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# WellcomeHistory

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**wellcome**trust



# The 'disease of Brazil'

Science, health and national debate on Chagas' disease

## SIMONE PETRAGLIA KROPP

In April 1909, Carlos Chagas (1878–1934), a young researcher at the Oswaldo Cruz Institute (OCI) informed the scientific world about the discovery of a new disease in the small settlement of Lassance, in the Brazilian hinterlands.

It was caused by a protozoa (named by him *Trypanosoma cruzi* in honour of Oswaldo Cruz, the famous bacteriologist who founded the OCI) and transmitted by a triatomine insect known as *barbeiro* (barber, kissing or conenose bug), found in abundance in the mud and wattle huts typical of rural areas. Occurring at a time of dissemination of Mansonian tropical medicine, when institutions involved in this field (such as the OCI) were created in Brazil, Chagas' 'triple discovery' of a vector, pathogen and human infection was celebrated as a 'great feat' of national science and as proof of science's importance in the process by which Brazil would become a 'civilised' country.

Research into the new trypanosomiasis became the flagship of Cruz's project to transform his institute – created in 1900 to produce serum and vaccine against bubonic plague – into a prestigious centre of experimental medicine engaged with Brazil's public health concerns. In addition to making an original contribution to knowledge of the relationship between vectors, parasites and human diseases, it highlighted the possibility of associating the commitment to provide solutions to the country's sanitary problems (thereby paving

the way for modernisation) with the production of knowledge in line with the international agenda.

Right from his earliest studies, Chagas held that the illness was an endemic disease that dramatically threatened national progress by afflicting people across broad expanses of Brazil's interior with physical and mental deterioration. According to him, the new trypanosomiasis was an infection that after a short-lived acute phase produced chronic neurological, cardiac and above all endocrine disturbances. He believed that in the locations where the *T. cruzi* infection was found the endemic goitre was not the same as occurred in Europe (which many attributed to the lack of iodine), but the result of the pathogenic action of the parasite on the thyroid. In addition to endemic goitre, the neurological disturbances attributed to *T. cruzi* pathogenic action – such as paralyses and mental retardation – assumed great importance in the characterisation of the disease as an important medical and social problem. In Chagas' words, the disease was a "terrible scourge of a vast zone of the country, making a large amount of the population useless for vital activities, creating successive generations of inferior men, useless individuals, fatally consigned to a chronic morbid condition, to such a coefficient of inferiority that makes them inappropriate elements in the progressive evolution of the Patria".

At a time in which the theme of 'degeneration' mobilised intellectual debate about the future and identity of the Brazilian nation, in public addresses to the principal Brazilian medical associations Chagas

### Above:

Carlos Chagas tending to a young girl called Rita. Lassance, early 1910s.  
*Casa de Oswaldo Cruz/Fiocruz Archives*

### Cover:

Chagas in his laboratory at the Oswaldo Cruz Institute.  
*Casa de Oswaldo Cruz/Fiocruz Archives*

presented the reality of an unknown rural country, marked by poverty, disease and abandonment. The disturbing images of sick and incapacitated children and young people in miserable huts infested by *barbeiros* were the antithesis of ‘civilisation’, so feted in the city of Rio de Janeiro, the newly renovated capital of the Belle Époque and showroom of progress of the ‘new century’. The press emphasised the ‘horror’ of the medical and political élite that watched the young scientist. The disease discovered at Lassance was presented as the ‘disease of Brazil’.

At the same time that it became the emblem of a ‘sick country’, Chagas’ disease was also the icon of the science that revealed it and showed how it could be dealt with in the march of national progress. Chagas’ denunciation was accompanied by a new perspective for action: the country, traditionally seen as unviable owing to its tropical climate and the mixture of races, could in fact be ‘redeemed’ if the public authorities would confront the endemics that sapped the productivity of the majority of the population who lived in rural areas.

The idea that the diseases of the rural population were an obstacle to social and economic progress, requiring energetic action from the state, imprinted particular contours on tropical medicine in Brazil. Citing the Europeans concerned with fighting sleeping sickness in Africa for colonial interests, Chagas emphasised that the study of tropical pathology should be committed to the destiny of the nation itself: “it is the future of a great people that should be watched over”. If the sanitation of the capital – whose icons were Cruz’s 1903–09 campaigns against yellow fever, bubonic plague and smallpox – had been decisive for the ‘rehabilitation’ of the country, he warned that bringing public health to Brazil’s vast rural interior was an even bigger challenge.

With the intense nationalist debate during World War I – when issues such as the racial question, immigration, education and military recruitment were discussed in the context of identifying the ailments and the chances of national ‘regeneration’ – the process of the medical and social framing of Chagas’ disease gained new intensity. Together with other rural endemics it was the central theme of the so-called sanitation movement (*movimento sanitaria*), the most celebrated expression of which was the declaration in 1916 by well-known doctor Miguel Pereira that, despite current patriotic clamour, Brazil was actually an “enormous hospital”. The campaign united physicians, scientists, intellectuals and politicians around the idea that precarious health conditions, especially in the interior, were the principal hindrance to the country effectively becoming a nation. As a political movement it demanded that the state increase its public health interventions,

especially in rural areas. Achieving great impact in the press, in intellectual spheres and in the National Congress, it was formally organised in 1918 as the Pro-Sanitation League of Brazil (*Liga Pró-Saneamento do Brasil*). The campaign resulted in a wide-ranging reform of the public health services upon the creation in January 1920 of the National Department of Public Health. Chagas, Director of the OCI since 1917, became the first director of this new institution.

