

Reflections on the International Leprosy Congresses and Other Events in Research, Epidemiology, and Elimination of Leprosy

THE FIRST ERA THE SCIENTIFIC ERA BEGINS

1873

The scientific era of leprosy began in 1873 when Gerhard Armauer Hansen (Fig. 1) published his observation of *Mycobacterium leprae* in materials from leprosy patients.¹ The principal opposition to Hansen's view that leprosy was an infectious disease came from Daniel Cornelius Danielssen (his father-in-law) (Fig. 2) and Carl Wilhelm Boeck (Fig. 3) in "Traité de la Spedalskhed ou Elephantiasis des Grecs" (Fig.

4)² who considered it a hereditary disease. This book was the standard reference book on leprosy from 1848 until the death of Danielssen in 1895.

1897

The I International Conference about Leprosy was held in Berlin.³ Rudolf Virchow (Fig. 5) is President; Hansen and Lassar are Vice-Presidents. There were 180 participants at the Congress. William II, Emperor of Germany and King of Prussia, with the Empress, gave a reception at the new palace at Potsdam, and both personally greeted each member of the Congress. The first resolution of the Congress was to create an international society against leprosy. A resolution was put forth to follow the experience of Norway in compulsory isolation

¹ Hansen, G. A. and Loft, C. "Leprosy." Bristol: John Wright, 1895.



FIG. 1. Gerhard Armauer Hansen.

² Danielssen, D. C. and Boeck, C. M. "Traité de la Spedalskhed ou Elephantiasis de Grecs." Bergen: Ed. D. Bayer, 1847.

³ Darier, J. Compte rendu des travaux de la conference internationale de la lèpre. Ann. Dermatol. Syphilogr. 7 (1897) 1149-1163.



FIG. 2. Daniel Cornelius Danielssen.

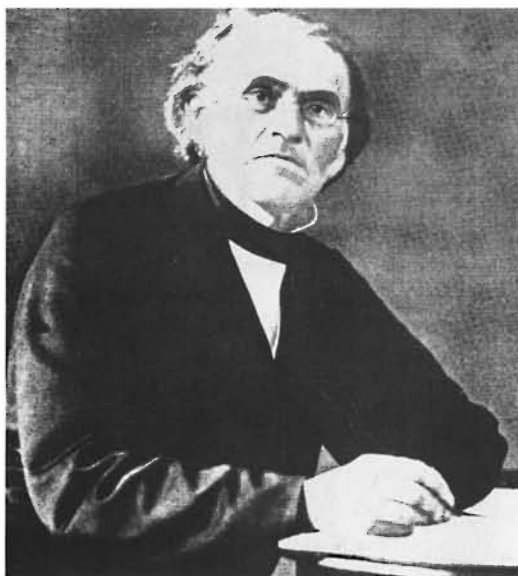


FIG. 3. Carl Wilhelm Boeck.



FIG. 5. Rudolf Virchow.

Noter

TRAITÉ

DE LA

SPÉDALSKHED

OU

ÉLÉPHANTIASIS DES GRECS,

PAR

D.-C. DANIELSSEN, *Médecin en chef des hôpitaux de spécialités, à Bergen.* | WILHELM BOECK, *Professeur de la Faculté de Médecine, à Christiania.*

Ouvrage publié aux frais du Gouvernement Norvégien.

TRADUIT DU NORVÉGIEN, SOUS LES YEUX DE M. D. DANIELSSEN,

PAR

X.-A. COSSON (DE NOGARET).

Avec un atlas de 24 planches coloriées.

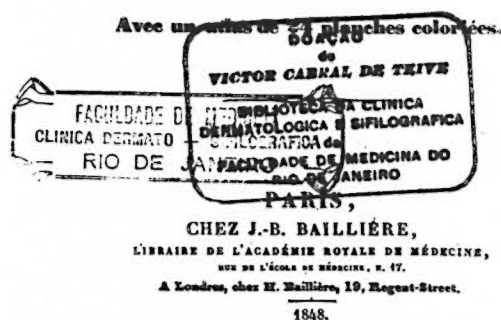


FIG. 4. Title page of 1848 book by Danielssen and Boeck.

of patients. Hansen explains that in 1856 there were 2839 patients and following the policy of isolating known cases the numbers of patients had decreased to 321 by 1895. Leprosy is considered a disease produced by a microorganism; it is not hereditary; and it is possible to prevent it.⁴ Schafer established that a leprosy patient, when speaking, sends up to 150,000 bacilli into his environment at a distance of 1.5 meters.

