

ILLUSTRATIONS FROM THE WELLCOME INSTITUTE LIBRARY

SIR LEONARD ROGERS, FRS (1868–1962) AND HIS PAPERS*

Sir Leonard Rogers (Fig. 1) was a “perfect tiger for hard work”¹ and, moreover, meticulously careful and thorough in everything that he did. It would not, therefore, have surprised his colleagues to learn that he preserved much of the paperwork he acquired during his long career and spent many hours of his retirement sorting, re-arranging, and annotating his diaries, records, and correspondence. These papers, comprising twelve boxes, are now stored in the Contemporary Medical Archives Centre at the Wellcome Institute for the History of Medicine (Ref. PP/ROG), where they have been listed and indexed and are available to scholars. The extract from his kala azar enquiry notebook of 1896–97 reproduced here (Fig. 2), shows the detail of his research as well as his attempts to clarify it for later users by writing out the headings in longhand.

Rogers taught himself shorthand in 1895 (when he had already been in the Indian Medical Service for two years) and used it a great deal. Although only a junior officer in the IMS, his interest in the aetiology and epidemiology of fevers led to his appointment in 1896 to investigate kala azar in Assam. Nowgong District Hospital provided many of the individuals on whom Rogers made detailed clinical and microsurgical examinations, although he was hampered by lack of good equipment or a bacteriological laboratory. Taking blood counts, he investigated the disease at various stages and compared patients who had and had not received quinine. Sir Almroth Wright, writing to Rogers in April that year, put his finger on one of the problems:

I am delighted to see that you are getting such good work done, and also that you are getting a chance at a new disease. It will not be an altogether easy business to unravel, for if the coolies have all anchylostoma [*sic*]² and I presume all malaria, it will be precious hard to be certain which of the two, or whether the two combined, kill the men off.³

Undeterred, Rogers also went to great lengths to study old records of the Eastern Bengal districts of Dinajpur and Rungpur, for statistics of rainfall and fever mortality. Rogers was impressed by the apparent infectiousness of the disease, both from the evidence he collected in his ten-day trek covering 130 miles in the Mangaldi area on the north bank of the Brahmaputra and after his investigation of the segregation of coolies working in the Assam tea-garden estates. Together with Dr John Dodds-Price, medical officer to some of the estates, he noted that where a fresh arrival of workers had been housed in newly built quarters some distance from the infected lines of houses, they had not contracted kala azar; whereas sixteen per cent of new recruits inhabiting the old houses developed kala azar.

*By Julia Sheppard, BA, Archivist, Contemporary Medical Archives Centre, Wellcome Institute for the History of Medicine, 183 Euston Road, London NW1 2BP.

¹ Ronald Ross to Rogers, 14 May 1906, CMAC PP/ROG D.2/7.

² A germ of nematode roundworms: ancylostomiasis, commonly called hookworm disease, is common in tropical and sub-tropical countries.

³ Letter 7 April 1896. Ref C.1/8.

