

# Fontilles VIII International Course

The Fontilles VIII International Course in Leprosy for missionaries and auxiliary health workers is being organized to take place from 22 September to 18 October, 1969, under the direction of the Director of the Fontilles

Leprosarium, Dr. José Terencio de las Aguas. The course is sponsored by the Sovereign Order of Malta, 3 Place Claparède, Geneva, Switzerland, and the lecturers include visiting professors as well as the Fontilles staff.

## Zambia

A happy example of co-operation is provided by the news that the second LEPRO Land Rover covering the Eastern Province of Zambia has already travelled 10,000 miles in 5 months. So far, 1003 leprosy patients have been registered. In this Project, LEPRO works with the government, and the Zambian Land Rover

teams were trained at ALERT in Addis Ababa. The administrative collaboration between official and voluntary agency personnel is paralleled by the combined attack on tuberculosis and leprosy. We await with interest further news of this scheme, and particularly its cost/benefit analysis.

## Pakistan

The Pakistan Leprosy Relief Association proposes a scheme for a Rehabilitation Centre and Workshop for leprosy patients, to be built near Manghopir Leprosy Hospital. The Asso-

ciation's high aims are frustrated by lack of funds, but it is seeking and hoping for increased co-operation from the public as it publicizes more widely the needs of leprosy sufferers.

## Polambakkam

A Souvenir Report, released on the happy occasion of the opening of a new ward at Polambakkam, Tamil Nadu (S. India), on 9 March, 1969, provides much informative and interesting material on the history of this Leprosy Control Project and the results so far achieved. Tribute was paid to the vision of the then young Dr. Robert Cochrane who inaugurated his "Night Segregation Centre" there as far back as 1936. It was in 1955 that the Belgian Foundation for Leprosy began its activities at Polambakkam under the stimulating direction of Dr. Fr. Hemerijckx.

Since that time 26,452 leprosy patients have been registered, and of these no fewer than 10,723 have been discharged "disease arrested". The prevalence rate in the control area is 4.1%, the lepromatous rate about 12%, and the population over 650,000.

Polambakkam represents one of the most successful and complete leprosy control projects in India. The reasons adduced indicate that inspiring leadership, continual co-operation at all levels—between Central and State governments

and an expatriate agency, between professionals and auxiliary workers—are still the main ingredients of success. The well-known district control principles are here applied with enthusiasm: careful survey work, multiple mobile clinics "under the trees", standardized treatment mediated by trained paramedical workers, adequate supervision of and frequent refresher courses for these latter, a simple central organization providing in-patient care where necessary, laboratory facilities, reconstructive surgery, physiotherapy, occupational therapy, and simple protective footwear.

A worthy tribute was paid by Professor T. N. Jagadisan (Honorary Secretary and Treasurer of the Hind Kusht Nivaran Sangh) to Dr. Fr. Hemerijckx for his leadership, vision, and sheer hard work in bringing Polambakkam to the pitch of efficiency and evident success it now enjoys. Under the present Medical Officer-in-Charge, Dr. (Miss) Claire Vellut, and in continuing co-operation with the provincial authorities, Polambakkam faces the future with hope and confidence.

## Honours and Awards

### THE DAMIEN-DUTTON AWARD FOR 1969

At the 25th Anniversary of the Damien-Dutton Society which was commemorated on 19 April, 1969, in New Brunswick, New Jersey, U.S.A., the Award for 1969 was presented to the venerable leprologist, Dr. Victor G. Heiser. The announcement of the Award was actually made on 5 February, coinciding with Dr. Heiser's 96th birthday.

Dr. Heiser was the first President of the

International Leprosy Association, serving from 1931 till 1938, and for many years was a member of the Medical Board of the Leonard Wood Memorial for the Eradication of Leprosy. It was while Dr. Heiser was Director of Health for the Philippines, from 1903 to 1915, that his life-long interest in leprosy was aroused. He saw leprosy in its familiar setting of rural environmental hygiene in the tropics and subtropics, and brought to bear on its epidemiology and control

a rich and very wide experience of tropical medicine. From 1915 to 1933, he served under the International Health Board of the Rockefeller Foundation.