1909

The II International Conference about Leprosy was held in Bergen (Fig. 6). G. A. Hansen is the President. Segregation of leprosy patients is still recommended as well as mandatory reporting of new cases. Marriage of leprosy patients is allowed only after vasectomy.

1923

The III International Conference about Leprosy is held in Strasbourg. The President is Edouard Jeanselme (Fig. 7). It was felt that the segregation of patients has to be humanitarian and has to allow the leprosy sufferers to be near their families, if this is compatible with an efficient treatment.

1926

After long discussions on language priority, it is decided that a leprosy journal

⁴ Besnier, E. Role étiologique de l'hérédité et de la transmissibilité dans la production de la lèpre. Rapport présenté à la Conférence de la Lèpre, Berlin, Octobre 1897. Ann. Dermatol. Syphilogr. 7 (1897) 1164-1172.



FIG. 11. Victor George Heiser.



FIG. 12. Maximiliano Aberastury.



FIG. 13. Insignia of the newly formed International Leprosy Association.

would be established, *Lepra (Biblioteca Internationalis)*, and that it would be published in Manila (Hans Peter Lie and Herbert Windsor Wade, Figs. 8 and 9, respectively) and also in London, New York

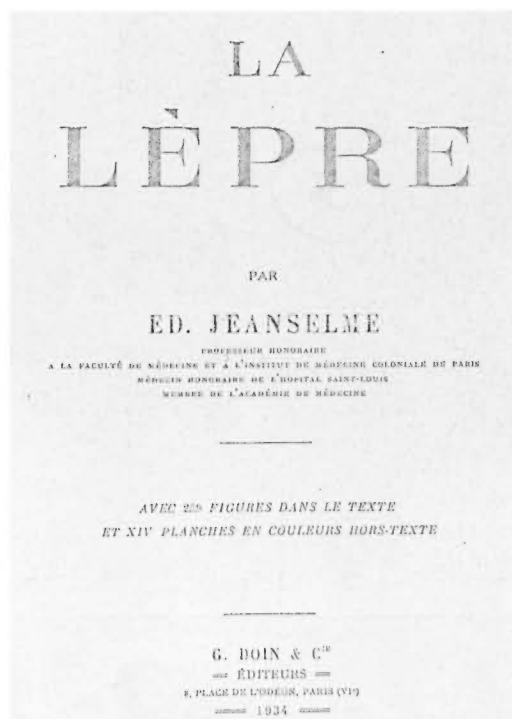


FIG. 14. Title page of 1934 Jeanselme book.

and Paris. Among the contributing editors of *Lepre* was Pedro Luis Baliña of Argentina (Fig. 10). A Société Internationale de Leprologie is founded. The President is E. Jeanselme; the Vice-President is Victor George Heiser (Fig. 11). Among the ten Honorary Presidents is Maximiliano Aberastury of Argentina (Fig. 12).

1931

The International Leprosy Association (Fig. 13) is founded with new bylaws in Manila. The President is V. Heiser; the Secretary is Robert Greenhill Cochrane.

1934

"La Lèpre" by E. Jeanselme was the last book of leprology which was predominantly francophone (Fig. 14).

1938

The IV International Congress of Leprosy was held in Cairo (Fig. 15). King Farouk opens the sessions. Egypt is the country that provides the seeds of chaulmoogra, the only therapy of leprosy for centuries. The Indian-



FIG. 15. IV International Congress, Cairo, 1938. Included in this picture of some attendees are the Argentinians J. M. Fernández (1), Mrs. J. M. Fernández (2), Mrs. G. Basombrio (3), Mrs. P. Baliña (4) [in front and to her right, her son, Luis M. Baliña], G. Basombrio (5) and Dr. Migone (6) of Paraguay.



FIG. 16. Jose Maria Manuel Fernández:

European classification faces the South American classification with its indeterminate clinical form. The approved clinical forms are L1, L2, L3, N1, N2, N3.

