NEWS and NOTES

This department furnishes information concerning institutions, organizations, and individuals engaged in work on leprosy and other mycobacterial diseases, and makes note of scientific meetings and other matters of interest.

Belgium. *People's Republic of China Leprologist visits WHO-Collaborating Center for the Epidemiology of Leprosy, Department of Epidemiology, University of Louvain, Brussels.* Dr. K. W. Shao, Director, Provincial Center for Dermatological Research, Fuzhou, visited the Center for two months. Dr. Shao updated and researched the recent advances in epidemiology of leprosy using the documentational holdings of the Center. He was also initiated to the computerized system OMSLEP for standarized information on leprosy. He examined the possibilities of such a system for collection and research of leprosy data and relevant statistical techniques for epidemiological research. Particular attention was paid to the study of methodology for projection models of epidemiological indices and their applicability to Fujian Province.—M. F. Lechat

XIII International Leprosy Congress to be held in The Hague. On 2 May 1984, the President of the International Leprosy Association Prof. Michel F. Lechat was notified that the invitation provisionally offered by Abidjan, Ivory Coast, to host the XIII International Leprosy Congress in 1988 had to be withdrawn. In keeping with the vote taken at the General Meeting of Members of the ILA in New Delhi on 25 February 1984, the generous invitation of The Hague, The Netherlands, has been accepted and the XIII Congress will be held in that city 11–17 September 1988. Inauguration of the Congress will be the evening of 11 September; closing session on the morning of 17 September; Pre-Congress workshops will be held 8–10 September 1988.

China. *Third Plenary Session of the National Consultative Committee on Leprosy convened in Chengdu.* The Third Annual Conference of the National Consultative Committee on Leprosy Control and Research was held 30 May–4 June 1984 in Chengdu, a metropolis in southwestern China. Dr. Guo Zi-heng and Dr. Ma Haide, vice-minister of and adviser to the Ministry of Public Health, People's Republic of China, respectively, were also present at the conference. Participants discussed the draft program for country-wide leprosy control and submitted their amendments to the draft program. They exchanged preliminary experiences with the WHO-recommended multidrug chemotherapy regimen used in various parts of the country in recent years, and gave projections for the future. Other subjects discussed and suggested by the experts during the sessions covered the broad spectrum of leprosy problems being faced in China today, such as the study and survey of epidemiology of leprosy, assessment of the quality index of leprosy control, rehabilitation and reconstructive surgery of leprosy, and so on.—Dr. Ye Gan-yun

Workshop on Laboratory Techniques for Leprosy Control held in Shanghai. The National Workshop on Laboratory Techniques for Leprosy Control sponsored by WHO and the Ministry of Public Health, People's Republic of China, was held in Shanghai 5–21 March 1984. Twenty-five leprologists from 15 provinces, municipalities, and autonomous regions of China attended the workshop. Famous experts from abroad, Dr. L. Levy (WHO), Dr. Noordeen (WHO), Dr. D. S. Ridley (London), Prof. S. R. Pattyn (Antwerp), and Mrs. L. P. Murry (San Francisco), also took an active part in the proceedings. They all delivered splendid academic lectures at the workshop sessions.

The main features of the workshop training programs were: 1) Multiplication of *M. leprae* in mice and other animals, 2) Resistance of *M. leprae* and its genetic basis, 3) Persistence of *M. leprae,* 4) Theory and practice in treatment of multibacillary and paucibacillary leprosy, 5) Screening of antileprosy drugs, 6) Study of Ridley-Jopling classification, 7) The mouse foot pad tech-

nique, and 8) Calculation and statistics of epidemiology.—Dr. Ye Shun-zhang

France. *Sixth International Congress of French-speaking Leprologists scheduled.* The Sixth International Congress will be held at the School of Medicine, Sousse, Tunisia, 4–6 November 1985. Theme of the meeting is New Trends in Leprology. The meeting will include invited lectures, free communications, and poster papers covering all the fields of leprosy research and practice, including immunology, bacteriology, epidemiology, therapy, surgery, and clinical and social aspects. Official language of the Congress is French. Abstracts are to be less than 250 words and four copies must be submitted in French before 1 May 1985 to Daniel Wallach, M.D., Hôpital Saint-Louis, 2 place du Dr. A. Fournier, 75475 Paris Cédex 10, France. For information and registration contact Professor Bechir Jomaa, M.D., Service de Dermatologie, Hôpital Farhat Ached, Sousse, Tunisie.—D. Wallach

India. *Highlights of programs of Bombay Leprosy Project 1982–1984.* The work of the Bombay Leprosy Project has augmented the effectiveness of routine control activities already in operation in the city of Bombay and has helped to break the barrier of stigma through utilizing an integrated approach. General hospitals have been involved in the work by holding "Leprosy Control Week" in the JJ group of hospitals, demonstrating the survey, education, and treatment (SET) approach to leprosy control. A similar program was undertaken at St. George General Hospital affiliated with Grant Medical College. An experiment in case detection was conducted in Dharavi during August and September 1983. Medical students were given intensive training in leprosy and conducted a four-day mass screening program, enumerating approximately 75% of the 300,000 residents of Dharavi. Of almost 1000 suspected cases, 236 were confirmed and 156 were started on multidrug therapy in the slum clinics managed by the Bombay Leprosy Project. Health education has utilized Indian Railways as a medium of mass communication in leprosy since about 4 million commuters travel daily by suburban local trains. Similar health education methods have utilized the Bombay Electricity Supply and Transport (BEST) agency. The Bombay Leprosy Project has implemented multi-drug therapy both for multibacillary as well as paucibacillary cases since May 1982.—Materials provided by Dr. R. Ganapati

ILEP meeting on multidrug therapy (MDT). On the Sunday preceding the opening of the International Leprosy Congress, an all-day meeting on MDT was organized by ILEP (The International Federation of Anti-Leprosy Associations) during which preliminary reports were presented from workers in various parts of the world who have already implemented MDT. We are indebted to the Secretary to the Medical Commission, Dr. H. W. Wheate, for the following account of the meeting.

