

Chapter 2

The Craggs prize, and the *Filaria demarquayi* dilemma

In May 1900, Low was awarded a scholarship by the London School of Tropical Medicine (LSTM), then administered by the Seamen's Hospital Society (SHS).¹ A memorandum published later by the SHS (in 1912) contained a short account of the prize, and of Low's appointment:

THIS Prize owes its origin to the generosity of Sir John Craggs M.V.O.,^[2] who, on the occasion of the Dinner presided over by Mr Joseph Chamberlain [1836–1914], in 1899 in connection with the foundation of the School, announced his intention to provide £300 per annum for a Travelling Scholarship for three years. At the expiration of that period he continued his benefaction by providing annually a prize of £50 for the Student of the London School of Tropical Medicine [LSTM] who in competition shows evidence of having made the most valuable contribution to the knowledge of Tropical Medicine during the year.

The prize has been always eagerly competed for, and the work of deciding as to the merit of the papers sent in has often been a difficult one.

It is not too much to say that the action of Sir John Craggs gave a stimulus to the School that has very largely conduced to the continuous success that has attended its labours.

A perusal of the following memoranda in relation to the work of the successful Candidates and the knowledge that has accrued in the course of their investigations will convince, not only members of the profession, but the ordinary reader, of the vast benefit that has been conferred upon mankind by the establishment of this prize.

The first investigator to be appointed in connection with Sir John Cragg's gift was Dr. G. C. Low, a Student of the School, who, at a meeting of Lecturers and Teachers in the School held in

May 1900, was unanimously elected Craggs Research Scholar, and forthwith arrangements were made for the research work which it was proposed to carry out during the three years of his Scholarship.

In the first instance it was decided to demonstrate without any possibility of doubt that malaria is carried from one patient to another by means of the mosquito [see Chapter 1], and accordingly it was decided to make an experiment in a malarious district. Dr. Louis Sambon, one of the Teachers in the Tropical School, and Mr. A. Engel Terzi, an artist, were associated with Dr. Low for this purpose, and the summer of 1900 they spent in the Roman Campagna.³

Filaria demarquayi

Manson himself wrote in 1897 that although he did not know what they were, he had no doubt that *F demarquayi* had undoubted pathological consequences. However, the following year C W Daniels (1862–1927) [see Chapter 4] considered that there was no evidence for a pathological role!

In 1891 Manson had described two new species of filaria – *Filaria diurna* (which causes loaiasis) and *Filaria perstans* (which he believed caused the ‘negro lethargy’ of East Africa); *F sanguinis hominis* or *F nocturna* (renamed *Wuchereria bancrofti*) had of course been known for many years, and this was the organism on which he had carried out his major research at Amoy, China. In 1897, on the basis of specimens sent to him in London by Newsham (see Chapter 4) of St Vincent, he concluded that there were a further *two* species:

... an entirely new filaria which at Blanchard's suggestion, I have named *filaria Demarquayi*. This new filaria is shaped exactly like *filaria nocturna* and *filaria diurna* but is very much smaller. I do not feel justified in giving the measurements of the dried organisms, the only specimens available, as in consequence of the shrivelling the parasites have undergone, the dimensions may be materially altered; suffice it to say that *filaria Demarquayi* is less than half the size of *filaria nocturna*. *Filaria Demarquayi* has no sheath, but, like *filaria perstans*, is naked in the blood ... it exhibits no diurnal periodicity

whatever, being present in the peripheral blood both during the day and during the night.

In the same year Manson had received some blood slides from Ozzard (*see* Preface) who was working in the 'interior' of British Guiana (now Guyana), and these contained two different microfilariae:

One of these minute filariae closely resembled *filaria Demarquayi* of St Vincent, being minute and sharp-tailed and without a sheath; the other closely resembled, if ... not identical with, *filaria perstans* a parasite which hitherto I had found only in West African blood.

Manson concluded:

I do think [author's italics] the sharp-tailed Demerara filaria [the one found in British Guiana] is a new species and not identical with *filaria Demarquayi* ... this new filaria of Demerara ... I propose to call provisionally *filaria Ozzardi*.⁴

However Daniels (*see* above) was less certain that this represented a *new* species, and Otho Galgey (*see* Chapter 4), colonial assistant surgeon in St Lucia, concluded that the two worms were identical:

I am inclined to believe that all are *filaria Demarquayii* [sic]; that is to say, that the *filaria Demarquayii* [sic] of St. Vincent, and that discovered by me in St. Lucia, and the sharp-tailed form of *filaria Ozzardi* (British Guiana) are identical.⁵

Later (in 1899) Daniels (*see* above), who was based in British Guiana between 1896 and 1898, concluded:

The differences observed both in the male and female are sufficient, I consider, to differentiate this from the other described adult filariae. The name '*Filaria Ozzardi*' might be retained for the new species.⁶

Therefore, when Low was researching in the West Indies, doubt remained on the correct designation of the organism(s) originally found in St Lucia and British Guiana: *F. nocturna* was already well accepted (*see* above). Was he in fact dealing with one or two under-researched helminths of man? There was also doubt as to whether or not the *new* specie or species caused significant pathological consequences in humans.

Reference and Notes

- 1 G C Cook. *Disease in the Merchant Navy: a history of the Seamen's Hospital Society*. Oxford: Radcliffe Publishing 2007: 630.
- 2 (Sir) John George Craggs (1856–1928) was a chartered accountant, and a Member of Council of the Institute of Chartered Accountants. From 1897 until 1906 he was also Hon Secretary of King Edward's Hospital Fund. His publications included works on the voluntary hospitals. He was knighted in 1903. [See also: Anonymous. Craggs, Sir John (George). *Who Was Who 1916–1928*. London: A & C Black 5th ed. 1992: 184.]
- 3 Seamen's Hospital Society; The London School of Tropical Medicine. 'A short account of "The Craggs Prize", from 1899 to 1911'. Presented at a meeting at the Mansion House, presided over by the Rt Hon The Lord Mayor, Wednesday, 28 February, 1912: 4.
- 4 P Manson. On certain new species of nematode haematozoa occurring in America. *Br med J* 1897; ii: 1837–38. [See also: G C Cook. Charles Wilberforce Daniels, FRCP (1862–1927): underrated pioneer of tropical medicine. *Acta Trop* 2002; 81: 237–50; D I Grove. *A History of Human Helminthology*. Wallingford, Oxon: CAB International 1990: 734–6.]
- 5 O Galgey. *Filaria demarquayii* [sic] in St Lucia, West Indies. *Br med J* 1899; i: 145–6. [See also: *Op cit.* Note 4 above (Grove).]
- 6 C W Daniels. The probable parental form of the sharp-tailed filaria found in the blood of aboriginals of British Guiana. *Br med J* 1899; i: 1459–60. [See also: *Op cit.* Note 4 above (Grove).]