We congratulate Dr. Heiser most heartily on this recognition of his significant contributions to leprosy and the world-wide campaign against the disease.

#### ROYAL AFRICA SOCIETY MEDAL

Congratulations to Mr. Frank Mead, formerly LEPRO Control Officer in the Gambia and now working in a similar capacity in Sierra Leone, on the award of a Royal Africa Society Medal in recognition of his dedicated service to Africa.

He is made an honorary Life Member of the Society.

#### DR. OLIVER W. HASSELBLAD

Congratulations to Dr. Oliver W. Hasselblad, President of American Leprosy Missions Inc., who on 18 April, 1969, was honoured by the patients and staff of the United States Public Health Service Hospital at Carville, Louisiana, for his outstanding contributions to world leprosy control. At a ceremony attended by the participants in the 10th annual seminar for overseas workers, a silver plaque was presented to Dr. Hasselblad by Dr. John Trautman, director of the hospital, and Mr. Alfredo Yzaguirre, President of the Patients' Federation

## The Work of WHO, 1968

### The Annual Report of the Director General to the World Health Assembly and to the United Nations

This valuable compendium should be consulted in the original. From Chapter 2 (Communicable Diseases), we take the following extracts from the section on Leprosy (pp. 26-28).

#### PRIORITIES AND PLANNING

"The recommendations made in 1965 by the Expert Committee on Leprosy with regard to priorities and the planning of leprosy control programmes were reflected in the emphasis placed on the treatment of infectious cases and surveillance of their contacts, and on releasing from control those tuberculoid and indeterminate patients who had already completed the required period of disease inactivity and treatment."

#### ASSISTANCE TO RESEARCH

"The Organization's assistance to research included a 'double-blind' trial, in Venezuela, which showed the action of thalidomide on the acute lepra reaction. In a further study the first results were confirmed, and the drug is considered effective in suppressing acute lepra reaction. Cases of acute polyneuritis incidental to lepra reaction were also controlled rapidly and

completely with thalidomide. 'Double-blind' co-ordinated trials of this drug were also carried out in India, Mali, Somalia and Spain, using a uniform methodology studied by the Organization. Preliminary appraisal of the reports so far received—on 87 cases—also seem to show favourable results."

#### CHEMOPROPHYLAXIS WITH DAPSONE

"In the long-term chemoprophylaxis trial with DDS in India, after 5 years' observation 48 leprosy cases had been detected among 360 contacts in the control group and 22 among 358 contacts in the 'prophylaxis' group. The degree of protection was estimated to be 54.5% for the 'prophylaxis' group, but seemed significant only for children below 10 years of age, and was much higher for males. A chemoprophylaxis trial with DDS started in the Philippines in 1966 was continued. At the end of the first year, 12 cases had been detected in the control group of 275 child contacts and 3 in the 'prophylaxis' group (numbering 274); in the second year the number of cases was 11 and 10 respectively."

## MICROBIOLOGY

"Studies were made on the growth of *Mycobacterium leprae* by employing macrophages harvested from animals.

In studies in India, further attempts were made to cultivate *M. leprae* in fresh fibroblastic cultures derived from human foetal spinal ganglia."

## LEPROMIN

"In a WHO-assisted comparative study in Brazil on 'standard' lepromin (160 million bacilli/ml) and diluted antigens containing 80, 40 and 10 million bacilli/ml, the lepromin containing 40 million bacilli/ml seemed to be completely satisfactory for the Mitsuda reaction.

It was concluded that lepromin can be preserved in a refrigerator for 3 years but that freeze-drying should be recommended for storage over longer periods."

## SEROLOGY

"A study of serum protein alterations was made in about 300 sera from patients with different forms of leprosy. The levels of the different immunoglobulins (IgG, IgA and IgM) were estimated by immunological methods. During the course of this investigation, the occurrence of hypergammaglobulinaemia and

macroglobulinaemia in lepromatous leprosy was noted."