The following conclusions were endorsed by the meeting:

1) As multidrug therapy is a very important intervention in our fight against leprosy, it is absolutely imperative that adequate and in-depth planning is made before multidrug therapy is introduced in any area.

2) Such planning must be adapted to the local situation and should ensure minimum effective service which depends upon appropriate information on the disease problem and sufficient and correct documentation. This can be facilitated through visits of experts and meetings between the project manager and senior field workers.

3) Multidrug therapy programs must have an in-built system of monitoring based upon competent reporting and objective analysis.

4) Correct laboratory control is an essential item to evaluate the programs. The staff should be appropriately trained and updated in this field.

5) Introduction of multidrug therapy in no way precludes our giving full attention to the needs of the individual patient and his family. Discharge from therapy does not mean discharge from care.

6) Health education is extremely important to ensure early diagnosis and maximum compliance by the patients, both in taking the drugs as well as in limb care, including care of the eye. The programs of health education must run parallel to the other activities of the program.

7) Community participation will promote the success of multidrug therapy and will help in the rehabilitation and social rein-

tegration of the patient. Multidrug therapy programs must involve the community at all effective levels.

8) Unless all these prerequisites are obtained, multidrug therapy should not be implemented in haste or in a lighthearted manner.—(*From* the report in Lepr. Rev. **55** [1984] 215–218)

Inauguration of The Leprosy Mission Hospital, Shahdara, Delhi. The Leprosy Mission Hospital, Shahdara-Delhi was opened by Mr. A. K. Askew, Director of The Leprosy Mission International and Mr. J. G. Keil, Executive Director of the Canadian Lutheran World Relief, on 5 March 1984. The hospital was built at a cost of Rs. 28,00,000, and has all the facilities for inpatient care, physiotherapy, occupational therapy, laboratory, X-ray, pharmacy, shoe and reconstructive surgery. The hospital will be fully equipped for taking care of all the complications occurring in leprosy.—(Indian J. Lepr. **56** [1984] 361)

JALMA Trust Fund Oration Award to Dr. D. D. Palande. Dr. Dinkar D. Palande, surgeon of the Sacred Heart Hospital, Sakkottai (Tamil Nadu), is among the 19 doctors honored by the Indian Council of Medical Research. He has been awarded the JALMA Trust Fund Oration Award for the year 1983 for his work in reconstructive surgery on peripheral nerves in leprosy.—(Indian J. Lepr.)

New office bearers of the Indian Association of Leprologists. At the General Body Meeting of the Indian Association of Leprologists (IAL) on 19 November 1983 in Bombay, the following were elected:

President:	Dr. K. V. Desikan
Vice Presidents:	Dr. H. Srinivasan
	Dr. R. Ganapati
Hon. Secretary:	Dr. V. P. Bharadwaj
Hon. Treasurer:	Dr. B. K. Girdhar

Consequently, the office of the IAL has been shifted from Bombay to the Central JALMA Institute for Leprosy, Taj Ganj, Box 31, Agra 282001 (U.P.), India.—(Indian J. Lepr.)

Post-Congress Symposium on "The Defective Macrophage in Leprosy." This symposium was hosted by the Foundation for Medical Research at the West End Hotel, Bombay, 27–28 February 1984. It was a forum for a group of workers whose common interests were focused on understanding the role of the macrophage in the defective immune response in leprosy. The scientists invited to participate in the symposium were representative of varied areas of leprosy research such as cellular immunologists, immunogeneticists, pathologists, and biochemists. These included:

Dr. B. Beiguelman, Chairman, Department of Genetics, State University of Campinas, Brazil

Dr. S. Brett, National Institute of Medical Research, Mill Hill, London, U.K.

Dr. R. deVries, Department of Immunohematology and Blood Bank, University Hospital, Leiden, The Netherlands

Dr. G. Kaplan, Research Associate, Laboratory of Cellular Physiology and Immunology, Rockefeller University, New York, U.S.A.

Dr. S. Kaufmann, Max Planck Institute for Immunobiology, Freiburg, West Germany

Dr. A. Kingston, National Institute of Medical Research, Mill Hill, London, U.K.

Prof. P. Lagrange, Institut Pasteur, Paris, France

Dr. M. Lefford, Associate Professor, Department of Immunology and Microbiology, Wayne State University, Detroit, Michigan, U.S.A.

Dr. O. Skinsnes, Department of Pathology, University of Hawaii, Honolulu, Hawaii U.S.A.

Participants also included the Immunology Staff of The Foundation for Medical Research, Bombay, viz. Dr. T. J. Birdi, Dr. N. F. Mistry, and Miss Padmini Salgame.

Others who attended the symposium as observers included:

Dr. D. Scollard, Field Director, Chiang Mai/Illinois Leprosy Research Project, Chiang Mai University, Thailand

Dr. B. Naafs, Ministry of Health, Zimbabwe

Dr. T. Holzer, Illinois Leprosy Research Project

Dr. R. Navalkar, Microbiology Department, Meharry College, Nashville, Tennessee, U.S.A.

Dr. Lyons, Wood-gate, Zimbabwe

Dr. B. Hopper, Leprosy Adviser, Ministry of Health Headquarters, Nigeria

Prof. M. Hooper, Department of Pharmaceutical Chemistry, Sunderland Polytechnic, U.K.

