

Breakthroughs and Discoveries in Public Health and Tropical Medicine

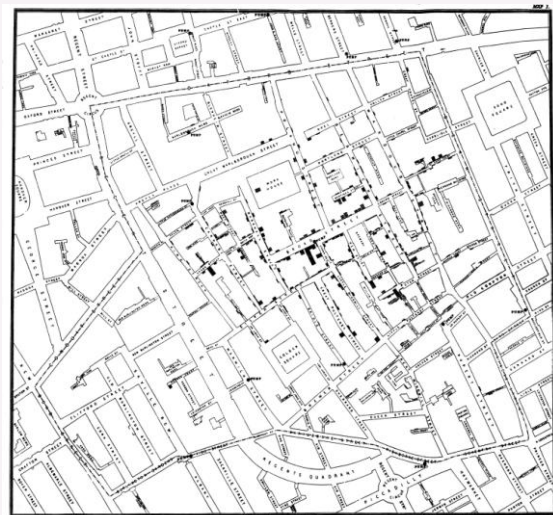
This term the London School of Hygiene and Tropical Medicine's Library and Archives Service hosted its latest 'Gems from the Collections' exhibition. On display were a range of rare books, articles, original correspondence, photographs and maps that have contributed to outstanding discoveries in the fields of public health and tropical medicine.

The exhibition attracted over 100 visitors, however if you were unable to attend, you can browse this overview of the exhibition's highlights.

Public Health

The School has a particularly strong collection of books from the 18th and 19th centuries which trace the development of public health throughout the period. Alongside works by Edward Jenner, John Snow and James Lind, investigating smallpox, cholera and scurvy, are studies that focus on related research areas.

Such works include the first three editions of Wilhelm Kollé's *Handbuch der pathogenen Mikroorganismen (Handbook of Pathogenic Micro-organisms)*, published in the early 20th century). These multi-volume works placed bacteriology at the forefront of research into the causes of disease.



Spot map from Snow's *On the Mode of Communication of Cholera*. Cholera cases are highlighted in black.

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Cholera

John Snow's '*On the mode of the communication of cholera*' (1855) is commonly viewed as one of the first epidemiological works. By plotting the cases of cholera on a map, he was able to trace the source of the Soho cholera outbreak of 1854 to the water pump on Broad Street. After much resistance from residents and businesses in the area, he had the handle of the pump removed. The number of cases of cholera was much reduced as a result.



Small pox on a child's arm, from Jenner's *Inquiry into the causes and effects of the variolæ vaccinæ*, 1798. ©Wellcome Images, 2011.

Smallpox

The Library contains the Reece Collection, a collection of books, pamphlets and newspaper cuttings covering smallpox and vaccination. One of the most interesting volumes in the collection is a first edition copy of Edward Jenner's '*An inquiry into the causes and effects of the variolæ vaccinæ*' which was owned by the Southampton branch of the Anti-Vaccination League.

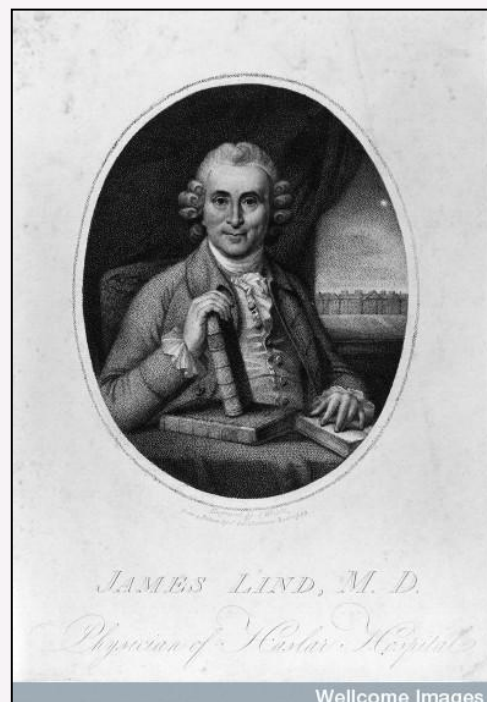
In 1796, Jenner (1749-1823), a general practitioner from Gloucestershire, carried out the first documented vaccination, using cowpox inoculations to prevent smallpox. This book is one of three monographs in which Jenner developed and set out his theories of vaccination. His ideas provoked controversy and the Southampton Anti- Vaccination League have

noted their disagreement with Jenner throughout the text.

Scurvy

James Lind is well known for his work as a naval doctor. He is primarily known for the publication of his *Treatise of the Scurvy* (1753) in which he describes one of the first clinical trials. He tested six potential remedies for scurvy on separate groups of sailors. Only those treated with citrus fruit recovered. The Library holds a first edition of his text.

