

## OBITUARY

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1907–1983

## In Appreciation of 50 Years Dedicated to Research in Leprosy



In an editorial entitled, "The International Leprosy Association at 50 Years" [IJL 49 (1981) 60–64], Lechat stated that the International Leprosy Association (ILA) "was born as an outcome of a

conference in 1931 organized in Manila by the Leonard Wood Memorial for the Eradication of Leprosy" (LWM). The INTERNATIONAL JOURNAL OF LEPROSY (IJL) also was born at that conference. The Manila conference introduced an era of 50 years in which scientists in the Philippines made major contributions to the science and practice of leprology.

Outstanding among these scientists were H. Windsor Wade and Jose N. Rodriguez who led the fresh approach to the study of leprosy that produced the eagerness for scientific investigation that was prevalent in Cebu in 1933 when Ricardo S. Guinto, a recent graduate in medicine and public health, was selected by James A. Doull, Professor of Public Health and Hygiene at Western Reserve University in Cleveland, to assist him in a long-range epidemiologic survey of leprosy in Cebu.

To better appreciate the roles of Wade and Rodriguez in laying the foundation for Guinto's successful career in epidemiology, brief résumés of their activities are needed.

Wade, born in the United States, emigrated in 1916 to the Philippines where he worked until his death in 1968. In 1922, at the earnest request of Major General Leonard Wood, Governor General of the Philippines, Wade left his position as Head of

Pathology and Bacteriology, College of Medicine and Surgery, University of the Philippines, to become Acting Chief Physician of the Culion Sanitarium where 7000 patients with leprosy were segregated. He encouraged his wife, Dorothy Wade, to lead fund raising for leprosy research in the United States. When the Leonard Wood Memorial (LWM) was chartered in 1928, Wade was appointed Medical Director. He established the LWM Research Laboratory at the Leprosy Sanitarium on Culion, a remote island 200 miles southwest of Manila.

Rodriguez, after two years as a medical resident at the Philippines General Hospital, was selected in 1922 to join Wade in upgrading the medical care at Culion. This began his 60-year career in leprosy, including clinical, epidemiologic, research, control, and administrative aspects. In 1931, the LWM, impressed by Rodriguez' epidemiologic work in Cebu, provided him with a fellowship to the Johns Hopkins School of Hygiene and Public Health where he earned the M.P.H. degree. Rodriguez, representing the Leprosy Section of the Philippine Bureau of Health, was the cornerstone on which the LWM built a successful leprosy research program in Cebu.

The selection of Cebu grew out of the interest of Mr. Perry Burgess, Director of the LWM, in advancing the clinical and control programs that Rodriguez had started there. Doull, as a member of the LWM Advisory Committee, had met Rodriguez when he was at Johns Hopkins in 1931. Rodriguez had agreed to join him in the total population study under consideration.

The epidemiologic study, funded by the LWM, was a collaborative project, with Doull representing Western Reserve University and Rodriguez representing the Phil-

ippine government. Doull had made a fortunate decision when he selected Cebu as the location of the survey. It was here that Rodriguez had pioneered in searching for patients with early lesions. Doull also wisely selected Guinto, a young medical graduate, who was destined to become an international leader in the epidemiologic study of leprosy.

The survey, initiated in mid-1933, was centered in the municipality of Cordova on Mactan Island, a short distance by water from Cebu City. The local authorities made available an empty schoolhouse to which was affixed a sign, CEBU SKIN DISPENSARY, CORDOVA UNIT. The program for the Cordova Survey included 1) a household-to-house census of inhabitants, 2) a detailed sanitary and sociological survey, 3) physical examination of each inhabitant for leprosy and other diseases, and 4) epidemiologic investigation of the known cases of leprosy. Guinto became responsible for the day-to-day operations of the survey.

A report of this survey was made in 1936<sup>(1)</sup>. As a result of a carefully planned public relations program, 5957 (98.3%) of the inhabitants of Cordova had come voluntarily for examination. To fully appreciate the depth of this survey, one must read this report, and its follow-up in 1938<sup>(2)</sup>.