Dr. U. Elvers, Medico-Cirujano, AYU Oficina Regional Colombia, Bogota, Colombia

Dr. R. D. Lele, Department of Radiation Medicine, Jaslok Hospital, Bombay, India

Dr. Tebebe, AHRI, Addis Ababa, Ethiopia

Dr. G. Bjune, Director, Armeur Hansen Research Institute, Addis Ababa, Ethiopia

Dr. J. Longley, Heiser Fellow, AHRI, Addis Ababa, Ethiopia
Dr. P. Converse, Johns Hopkins School of Medicine, Baltimore, Maryland, U.S.A.

Dr. Beiguelman opened the session by reviewing his earlier work on the genetic control of the lepromin reaction in families of leprosy patients and emphasized the correlation between Mitsuda positivity and the *in vitro* ability of macrophages to lyse *Mycobacterium leprae.*

The presentation by Dr. O. Skinsnes indicated an important role of macrophage lysosomal enzymes in the pathogenesis of leprosy. In the lepromatous spectrum, the activity of enzymes such as β-glucuronidase, acetyl glucuronidase, and lysozyme was observed in significantly more proportions in bacillary cells rather than granulomatous infiltrates, unlike the tuberculoid part of the spectrum where activity was detected more in the inflammatory cells.

The studies on route of infection of *M. leprae* by Dr. Shannon revealed that only injection of organism directly into the nose produced "take" in a colony of nude mice. His other series of studies aimed at resolving the discrepant observations of two groups of workers on the presence of T suppressor cells in various forms of human leprosy. Employing the lymphocyte transformation test to susceptible and resistant armadillos, it was surmised that the discrepant results previously obtained were largely due to the differing culture conditions, such as differential cell counts, and more significantly due to the concentration of the mitogen ConA used for evaluation of suppressive activity. His data therefore did not support the hypothesis that suppressor T cells were responsible for disseminated lepromatous disease.

The mode whereby the macrophage could function as a suppressor cell was indicated in the work of Dr. Salgame. A factor termed as the "lysate" was obtained from freeze-thawed *M. leprae*-infected lepromatous macrophages. This factor characterized as a glycoprotein with a M.W. of 50,000 had the ability to generate suppressor cells of both monocyte and lymphocyte lineage *in vitro* in normal individuals and tuberculoid patients. The activity of this factor could be detected in culture supernatants, thus implicating it as an amplifier of suppressor induction. It was possible to raise antibodies against the lysate in rabbits, which on addition to lysate could abrogate its suppressor activity. This last observation could be a prelude to a type of immunotherapy.

The role of the *M. leprae*-specific phenolic glycolipid (Pgl-1) in the immune response to *M. leprae* was presented by Dr. Brett. Antibodies to Pgl-1 in patients were seen to gradually decrease from the LL to the TT part of the spectrum. These antibodies consisted of both M and G classes of Ig. Interestingly, on treatment although IgG levels were seen to return to baseline values, IgG responses were noted to persist. Between ENL episodes however, both IgG and IgM antibodies were noted to drop, particularly when thalidomide was the choice of treatment. In mice, the DTH response to Pgl was seen to occur even in the absence of preimmunization.

Dr. Birdi's presentation delineated two, specific independent membrane changes in lepromatous macrophages. These were an inability to express Fc receptors on challenge with viable *M. leprae* and an inability in the presence of antigen to participate in an interaction with lymphocytes. The critical requirement of *M. leprae* viability in the Fc receptor expression defect made its monitoring an important tool for the assessment of drug efficacy and the screening of immunomodulating agents such as cross-reactive mycobacteria/levamisole.

Defective Fc receptor expression and macrophage-lymphocyte interaction were found by Dr. Mistry in significantly higher proportions in familial contacts, i.e., 75% as opposed to the 18% observed in normal non-contacts and occupational contacts from the same hyperendemic area. Studies of inheritance of these *in vitro* parameters in families of index cases having four or greater than four siblings showed compatibility with a gene-based defect that was inherited in a dominant form. Such dominance of lepromatous features was also noted in macrophage somatic hybrids.

The concept of the macrophage as a centrally defective cell was, however, refuted by Dr. Gilla Kaplan who demonstrated that lepromatous macrophages could be stimulated to produce the activating factor γ-interferon when pulsed with interleukin 2 (IL2)

and *M. leprae.* She predicted therefore that the block in the immune response in a lepromatous individual probably occurred at the lymphocyte level in the generation of the cytokine IL2.

The question of inherent susceptibility was tackled extensively by Dr. deVries using novel approaches. Firstly he demonstrated that the HLA-linked antigens were significantly associated not only with TT but also with the LL forms of leprosy. Typing studies in Surinam showed that the presence of HLA-DR 3 was found significantly reduced in LL children and that the class III MT-1 antigen segregated preferentially to LL children. Such non-random segregation was seen to be dominant for infection. His second approach was to study the genetic restrictions that were binding during *M. leprae* responses on macrophage T cell interaction using T cell lines derived from patients. In lines that were responsive to *M. leprae,* Ia-like antigens were found to be irrefutably implicated.

Another macrophage function that appeared to be controlled genetically was the ability to generate oxidative metabolites. A burst of hydrogen peroxide production in genetically resistant mice was seen by Dr. Lagrange to be significantly associated with the observations of decreased colony forming units of BCG organisms *in vivo* or a gradual decrease in ^{3}H-uracil uptake in infected macrophage cultures *in vitro.* These observations were consistent in macrophage populations derived from either lymph nodes or spleen. It was postulated that the same Bcg gene conferring protection to *M. lepraemurium* (MLM), BCG, Leishmania and Salmonella infection could also operate similarly in leprosy through a radio-resistant cell, viz. the macrophage.

