

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.

John H. Hanks, Ph.D.
1985 Damien-Dutton Award Winner



Howard Crouch (l) presents Damien-Dutton Award to Dr. Hanks.

The Damien-Dutton Award winner for 1985 is John H. Hanks, Ph.D., of Baltimore, Maryland.

Born in Fowlerton, Indiana, Dr. Hanks graduated from Allegheny College with a B.S. in 1928. He accepted a scholarship in bacteriology at Yale University, graduating with a Ph.D. in 1931.

A research fellow from 1931–1932 at Harvard Medical School with Dr. Zinsser, Dr. Hanks' teaching career began at George Washington School of Medicine in 1932 and continued until 1939. During those years, Dr. Earl B. McKinley, Professor of Bacteriology and Dean (and also a member of the Leonard Wood Memorial Advisory Medi-

cal Board), persuaded Dr. Hanks to go to Cullion, The Philippines, with Dr. Wade to work on the microbiology of leprosy. For the next 37 years he was to work on this subject in the Leonard Wood Memorial Leprosy Research Laboratory.

In Cullion from 1939 through 1945, Dr. Hanks began his career work on the cultivation of *Mycobacterium leprae* in bacteriologic media and in cell cultures from leprosy patients. During this period he developed the now widely used Hanks "balanced salt solution." In 1945 Dr. Hanks returned to the United States, working initially with George Gey at Hopkins where they demonstrated the advantage of cultivating mammalian cells at lower than host temperatures, a technique which has been found useful in later attempts at the cultivation of *M. leprae* in cell cultures. From 1946–1959, the Leonard Wood Memorial Research Laboratory was at Harvard, where Dr. Hanks labored unsuccessfully to grow *M. leprae* in cell cultures but showed that limited growth of *M. lepraemurium* was possible in cell culture. In collaboration with Gray, he studied the metabolism of *in vivo*-grown *M. lepraemurium* and sponsored the work of Gray and Brodie on microbial oxidative phosphorylation.

Since 1959, Dr. Hanks has been Director of the Leprosy Research Laboratory in the Department of Pathobiology at The Johns

Hopkins School of Hygiene and Public Health in Baltimore. During these years, difficult-to-grow mycobacteria have been studied and insights gained in new approaches to the cultivation of *M. leprae*. In 1974–1975, with Dhople, Dr. Hanks confirmed that *M. lepraemurium* can initiate growth in the Nakamura system. Ultrasensitive determinations of ATP were applied to the study of the energetics of growth of host-dependent microbes.

A member of many scientific societies, Dr. Hanks has served in various capacities, including Consultant to the Pan-American Health Organization's Scientific Advisory Board, to the Regional Centre for Training and Research in Leprosy (Caracas), and to the World Health Organization's Scientific Review Committee, Training and Research in Tropical Medicine. Dr. Hanks has also served the International Leprosy Association as Councillor and Vice President.

A pioneer in leprosy research, a model of patient excellence in research for generations of leprosy workers, and the epitome of the fun that is science, John H. Hanks received the 1985 Damien-Dutton Award on 30 September at a one-day seminar on leprosy held at the Society's headquarters in Bellmore, New York. Our heartiest congratulations go to Dr. Hanks on this well-deserved honor.—RCH

Previous Recipients of the Damien-Dutton Award

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| 1953 Stanley Stein, U.S.A. | 1969 Dr. Victor George Heiser, U.S.A. |
| 1954 Rev. Joseph Sweeney, KOREA | 1970 Dr. Dharmendra, INDIA |
| 1955 Sister Marie Suzanne, FRANCE | 1971 Dr. Chapman H. Binford, U.S.A. |
| 1956 Perry Burgess, U.S.A. | 1972 Dr. Patricia Smith, VIETNAM |
| 1957 John Farrow, U.S.A. | 1973 Dr. Jacinto Convit, VENEZUELA |
| 1958 Sister Hilary Ross, U.S.A. | 1974 Dr. José N. Rodriguez, PHILIPPINES |
| 1959 Dr. H. Windsor Wade, PHILIPPINES | 1975 Dr. Oliver Hasselblad, U.S.A. |
| 1960 Mgr. Louis Joseph Mendelis, U.S.A. | 1976 Dr. Yoshio Yoshie, JAPAN |
| 1961 Dr. Kensuke Mitsuda, JAPAN | 1977 Drs. Paul and Margaret Brand, U.S.A. |
| 1962 Rev. Pierre de Orgeval, FRANCE | 1978 Dr. Fernando Latapi, MEXICO |
| 1963 Eunice Weaver, BRAZIL | 1979 Dr. Stanley G. Browne, U.K. |
| 1964 Dr. Robert G. Cochrane, U.K. | 1980 Robert Watelet, ZAIRE |
| 1965 John F. Kennedy, U.S.A. (Posthumous) | 1981 American Leprosy Missions, U.S.A. |
| 1966 Peace Corps, U.S.A. | 1982 Dr. Ma Haide, PEOPLE'S REPUBLIC OF CHINA |
| 1967 Dr. Howard A. Rusk, U.S.A. | 1983 Murlidhar Devidas Amte (Baba Amte), INDIA |
| 1968 Dr. Franz Hemerijckx, BELGIUM | 1984 Mother Teresa, INDIA |