## BCG VACCINATION

"In Burma the WHO leprosy/BCG team continued the trial started in 1964 to ascertain the value of BCG vaccination in the prevention of leprosy in children. General surveys of the population in the operational area and intake of children into the trial groups were completed during 1968. Of a population of over 75,000, 68,865 were examined, including 33,124 children (97.1% of all children); 26,858 children were included in the trial. Preliminary results were reported at the Ninth International Leprosy Congress, held in London in September 1968. By November, 138 cases had been detected in the control group and 121 in the prophylaxis group. There is thus no evidence that BCG vaccination confers significant protection, whatever the status of tuberculin allergy prior to vaccination, either in household contacts (who might reasonably be assumed to be at greater risk of infection prior to vaccination) or in children who are not exposed to *M. leprae* at home but might be so exposed elsewhere. There is no evidence so far that natural tuberculosis infection or infections with acid-fast organisms antigenically related to *M. tuberculosis* confer protection against leprosy."

# Tuberculosis in Africa

The recent WHO seminar, held in Brazzaville, on the problems confronting African governments in their national tuberculosis programmes, produced salutary warnings and practical advice that might well be re-echoed and heeded by those engaged in leprosy campaigns. The main difficulties in the 23 countries from which the participants came seemed to be more organizational than medical.

The old-type tuberculosis hospitals and dispensaries, expensive second-line drugs, and major ablative and mutilating surgery, all came in for well-merited criticism in the light of the growing dimensions of the threat in town

and village. Agreement was voiced on the general safety of BCG vaccination without previous tuberculin testing, and on domiciliary treatment with inexpensive drugs given according to accepted standardized régimes by trained, competent, and enthusiastic paramedical workers. The seminar advised that tuberculosis control should be integrated as far as possible with other public health activities concerned with endemic disease, with the proviso that medical men with special knowledge and experience would always be needed to advise and direct. As with leprosy, patient co-operation over the long period during which treatment is

required is essential for the cure of the individual patient, the interruption of the cycle of transmission, and the success of the national campaign. Fortunately, with standard drugs, patients may be rendered non-contagious in a few months.

## Leprosy Symposium, New York

Under the auspices of the New York Academy of Medicine, the Leonard Wood Memorial, the American Leprosy Missions, Inc., and the New York Society for Tropical Diseases, a highly successful symposium on "Leprosy—Newer Concepts" was held in New York on 1 April, 1969.

A note of sober realism pervaded the meeting. Dr. Oliver W. Hasselblad, President of the American Leprosy Missions, reminded the participants that the misplaced optimism of a decade ago was now giving way to a greater realization of the need for better drugs and a more thorough application of existing know-

With so many problems in common, both medical and social, economic and operational, the advantages of combining national campaigns against the 2 widespread endemic mycobacterial diseases—tuberculosis and leprosy—are self-evident.

ledge. Dr. J. Convit, President of the International Leprosy Association, gave a factual survey of the successful leprosy control project in Venezuela, but so far only half the probable total number of leprosy patients have been registered for treatment. Dr. R. C. Parlett, Washington microbiologist, emphasized the lacunae in our knowledge concerning the value of prophylactic BCG vaccination, and Dr. C. C. Shepard recounted his work in evaluating the protective effect of BCG vaccination when given to mice subsequently challenged by *Mycobacterium leprae* inoculation in the foot pads.

## Current Problems in Tuberculosis

The points of contact between leprologists and their colleagues concerned with *Mycobacterium tuberculosis* are interestingly implied in the papers delivered at a conference on "Current Problems in Tuberculosis" held at the University of Edinburgh, 19–20 September, 1968, and now published as a supplement to *Tubercle, Lond.* (1969) **50**, 1–92. Gross similarities in microbiology, immunology and therapy serve to emphasize the considerable differences between the causative micro-organisms themselves, their physiology and pathology, and their response to drugs. The lessons of epidemiology and drug-resistance learned by our colleagues in tuberculosis, who in many ways are several years ahead of us—although the discovery of *Myco. leprae* antedated that of *Myco. tuberculosis* by a decade—should not be lost to leprologists engaged in either laboratory research or mass-

treatment campaigns, and to the medical administrators planning the rational utilization of all-too-limited resources.

Dr. N. W. Horne reviewed the global prevalence of drug-resistant tuberculosis—not, or not yet, a problem in leprosy—and indicated that both co-operation of the patient and effective treatment regimens are necessary if this problem and menace are to be controlled.