The incisive uses of T cell cloning were presented by Dr. Kaufmann and Dr. Kingston. The former was successful in cloning murine T cells that reacted with killed *M. leprae* and *M. bovis* (BCG) but not with killed *L. monocytogenes.* H-2I-A restriction binding indicated that the cloned T cells belonged to the helper-inducer subset. These cells had the ability to confer DTH reactions to *M. leprae* and bystander protection against *L. monocytogenes* in normal recipient mice and also produced lymphokines (γ interferon) capable of activating tumoricidal macrophages as well as macrophage-oxidative metabolism.

Dr. Kingston presented attempts to clone homogenous subsets of T cell types for investigating specificity of T lymphocyte antigen recognition and the interactions between cells. These cloned cell lines reacted, however, with both *M. leprae* and other mycobacteria; in addition, each clone was found to react differently to different antigenic fractions of *M. leprae.*

The dichotomy between DTH and protection was highlighted by Dr. Lefford in the mouse system using MLM. It was demonstrated that even in the presence of macrophages activated to kill listeria or an ensuing positive DTH reaction in the foot pad, there was no significant reduction in colony counts of MLM in the spleen.

This symposium, held under the auspices of the Foundation for Medical Research, was supported in part by the Indian Council of Medical Research and the Deparmtent of Science and Technology. We propose to publish the proceedings of this symposium.—N. H. Antia

Post-Congress Workshop on Health Education. This workshop was held 27–28 February 1984 at the Gandhi Memorial Leprosy Foundation, Wardha.

A. *Policy Statement*
Health education refers to the process of assimilation of scientific health knowledge, attitudes and behavior in the health culture of people. Health education in leprosy aims at ensuring community participation in leprosy control programs. Health education therefore addresses itself to the patients, their families, the community, and to all components of health services.

B. *Relevant Issues in Health Education*
The following issues in health education in leprosy were discussed and a general agreement reached:
1. *Patient*
   1.1 Health education is seen as part of patient care aimed at such areas as preventing deformities, foot care, etc.
   1.2 Record of health education delivery to be maintained with patient chart.

1.3 The therapeutic value of listening to the patient to be recognized as important in two-way communication.

2. *Community*
   2.1 Health education aims to help people to develop attitudes and behavior to achieve health by their own actions and efforts and to seek professional help when needed.
   2.2 Health education be directed to solve the problems of patients such as a) use of public facilities, b) preventing family disorganization, c) land grabbing, and d) rehabilitation.
   2.3 Provide facilities to health services to organize leprosy control programs such as a) help in conducting health education programs, b) making available socially acceptable places for clinics, and c) active participation in case holding.
   2.4 Focusing on participation of special groups such as women, youth groups (Boy Scouts, Girl Guides, National Youth Services) besides groups already recognized such as teachers, nurses, journalists, legislators, etc.
   2.5 Preventing derogatory reference to leprosy in commercial and other media, e.g., "Alcoholics should not be treated like lepers."
   2.6 Fund-raising programs should avoid emotional appeals by a show of mutilated patients which would propagate bad images of the disease. Appeals could be made by showing positive aspects of cure and rehabilitation.
3. *Health Care Services*
   3.1 All health care personnel at all levels of medical and paramedical categories need to be sensitized and familiarized on the importance of health education objectives, methods and tools with reference to patient care, and community needs.
   3.2 In addition to available diploma and certificate course in health education, training facilities need to be decentralized by offering short-term courses in health education.
4. *Methods of Health Education*
   4.1 Mass media should be recognized for limited achievement in creating general awareness.
   4.2 Besides conventional methods of health education, the following methods were recommended: a) use of video in mass communication and training, and b) entertaining family serials on various communicable diseases including leprosy be put on radio and television regularly.
   4.3 Traditional methods of communication need to be reinforced, e.g., puppetry, folklore, etc.
   4.4 Language used for communicating messages needs to be carefully worded so as to avoid enforcing fear and stigma.
   4.5 Microcomputers be used for storing and retrieving information wherever possible.

C. *Training in Health Education*
1. Supervisory staff be specially trained in health education in leprosy so that they can train field staff.
2. Training be directed to patient health education and community health education for ensuring patient care and community participation.
3. Health education training needs to be reinforced in medical and nursing schools.
4. Distinction about content of health education be made in regard to concepts which are universally applicable or culture specific.
5. Priorities in messages be made using the criteria of what can be assimilated in the culture system easily or with difficulty.
6. Communication and educational experts be involved in training programs.
7. Workshops on social science research methodology be organized by national and international agencies for health education personnel.

D. *Research in Health Education*
Research objective: To improve health education methods and content so that people accept the basic essentials of a leprosy control program and participate in it.

In addition to topics of research mentioned in the pre-Congress Workshop on Social Aspects, the following areas were stressed:

1. Evaluation of health education methods and tools in terms of a) leprosy control and b) community participation.
2. Messages absorbed by people and their duration.
3. Effectiveness of communication processes in various cultures in view of variation in a) literacy levels and b) prevalence and deformity rates.
4. Viability of health education methods to suit new treatment regimens such as multidrug therapy.
5. Impact of school surveys on community.
6. Relative effectiveness of using various social groups for creating awareness in the community.
7. Motivation and perception of leprosy worker toward leprosy and its impact on effectiveness of health education.

These identified research areas would require active involvement of social science research inputs.