Belgium. *Luxembourg Award to Pierre Van den Wijngaert.* On the occasion of the recent meeting of the International Federation of Anti-Leprosy Associations (ILEP) in Luxembourg, the Minister of State Mr. Jacques Santer presented Pierre Van den Wijngaert with the Ordre du Mérite du Grand-Duché de Luxembourg in recognition of his long and distinguished contribution to the fight against leprosy. Mr. Wijngaert was founder of the Belgian association les Amis du Père Damien, and he has been General Secretary of ILEP since its founding in 1966.—Lepr. Rev.

India. *Center for Social Science Research and Development in Leprosy.* The Center for Social Science Research and Development in Leprosy established by the Gandhi Memorial Leprosy Foundation (GMLF) at its Wardha Campus began functioning on 2 September 1985.

The center proposes to initiate research in social science areas with a view to promote efficient functioning of leprosy control programs. Some of the priority research areas are: health services research in multidrug therapy; perception studies of patients, community, and health workers about leprosy problems; nature of the extent of social stigma; evaluation of health education programs; integration of leprosy control work in primary health care. The center will also organize workshops on social science research methodology for leprosy workers at Wardha and other institutions and offer guidance to researchers at other institutions in designing research projects.

Professor P. K. Mutatkar, Medical Anthropologist from Poona University, has joined the center as research advisor. The center would welcome suggestions and comments about social science research issues in leprosy from individual scholars and institutions. Those interested in pursuing research in their own institution or on behalf of the center should contact Prof. Mutatkar.

The GMLF has formed a Social Science

Advisory Panel of eight experts to give guidance to the center. The panel includes a leprologist, a leprosy worker, an educator, a communications expert, two anthropologists, and two sociologists.

For details, contact Shri S. P. Tare, Director, Gandhi Memorial Leprosy Foundation, Wardha 442103, India.—S. P. Tare

Switzerland. *TDR leprosy workplans.* A "special" issue of the TDR Newsletter is devoted entirely to the various Special Programme for Research and Training in Tropical Diseases (TDR) Components' workplans, which indicate the current priorities of the Programme's Scientific Working Groups and Research Strengthening Group.

Research under the Programme is conducted by TDR's Scientific Working Groups (SWGs), which are responsible for planning, implementing and evaluating progress in research related to their Component. Clearly, TDR cannot pursue all desirable lines of research, and the SWGs therefore establish specific goals and priorities and undertake the different tasks needed to achieve them. The SWGs' activities are managed by SWG Steering Committees, whose tasks include planning activities, reviewing progress and assessing research proposals submitted by scientists for funding under the Programme. This assessment is based on the relevance of the proposal to the Component's stated workplans and objectives and on its scientific merit. The Steering Committees continuously reassess progress in research in light of current knowledge, and the workplans are thus subject to periodic revision to reflect changing priorities.

The following TDR workplans in leprosy (summarized in Tables 1 and 2), listed by Component, identify the current topics and activities which have been selected for further support. Those wishing to submit proposals for TDR support should, therefore, ensure that they fall within the scope of the appropriate workplan.—(From TDR Newsletter, No. 22, August 1985)

TABLE 1. *Workplan for immunology of leprosy.*

| Objectives | Plans | Activities |
|--|---|--|
| To develop vaccines | To supply and purify <i>M. leprae</i> from armadillos | Maintenance of armadillo colonies for production of <i>M. leprae</i> in large quantities Identification of optimal time for sacrificing armadillos with maximum yields of <i>M. leprae</i> Improvement of purification procedures to remove contaminants such as pigments Extraction procedures for obtaining <i>M. leprae</i> from tissues with low counts |
| | To produce <i>M. leprae</i> antigens by genetic engineering | Cloning of <i>M. leprae</i> DNA and construction of DNA bank Expression of DNA genes in new host microorganisms for application in diagnostic and immunization studies |
| | To perform antigenic analysis | Development of semisynthetic antigens based on phenolic glycolipid-I Development of monoclonal antibodies for antigen detection, seroepidemiology and standardization of reagents Detection of antigens identified by FLA-ABS test |
| | To conduct animal studies | Animal protection studies using different antigen preparations Influence of UV irradiation of antigen preparations on skin tests and immunization Mechanisms of <i>in vivo</i> killing and degradation of <i>M. leprae</i> |
| | To conduct human vaccine trials | Phase I studies with vaccine preparations to study dose, duration and side effects in nonendemic and endemic areas Sensitization studies in lepromatous patients following vaccination Immunotherapy in combination with chemotherapy among lepromatous patients Immunoprophylaxis studies in high-risk groups and others under different conditions |
| To understand how best to use vaccines | To conduct epidemiological studies | Study of natural history of <i>M. leprae</i> infection and risk factors for transmission Study of genetic determinants of disease Development of vaccine application strategies |
| To develop improved serodiagnostic tests | To conduct research on immunodiagnosis | Development of simple, specific and standard serological tests Exchange of monoclonal antibodies and characterized sera through serum bank |
| To improve understanding of pathology of disease | To conduct research on immunopathology | Elucidation of immune regulatory disturbances (suppressor cells, immune complexes, etc.) and mechanisms of nerve damage |