1939

Jose Maria Manuel Fernández (Fig. 16) publishes the "Princeps" paper about BCG

in leprosy.⁵ He recommends that leprosy contacts who are anergic to leprolin be vaccinated with BCG in an effort to prevent the disease. He points out that the Mitsuda reaction can be positive in individuals who have not been exposed to *M. leprae* and, in that sense, is not specific for leprosy.

1947

Cochrane's first edition of "Leprosy in Theory and Practice" becomes the standard reference book on leprosy (Fig. 17).

THE SECOND ERA THE AGE OF CHEMOTHERAPY

1948

The V International Congress of Leprosy was held in Havana⁶ (Fig. 18). The Presi-

⁵ Fernández, J. M. M. [Comparative study of the Mitsuda and tuberculin reactions.] *Rev. Argent. Dermatofisiol.* 23 (1939) 425-453.

⁶ Memoria del V Congreso Internacional de la Lepra Celebrado en La Habana del 3-11 de Abril de 1948.

OXFORD MEDICAL PUBLICATIONS

A PRACTICAL TEXTBOOK OF LEPROSY

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1947

FIG. 17. Title page of 1947 Cochrane standard reference book on leprosy.

dent of the Congress was A. Oteiza Setien, and the President of the International Leprosy Association was H. W. Wade. With the



FIG. 19. Guy Henry Faget.

discovery of sulfones⁷ by Guy Henry Faget, *et al.* (Fig. 19) at Carville, leprosy enters the age of chemotherapy. Stanley Stein (Fig. 20), *The Star's* founder/editor, starts a unique campaign at Carville to promote an educated public opinion about Hansen's disease (HD).

1953

The VI International Congress was held in Madrid⁸ (Fig. 21). The President of the

⁷ Faget, G. H., Pogge, R. C., Johansen, R. A., Dinan, J. F., Prejean, B. M. and Eccles, C. G. Promin treatment of leprosy; progress report. *Pub. Health Rep.* 58 (1943) 1729-1741.

⁸ Memoria del VI Congreso Internacional de Leprologia (Madrid), 1953.

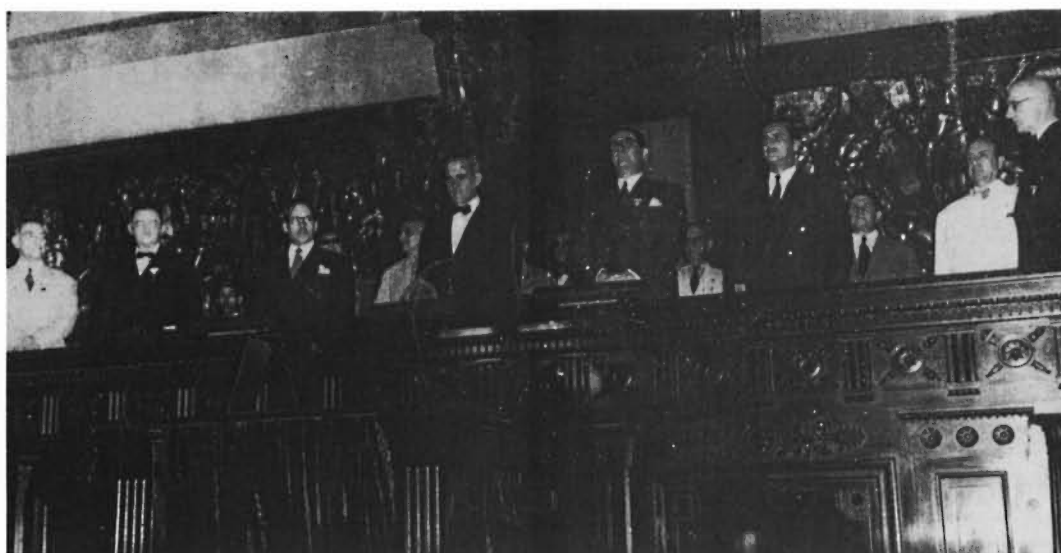


FIG. 18. V International Congress, Havana, 1948.



FIG. 20. Stanley Stein.