R. B. Adiga, Chairman

Sr. Senkenesh G. Mariam, B. R. Pathan } Rapporteurs

R. K. Mutatkar, S. P. Tare } Resource Persons

Participants from abroad included:

Ms. Ingrid Kalf, Information Officer, Leprosy Documentation Service, Royal Tropical Institute, Mauritskade, Amsterdam, Holland

Sister Senkenesh G. Mariam, Social Worker, ALERT, Addis Ababa, Ethiopia

Ms. Patricia Rose, Director, Guyana Hansen's Disease Control Program, Ministry of Health, Guyana, Guyana

Dr. Hira Mana Pradhan, Medical Officer, Leprosy Control Project, Ministry of Health, Kathmandu, Nepal

Dr. Adiga Ram Bhadra, Chief, Leprosy Control Project, His Majesty's Government, Ministry of Health, Kathmandu, Nepal

Mrs. M. Gruner, Leprosy Relief Organization, Munich, West Germany

Mr. Thomas Wolf, Student, AHM Leprosy Relief Organization, Munich, West Germany

Mr. Lauterbach Bernd, Student, AHM Leprosy Relief Organization, Munich, West Germany

Mr. Kowalsky Dietrich, Pastor, AHM Leprosy Relief Organization, Chairman, German Family and Youth Award, Munich, West Germany

Dr. Richard J. O'Connor, Director of Education and Training, National Hansen's Disease Center, Carville, Louisiana, U.S.A.

Participants from India included:

Mr. S. P. Tare, Director, Gandhi Memorial Leprosy Foundation, Wardha

Prof. R. K. Mutatkar, Research Advisor, GMLF and Head, Department of Anthropology, University of Pune, Pune (Maharashtra)

Dr. V. P. Macaden, Director, Hubli Hospital for the Handicapped, Hubli (Karnataka)

Dr. P. N. Kelkar, Medical Officer, Poona District Leprosy Committee, Pune (Maharashtra)

Dr. S. G. Ramdasi, Assistant Director of Health Services, Maharashtra State Health Education Bureau, Pune (Maharashtra)

Mr. N. Rangaswamy, Program Officer, UNICEF West India Office, Ravindra Mansion, Dinsha Vacha Road, Bombay

Shri B. R. Pathan, Research Fellow, Department of Anthropology, University of Pune, Pune (Maharashtra)

Shri D. S. Wele, Health Education Officer, GMLF, Wardha (Maharashtra)

Ulcer-preventive footwear material available from SLRTC. Microcellular rubber 15° shore, identified by Dr. Paul Brand as probably the most efficient, practical and economical substitute for the subcutaneous fat of the sole of the foot, has been produced by the Schieffelin Leprosy Research and Training Center (SLRTC), Karigiri, since 1962. Used around the world for the insoles of ulcer preventive footwear for leprosy patients, the material is available in two thicknesses—one for shoes and one for padding tools and lining sockets. For purchasing details contact Lt. Col. F. N. Rudra (Retd.), Deputy Director, SLRTC, Vellore 632106, South India.

Italy. *Raoul Follereau Grant for Leprosy Research.* The Italian Leprosy Relief Association, Amici di Raoul Follereau, an or-

ganization for international health cooperation, offers a grant of US$20,000 for leprosy research, named after Raoul Follereau, to a young research worker in a European department. The object of the grant is to stimulate the undertaking of original research in the field of leprosy in a research department in Europe. For details write: Amici di Raoul Follereau, via Borselli, 4-40135 Bologna, Italy.

Mexico. *New officers of the Mexican Association for Action Against Leprosy.* La Asociación Mexicana de Acción contra la Lepra, A. C., tiene el honor de informar que en la XXXVII Asamblea General Ordinaria de Socios celebrada el día 26 de abril próximo pasado resultaron electos para el bienio de 1984 a 1986 los siguientes cuerpos directivos:

Junta Directiva

Presidente:	Dr. Fernando Latapí
Suplente:	Dr. Amado Saúl
Vicepresidente:	Dra. Obdulia Rodríguez
Suplente:	Dr. Pedro Lavalle
Secretario:	Dr. Roberto Arenas
Suplente:	Dra. Pilar Arenas
Prosecretario:	Dr. Rafael Ortíz
Suplente:	Dra. Dinora Bueno
Tesorero:	Srita. Concepción Pérez Castro
Suplente:	Sra. Dolores T. de Malacara

Comite de Vigilancia

Vocales:	Dr. Héctor Quijano Méndez
	Sra. Clara Gallardo
Suplentes:	Lic. Luis Humberto Delgadillo
	Lic. Eduardo Salazar del Valle

Comite Consultivo

Dr. Leonardo Zamudio
Dr. Eduardo Castro
Dra. Josefa Novales
Dr. Mario Gómez Vidal

Nepal. *Anandaban Leprosy Hospital 1983 Annual Report.* In Nepal, The Leprosy Mission works through its center at Anandaban and aids The Green Pastures Leprosy Hospital, INF, Pokhra, and The United Mission Hospital in Tansen. The Superintendent of the Anandaban Hospital, Kathmandu, is Dr. M. N. Samuel. The first patient was admitted in 1960 and steady growth has occurred in the hospital services since that time. Currently 3322 patients are attending The Leprosy Mission clinics in Nepal. In 1983 the Anandaban Hospital had an average daily census of 128 patients, 45% of whom were hospitalized for ulcer treatment. The Mycobacterial Research Laboratories of the hospital were opened in 1980. Immunoepidemiological field studies include immunoprophylaxis of school children with *Mycobacterium leprae*+BCG and *M. vaccae*+BCG. Immunotherapy has consisted of killed *M. leprae*+live BCG vaccinations in lepromatous patients at intervals of 2–3 months. Nude mice were introduced into the laboratories in 1982 as an animal model for leprosy. Eighteen primary dapsone-resistant patients and 43 patients with secondary dapsone resistance have been identified. Combined multidrug therapy has been introduced. An active training program is underway.—(*From* the report)

Spain. *Fontilles announces courses in leprosy.* XXVII Curso International de Leprologia Para Misioneros y Auxiliares Sanitarios y XX Courso Internacional de Leprologia Para Medicos, organizado por el Sanatorio San Francisco de Borja de Fontilles y patrocinado por la Soberana Orden Militar de Malta con la colaboracion de la Escuela Profesional de Dermatologia de la Universidad de Valencia Ministerio de Sanidad y Consumo y Profesores de Dermatologia de las Facultades de Medicina, tendra lugar en el Sanatorio de Fontilles.