Encouraged by the success of the Cordova program, Doull, Guinto, and Rodriguez extended the field study of leprosy to Talisay, a municipality south of Cebu City, where 10,598 persons from a census of 10,672 were examined. The procedures were similar to those used in Cordova. The field work was carried out in 1936 and 1937, and the survey was reported in 1941<sup>(3)</sup>.

Because of Guinto's excellent performance under Doull and Rodriguez in the field studies in Cordova and Talisay, the LWM provided him a fellowship to the Johns Hopkins School of Hygiene and Public Health. Guinto was awarded the M.P.H. degree from the school in 1940.

In 1942, the military invasion interrupted all field activities. Guinto successfully preserved, in a cave, all of the records of the survey, and after the war, survey activities were resumed. In 1954, based on the studies of Cordova for 15 years and Talisay for 14 years, the trend of leprosy in Cebu was reported by Guinto and associates<sup>(4)</sup>.

The surveys of a total population for leprosy, started in Cordova in 1933 and Talisay in 1936, provided the data for studies that yielded 19 papers with focus on some aspect of the epidemiology of leprosy.

Guinto's epidemiology, therefore, was not a desk operation handling data and statistics furnished by other field workers. He had personally obtained his data from individuals living in specific locations with family members and neighbors who were also included in the records.

The last published study from the surveys was in 1959<sup>(5)</sup>, but the field studies continued through the next decade; this data, tracing the course of leprosy in a stable population, had been followed for more than a third of a century.

Guinto freely sought the assistance of Philip E. Sartwell, Professor of Epidemiology, Johns Hopkins School of Hygiene and Public Health. Sartwell, as Consultant to the LWM, visited Guinto in Cebu. Sartwell, now retired, writes (May 1983):

While I did not have the opportunity to know Dr. Guinto as long or as well as I would have liked, I admired him greatly for his dedication to the combined epidemiological-clinical study of leprosy. The studies in Cebu were admirable in their long-term pursuit of the goal of ascertaining the natural history of the disease. During the period that I followed his work, Guinto also made important observations on the relation of both major types of leprosy to cutaneous reactions to lepromin, tuberculin, and other skin-test antigens. Familial contact with leprosy as a risk factor was illuminated by his household studies in a way that has seldom, if ever, been done elsewhere.

I remember him as a thoughtful, critical, productive scientist who showed a remarkable lifelong dedication to the investigation of one disease. I also remember his warmth and kindness during my all-too-few visits to Cebu.

During the period 1961-1972 when Luis M. Bechelli served as Chief of the Leprosy Unit, World Health Organization (WHO), Guinto participated in two meetings of the Expert Committee on Leprosy, and for one year he worked with Bechelli as Consultant to the Leprosy Unit. During that year, Be-

chelli and Guinto published in the *Bulletin of the World Health Organization* (<sup>6</sup>) a useful paper discussing recent laboratory findings on *Mycobacterium leprae* and their implications in therapy, epidemiology, and control. Bechelli, who returned to his position in the Faculty of Medicine, Ribeirão Preto (São Paulo), Brazil, writes (June 1983):

My first contact with Guinto's work was indirect, almost 40 years ago, while studying epidemiology and statistics in Western Reserve University (Cleveland, Ohio). Under the direction of Doull and Bancroft, we studied, with Convit and Azulay, the data of the epidemiological surveys carried out in Cordova and Talisay. Later I had the pleasure of meeting him and of talking at length . . . .

Always gentle, kind, peaceful, well balanced, modest, he was a gentleman. He had a sound medical basis and was an excellent epidemiologist and scientist . . . .

While working for WHO in Geneva, I had the occasion to visit Cebu and follow *in loco* his activities and that of other colleagues . . . . It was a unique opportunity to know the group of Filipino specialists whom I had admired since I started in leprosy half a century ago.

All of us, his family, friends, and patients, are going to miss Dick, although he shall continue to live in their memory and in his important scientific contributions.

Guinto, in addition to the two meetings of the WHO Expert Committee on Leprosy, attended four working sessions convened in Geneva dealing with epidemiology and tropical diseases. He also participated in several regional meetings of WHO held in Manila. In many of these WHO sessions, he presented working papers.

