The Council continued to bring out periodical publications – the Indian Journal of Medical Research, ICMR Bulletin, ICMR Pātrika and Annual Reports, both in English and Hindi during the year 2000-2001.

**PUBLICATIONS**

**Periodicals**

The Indian Journal of Medical Research (IJMR) continued to be indexed and abstracted by all major global awareness and alerting services. As per the suggestions/recommendations made by the IJMR Expert Group in November 1999, the IJMR is being published with a new lay out from January 2001. A number of articles published in the IJMR have been featured as news items in various newspapers during the period under report.

The ICMR Bulletin continued to publish articles on topics of general interest. The December 2000 issue of the Bulletin featured an article on “A world AIDS campaign where men make a difference: A challenge for the men in the third millennium!”, to commemorate the World AIDS Day (December 1, 2000), and the March 2001 issue of the Bulletin published an article on “Directly observed treatment short-course: Tuberculosis, cure for all”, to commemorate the World Tuberculosis Day (March 24, 2001). Some of the other interesting topics featured in the Bulletin during the period under report included Japanese encephalitis virus infection in mosquitoes and its epidemiological implications; Need and feasibility of providing assisted technologies for infertility management in resource-poor settings; Ethical guidelines for biomedical research on human subjects; Research achievements of the Central JALMA Institute for Leprosy, Agra, etc.

The monthly Hindi publication, the ICMR Pātrika was brought out regularly during the year. Three articles originally written in Hindi were also published. Some of the articles were reproduced in other popular science magazines. This year the Pātrika was awarded the Utkrishta Pātrika Samman during the Millennium World Hindi Conference.

The English and Hindi versions of the Annual Report of the Council for the year 1999-2000 were brought out in an attractive and informative manner with the inclusion of colour photographs, and lists of publications, ICMR aided projects, fellowships, training courses, etc.

**Other Publications**

On popular public demand, the multi-coloured pictorial booklet ‘Dietary Guidelines for Indians’ was published in Tamil and Kannada.

**Monograph on Medicinal Plants of India**

Preparation of the Monograph on Medicinal Plants of India is continuing. Multidisciplinary research data on 400 plant species have been collected and compiled; the information on 100 plant species is under computerization.

**Monographs on Medicinal Plants for Diseases of Public Health Importance**

Preparation of monographs on some plants used for treatment of diseases of public health importance has been initiated. The monographs would incorporate information on the diseases (including etiopathogenesis) and plant drugs as given in the ancient texts (indigenous system of medicine) and research data (pharmacological, toxicological, clinical, phytochemical, pharmacognostic) generated through scientific studies on these plant remedies.
The preparation of these monographs has been initiated in the following thrust areas: Immunomodulators, kala-azar, malaria, filariasis, diabetes mellitus, liver disorders and anti-inflammatory drugs.

**INFORMATICS AND COMMUNICATION**

**Biomedical Information**

The ICMR-NIC Centre for Biomedical Information continued to cater to the biomedical information needs of the medical community. During this period, five medical colleges/organizations registered as MEDLARS User Centres i.e. Pravara Medical Trust, Loni; Rangaraya Medical College, Kakinada; Northern Railway Central Hospital, New Delhi; Narayana Medical College, Nellore and Rehabilitation Council of India, New Delhi.

The indexing of journals for the IndMED database was continued. This is a bibliographic database of Indian Biomedical Periodicals developed and maintained at the Centre and at present contains data from 75 journals and can be accessed over Internet. It is proposed to include data from 1986 onwards. The Union Catalogue is being updated and the holdings data for 1999-2000 are being collected.

The Centre has developed a web page giving details of the services being provided. The web page, http://indmed.nic.in can be accessed by users within and outside the country. This functions as a portal to the various health/biomedical resources accessible over the Internet; links have been provided to prevalent diseases’ web pages. A web enabled BRS/SEARCH training tutorial was developed for the benefit of those who cannot attend the training programmes; the complete training manual has also been made available on the web page.

Workshops on Biomedical Research and the Internet were organized at NIC, New Delhi, Pune and Bhubaneswar for the medical/library professionals. Resource persons were also from the medical and the library fields. These workshops also included extensive hands-on sessions.

A training programme was conducted on Online Searching of Biomedical Databases at NIC, New Delhi. This 5-day programme included lectures on information retrieval techniques and extensive hands-on sessions. The participants were from the User centres as well as from NIC state and district centres. Similar programmes were conducted online at NIC Centres at Kurnool, Coimbatore and Aurangabad for the district staff. In addition, User Awareness programmes were conducted for doctors at NIMHANS, Bangalore, Government Hospitals in Kurnool, Coimbatore, Pondicherry and Karaikal district (TN).

**Scientometrics**

Analysis of the 1999 research output of ICMR in terms of publications from all the institutes including RMRCs provides for the first time details on the performance indicators especially average impact factor (IF) per published paper of the Council as a whole and of individual institutes. In addition, the Directory of Journals Publishing Papers from ICMR Institutes is being updated till 1999. The sponsored project “National Mapping of Science – Biomedical Sciences” of the National Information Systems for Science and Technology (NISSAT), Department of Scientific and Industrial Research, is also underway to assess the contributions of Indian researchers in the field of biomedical sciences in two databases viz. Tropical Diseases Bulletin and Index Medicus for the disk/calendar year 1998.