El XXVII Courso tendra lugar 29 de Octubre al 17 de Noviembre de 1984. El XX Courso tendrá lugar 24 al 29 de Septiembre de 1983.

Los aspirante a este courso deberán dirigir sus instancias al Comité Ejecutivo Internacional, 3 Place Claparede, Ginebra (Suiza) antes del 30 Junio de 1984 y al mismo tiempo al Dr. José Terencio de las Aguas, Sanatorio de San Francisco de Borja, Fontilles, Alicante, España.

Switzerland. *Report on meetings of the Steering Committee of the THELEP Scientific Working Group (SWG).* The thirteenth and fourteenth meetings of the SWG

on Chemotherapy of Leprosy (THELEP) met in Geneva on 20–21 April and 11–12 October 1984. A summary of the proceedings is as follows:

The second quadrennial in-depth review of the activities of the Scientific Working Group on Chemotherapy of Leprosy (THELEP) was carried out. The results of the review were favorable, but THELEP was urged to undertake new initiatives in drug development and to intensify its efforts in recombinant genetic research.

Three more surveys of the prevalence of dapsone resistance were completed in 1983. The controlled clinical trials in Bamako, Mali, and Chingleput, India, continued to demonstrate a prevalence of primary dapsone resistance of greater than 30 per 100 patients in these areas. The most recent data from studies on inoculated, immunosuppressed mice suggested that persisting *Mycobacterium leprae* were being detected in about 10% of all patients, and with similar frequency among patients whether they be on "maximal" or "minimal" regimens. Admissions of new patients to these trials are to be terminated on 31 December 1983. Additional short-term trials of thioamides and of clofazimine are planned. Recruitment of lepromatous patients into the field trials in Gudiyatham Taluk and Polambakkam, both in South India, has been completed, as has work on a protocol for studies of the effect of community-wide chemotherapy on transmission of *M. leprae* in those communities. Two trials of therapy of nonlepromatous leprosy are to be started, and a protocol for trials of immunotherapy was approved and advertised.

Two new projects employing recombinant genetics were begun. Finally, the hepatotoxicity of prothionamide administered with rifampin continued to be a problem.

Two large meetings were held—one primarily to review progress in the controlled clinical trials; the other to identify new directions for drug development.

Thirty-one grant applications were reviewed; 25 grants were approved, for a total of US$606,000.—(*From* the Report)

Le mort de S. Exc. Béat de Fischer-Reichenbach. L'ambassadeur Béat de Fischer-Reichenbach, qui présidait depuis plus de quinze ans aux destinées du Comité exécutif international de l'Ordre de Malte pour l'assistance aux lépreaux, est décédé subitement à Berne à la fin août. Le président du CIOMAL avait pris très à coeur tout ce qui concerne les secours aux lèpreaux et suivait d'un intérêt particulièrement attentif les activités du comité qu'il présidait. Son rôle dans la lutte contre la lèpre eut un grand retentissement, et les délégués qui participèrent à la réunion de l'ELEP à Rome sous sa présidence, en n'oublient pas le doigté, et la fermeté, dont savait faire preuve ce grand diplomate européen.—M. F. Lechat

U.K. *Dr. M. Elizabeth Duncan honored.* It is with the greatest of pleasure that we record the award of the degree of MD in the University of Edinburgh, with high commendation and gold medal, to Dr. M. Elizabeth Duncan for her work on "A Prospective Clinico-pathological Study of Pregnancy and Leprosy in Ethiopia." Following a series of distinguished publications (and there are more to come), this is a richly deserved award for her many years of work, mainly in Ethiopia, on this subject.—(Lep. Rev. **55** [1984] 180.)

Dr. Stanley Browne honored. At an investiture at All Saints Church, Northampton, on 20 June 1984, Dr. Stanley G. Browne, former Secretary of the International Leprosy Association, was made a Knight of the Military and Hospitaller Order of Saint Lazarus of Jerusalem.

ILEP Catalogue on Training 1984. The International Federation of Anti-Leprosy Associations (ILEP) has issued a catalogue in both English and French of training centers in various parts of the world which gives full details of the courses offered, main subjects taught, etc. Centers include those in ALERT, Ethiopia; Bamako, Mali; Bauru, Brazil; Carville, U.S.A.; Fontilles, Spain; Karigiri, India; Mexico City, Mexico; Yaounde, Cameroon, and Dakar, Senegal. Copies are available from ILEP, 234 Blythe Road, London W14 0HJ or from ILEP representatives.

New Chairman of The Leprosy Mission (TLM) International elected. At the meeting of the International General Council of The Leprosy Mission held in London on 2 May

1984, the Rev. Dr. C. Ronald Goulding was elected Chairman of TLM International. Formerly Principal of the Baptist Theological Seminary at Ruschlikon, Switzerland, he brings to this new task a great depth of international experience and understanding.

As Secretary of the European Baptist Federation, he travelled widely in both Western and Eastern Europe and has considerable experience in European church life. His work in this capacity involved negotiations with governments on issues of religious freedom and working with growing churches as a colleague and adviser. As a former Secretary for Evangelism and Education of the Baptist World Alliance, Dr. Goulding was based in Washington, D.C., and travelled widely, visiting the global Baptist community. For some time he was Secretary for Relief of the Baptist World Alliance, providing first-hand experience of some of the countries in which TLM is at work.

An able preacher and public speaker, Dr. Goulding has held major pastorates in the United Kingdom, and for a time was Chairman of Spurgeon's College.

Mrs. Freda Goulding is the daughter of B.M.S. missionaries in India, and is an S.R.N., trained at the Middlesex Hospital in London.