FIG. 22. Felix Contreras Dueñas.

International Leprosy Association was H. W. Wade. The Coordinator of the local Commission was Felix Contreras Dueñas (Fig. 22). Thiosemicarbazone appears as a second chemotherapy agent. BCG is recommended. Leprosaria have to be replaced by outpatient clinics. The official classification which was approved is indeterminate, tuberculoid, dimorphous, and lepromatous.

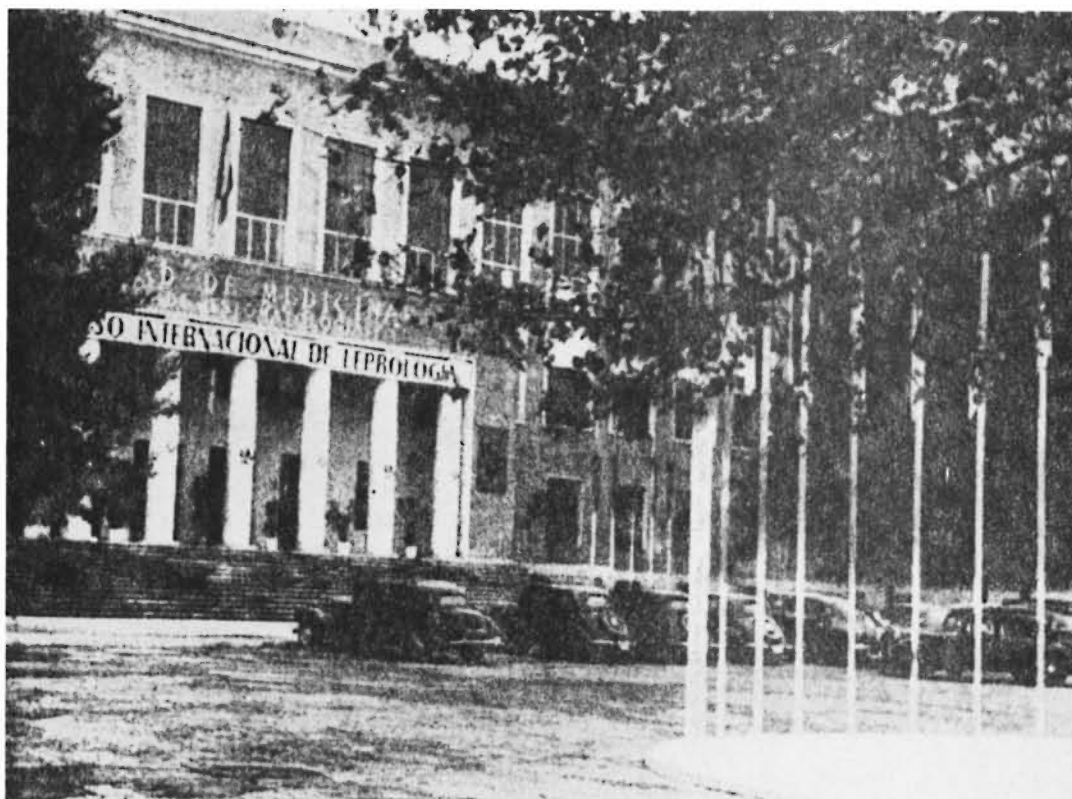


FIG. 21. VI International Congress, Madrid, 1953.



FIG. 23. VII International Congress, Tokyo, 1958.



FIG. 24. Fernández explains his theory of the interrelationship of leprosy and tuberculosis at the Tokyo Congress.

1958

The VII International Leprosy Congress was in Tokyo⁹ (Fig. 23). It is necessary to end the practice of compulsory isolation of leprosy patients and to avoid the institu-



FIG. 25. Charles C. Shepard.

tionalization of patients' children. J. M. Fernández,⁵ President of the International Leprosy Association, explains his early passion for BCG and the inter-relationship of leprosy and tuberculosis (Fig. 24).

1960

Charles C. Shepard (Fig. 25) reports the multiplication of *M. leprae* in the mouse foot pad.¹⁰

⁹ Transactions of the VIIth International Congress of Leprology (Tokyo), 1958.

