter Gilligan Welcomes Ombudsman Role**

Now that the PPC has begun implementation of its strategic plan, Gilligan was interviewed about his role and how the committee will ensure it meets members’ needs.

**Academy Answers Frequently Asked Questions**

In a new spin on its colloquium program which provides expert guidance to scientists and government agencies on critical issues affecting microbiology, the American Academy of Microbiology is now providing rapid-turnaround, authoritative answers to questions about microbiology topics in the news for the general public.

**2012 General Meeting Award Laureates**

The Committee on Awards is pleased to present part two of a three-part series on the 2012 General Meeting award laureates.
ASM Ambassador Program—2011 Year in Review

2011 proved an exciting and productive year for the ASM International Ambassador Program.

Branches: ASM Activity at the Local Level

Spring—A Time for Renewal and Exploration

As we approach the start of the ASM Branch meeting season, I am pleased to report that branches have again planned an exciting year of innovative and provocative programming that will appeal to microbiologists working in a wide range of fields, from clinical to basic to environmental to molecular microbiology.

Journals Published by ASM

ASM journals are the most prominent publication in the field, delivering up-to-date and authoritative coverage of both basic and clinical microbiology.

With over 90 years of experience, ASM journals continue to be an authoritative source for the latest in microbiology research.

Following are the list of ASM journal.

1. ASM Press

Updated information about new manuals, monographs, textbooks, and Cumitechs.

2. Microbe

Microbe is the news magazine of the American Society for Microbiology, and is published monthly in print and online. It keeps members and other interested individuals informed of Society activities, meetings, educational and employment opportunities, new publications and national political developments of interest to the microbiological community. The current topics and features sections provide information about current scientific developments.
3. Antimicrobial Agents and Chemotherapy (AAC) Journal

Antimicrobial Agents and Chemotherapy (AAC) Journal features interdisciplinary studies that build our understanding of the underlying mechanisms and therapeutic applications of antimicrobial and antiparasitic agents and chemotherapy. The Impact Factor of AAC Journal is 4.672. It is #1 journal in Pharmacology & Pharmacy and #7 in Microbiology ranked by Eigenfactor score and #1 cited journal in Pharmacology & Pharmacy and #4 in Microbiology, with > 42,000 citations.

4. Applied and Environmental Microbiology (AEM) Journal

Applied and Environment Microbiology (AEM) Journal publishes papers that make significant contributions to (a) applied microbiology, including biotechnology, protein engineering, bioremediation, and food microbiology, (b) microbial ecology, including environmental, organismic, and genomic microbiology, and (c) interdisciplinary microbiology, including invertebrate microbiology, plant microbiology, aquatic microbiology, and geomicrobiology. The Impact Factor of AEM journal is 3.778. It is #1 cited journal in Microbiology and #1 in Biotechnology & Applied Microbiology, with nearly 78,000 citations and #1 journal in Microbiology and #2 in Biotechnology & Applied Microbiology ranked by Eigenfactor score. It is selected by the Special Libraries Association (SLA) as among the 100 most influential journals of the last 100 years.

5. Clinical and Vaccine Immunology (CVI) Journal

Clinical and Vaccine Immunology (CVI) Journal enhances understanding of the immune response in health and disease by showcasing discoveries in clinical, laboratory, and vaccine immunology. Areas of focus include microbial immunology, immune mechanisms, veterinary immunology, and all aspects of vaccine research: development and evaluation of vaccines, immune responses to vaccines, vaccine vectors, adjuvants and immunomodulators, assays of vaccine efficacy, and clinical trials. The Impact Factor of CVI Journal is 2.471.
6. Clinical Microbiology Reviews (CMR) Journal

Clinical Microbiology Reviews (CMR) Journal is analyzes the latest developments in clinical microbiology and immunology, providing the current state of knowledge in the field, as well as balanced, thought-provoking perspectives on controversial issues. The Impact Factor of CMR Journal is 13.5. It is #3 journal in Microbiology ranked by Impact Factor.

7. Eukaryotic Cell (EC) Journal

Eukaryotic Cell Journal is presents the latest findings from basic research studies of simple eukaryotic microorganisms such as yeasts, filamentous fungi, parasitic protozoa, ciliates, social amoebae, algae, and other protists. The journal reports basic research studies involving genetic, genomic, biochemical, molecular, and cell biological analysis, virulence studies of host-pathogen interactions, and population genetics and evolutionary/phylogenetic studies for eukaryotic microbes. The Impact Factor EC Journal is 3.395. It is Eigenfactor score ranked in Top 20 journals in Microbiology.

8. Infection and Immunity (IAI) Journal

Infection and Immunity (IAI) Journal is provides new insights into the interactions between bacterial, fungal and parasitic pathogens and their hosts. Specific areas of interest include mechanisms of molecular pathogenesis, virulence factors, cellular microbiology, experimental models of infection, host resistance or susceptibility, and the generation of innate and adaptive immune responses. The Impact Factor IAI Journal is 4.098. It is #1 cited journal in Infectious Diseases and #3 in Immunology, with > 51,000 citations and Eigenfactor score ranked #3 in Infectious Diseases.