The Rev. Dr. C. Ronald Goulding succeeds Sir Eric Richardson, C.B.E., PhD., as Chairman of the International General Council of The Leprosy Mission. Sir Eric served as International Chairman for ten years. His leadership and wise guidance have been very much appreciated by the entire Mission family. Sir Eric joined the General Council of TLM in May 1970, and having served a period as Deputy Chairman, he took over the Chairmanship immediately following the centenary celebrations in 1974. Sir Eric has wide contacts and responsibilities in Christian work both in the U.K. and internationally, and he has brought a breadth of vision and understanding to his task which has been a blessing to TLM.

Lady May Richardson remains Chairman of the England and Wales Council of The Leprosy Mission.—TLM

The Leprosy Mission (TLM) International Teaching and Learning Materials Report for 1983. Individual orders for 1983 totaled 246 and came from 41 countries, including new contacts in Mozambique and Granada. The number of items dispatched increased 32% over 1982, with the largest request for teaching and learning materials coming from the leprosy specialist in Zambia who is developing their national program. The TLM distribution center in India is working well through the efforts of Dr. (Mrs.) Thangaraj. Materials were supplied for many training events, including Dr. Grace Warren's visit to Bangladesh, Dr. S. G. Browne's visit to Zimbabwe, and those held at the National Hansen's Disease Center in the U.S.—(*From* the report)

U.S.A. *Heiser Program for Research in Leprosy: 1985 Opportunities.* Dr. Victor George Heiser, a physician who devoted his life to the study and treatment of tropical diseases, provided in his will a multimillion dollar bequest for basic biomedical research on leprosy. The following awards were established and are available.

1) Postdoctoral Research Fellowships. To support young biomedical scientists in beginning postdoctoral training for leprosy research. Applicants should have M.D., Ph.D., or equivalent. While there is no age limit, candidates should be at an early stage of postdoctoral research training. There are no citizenship requirements. Generally, postdoctoral training should be planned in an institution other than that in which the applicant obtained the doctorate. Candidates should be interested in obtaining research training directly related to leprosy study. Initial awards are for one year, renewable for a second year.

2) Research Grants. To provide limited support to laboratories involved in leprosy research training. Applicants should be senior investigators who are experienced in leprosy research and associated with a laboratory providing training opportunities in this field. Grants may be sought for proposals which are both of high scientific caliber and clearly related to leprosy. Start-up funds may be requested for new projects or facilities which show promise of receiving support from other sources within one year and of contributing to leprosy research. Grants are limited in duration to one year.

3) Visiting Research Awards. To promote collaborative research in studies of leprosy

and to encourage clinical experience with leprosy by facilitating access to centers in which clinical manifestations of the disease are being correlated with laboratory findings. Because of the high cost of travel, awards in this category will be made only under special circumstances. Candidates should be established investigators in leprosy who wish to carry out specific research objectives in a distant or foreign institution. There are no citizenship requirements. Up to six consecutive months of support for travel and subsistence costs will be awarded successful candidates.

Deadline for all applications is 1 February 1985. All applications must be in English (one original and four copies). There are no application forms. For further information write: Mrs. Barbara M. Hugonnet, Director, Heiser Program for Research in Leprosy, 450 East 63rd Street, New York, New York 10021, U.S.A.—(*Adapted from* Heiser Program brochure)

Reported cases of leprosy increasing. According to statistics of the Centers for Disease control, reported cases of leprosy have shown a trend toward gradually increasing numbers of cases over the period 1957–1976. Since 1976, the rate of increase has been more rapid. From 1943 through 1952, there was an average of approximately 47 new cases per year. From 1953–1962, this figure increased to approximately 56 per year. From 1963–1972, the annual number of reported new cases averaged 110. From 1973–1982, there was an average of approximately 180 newly reported cases per year. In 1981 there were 256 and in 1982, 250 newly reported cases. The reported occurrence of indigenously acquired leprosy has remained constant since 1970, with less than 30 cases reported each year. The increase in the total number of reported cases is due entirely to a rise in the number of foreign-acquired cases rather than indigenous transmission. The sharp increase in reported cases in the period 1976–1981 corresponds with the influx of southeastern Asian refugees.—(Annual Summary 1982, Morb. Mort. Wkly. Rept. **31** [1983] 45)

Takemi Fellowships in International Health. The Takemi Program in International Health invites applications from promising graduates of advanced degree programs and mid-career professionals with relevant backgrounds for fellowships in research and advanced training on critical problems in international health, especially those concerned with less developed countries. For information write to Professor David E. Bell, Acting Director, Takemi Program in International Health, Harvard School of Public Health, 665 Huntington Avenue, Building 2, Boston, MA 02115, U.S.A.

U.S.S.R. *1982–1983 conference transactions and abstracts available.* A significant number of works on leprosy were presented at scientific conferences held during 1982–1983. Listed below are the transactions of the conferences with the titles of the articles on leprosy:

1. *The Topical Problems of Modern Microbiology and Immunology. [Aktaulnye Voprosi Sovremennoj Mikrobiologii i Immunologii.] Astrakhan, 1982, 84 pp. (a conference of young scientists).*

1.1 Vorobjeva, Z. G., Dyachina, M. N. and Lazovkaya, A. L. The assessment of skin tests to sensitin from cultivable "leprosy" mycobacterial strains in experimental studies, p. 12.

1.2. Vorobjeva, Z. G., Dyachina, M. N. and Lazovskaya, A. L. Purification and characteristics of biological and specific activity of sensitins from *M. leprae,* p. 13.

1.3. Maslov, A. K. Electron cytochemical detection of peroxidase in *M. leprae,* p. 34.

1.4. Nazarova, E. K. The study of dehydrogenases in blood lymphocytes from nine-banded armadillos (*Dasypus novemcinctus*), p. 35.