¹⁰ Shepard, C. C. The experimental disease that follows the injection of human leprosy bacilli into foot pads of mice. *J. Exp. Med.* **112** (1960) 445-454.

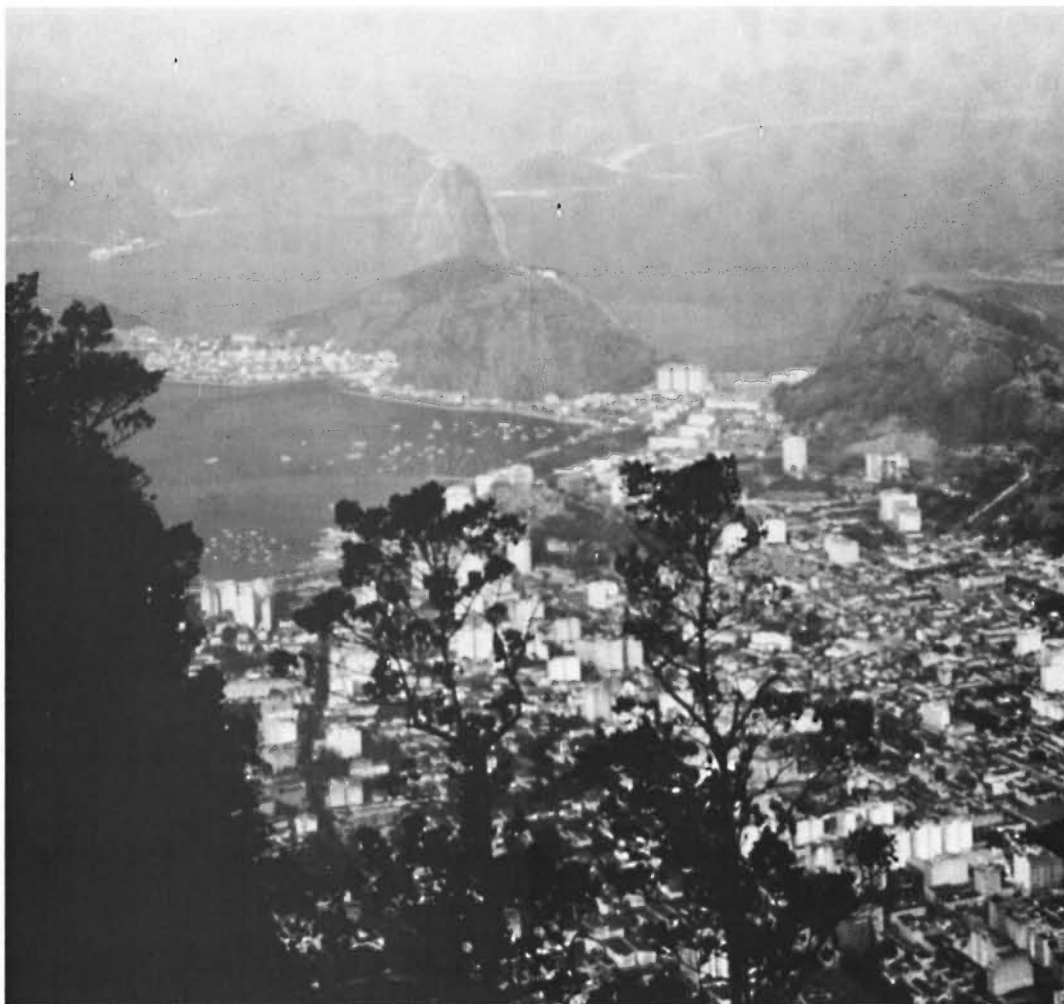


FIG. 26. VIII International Leprosy Congress, Rio de Janeiro, 1963.

1963

The VIII International Leprosy Congress was held in Rio de Janeiro¹¹ (Fig. 26). Leprosy is to be considered a disease like all others. The term "leper" has to be eliminated. Social rehabilitation has to be done in the patient's home by an interdisciplinary medical and paramedical team inspired by the leprologist. John H. Hanks considers *M. leprae* a challenge because Koch's postulates have not been fulfilled.

¹¹ Memórias del VIII Congreso Internacional de Lepra (Rio de Janeiro), 1963.