Experimental work on capreomycin, ethambutol, and rifampicin was reported by Dr. F. Grumbach, and on B 663 (Lampren) by M. L. Conalty. The last-named drug (abandoned as a treatment for pulmonary tuberculosis in man) is concentrated in phagocytes, which show reduced phagocytic activity, the intracellular drug remaining active against mycobacteria.

Clinical investigations of ethambutol and capreomycin, both useful drugs in patients

harbouring bacilli resistant to standard régimes, were reported by several workers. Wallace Fox, in a very practical paper reviewing the problems of drug-resistant tuberculosis in developing countries, suggests that so far the excretion of drug-resistant organisms is not a major menace, and the treatment of infected patients should

not divert funds from the main attack on the huge reservoir of treatable infections.

The session dealing with atypical or "opportunistic" bacteria was full of interest. Further investigations of these increasingly important and widespread pathogens may shed welcome light on the growth problems of *Mycobacterium leprae*.

## From Mycobacteriology to Leprosy Control

A Report on the 1969 East African Medical Research Council Regional Scientific Conference held at Dar es Salaam

"Leprosy is a social disease with medical aspects" (Wheate). This was well illustrated by the delegates to this Conference, who were medical assistants, nurses, leprosy control officers, and doctors from both government and missionary agencies. The Seminar on Leprosy Control demonstrated a wide measure of agreement among these varied workers.

In all the 12 control schemes represented, the key to control was considered to be early diagnosis and easily available treatment. This demands the changing of social attitudes and the long-term cooperation of the population. Workers must understand both the science of disease control and the psychology of the people. S. J. Mamuya, Dar es Salaam, pointed out that if, for example, the name used for leprosy meant "fingers" its recognition would be late; that if its cause was believed to be hereditary, fear of damaging marriage prospects would lead to concealment; that the isolation or segregation of patients led to late diagnosis; and that the necessarily prolonged treatment, a concept alien to the African, resulted in default. Leprosy control may be better practised by a paramedical assistant, conversant with the language and customs of his people, than by the specialist in the disease, not so conversant. However, the two must work in close co-operation if the benefits of their respective skills are to be fused. Control methods designed on a purely scientific basis, neglecting the human and psychological factors, are likely to fail. There is a need to study the psychology of leprosy control.

There was common agreement that the institutional approach was unsatisfactory. Epidemiologically the patient presents too late, medically the non-infectious case is not provided for, economically the method spends too much on too few, socially the patient may be debarred from returning to his community, and psychologically the idea of isolation of both patient and staff is perpetuated. The institutions were looking beyond even their out-patient clinics to their countries as a whole, and attempting by survey to define the extent of the problem. In some cases they found prevalence rates of the same order as had been reported a decade or more previously by men like Ross Innes in the same areas (Lea).

In most cases a prevalence rate of around 2% was found. The attempts at survey illustrated the difficulties of achieving a high enough examination rate of the population selected, thereby exposing the results to some doubt (Chum and Larsen). There was often a very poor subsequent attendance rate by patients for treatment, suggesting a mistaken psychological approach; the staff of one leprosarium reported a 75% default rate (Larsen). The need to be very circumspect in the interpretation of survey figures was emphasized by Wheate and Christie. The many social factors in this social disease could lead to considerable bias in the findings. In regard to prevalence the figures could vary widely from one area to another, not always for known epidemiological reasons. It would appear that a reliable survey can be

achieved only by meticulous planning and much hard work, and with provision for adequate statistical analysis.

In the midst of these somewhat gloomy findings on survey in the modern context much light was shed by Leiker, based on his work in New Guinea of 15 years ago. As leprosy invades a previously unaffected population a very high prevalence rate builds up, with an initially low type-rate for lepromatous leprosy. Later the prevalence falls but the lepromatous rate rises. It would seem that BCG vaccination has its main value in the high prevalence situation by reducing the number of self healing cases. But in any situation it is the progressive case that is epidemiologically important, and if a control scheme has to be limited there should probably be a much greater effort made to hold the relatively small number of progressive cases.

