

# Mircen network in environmental, applied microbiological and biotechnological research

The MIRCEN programme embodies activities that are carried out within the framework of Unesco's regular programme activities in co-operation with IUMS, ICRO, IOBB, WFCC and other bodies and the UNEP/Unesco project on the use and preservation of microbial strains for deployment in environmental management.

A world-wide programme for preserving microbial gene pools and making them accessible to the developing countries has been launched through the establishment of a world network of Microbial Resources Centres (MIRCENs) which are designed to:

- a) provide the infrastructure for a world network which would incorporate regional and interregional co-operating laboratories geared to the management, distribution and utilization of the microbial gene pool;
- b) reinforce efforts relating to the conservation of micro-organisms, with emphasis on *Rhizobium* gene pools, in developing countries with an agrarian base;
- c) foster the development of new inexpensive technologies native to the region;
- d) promote the applications of microbiology in order to strengthen rural economies; and
- e) serve as focal centres for the training of manpower and the diffusion of microbiological knowledge.

Information on each of the MIRCENs may be obtained directly from the following:

Professor S. O. Keya, *Rhizobium* MIRCEN, Departments of Soil Sciences Botany, University of Nairobi, P.O. Box 30197, Nairobi, Kenya.

Professor J. R. Jardim Freire, *Rhizobium* MIRCEN, IPAGRO, Postal 776, 90000 Porto Alegre, Rio Grande do Sul, Brazil.

Professor P. Atthasampunna, *Fermentation. Food and Waste Recycling* MIRCEN, Thailand Institute of Scientific and Technological Research, 196 Phahonyothin Road, Bangkok, Bangkok 9, Thailand.

Professor M. El-Nawawy, *Biotechnology* MIRCEN, Ain Shams University, Faculty of Agriculture, Shobra-Khaima, Cairo, Arab Republic of Egypt.

Professor C. A. Rolz, *Biotechnology* MIRCEN, Applied Research Division, Central American Research Institute for Industry (ICAITI), Ave. La Reforma 4-47 Zone 10, Apdo Postal 1552, Guatemala.

Professor J. Halliday, *Rhizobium* MIRCEN, NifTAL Project, College of Tropical Agriculture and Human Resources, University of Hawaii, P.O. Box "O", Paia, Hawaii 96779, USA.

Professor C. G. Hedén, *Biotechnology* MIRCEN, Department of Bacteriology, Karolinska Institutet, Fack, S-10401 Stockholm, Sweden.

Professor V. B. D. Skerman, *World Data Centre* MIRCEN, Department of Microbiology, University of Queensland, St Lucia, Brisbane, Queensland 4067, Australia.

Professor M. Gueye, *Rhizobium* MIRCEN, Centre National de Recherches Agronomiques d'Institut Sénégalais de Recherches Agricoles, B.P. 51, Bambey, Senegal.

Professor F. Sineriz, Planta Piloto de Procesos Industriales Microbiologicos (PROIMI), Avenida Belgrano y Pasaje Caseros, 4000 S.M. de Tucuman, Argentina.

Professor D. F. Weber, *Rhizobium* MIRCEN, Cell Culture and Nitrogen-Fixation Laboratory, Room 116, Building 011-A, Barc-West, Beltsville, Maryland 20705, USA.

Professor H. Taguchi, *Fermentation Technology* MIRCEN, ICME, University of Osaka, Suitashi 563, Osaka, Japan.

Professor D. Allsopp, *Biotechnology* MIRCEN, Commonwealth Mycological Institute, Ferry Lane, Kew, Surrey, U.K.

Professor M. Moo-Young, *Fermentation Technology and Veterinary Microbiology* MIRCEN, University of Waterloo, Waterloo, Ontario, Canada N2LK 3G1 and University of Guelph, Guelph, Ontario N1G 2W1, Canada.

Professor R. Colwell, *Marine Biotechnology* MIRCEN, Department of Microbiology, University of Maryland, College Park Campus 207742, Maryland, USA.