1966

Dennis S. Ridley and William H. Jopling put forth a classification^{12, 13} for research purposes: LL, LI, BL, BB, BT, TT (and Indeterminate) or L.L., L.I., B.L., B.B., B.T., T.T. (and Indeterminate).

¹² Ridley, D. S. and Jopling, W. H. A classification of leprosy for research purposes. *Int. J. Lepr.* **33** (1962) 111–130.

¹³ Ridley, D. S. and Jopling, W. H. Classification of leprosy according to immunity; a five-group system. *Int. J. Lepr.* **34** (1966) 255–270.



FIG. 27. IX International Leprosy Congress, London, 1968.



FIG. 28. Paul W. Brand.

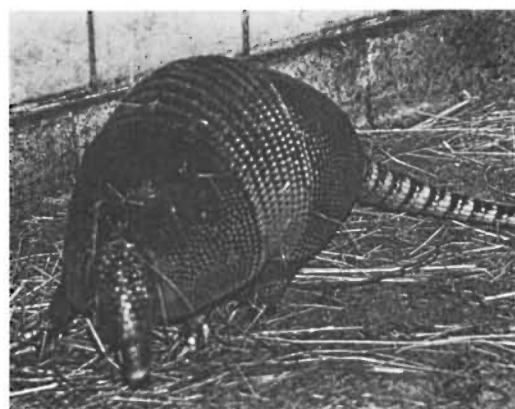


FIG. 29. The armadillo (*Dasypus novemcinctus*).

THE THIRD ERA PHYSICAL, PSYCHOLOGICAL, SOCIAL, AND ECONOMIC REHABILITATION

1965

Jacob Sheskin reports thalidomide is effective in type 2 leprosy reactions (erythema nodosum leprosum).¹⁴

¹⁴ Sheskin, J. Thalidomide in the treatment of leprosy reactions. *Clin. Pharmacol. Ther.* 6 (1965) 303–306.

1968

The IX International Leprosy Congress was in London (Fig. 27). Paul Brand (Fig. 28) made the point that physical rehabilitation is now a “must” in leprosy treatment. In the field of psychological rehabilitation, Oliver W. Hasselblad points out that prejudice is worse than ignorance. Thomas F. Frist performed exemplary work with SOR-



FIG. 30. X International Congress, Bergen, 1973.

RI on labor, economic and social rehabilitation while at Bauru, Brazil. Important news about the inoculation of *M. leprae* in the thymectomized and irradiated mouse is given by Richard J. W. Rees.¹⁵ Shepard¹⁶ determines the efficacy of drugs and evaluates therapies in the foot pads of normal mice.

1971

The armadillo (Fig. 29) is reported to be susceptible to disseminated infection with leprosy bacilli by Waldemar F. Kirchheimer and Eleanor E. Storrs.¹⁷



FIG. 31. Chapman Hunter Binford.

¹⁵ Rees, R. J. W. Recent bacteriologic, immunologic and pathologic studies on experimental human leprosy in the mouse foot pad. *Int. J. Lepr.* 33 Part 2 (1965) 646-657.

¹⁶ Shepard, C. C. Considerations of the application of the foot pad technic in leprosy research. *Int. J. Lepr.* 33 Part 2 (1965) 657-661.

¹⁷ Storrs, E. E. The nine-banded armadillo; a model for biochemical research. Reprinted from: *The Laboratory Animal in Drug Testing; 5th Symposium of the International Committee on Laboratory Animals, Hannover, 19-21 September 1972*. Spiegel, A., ed. Stuttgart: Fischer, 1973.

1973

The X International Leprosy Congress is in Bergen¹⁸ (Fig. 30). One hundred years after the discovery of *M. leprae*, the armadillo is presented as an animal model that is affected more seriously than human beings (Storrs). With the introduction of ri-

¹⁸ Program of the X International Leprosy Congress (Bergen), 1973.