In 1964, Guinto, who had a keen interest in genetics, offered to assist Michel F. Lechat, a candidate for the degree of Doctor of Public Health at the Johns Hopkins School of Hygiene and Public Health, to obtain specimens for his thesis—a search for genetic markers in the blood of leprosy patients. Guinto assisted in recruiting patients with leprosy and persons without leprosy who were willing to participate in the study. Lechat spent a couple of months at the LWM facilities in Cebu. Guinto selected patients

with leprosy who were invited to participate in the study. He recruited controls from college students and patients being treated at the Cebu Skin Clinic for conditions other than leprosy. The 546 patients with leprosy were carefully classified by Guinto. Controls numbered 435 (<sup>7,8</sup>).

Lechat, now Professor, École de Santé Publique et Épidémiologie, Université Catholique de Louvain, Brussels, Belgium, writes (June 1983):

The right place to see Dick was at work, compiling the medical records at the Skin Dispensary, examining patients in front of their houses in the barrios, chatting with the members of the households in the villages along the coast, or returning by sea from Mactan after a day of skin testing.

This is where he had for over 30 years supervised the best leprosy population laboratory in the world. This is where in 1936 he conducted together with James A. Doull their major epidemiological study on the differential risks of leprosy according to type of contact, a study which was to have a major impact on the strategy of leprosy control over the next decades, and a textbook example of brilliant epidemiology.

In 1964, while Baruch S. Blumberg was Chief of Genetics at the National Institutes of Health, Bethesda, Maryland, Guinto called on him for advice on his Cebu studies in the genetics of leprosy. After Blumberg joined the Institute of Cancer Research in Philadelphia, he discovered an unknown antigen in the blood of an Australian aborigine who was a hemophiliac and had received many transfusions. In his search to determine the identity of this antigen, Blumberg tested serum from many population groups, finding it absent in 1500 sera from the United States but present in 3%–6% of sera from southeast Asia, including some from the Philippines. Blumberg sought and received Guinto's enthusiastic assistance in making a comprehensive study of leprosy patients in Cebu and of persons without leprosy. Guinto, as a collaborator, participated in four papers with Blumberg and his associates, the first of which was published in 1967 (<sup>9</sup>).

Blumberg, now a Nobel laureate, states (May 1983):

I first met Dr. Ricardo Guinto when I was planning a trip to Cebu in the mid-1960s to study the relation of what was then called Australian antigen, and is now known to be hepatitis-B virus, to the different forms of leprosy. He enthusiastically supported my visit, and later when I spent two field-trip seasons at the Leonard Wood Memorial laboratory in Cebu, Dr. Guinto became a valued collaborator in our work. He provided not only his considerable resources in logistics and organization, but conceptual epidemiologic contributions to our papers.

He was a good friend and scientific colleague, and I shall miss him.

Beginning in the mid-1970s, Guinto assisted Dr. Yo Yuasa, Executive Director and Medical Director, Sasakawa Memorial Health Foundation, in organizing and conducting seminars and workshops on Leprosy Control Cooperation in Asia. Three Standardization Workshops were held in the LWM facilities in Cebu.

In a eulogy delivered at Guinto's funeral on January 14, 1983, Dr. Yuasa said:

... Whatever small contributions we have managed to make so far should almost entirely be credited to the effort of our international partners, especially a man like Dr. Guinto. It is a fact that the idea of conducting international joint chemotherapy trials involving Korea, Thailand, Japan, and the Philippines was originally conceived only because we could count on the leadership and authority of Dr. Guinto in such a venture. It was chiefly due to the availability and approval of Dr. Guinto that we have planned to have an international training workshop for young doctors and technicians annually here in Cebu.

Dr. Guinto was almost always one of the central figures in any of the international conferences and seminars we organized once or twice annually. Not only his expertise and experience in leprosy but his genial nature was often the key to the success of those meetings. I had the privilege of attending many international

meetings with him as a fellow participant in Geneva, New Delhi, Manila, and elsewhere. In these meetings, when the participants chose someone to represent them in giving a vote of thanks to the host, it was almost inevitably Dr. Guinto who was chosen unanimously to do the job, and he did it with such genuine feeling of gratitude as well as eloquence that it actually meant something rather than common ceremonial words . . . .