### **Announcement**

The Seventh International Conference on the Global Impacts of Applied Microbiology (GIAM VII) is scheduled to take place in Helsinki (Finland) 12-16 August 1985, and will be a follow-up of the Conferences held in Stockholm (Sweden) 1963, Addis Ababa (Ethiopia) 1967, Bombay (India) 1969, Sao Paulo (Brazil) 1973, Bangkok (Thailand) 1977 and Lagos (Nigeria) 1980).

The Conference will be organized by the University of Helsinki, with support from the Finnish Ministry of Education, and the Finnish National Commission for UNESCO, UNESCO, and the United Nations Environmental Programme (UNEP) in cooperation with the Panel on Applied Microbiology and Biotechnology of the International Cell Research Organisation (ICRO). A number of U.N. bodies, international and national organisations, industries and firms are expected to support the Conference.

### *Aim of the Conference*

The conference will focus on the contributions that applied microbiology and biotechnology can bring to the economy and welfare of the developed and developing countries. The conference will, therefore, help to strengthen efforts to combat world hunger and to promote the conservation, distribution and environmentally sound management of available natural resources in relation to overall human and social development. It is desirable that participants should include, besides microbiologists, representatives of governmental bodies, administrators of universities and technical institutions as well as representatives of industrial firms engaged in the utilization of microbiologically-based technologies.

### *Tentative Programme*

The programme will be divided into symposia, plenary sessions, paper and poster presentations. The following areas will be considered:

*Food and Agriculture.* Problems of food storage and post harvest losses. Nutritive improvement of traditional indigenous food by microbial fermentation. Microbial plant pathogens. Control of microbial toxins in food and fodder. Role of *Rhizobium*-legume interrelationships, rhizosphere microbiology. Nitrogen fixation by blue-green algae and free-living micro-organisms in aquatic and terrestrial habitats. Mushroom production.

*Man, the Environment, Wastes and Industries.* Biogas, alcohol and hydrogen production

by micro-organisms. Microbial capture of solar energy. Recycling of sewage and biodegradable wastes. Hazards of waste disposal. Fermentation technology. Industrial bioconversion processes.

*Medical Microbiology.* Surveillance and control of bacterial, fungal, protozoal and viral infections. Emergence of microbial infections in specific regions. Zoonotic diseases. Bioinsecticides and pharmaceutical microbiology. New trends in vaccine development. Immuno-prophylaxis.

*Sustainable Development – Social and Cultural Aspects of Applied Microbiology.* Aids and barriers to development of microbial-based technologies. Users and management of microbial processes. Applied microbiology and its relation to new economic and social values. Training in microbiology.

*Bioinformatics.* Utilization of computers and microprocessors in applied microbiology. Patents and their use in applied microbiology. Microbial data bases and networks. Culture collections.

*Basic Microbiology.* The molecular and genetical basis of applied microbiology. Microbial physiology. Cyanobacteria and other specialized groups of micro-organisms such as anaerobes, chemolithotrophs and mycorrhiza.

*Microbiological Resources Centres (MIRCENS).* Strengthening of regional co-operation in applied microbiology. Networks and microbiological resources centres in research and training.

### *Plenary Session*

Sessions will be planned by invitation in the following areas:

- Social and cultural aspects of applied microbiology.
- Bioinformatics.

### *Symposia*

These are planned in the following areas:

- Microbial insecticides.
- Communicable and emergent infections.
- Mycorrhiza.
- Microbiological Resources Centres (MIRCENS) – a global network.

Further information will be available in the second announcement.

### *Paper Sessions and Poster Presentations*

A limited number of paper sessions will be organized primarily for the benefit of researchers from the developing countries in selected topics. Prospective authors may, however, decide to present their contribution as posters.

### *Conference Language*

The language of the conference will be English.

*Registration Fee*

The registration fee will be USD 60 (USD 20 for bona fide students). Instructions for payment will be given in the second announcement.

Requests for further information should be sent to:

Professor H. G. Gyllenberg  
Chairman  
GIAM VII Organizing Committee

or

B. O. Fabricius  
Secretary  
ICRO Panel on Applied  
Microbiology and Biotechnology

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