

# Sir William Boog Leishman, after whom leishmaniasis is named

This year marks the 150th anniversary of the birth of William Boog Leishman, after whom the tropical disease, leishmaniasis, is named. Born on 6 November 1865, he was one of the great figures in British medicine who carried out pioneering work on tropical diseases while stationed at home or overseas (many of them as medical officers in the Indian Medical Service), in the days of the British Empire during the second half of the 19th century and the first half of the 20th. Instantly coming to mind are other names such as Sir Patrick Manson, working on filariasis, Sir Ronald Ross, pioneer in studies of malaria, and Sir Leonard Rogers, who introduced emetine in the treatment of amoebic dysentery.

Leishman was born in Glasgow, one of the six children of William Leishman, the regius professor of midwifery in the University of Glasgow. Young William attended the Glasgow University Medical School and qualified MB ChM in 1886.

The following year he joined the Army Medical Service, coming fifth in its entrance examination, and entered the recently established Army Medical School at Netley, which was set up following the Crimean War. After 3 years home service, he served as a regimental medical officer in India (in those days, it was routine for all army personnel to spend a good deal of their term of service in the Indian sub-continent). He saw active service on the Northern Frontier in the campaign in Waziristan 1894–5 and was awarded the campaign medal with bar.

In 1899, now promoted to the rank of major in the Royal Army Medical Corps, Leishman was posted back to Netley Hospital and put in charge of the medical wards. Always interested in laboratory

work, which played a large part in clinical practice in the tropics, he spent much of his spare time with that brilliant pathologist Professor (later Sir) Almroth Wright who, among other achievements, developed the vaccine against typhoid and paratyphoid. Leishman's interest in the laboratory was duly rewarded when, in 1900, he was appointed assistant professor of pathology at Netley. Here he combined his expertise in microscopy with exposure to the broad concepts of pathology of Almroth Wright. The next few years were to be highly productive.

In 1900, Leishman identified the causative organism of kala-azar in a blood smear from a patient who had died from the disease. This disease, given various names

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including black fever and Dum Dum fever (named after an area close to Calcutta), has widespread manifestations. It may occur solely in its cutaneous form, with widespread skin ulceration. The mucocutaneous form includes sores in the mouth and nose, while the visceral form includes fever, anaemia and hepatosplenomegaly, as well as the skin lesions. The sand fly is the carrier of the disease, which is associated with poverty and malnutrition.

Leishman did not publish his finding until 1903, when Charles Donovan of the Indian Medical Service, serving in Madras, observed the parasite in a blood smear taken from a fatal case of the disease. Sir Ronald Ross proposed that the organisms of this intracellular phase of the parasite should be called Leishman–Donovan bodies and the disease in its various manifestations should be called leishmaniasis; the names remain today.

While in the middle of this work on kala-azar, Leishman introduced a modification of Romanovsky's stain for malaria organisms in blood smears. This was a simplified technique and of great value to medical officers working in less than ideal laboratory conditions in the tropics in making a firm diagnosis of the disease.

In 1903 the Army Medical School, and the military hospital was transferred to the Embankment in London and Leishman was promoted to Professor of Pathology in this splendid new building. I can vouch for it, as I spent some time there as a medical officer on the surgical wards during my National Service. (It is now the London College of Art.)

In London, Leishman continued to study kala-azar, but also turned his attention to some extremely important work. This was to develop the practical use of Almroth Wright's anti-typhoid serum, under the aegis of a committee set up specifically to deal with this. As a result, a large quantity of anti-typhoid vaccine was held in store at the Army Medical College. At the outbreak of the first World War, in 1914, 170 000 doses of the vaccine were issued to the troops. Vast numbers of lives were saved by this timely work.

Leishman was knighted in 1909 and elected Fellow of the Royal Society the following year. His term as professor ended just before the outbreak of the first World War in 1914; he was promptly posted to France as advisor in pathology and organized the pathological services on the Western Front. For his services he was advanced to Knight Commander of St. Michael and St. George in 1918.

In 1923 Leishman was appointed Director General of the Army Medical Service, with the rank of lieutenant general. He died in office at Milbank in 1926 after a short illness; truly a remarkable doctor. **BJHM**

*Conflict of interest: none.*

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