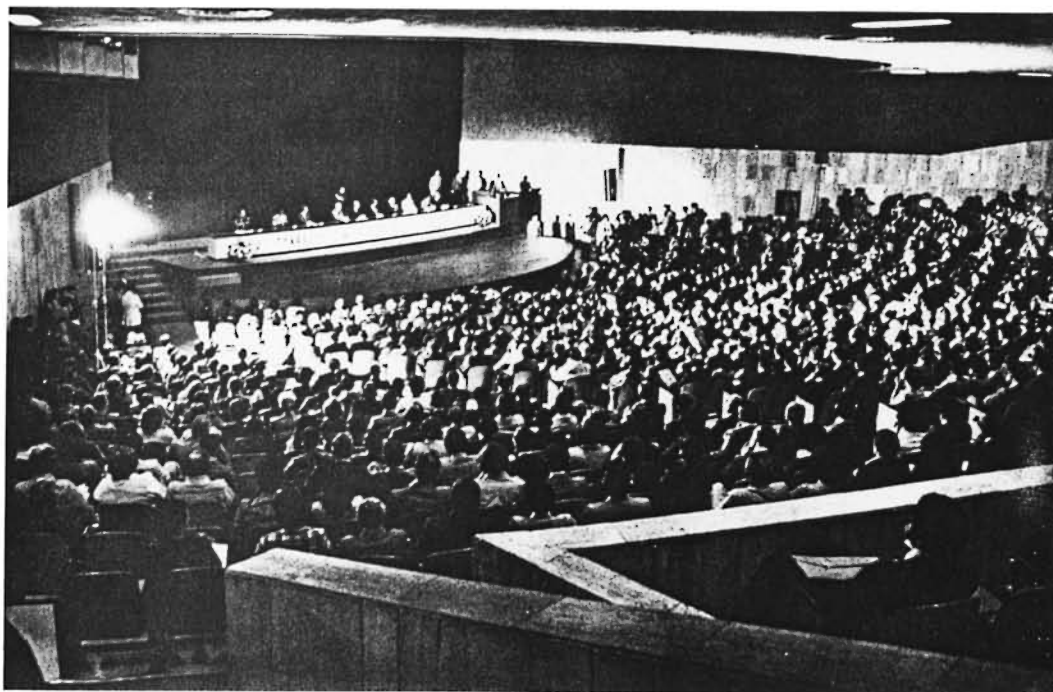


FIG. 32. XI International Congress, Mexico City, 1978.



FIG. 33. XII International Congress, New Delhi, 1984.



FIG. 34. Mother Teresa.

fampin and clofazimine, multidrug therapy (MDT) is born. And with thalidomide (Sheskin), type 2 leprosy reaction (erythema nodosum leprosum) now has an effective treatment.

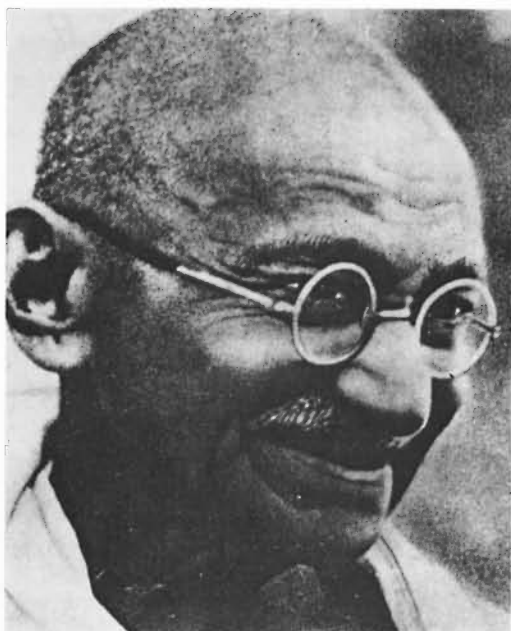


FIG. 35. Mahatma Gandhi.

Leprosy

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CHURCHILL LIVINGSTONE

EDINBURGH LONDON MELBOURNE AND NEW YORK 1985

FIG. 36. Title page for "Leprosy," edited by Robert C. Hastings.

1975

Chapman Hunter Binford (Fig. 31) recounts a century of research for an experimental model for leprosy.

1978

The XI International Leprosy Congress is held in Mexico (Fig. 32). The President of



FIG. 37. M. M. Gimenez.