Lind also contributed to tropical medicine with his book '*An essay on diseases incidental to Europeans in hot climates*' (1753). In it he summarised the prevalent diseases in each colony and offered public health recommendations to travellers.



Portrait of James Lind by George Chalmers. ©Wellcome Images, 2011.

Tropical medicine

The Library and Archives Service has a large variety of works on tropical medicine, only some of which were displayed at this month's exhibition.

A selection of cartographic records showing malaria distribution in India as well as the distribution of diseases on a worldwide scale were chosen from a collection of over 450 maps that are searchable on our [archive catalogue](#).

A selection of correspondence and press cuttings relating to major breakthroughs in malaria, trypanosomiasis, filariasis, dysenteric disease and spirochaetosis can also be found within the Archive, as well as objects such as Ronald Ross' microscope and Patrick Manson's box for transporting mosquitoes. Throughout the exhibition, photographs of the scientists, and their places of work helped to contextualise the important discoveries they made.



Sir Ronald Ross' box of blood slides used to investigate malaria. ©LSHTM 2011

Malaria

Valuable research into the causes and effects of malaria was presented at the exhibition. Work by Sir Ronald Ross, Andrew Balfour, Charles Louis Alphonse Laveran, Percy Garnham and Patrick Manson, amongst others, was displayed in a range of material, including monographs, articles, letters and maps.

The exhibition featured important articles from the British Medical Journal by Manson and Ross, as well as correspondence between them, on the discovery and transmission of the malaria parasite. It also included objects such as Ross' box of blood slides (above) and personal notebook detailing the work for which he won the Nobel Prize for medicine in 1902. Laveran's influential book, *Traité des fièvres palustres avec la description des microbes du paludism* (1884), founded the theory that protozoa are the cause of malaria in both people and animals.

Sleeping Sickness

The mid nineteenth century to the early twentieth century saw a number of discoveries and breakthroughs relating to the identification, transmission and lifecycle of trypanosome parasites that cause sleeping sickness. The Library and Archives hold a range of material relating to these developments, including copies of David Livingstone's *Missionary travels and researches in South Africa* (1857), Andrew Balfour's

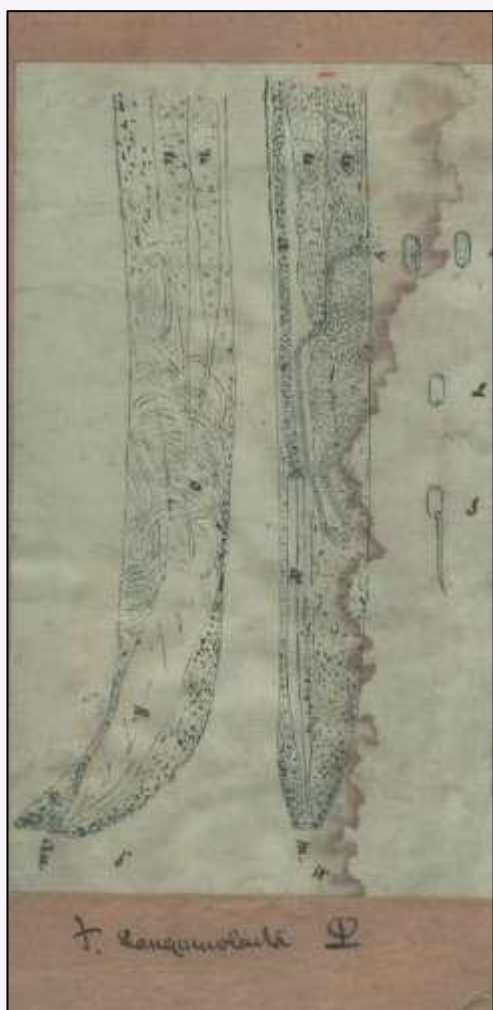


Sleeping sickness map of East Africa Protectorate, map showing distribution of tsetse flies, c.1910. Credit: LSHTM Library & Archives Service, 2011

Interim report on Tuberculosis and Sleeping-Sickness in equatorial Africa (1923), and letters between Ross, Aldo Castellani and Robert Bruce on the discovery that trypanosomes caused sleeping sickness (1903). Our archival material highlights the controversy surrounding Bruce and Castellani's individual claims to have made the discovery first.

Filariae

The books and manuscripts exhibited focused on discoveries in the study of filariae by Patrick Manson, Colin Chisholm, Robert Leiper and Richard Lewis. Their works look at different types of nematode worm. Lewis and Manson, for example, examined the *Filaria Sanguinis Hominis*, (alongside Bancroft), a worm that affects the lymphatic system and causes diseases such as elephantitis, lymphangitis, and chyluria. Leiper and Chisholm's travels revealed the *Dracunculus medinensis*, or Guinea worm.



A picture by Patrick Manson concerning Filariasis. Manson/05/02/07. Credit: LSHTM Library & Archives Service, 2011