TABLE 2. *Workplan for chemotherapy of leprosy.*

| Objectives | Plans | Activities |
|---|--|--|
| To develop new drugs | To conduct research on synthesis and screening | Studies on quinolones, ansamycins, oral cephalosporins, etc. |
| | To develop rapid <i>in vitro</i> methods for screening drugs, including potentially feasible methods for cultivation of <i>M. leprae</i> | Improvement of rapidity, sensitivity, and specificity of <i>in vitro</i> drug screening systems |
| | To conduct metabolic and biochemical studies on <i>M. leprae</i> | Identification of metabolic pathways |
| | To conduct molecular biology research on <i>M. leprae</i> | Expression of <i>M. leprae</i> DNA genes in <i>E. coli</i> and <i>Streptomyces</i> for application to drug screening |
| To improve the use of existing drugs | To conduct controlled clinical trials in lepromatous leprosy | Using results of previous studies, identification of regimens of much shorter duration; evaluation of validity of new regimens through laboratory studies and small-scale clinical trials |
| | To conduct short-term trials in lepromatous leprosy | Elucidation of killing effects of thioamide, rifampin, and clofazimine used individually in different dosages |
| | To conduct field trials of multidrug therapy (MDT) in lepromatous leprosy | Elucidation of efficacy, acceptability, and operational feasibility of MDT regimens in field conditions |
| | To conduct field trials of MDT in nonlepromatous leprosy | Evaluation of the impact of MDT on the transmission of leprosy |
| To develop immunotherapy of leprosy | To conduct immunotherapy trials | Determination of the ability of various vaccine preparations to produce skin-test reactivity in lepromatous leprosy patients Exploration of the effectiveness of immunotherapy combined with intensive chemotherapy in the treatment of lepromatous leprosy |
| To develop new approaches for monitoring chemotherapy | To use nude mice to detect persistent viable <i>M. leprae</i> | Experimental and clinical studies |
| | To detect phenolic glycolipid-I antigen in blood and tissue as an index of active infection | Comparison of effectiveness in detecting early relapse with routine techniques such as skin smears |
| | To improve methods of determining the viability of <i>M. leprae</i> | Assessment of ELISA and immunofluorescent techniques |

U.K. Histopathology services for developing countries. For the last 15 years, the Department of Histopathology at St. Thomas' Hospital has provided a free, postal, diagnostic service for a number of hospitals, both government and mission, in developing countries. It was originally envisaged that the need for such services would decrease as they were built up locally. For a variety of reasons, differing from country to country, this has not happened and the need is still there and likely to continue. To meet these problems and to provide histopathological expertise in parasitic, communicable, and other tropical diseases in the U.K., a consultant histopathologist post has been created jointly with the London School of Hygiene and Tropical Medicine and University College Hospital Medical School. This post has been filled by the appointment of Dr. S. B. Lucas, who has spent two of the last four years in this unit and who is keen to maintain or increase diagnostic services, including leprosy histopathology. Specimens should be sent to Dr. S. B. Lucas, Department of Histopathology, School of Medicine, University College of London, University Street, London WC1, England.—Lepr. Rev.

U.S.A. Post-doctoral fellowship available. The Leonard Wood Memorial (American

Leprosy Foundation) announces the availability of fellowship awards in the field of leprosy research. The fellowship will be awarded in an area of basic research which has some potential clinical application. The funding period is 2 years at \$30,000 per year (i.e., \$25,000 research, stipend, supplies/equipment and \$5,000 travel).

Applicants should be aware that the Leonard Wood Memorial Center for Leprosy Research in Cebu, Republic of the Philippines, represents a unique resource of the funding agency. Programs at the Cebu facility emphasize clinical and pathological investigation, clinical trials, and epidemiologic research. The intent of the research award, accompanied by a substantial travel allowance, is to attract the interest of training programs where newly developed clinical, diagnostic, therapeutic, or epidemiologic tools can be evaluated and then utilized in a practical manner at the Cebu facility. The application of some phases of the technique must involve visits of suitable length by the fellow to the laboratory in Cebu. During these visits the fellow will be personally involved in developing his/her research project.

Letters of intent should be directed to: Michael W. Delaney, Director, Leonard Wood Memorial (American Leprosy Foundation), 11600 Nebel Street, Rockville, Maryland 20852, U.S.A.