FIG. 38. XIII International Congress, The Hague, 1989.

the International Leprosy Association is Jacinto C. Convit.¹⁹ Leprosy, perhaps for the first time, is entering into the mainstream of medical research. In immunology, for instance, viable BCG plus heat-killed *M. leprae* is useful for leprosy patients and their contacts (Convit). The rights of the children of leprosy patients to have a normal life was expressed once more.²⁰

1984

The XII International Leprosy Congress is in New Delhi (Fig. 33). Important Indian research work is recognized. The ICRC and the "*Mycobacterium w*" vaccines are promising. Mother Teresa (Fig. 34) asks the members of the Congress to cure patients and to pray for them. Mahatma Gandhi (Fig. 35) was very fond of nursing leprosy pa-



FIG. 39. Michel F. Lechat.

¹⁹ Convit, J., Aranzazu, N., Ulrich, M., Zuniga, M., de Aragon, M. E., Alvarado, J. and Reyes, O. Investigations related to the development of a leprosy vaccine. *Int. J. Lepr.* **51** (1983) 531-539.

²⁰ Resolution of the XI International Congress of Leprosy about children who are related to leprosy patients and are still discriminated against.

tients. On one occasion he was invited to speak at the inauguration of a new hospital for leprosy patients, and he expressed his feeling that he would be much happier if he had been invited to the closure of a leprosy



FIG. 40. XIV International Congress, Orlando, 1993.

hospital. Now the Gandhi Leprosy Memorial continues his work.

1985

Robert C. Hastings's edition of "Leprosy" becomes the new reference book to study the disease (Fig. 36).

1987

M. M. Gimenez (Fig. 37) and R. Waisman²¹⁻²⁴ report bacillema in leprosy patients, contacts, and healthy medical and paramedical workers.

²¹ Gimenez, M. M. and Waisman, R. Bacteremia en lepra. *Rev. Argent. Microbiol.* (in press).

²² Waisman, R. Bacilemia e índice de infección subclínica. *Actas Dermatofiligr. Acad. Espan. Dermatol.* 78 Suppl. 1 (1987).

²³ Gimenez, M. M. and Waisman, R. Comentarios sobre la lepra preclínica. Paper which was awarded the Padre Fermin Arnau, Obra de San Lázaro, Academia Nacional de Medicina Prize in 1988.

²⁴ Waisman, R. Estudios de la bacilemia en pacientes de lepra bacteriológicamente negativos y en convivientes sanos. *Bioquim. Chaquena* 2 (1991) 21-26, 28.

1989

The XIII International Leprosy Congress is in The Hague (Fig. 38). The President of the International Leprosy Association is Michel F. Lechat (Fig. 39). BCG is considered a useful tool in the prevention and treatment of leprosy, probably even more useful than in tuberculosis. There is a vast amount of experience with BCG, the vaccine having been administered to 2 billion people worldwide. MDT is winning the first battles.

1993

S. K. Noordeen,²⁵ Chief of the Leprosy Section of the World Health Organization (WHO), reports that 4,600,000 patients have been treated with MDT from the pool of 5,000,000 registered patients. These figures are eloquent about the strategy that has been chosen to obtain the goal of eliminating leprosy as a major public health problem by

²⁵ Noordeen, S. K., personal communication, 1993.

the year 2000. Elimination as a major public health problem is not eradication of the disease, but is defined as maintaining a prevalence rate (leprosy patients requiring chemotherapy) of less than 1 per 10,000 inhabitants. The leprosy team is not to be dissolved, and we must not give up fighting the disease.

1993

The XIV International Leprosy Congress is held in Orlando (Fig. 40). The President of the International Leprosy Association is Wayne M. Meyers (Fig. 41). WHO believes leprosy can be eliminated as a major health problem by the year 2000.

In summary, the International Leprosy Congresses are a useful and indispensable forum to provide an opinion of peers as to the validity or fault of the results of study and research in leprosy. There is no comparable opportunity for a collective approval or disapproval of the results of one's personal work in the field, especially an opportunity to discuss work that has been published in those journals dealing predominantly with leprosy, the *International Journal of Leprosy*, *Leprosy Review*, the *Indian*



FIG. 41. Wayne M. Meyers.

Journal of Leprosy, *Revista de Leprologia Fontilles*, and *Acta Leprologica*.

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