I remember Dr. Guinto as a man of great authority, fully justifying his international reputation but without arrogance . . . a man of true humbleness and deep compassion . . . .

Dr. Guinto was a meticulous writer with a straightforward clear style. He contributed 59 formal publications to the literature, either as author or coauthor, in addition to numerous reports for meetings with his colleagues in the field of leprosy.

Beginning with the VI International Congress of Leprosy in Madrid in 1953, he attended all subsequent meetings of the International Leprosy Association through the XI Congress in Mexico City in 1978. He was active in the Association, participating enthusiastically in workshops, committees, and programs, and served as a Councillor for the Asia/Far East Region.

Earlier we cited Wade and Rodriguez among the scientists of the Philippines who were outstanding in the era of 50 years following the Manila Conference in 1931. Guinto's name must now be included.

Wade, through his 30 years as Editor of the INTERNATIONAL JOURNAL OF LEPROSY and 17 years as President of the International Leprosy Association, made Cebu the world's capital of leprosy. Guinto made Cebu the world's center for investigation of the epidemiology of leprosy.

During the first decades of the program of the Leonard Wood Memorial in Cebu, Dr. and Mrs. Guinto opened their home as a guest house for Dr. Doull and other scientists who visited Cebu. After modern hotel facilities were available and Cebu became a renowned center for leprosy research, Dr. and Mrs. Guinto will long be remembered by the many scientists who enjoyed the gracious hospitality of their home and

the delightful evenings spent on the patio that faced a beautiful tropical garden.

—Chapman H. Binford  
—Claude V. Reich

#### REFERENCES

1. DOULL, J. A., RODRIGUEZ, J. N., GUINTO, R. S. and PLANTILLA, F. C. A field study of leprosy in Cebu. *Int. J. Lepr.* **4** (1936) 141–170.
2. RODRIGUEZ, J. N. and GUINTO, R. S. A field study of leprosy. II. Reexamination of cases of leprosy at Cordova, Cebu Province, Philippine Islands. *Int. J. Lepr.* **6** (1938) 285–302.
3. GUINTO, R. S. and RODRIGUEZ, J. N. A field study of leprosy in Talisay, Cebu, Philippines. *Int. J. Lepr.* **9** (1941) 149–166.
4. GUINTO, R. S., RODRIGUEZ, J. N., DOULL, J. A. and DE GUIA, L. The trend of leprosy in Cordova and Talisay, Cebu Province, Philippines. *Int. J. Lepr.* **22** (1954) 409–430.
5. DOULL, J. A., GUINTO, R. S. and MABALAY, M. C. The origin of natural reactivity to lepromin. The association between the Mitsuda reaction and reactions to graded doses of tuberculin. *Int. J. Lepr.* **27** (1959) 31–42.
6. BECHELLI, L. M. and GUINTO, R. S. Some recent laboratory findings on *M. leprae*. Implications for the therapy, epidemiology, and control of leprosy. *Bull. WHO* **43** (1970) 559–569.
7. LECHAT, M. F., BIAS, W. B., GUINTO, R. S., COHEN, B. H., TOLENTINO, J. G. and ABALOS, R. M. A study of various blood group systems in leprosy patients and controls in Cebu, Philippines. *Int. J. Lepr.* **36** (1968) 17–31.
8. LECHAT, M. F., BIAS, W. B., BLUMBERG, B. S., MELARTIN, L., GUINTO, R. S., COHEN, B. H., TOLENTINO, J. G. and ABALOS, R. M. A controlled study of polymorphisms in serum globulin and glucose-6-phosphate dehydrogenase deficiency in leprosy. *Int. J. Lepr.* **36** (1968) 179–191.
9. BLUMBERG, B. S., MELARTIN, L., LECHAT, M. F. and GUINTO, R. S. Association between lepromatous leprosy and Australia antigen. *Lancet* **2** (1967) 173–176.