It was the common experience of workers from all areas represented that the most effective method of both case-finding and case-holding was the provision of an adequate number of treatment points. In a disease that requires such prolonged treatment this is probably the most important single factor in achieving control, overriding all other factors, psychological, social, and medical. The inadequate provision of treatment points is the main obstacle to leprosy control in the developing countries with their limited budgets and man-power, and many competing priorities. It was clear to conference delegates that special leprosy projects could not hope to overcome these problems on their own, and that integration with the general medical services was the only way of providing an adequate number of treatment points.

The fact that the leprosy patient is often neglected by the general service is in part a reflection on the teaching institutions, none of which, it was said, gave adequate attention to leprosy, if indeed they covered it at all. The first priority in leprosy control is to "teach leprosy" to those who teach clinical and preventive medicine. This academic ignorance and its effect on the students is probably more

deleterious to leprosy control than the superstitions of the population.

While it could be argued that the training of special leprosy assistants could perpetuate the unfortunate isolation of the disease, it was felt they had a place in leprosy control, especially if used, not for the general control programme, but for special projects designed to boost the medical services of an area.

The problem of providing adequate treatment points was particularly severe in those areas where the population was widely scattered. One attempt at dealing with this was the leprosy village system originally suggested by Kinnear Brown and practised in the Teso District of Uganda (Stone). Even with this it was found necessary to send leprosy assistants out from the villages to scattered treatment points; but for how long can such assistants be expected to travel large distances on repeated occasions in a rapidly changing social situation? The possibility of enlisting the voluntary help of responsible members of the community without medical training must be considered. There was also, it became evident, pressing need to conduct trials to determine the best way to use dapsone, in terms of dosage, frequency, and duration. Fortunately one can expect that with increasing leprosy consciousness and earlier diagnosis the complications of treatment will diminish and it will come to be recognized as a skin disease which, treated adequately, causes little inconvenience to the patient and his contacts.

One encouraging aspect of the conference was its integration of leprosy with the other mycobacterial diseases. It is hoped that increasingly in the future the tuberculosis specialist will take more interest here rather than confine himself to diseases of the chest. The interest in Buruli ulcer, a crippling disease first described in 1948 in Australia and now recognized as common in several parts of Africa, perhaps indicates the future widening of this field of diseases. BCG is an obvious point of common interest, but Professor Meissner showed us how much we should be aware of the many

mycobacteria that can effect man's immunological condition and sometimes produce disease. In the more practical field of control, tuberculosis and leprosy have common problems in the long duration of treatment and the many social factors involved. The mycobacterial diseases provide the leprologist with one avenue of approach to the general medical community, while he himself, tending to become slack in his isolation, can be stimulated by the more scientific approach of his colleagues. The alternative is to allow urban tuberculosis to control rural leprosy.

If leprosy is indeed a social disease with medical aspects what should be the functions of a leprologist? A certain percentage of patients will require more than diagnosis and dapsone. Admitted to a hospital unit, they will be his clinical responsibility. As in other fields of preventive medicine where the doctor has given the civil engineer, the health administrator and the social worker the rationale for their work, so in leprosy control he will need to be responsible for the overall strategy until the epidemiology of the disease is more fully understood. With the help of a medical statistician he must interpret the information derived from diagnostic and treatment services. He must be the link between

the research scientist and the pharmacologist on the one hand and the field worker and patient on the other. Above all he must *teach*. One regrets seeing him placed in a leprosarium far from the Ministry of Health where he can think his own thoughts and trouble no one. Equally, one regrets seeing him confined to the Ministry of Health, an administrator in an office expected to visit and advise other people about their patients while having none of his own. When integration comes one hopes he will be in the reference hospital, as is his colleague the tuberculosis specialist. Where a dermatologist is considered too great a luxury the leprologist would do well to cover dermatology also. In this situation he can use the clinical skills he has been taught, he can be in the mainstream of the teaching programme, and he can appreciate the need for the out-patient programme he guides, which is the key to control. There will never be enough doctors to control leprosy. In this situation he can use his particular abilities to the best advantage and delegate field-work to others often better fitted for it than himself.