A total of 329 papers were published by the ICMR institutes during the calendar year 1999. Among the ICMR institutes, MRC, Delhi contributed the maximum number of publications (36) followed by NICED, Kolkata (34) and NIN, Hyderabad (26). The average number of publications for the Council was 13.71 per institute. Of the 329 papers, 151 (45.90%) were covered by Journal Citation Reports (JCR)-1999. NICED had the maximum share (27) of papers whereas four institutes viz. ICMR Genetic Research Centre, Mumbai; EVRC, Mumbai; IRMS, New Delhi and RMRC, Jabalpur did not publish any paper in a JCR covered journal. In 12 institutes, coverage of papers in JCR journals was much below the Council’s average i.e. 6.29 papers per institute. 151 papers appeared in 81 journals with 51 journals having IF greater than or equal to 1 and 30 journals having IF less than 1. New England Journal of Medicine had the highest IF (28.857) whereas Indian Veterinary Journal had the lowest IF (0.050). Some of the publishing journals having IF in the range of 28.857-5.143 were as follows: New England Journal...
of Medicine, (ICPO, New Delhi), Lancet (NIV, Pune; NICED, Kolkata); Journal of Biological Chemistry (NICED, Kolkata), Journal of Immunology (RMRC, Bhubaneswar), Oncogene (ICPO, New Delhi), Journal of Virology (NIV and NARI, Pune), and British Medical Journal (NIN, Hyderabad). The average impact factor per published paper for the Council as a whole was 1.861. A total of 769 authors contributed these 329 papers; 59 different authors contributed 4 or more papers each.

In order to sensitize ICMR institutes about the different aspects and importance of R&D evaluation especially publication-based indicators, a Workshop was conducted at MRC, Delhi. This Workshop provided orientation to scientists to the SCI-based indicators. It is planned to undertake similar exercises at different ICMR institutes in the near future.

In the ongoing project on National Mapping of Science – Biomedical Sciences, screening of Tropical Diseases Bulletin has been completed. The analysis shows that a total of 412 papers (9.64%) have been contributed by Indian scientists out of 4272 papers covered during 1998. These papers appeared in 86 different JCR/non JCR journals. Highest IF journal (28.66) was New England Journal of Medicine followed by Lancet (11.793). Maximum papers (41) appeared in the Indian Journal of Medical Research. The subject category contributing the maximum number of papers was Bacteriology and Bacterial Diseases (198 papers) followed by Virology (48 papers). AIIMS, New Delhi with 22 papers was identified as the most prolific institute followed by CMC, Vellore (19 papers). The analysis of Index Medicus for the disk year 1998 is in progress.

Bioinformatics Centre

The Bioinformatics Centre set up in the Council during 1999, remained fully functional during 2000-2001. The Centre continued its ongoing activity of maintaining databases of extramural projects, scientists associated with ICMR, Management Information System (MIS) of the Indian Journal of Medical Research (IJMR) and seminar/symposia/workshops funded by the Council.

Several new features like abstracts, guidelines for submitting manuscripts and searchable information of IJMR, profiles of ICMR institutes, information on research projects completed and ongoing in ICMR institutes, biodata and publications of the Council’s scientists and other ICMR publications have been added to the ICMR website. All the databases used for the website were shifted from DB2 to Microsoft SQL server. Database search programmes were rewritten using ASPs to increase efficiency and speed of search operations.

The Bioinformatics Centre with assistance from the WHO organized workshops on the Use of Information Technology in Biomedical Research in New Delhi and Mumbai respectively for the benefit of ICMR scientists of the institutes located in northern and western India. The workshops were divided into lectures and practice sessions and provided the participants online exposure of working in a network environment, internet browsing, contemporary research work using bioinformatics techniques, creating websites, etc.

The Council is contemplating creating Bioinformatics Centres of ICMR in leading biomedical education/research institutes in the country under the Genome Research Programme of the Council. The Bioinformatics Centre at ICMR Headquarters will work as the coordinating unit for these centres. These centres are expected to start functioning during 2001.

Work on the networking of 7 ICMR institutes initiated during 1999-2000 was continued during the year.

Dissemination of Information

The Council and its various Institutes/Centres organised various activities for dissemination of biomedical information as also contributions/achievements of the Council to different groups of people including the common man.

On account of Rajbhasha Golden Jubilee year and Hindi Day a scientific debate in Hindi on Implications of the Human Genome Study (“Manav Genome Addhyayan ke Bhavi Prabhav”) was organized at ICMR Hqrs. in September 2000 in which scientists from ICMR Hqrs. and Delhi based Institutes participated.

The ICMR Institutes/Centres celebrated the National Science Day (NSD) in February/March 2001 by
organising lectures/discussions, open houses/question-answer sessions, display/demonstrations/exhibitions, etc. for the general public and elocution/debate/essay/drawing/painting/quiz competitions for school children. The theme of the NSD for the year 2001 was Information Technology for Education.

Seven Institutes/Centres viz. RMRC, Dibrugarh; NIV, Pune; RMRI, Patna; NARI, Pune; RMRC, Jabalpur; VCRC, Pondicherry and NIE, Chennai organized several programmes in Hindi, such as popular lectures, symposia, demonstrations, debate competitions, audio-visual programmes, health camps etc.

**Human Resource Development**

For human resource development in biomedical communication, workshops on biomedical communication were organized in medical colleges. A workshop on scientific communication was held at Kasturba Medical College, Manipal during December, 2000. Two workshops for the librarians of ICMR institutes on emerging technologies for effective management of library and information services were held in January and February, 2001 at the National Informatics Centres, Hyderabad and Pune respectively.