Journal of Bacteriology (JB) Journal is publishes important results from a wide range of topics, which include structure and function, biochemistry, enzymology, metabolism and its regulation, molecular biology, genetics, plasmids and transposons, general microbiology, plant microbiology, chemical and physical
characterization of microbial structures and products, and basic biological properties of organisms. The Impact Factor of JB Journal is 3.726. It is #2 cited journal in Microbiology, receiving > 62,000 citations and #3 journal in Microbiology ranked by Eigenfactor score. It is selected by the Special Libraries Association (SLA) as among the 100 most influential journals of the last 100 years.

10. Journal of Clinical Microbiology (JCM) Journal

Journal of Clinical Microbiology (JCM) Journal is publishes the most current research related to the laboratory diagnosis of human and animal infections and the role of the laboratory in both the management of infectious diseases and the elucidation of the epidemiology of infections. The Impact Factor of JCM Journal is 4.162. It is #6 journal in Microbiology ranked by Eigenfactor score and #3 cited journal in Microbiology, with > 49,000 citations.


Journal of Virology (JVI) Journal is explores the nature of the viruses of animals, archaea, bacteria, fungi, plants, and protozoa. We welcome papers on virion structure and assembly, viral genome replication and regulation of gene expression, genetic diversity and evolution, virus-cell interactions, cellular responses to infection, transformation and oncogenesis, gene delivery, viral pathogenesis and immunity, and vaccines and antiviral agents. The Impact Factor of JVI Journal is 5.189. It is #1 journal in Virology ranked by Eigenfactor score #1 cited journal in Virology nearly 94,000 citations #5 journal in Virology ranked by Impact Factor.


mBio® is ASM's first broad-scope, online-only, open access journal. mBio offers rapid review and publication of the best research in microbiology and allied fields. Editor in Chief of new: mBio® is Dr. Arturo Casadevall.

13. Microbiology and Molecular Biology Reviews (MMBR) Journal

Microbiology and Molecular Biology Reviews (MMBR) Journal is keeps researchers current with the latest developments in microbiology as well as related
fields such as immunology and molecular and cellular biology. Review articles explore the significance and the interrelationships of the latest discoveries that build our understanding of bacteria, viruses, parasites, fungi, and other higher eukaryotes. The Impact Factor of MMBR Journal is 12.22. It is #5 journal in Microbiology ranked by Impact Factor.

14. Molecular and Cellular Biology (MCB) Journal

Molecular and Cellular Biology Journal is showcases significant discoveries in cellular morphology and function, genome organization, regulation of genetic expression, morphogenesis, and somatic cell genetics. The journal also examines viral systems, publishing papers that emphasize their impact on the cell. The Impact Factor of MCB Journal is 6.057. It is #3 journal in Cell Biology and #5 in Biochemistry and Molecular Biology ranked by Eigenfactor score #4 cited journal in Cell Biology and #7 in Biochemistry & Molecular Biology, with > 70,000 citations. It is selected by the Special Libraries Association (SLA) as among the 100 most influential journals of the last 100 years.

3.2 Antimicrobial Agents and Chemotherapy Journal

Antimicrobial Agents and Chemotherapy Journal (AAC) features interdisciplinary studies that understanding of the underlying mechanisms and therapeutic applications of antimicrobial and antiparasitic agents and chemotherapy. The journal also publishes studies involving animal models, pharmacological characterization, and clinical trials. Complementing the journal’s full-length research articles, minireviews quickly bring readers up to date with the state of the science in fast-moving areas of research, making it a key resource for microbiologists, pharmaceutical researchers, biochemists, pharmacologists, clinicians, and other infectious disease practitioners. The impact factor of AAC Journal is 4.672.

Features of Antimicrobial Agents and Chemotherapy (AAC) Journal are:

1. Commentaries
2. Minireviews
3. Recent U.S. Food and Drug Administration Approvals
4. Editorials
Antimicrobial Agents and Chemotherapy Journal covers:

1. Chemistry; Biosynthesis
2. Mechanisms of Action: Physiological Effects
3. Mechanisms of Resistance
4. Susceptibility
5. Biologic Response Modifiers
6. Analytical Procedures
7. Antiviral Agents
8. Experimental Therapeutics
9. Clinical Therapeutics
10. Pharmacology

The journal is Indexed/Abstracted in Agricola, Biological Abstracts, BIOSIS Previews, CAB Abstracts, Chemical Abstracts Service, Cambridge Scientific Abstracts, Current Contents- Life Sciences, EMBASE, Illustrata, MEDLINE, Science Citation Index Expanded (Web of Science), Summon, and more.

Following are the members on Editorial Board of Antimicrobial Agents and Chemotherapy Journal

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3.3 Conclusion

This chapter includes the brief history of Antimicrobial Agents and Chemotherapy Journal. The author productivity, authorship pattern of the articles published in the journal is covered under chapter-4.