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## Formation of an East African Leprosy Workers' Association (E.A.L.W.A.)

The Planning Committee appointed by some 60 members attending the Seminar on Leprosy, 31 January to 1 February, in Dar es Salaam, Tanzania, met at the close of the Seminar. The Committee consisted of Dr. D. L. Leiker, Dr. A. C. McDougall of Zambia, Dr. D. R. Clegg of Malawi, Dr. W. Felton Ross of Ethiopia, Dr. Y. Otsyula of Kenya, Dr. W. Blenska of Uganda, Dr. H. W. Wheate of Tanzania, and the Secretary, Mr. G. V. W. Anderson.

The several alternatives that were examined by the Committee were discussed and the following decisions were arrived at as the most promising.

(1) That there should be an East African Leprosy Workers' Association, which could at a later date be expanded to cover other mycobacterial diseases.

(2) That there should be National Bodies whose members would be automatically members of the E.A.L.W.A. on payment of the minimum subscription.

(3) Mr. G. V. W. Anderson undertook to do the preliminary secretarial work in Nairobi after he had retired from the E.A. Medical Research Council at the end of February, 1969.

(4) It was decided that all leprosy workers should be invited to become foundation mem-



bers, including also persons not professionally engaged in the work but interested in promoting it.

(5) The Secretary was asked to circulate all those working in leprosy and those who were interested, asking them if they would become foundation members of the Association.

(6) The membership fee was suggested to be a minimum of 5 shillings, but any member may offer a larger sum.

(7) An offer of £100, made on behalf of the Netherlands Leprosy Foundation by Dr. Leiker, to cover the initial expenses was gratefully accepted.

(8) It was also proposed that there should be

a suitable Bulletin, or some such, issued quarterly carrying news items, staff changes where appropriate, scientific articles, and similar matter as from time to time might be acceptable. Further, it was suggested that a leading article by some outstanding leprosy specialist should be a feature of each issue. The early issues would be in the nature of a mimeographed booklet until such time as a printed bulletin became feasible or desirable.

(9) Certain people were to be approached to undertake the work of promoting the national societies and the international association. It was further suggested that Dr. R. G. Cochrane be asked to act as Honorary Consultant.

## **The Tanzania National Leprosy Advisory and Co-ordinating Committee**

In July 1967 there was formed in Tanzania a National Leprosy Advisory and Co-ordinating Committee. For some years there has existed a Tanzania Christian Medical Association (T.C.M.A.), affiliating all the Christian Missions undertaking medical work—which naturally includes leprosy—throughout the country. As the primary objective of this Leprosy Committee was to foster co-operation between all these bodies and between them and the Government, it was deemed advisable that it should be, not a Government appointed body but a sub-Committee of the Tanzania Christian Medical Association on which Ministry of Health officials would sit *ex officio*. So with goodwill on all sides, this came about.

The German Leprosy Relief Association (D.A.H.W.) gave both moral support for the principle and a generous gift to cover the inevitable administrative expenses. Later, the Swedish-Norwegian Save the Children Fund, which is organizing a Leprosy Campaign in the West Lake Region of Tanzania, contributed a handsome donation.

The initial action has included: (1) the appointment, by the Government Regional Medical Officers, of Regional Leprosy Officers

in each of the 17 Regions in the country. The majority of these are Voluntary Agency doctors (it must be borne in mind that there is a great shortage of Government Medical Officers); and (2) the disbursement of financial assistance to 6 Missions to enable them to maintain and/or extend the leprosy control work in their Regions.

Of urgent concern is the need for more trained staff, and arrangements have been made to give all the leprologists in Tanzania a share in this task according to their particular interests. In addition, with the assistance of Dr. Luther Fisher and Mr. David Ward of ALERT, one of the leprosy centres is to run an elementary course in physiotherapy.

Hospital beds are provided for leprosy patients at all Government Hospitals, in particular in Dar es Salaam at the Muhimbili Hospital, with its attached medical school. There are special leprosy hospitals in 13 out of the 17 Regions (in 3 of the others the prevalence rate is very low). The leprosaria are now all institutions for the short-term care of acute or otherwise complicated cases. They deal with approximately 3000 cases annually.

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