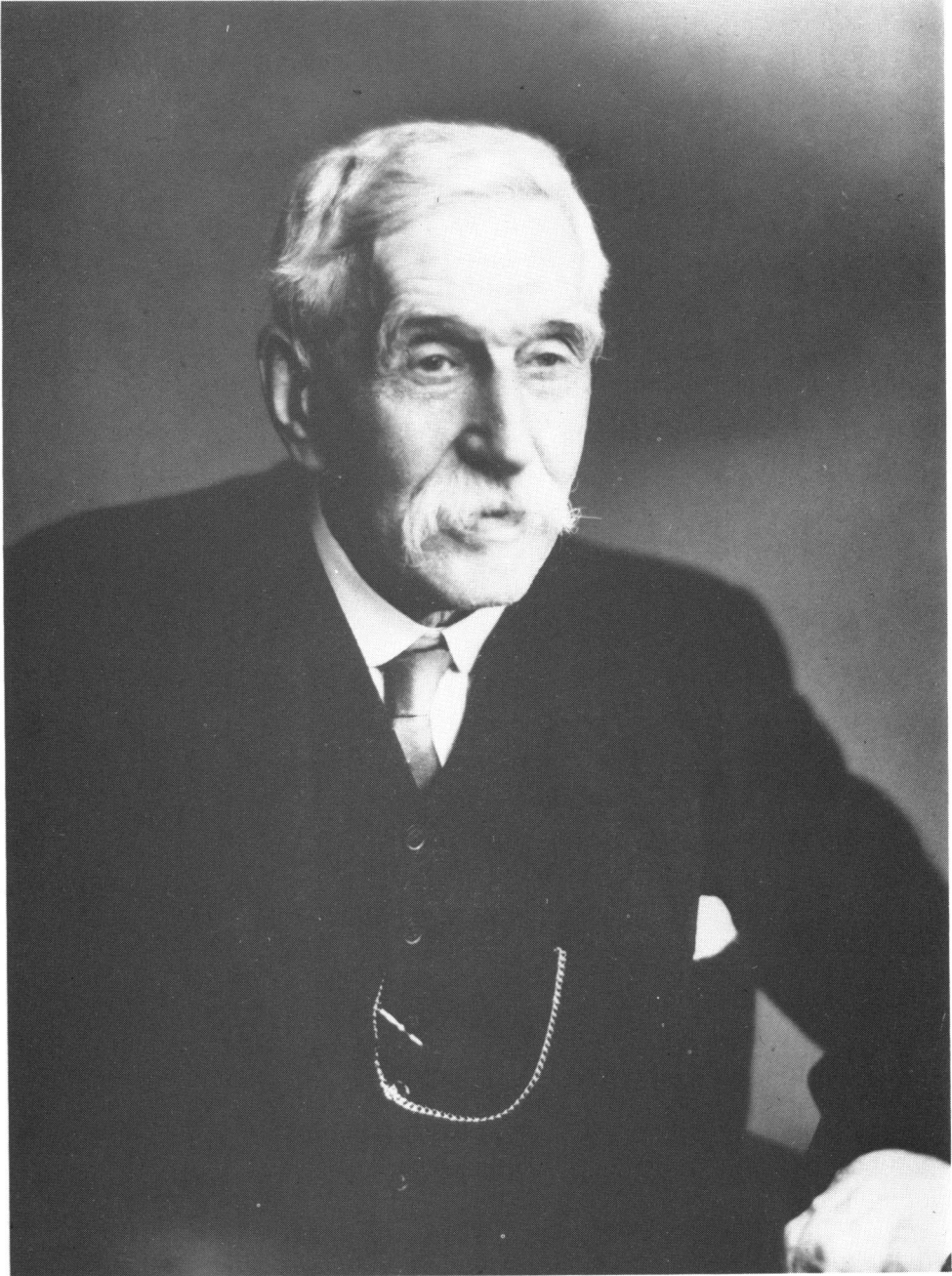


Figure 1. Sir Leonard Rogers (1868–1962). Photograph by Walter Stoneman, FRPS.

Helminths passed after the meal given to jail inmates

Admission to jail 20 grains of Sydnal given twice with a one half hour interval
in food for another 2 hours

