

Obituary

Professor S.R. Pattyn M.D. 1927–2008



Professor Stefaan Rogier Pattyn passed away on March 15, 2008, aged 80. He was born in Belgium (Rumbeke) on the 9 September 1927. He received his M.D. degree from the University of Ghent, Belgium in 1953. From 1954 to 1960 he worked as a medical educator and researcher in Elisabethville (Lubumbashi), Belgian Congo (now Democratic Republic of Congo), where he was head of the Pathology Section and created the Virology Section to study enteroviruses and adenoviruses. It was here that his interest in mycobacteria began, starting with studies on *Mycobacterium ulcerans*, the cause of Buruli ulcer (BU).

From 1960 to 1972 he was Professor of Bacteriology-Virology at the Institute of Tropical Medicine (ITM), Antwerp, Belgium, where he created the sections of Mycobacteriology and Virology. At that time Professor Pieter G. Janssens was Director of the ITM and the first person to introduce studies on Buruli ulcer at the ITM.

I met Professor Pattyn when I started to work in his laboratory in August 1968. He sent me to Africa in 1970 and put me in contact with another well-known leprologist, Dr. Wayne M. Meyers. Besides leprosy patients, Dr. Meyers treated patients with BU. Professor Pattyn, Professor Janssens and Dr. Meyers played an important role in the discovery of the first foci of BU in Congo and in the first microbiological studies on *M. ulcerans*. Under their guidance, and as a PhD student, I performed studies on environmental reservoirs of *M. ulcerans* in Congo from 1970 to 1974.

An important part of Professor Pattyn's research activity concerned *M. leprae* and leprosy, and the genus *Mycobacterium*: knowledge of the genus being indispensable to microbiological research on *M. leprae*. Professor Pattyn was a founding member of the International Working Group on Mycobacterial Taxonomy. This international collaboration resulted in a series of taxonomic studies and standardised identification tests. As a member of the Sub-committee on Mycobacteria of the International Committee on Bacterial Taxonomy, he collaborated in the 1980 'approved list' of bacteria, which brought order into bacterial taxonomy and nomenclature in general and the genus *Mycobacterium* in particular.

A few years ago, Professor Pattyn shared with us his 'life with leprosy'. He told us that his first contact with leprosy was during the course in Tropical Medicine at the ITM in 1953, when he learned that *M. leprae* was an uncultivable bacterium. During a training period in virology in Leiden, he witnessed the first arrival of HeLa cells on the continent and the introduction of cell culture. This gave him the idea that the uncultivability of *M. leprae* would now be rapidly solved, tissue culture would be the solution!

Upon arrival in Lubumbashi in the mid-1950, Professor Pattyn was confronted with an epidemic of poliomyelitis among the local African and immigrant European population.

After solving numerous difficulties, he succeeded in maintaining HeLa cells imported from Leiden, and eventually he achieved his goal of obtaining massive primary cultures of human amniotic cells.

In the meantime his thought of culturing *M. leprae* in cell cultures was not forgotten. HeLa cells were tried but no multiplication of *M. leprae* was evident during their short time of possible maintenance. Human amniotic cells could, however, be maintained in a non-multiplying state for 4 to 6 weeks, and this was thought more suitable, but this also appeared unsuccessful.

In 1958 Professor Pattyn went to the U.S. under a World Health Organization (WHO) grant and among other activities, he studied the histopathology of leprosy under Dr. Chapman H. Binford at the Armed Forces Institute of Pathology in Washington, D.C. and under Dr. Charles C. Shepard at a C.D.C laboratory in Montgomery, Alabama. Shepard had just published a paper on negative culture results for *M. leprae* in a series of different cell lines.

In 1960 Shepard published successful results on the multiplication of *M. leprae* in the mouse foot pad model. Professor Pattyn wrote to him (no e-mail or fax in those days, even telephoning overseas was done only rarely) to ask for a *M. leprae* mouse foot pad specimen. He received four strains. He also obtained specimens from leprosy patients from Kinshasa, isolated the strains, and confirmed Shepard's work in a report at the Leprosy Congress in Rio de Janeiro 1963.

From then on, experimental chemotherapy was a main laboratory activity as well as attempts to isolate strains of *M. leprae* from occasional imported leprosy patients in Belgium. Experimental drugs from different pharmaceutical firms, particularly Bayer, were tested. But the great revelation came once more from Shepard, who showed the extraordinary activity of rifampicin (RMP) on *M. leprae*.

Professor Pattyn soon realised that the future mode of leprosy treatment would be combined therapy, to avoid the development of resistant mutants, and to shorten treatment duration to a minimum, in order to attain maximum compliance.

Because of its expense, RMP was available only in small quantities; nevertheless, by the late 1970s, the strong efficacy of the drug indicated that RMP must become part of the leprosy treatment regimen. Professor Pattyn learned that the Belgian NGO, Damien Foundation (DF) (now Damien Action), had sent RMP to Zaïre (Congo). In those days DF was responsible for the management of leprosy and tuberculosis in the northeastern part of Congo. Professor Pattyn organised treatment trials in collaboration with the foundation. Protocols were written, training sessions organised, the rationale of the treatment schedules explained, and diagnoses confirmed by histopathology by Professor Pattyn in Antwerp. In those early days because communications were 'primitive', the results were communicated by Belgian International Radio, in code. This rapid communication enhanced the efficacy of this effort.

In the meantime Professor Pattyn had become a member of the steering committee of THELEP and headed the subgroup on the treatment of paucibacillary leprosy during the meeting of the Study Group on the Chemotherapy of Leprosy in 1982. By 1986 the WHO's Multidrug Therapy regimen was gradually introduced everywhere and studies on alternative regimens, particularly on short duration, came to an end. New drugs such as the quinolones were tested in laboratory mice.

In 1992, Professor Pattyn at age 65 years, had to retire. It was a privilege for me to make an office available to him in our Mycobacteriology Unit where he could still follow the activity in one country, Anjouan Island in the Comoros Archipelago. Following his retirement, Professor S. R. Pattyn remained active and interested in all scientific activities

of our Unit until the very end of his life. We all benefited from his vast scientific experience in microbiology. His breadth of knowledge, his great interest in all manner of topics, within and outside science, was impressive. He was author and co-author of over 300 publications covering a wide range of interests in microbiology. He had a brilliant, analytical mind, and was a meticulous scientist and excellent teacher. I was always struck by his frankness and openness. He had also the modesty of the great. Surely Spinoza's words, 'Therefore. . .modesty. . .etc are species of nobility,' (*Ethics*, 1677) could accurately be said of Professor Pattyn.

Due to several serious health problems his quality of life was diminished during his last years. He remained, however, very active, and I was personally very impressed by his moral and physical strength.

We all had deep respect and affection for him. We deeply miss him and have lost a truly great mind. But Stefaan remains alive in our hearts.

Our deepest sympathies go out to his wife, Renée, his two daughters, Kim and Michèle, and his grandson Stefaan.

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