1.5. Naumov, V. Z. The intensity of lymphocyte transformation test depending on certain conditions of cultivation of the whole blood, p. 36.

1.6. Selezneva, S. P. The study of specific lymphocytic sensitization to lepromin in the patients with lepromatous leprosy, p. 50.

1.7. Selezneva, S. P. and Baranov, Y. N. T and B lymphocytes in leprosy patients with different ABO blood groups, p. 51.

1.8. Selezneva, S. P., Gryshanova, A. P., Inkina, T. E. and Sulayants, N. N. The study of lymphocytic activity in lepromatous lep-

rosy patients using indirect cytotoxical test, p. 52.

1.9. Sukhenko, L. T., Ermolin, G. A. and Dyachina, M. N. Diagnostic value of ELISA in leprosy, p. 58.

1.10. Urlyapova, N. G. The dynamics of bacteriological indices in leprosy patients treated with rifampicin, p. 64.

1.11. Jushin, M. Y. The influence of prolonged fixation in glutaraldehyde on mycobacterial structure, p. 78.

2. *Abstracts of the 5th All-Russian Congress of Dermatologists and Venerologists, Suzdal, 1–3 November, 1983. Vladimir, 1983, 231 pp.*

2.1. Balybin, E. S. The influence of stress on cell-mediated immunity in leprosy patients, p. 135.

2.2. Dyachina, M. N., Vorobjeva, Z. G., Lazovskaya, A. L., Pervukhin, Y. V. and Vinnick, L. A. Experimental and clinical study of sensitin from *M. leprae,* p. 141.

2.3. Nazarov, K. I., Juscenko, A. A., Chernysheva, L. M., Gnenjuck, T. S., Pervukhin, Y. V. and Evstratova, V. A. Immunotherapy as one of the effective methods of combined therapy for leprosy patients, p. 166.

2.4. Naumov, V. Z. Immunodepressive action of endogenous cortisol depending on seasons in lepromatous leprosy, p. 168.

2.5. Ryzhova, N. Y. and Loginov, V. K. Drug allergy in leprosy, p. 181.

2.6. Selezneva, S. P., Nazarov, K. I., Podoplelov, I. I. and Evstratova, V. A. Quantitative assessment of T and B lymphocytes in lepromatous leprosy patients receiving immunotherapy, p. 182.

2.7. Selezneva, S. P. and Podoplelov, I. I. The study of T and B lymphocytes in lepromatous leprosy patients with different ABO blood groups, p. 183.

2.8. Sukhenko, L. T. and Dyachina, M. N. The use of ELISA for the detection of anti-*M. leprae* antibodies, p. 192.

2.9. Jushin, M. Y., Vishnevetsky, F. E. and Juscenko, A. A. The role of macrophages in immune response to leprosy, p. 207.

2.10. Juscenko, A. A., Nazarov, K. I., Pervukhin, Y. V., Evstratova, V. A., Bragina, V. S. and Urlyapova, N. G. The influence of antileprosy therapy on immune state of lepromatous leprosy patients, p. 208.

3. *Epidemiology, Clinical Features, Diagnosis and Prophylaxis of Anthroponotic and Zoonotic Infections. Astrakhan, 1982, 242 pp.*

3.1. Shubin, V. F. The factors having acted to decrease the leprosy incidence over the territory of the U.S.S.R., pp. 73–75.

3.2. Baranov, Y. N., Podoplelov, I. I., Selezneva, S. P. and Sukhenko, L. T. The percent of T and B lymphocytes and immunoglobulin levels in leprosy patients with different ABO blood groups, p. 118.

3.3 Pervukhina, N. K., Vinnick, L. A., Pervukhin, Y. V., Gorkova, A. I., Nazarov, K. I. and Sergeev. V. A. The significance of some biological substances for adaptation under the various courses of the infectious process, pp. 150–152.

3.4. Ryzhova, N. Y. Blood enzyme and metabolite levels as the indicators of hypoxia in leprosy patients, pp. 162–163.

3.5. Balybin, E. S. Season fluctuations of thyroid status in leprosy patients, p. 164.

3.6. Rezaev, A. A. and Rhyzhova, N. Y. The parameters of oxidation-reduction processes in human and experimental leprosy, pp. 165–166.

3.7. Nazarov, K. I., Pervukhin, Y. V. and Bragina, V. S. Some immunological indices in leprosy patients receiving antileprosy therapy, pp. 166–167.

3.8. Nazarova, E. K. The significance of cytoenzymatic study of blood leukocytes in patients with lepromatous leprosy, pp. 168–169.

3.9. Vorobjeva, Z. G., Dyachina, M. N. and Aksanova, R. A. The reagents for skin tests in leprosy, pp. 169–171.

3.10. Gnenjuck, T. S. and Goloschapov, N. M. Intermittent therapy of leprosy patients with Dimociphon, Rifadin and Lamprene, pp. 171–172.

3.11. Dyachina, M. N., Putilina, N. G. and Ibragimov, F. E. The detection of cross-reacting antigens in mycobacteria and some representatives of *Enterobacteria,* pp. 222–223.

3.12. Dyachina, M. N. and Juscenko, A. A. The detection of circulating mycobacterial antibodies in blood sera of *M. leprae*-infected nine-banded armadillos, pp. 223–225.

3.13. Juscenko, A. A. The outlook for using nine-banded armadillos in medico-biological investigations, pp. 225–226.

3.14. Badovskaya, Z. V. and Maslov, A. K. The attempts of cultivating *M. leprae* in liquid media supplemented with detergents, pp. 227–228.

Reprints of these works in Russian or summaries in English are available by writing to the Leprosy Research Institute, Astrakhan, U.S.S.R.—A. Juscenko