specimens preserved in alcohol

No.	Name	Date	Initial	Village	Washed on a cigarette	Ascaris lumbricoides	Trichostrongylus axei	Other Round worms	Remarks
1	Ghia cheta	18-5-96	17-7-95	Bumuzgan					40, 60, 75
2	Hanie had	"	1-4-96	Baligan		20			7
3	Sobhi Mani	"	11-2-96	Sharifa		6			7
4	Haghi Hani	"	21-7-95	Singapetani					40, 60, 75
5	Mikhi Had	"	17-3-96	Nitarka		8			7
6	Bhaji Uti	22-5-96	17-5-96	Johabanda	H. 54				7
7	Bhadri Koch	"	19-7-95	whitewash 2-3-96 Kamra	Mugurama 19. at Moturi				40, 60, 75
8	Dehnan Sahag	"	14-9-96	Baligan		1		1	7
9	Holvan Guban	"	12-3-96	Sahangahi					7
10	Holodar chand	"	13-5-96	Johabanda		6			7
11	Badal chand	27-5	11-5-96	Kachigan					7
12	Rahaman chand	"	11-3-96	"	H. 57	12	3	8	104 104 104
13	Dodhi Had	"	11-3-96	Kachigan		1		1	42 104 104
14	Miltian chand	"	2-7-96 22-4-96	Geran					7
15	Rata chand	"	3-5-96	Satangari		8			2 7
16	Bafuti Hani	1-6	13-5-96	Maharhan		4	2	2	7
17	Sakhi Hani	"	22-4-96	Tanagari				2	7
18	Ghela chand	"	22-4-96	"		8	3	5	1 2
19	Bhadra Hani	"	11-3-96	Kachigan					7
20	Mikhi	"	21-7-95	Singapetani		6	2	2	7

Figure 2. A page from Rogers's kala azar enquiry notebook, 1896-97. Contemporary Medical Archives Centre, PP/ROG.

Rogers was to conclude, erroneously, that kala azar was an unusual and resistant type of malarial infection. One result, however, of his research was that the subsequent segregation of healthy coolies and fresh recruits in the Nowgong district undoubtedly dramatically reduced the incidence of kala azar there and saved many lives.

Rogers' interest in kala azar persisted, and on two more occasions during his career he was to influence the investigation of its causes and treatment.

In 1904, he identified the Leishman-Donovan parasite in the spleen smears of kala azar cases at about the same time that Dr C. A. Bentley made similar observations. Details of Rogers' work were not published until some months after Bentley's findings were reported, and Bentley therefore established a prior claim. In June that year, he became the first person successfully to grow the Leishman-Donovan parasite in culture (work summarized in his Milroy Lectures in 1907). He became convinced that the carrier of kala azar was a non-flying insect such as a bed-bug. After a futile period attempting to prove this (resulting in an attack of conjunctivitis), Rogers recognized with regret that the task of identifying the carrier needed the attention of a full-time well-trained entomologist. In fact, it was not until 1942 that teamwork incriminated the sandfly, which, (as Rogers did not fail to point out), had a very small flight range.

In 1914, Rogers began further research into methods of treating kala azar. Realizing the close relationship between *Leishmania* parasites and trypanosomes, he felt that drugs acting beneficially on the latter might be effective against kala azar. He discovered that antimony preparations of tartar emetic cured the diseases; ironically, yet again, his success was dampened, this time by news that two Italian doctors had independently made the discovery, their results being published in February 1915. For his work on kala azar and other areas of research in tropical medicine, Sir Ronald Ross nominated Rogers for the Nobel Prize.

The collection of Rogers' papers in the Contemporary Medical Archives Centre includes the correspondence between Rogers and Ross spanning 1902–1929. Other correspondents who exchanged information and complimented Rogers on his work on kala azar include Lt Col Christophers, Lt Col David Cunningham, Sir Michael Foster, Professor Robert Koch, Sir William Leishman, Sir Patrick Manson, and Sir William Osler.

This impressive list does not include his many other correspondents represented in the collection. Kala azar was only one of Rogers's interests. He made valuable contributions in other areas: the differentiation of surgical fevers; animal diseases such as surra and rinderpest; the effects of snake venoms; treatments for amoebic dysentery and amoebic abscess of the liver; cholera, leprosy, and tuberculosis; and epidemiological studies in general. On top of his research projects he found time to help establish the Calcutta School of Tropical Medicine and Hygiene, opened in 1920 after ten years of negotiation. He was also a founder member of the British Empire Leprosy Association and a staunch propagandist for the Research Defence Society.

Rogers died aged ninety-four, heaped with honours, distinctions, and prizes, and having enjoyed a suitably active retirement until a few weeks before his death.