Chagas’ disease was also a central theme in this nationalist debate. In 1922, the centenary of Brazilian independence, it became the subject of a public controversy in the National Academy of Medicine. Some physicians and scientists raised doubts about its clinical definition and social importance, arguing that the mistaken association with goitre (which was very common in Minas Gerais and other parts of the interior) had led to an exaggeration of the disease’s social impact. The lack of statistics and of an extensive epidemiological survey into the incidence of the disease reinforced this criticism, as did difficulties in proving the diagnosis of chronic cases. In contrast with the three million sufferers of the disease (15 per cent of the population) estimated by supporters of the sanitation movement, critics stated that the number of cases that had been parasitologically identified did not reach 40. According to these critics, the idea of a ‘sick Brazil’ would bring discredit to the country abroad and would drive away investment and immigrants.

Although the controversy was settled by a report that endorsed the scientific merits of Chagas’ work, an environment of doubts about the disease remained. The scientist, nevertheless, continued his studies. After 1916, when the first criticisms were launched by researchers in Argentina, he initiated an important process of reframing the clinical profile of trypanosomiasis, downplaying the primacy of thyroidal signs and reinforcing the weight of cardiac components. This process was intensified in the 1920s.

After his death in 1934, his disciples in the OCI – including his son, Evandro Chagas – continued the research, following important contributions made by Argentinean physicians, who identified some clinical



**Right:**

People outside a hut  
in Lassance.  
Casa de Oswaldo  
Cruz/Fiocruz Archives

signs of the acute phase of infection that enabled the diagnoses of hundreds of cases in several countries. In the 1940s, work carried out at an OCI research post established at Bambuí (Minas Gerais) provided new knowledge and agreement concerning the disease's clinical definition and epidemiological importance; the correlation with goitre was disregarded and important advances in the diagnosis of the infection and in ECG techniques led to the recognition of the disease as essentially a chronic myocardiopathy.

In the context of World War II and the postwar period the question of development and the overcoming of the so-called 'vicious cycle of poverty and disease' assumed prominence in the international debate and in the Brazilian political agenda. Within this context, scientists mobilised their forces to disseminate knowledge about the disease and to interest various social groups in the topic. Their goal was to make it accepted that Chagas' disease was a serious public health problem that compromised rural labour and consequently the expectations of rural modernisation aiming at supplying the expanding internal market, according to the economic model of 'substitution of importations'. Trust in new technical resources

to fight tropical diseases, such as DDT, reinforced scientific and political efforts against the disease. In 1950 the disease entered the Brazilian public health agenda for the first time: a prevention campaign with insecticide fumigation of human dwellings, carried out by the Ministry of Education and Health, was inaugurated in the city of Uberaba, a region of great importance to Minas Gerais modernisation.

Linking European theories on germs, vectors and so-called warm-climate diseases with the issues and challenges peculiar to a nation that wanted to be 'civilised' – and to the science that wanted to lead it – the path to scientific and social recognition of American trypanosomiasis was a long and winding one. Mobilising a variety of social actors, institutional spaces and spheres of social life, all under distinctive historical circumstances, it was a path that gives us an opportunity to reflect on the complex relations between science and society.

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## Centre for the Social History of Health and Healthcare, Glasgow

### JOHN STEWART

**The Centre for the Social History of Health and Healthcare (CSHHH) was set up in 2005 as a research collaboration between historians of medicine and healthcare at Glasgow Caledonian and Strathclyde Universities. It was immediately successful in attracting institutional investment from both universities, including the specially created Chair in Health History at GCU. Equally importantly, a new MSc in Health History was validated in March 2008 – also a joint enterprise between the two universities.**

Also in 2008, the Centre gained a Wellcome Trust Enhancement Award around the theme of 'Health, Healthcare and Society: Environments, markets, life cycle and location'. This broadly based project embraced the various research interests of the Centre's original members: for example, the work of Patricia Barton and Jim Mills on the history of drugs and pharmaceuticals, that of Arthur McIvor, Janet Greenlees and Ronnie Johnston on occupational health, that of Samiksha Sehrawat on colonial medicine, that of Elaine McFarland and me on healthcare at specific points in the life cycle, and that of Chris Nottingham on healthcare professionals, not least in a specifically Scottish context. These themes

have been expanded and enlarged upon, for instance through the work of Annie Tindley on healthcare in the Scottish Highlands and Islands and of Greenlees on maternal and child health and welfare. The Award allows us to support a number of complementary activities.

First, part of the Award was for two PhD studentships that are now in place. This had further consequences in that, for instance, GCU 'matched' the Wellcome studentship; you can read about the activities of the student who took up this award – Emily Rootham – on page 11.

Second, the Award allowed for the funding of a range of seminar series, workshops, conferences and annual lectures. So, for example, in April 2010 a meeting was held on 'Science and the Human Subject in History' sponsored by the Centre, the Royal Historical Society and the Department of Social Sciences at GCU. A few months earlier, in January 2010, a workshop was held on 'Child Health in Europe and North America, 1890 to 2000' with participants from Norway, Sweden, Spain and the USA as well as the UK (with additional support from the Economic History Society). The Centre was also able to provide support for the History of Drugs and Alcohol conference and the Oral History Society conference, both of which took place at Strathclyde in 2009, and the workshop, organised by Catriona

Macdonald, on 'Alcohol and the Scots' that took place at GCU in early 2010. Among those giving annual lectures have been Professor Richard Rodger (Edinburgh), Professor Steven King (Leicester) and Professor Hilary Marland (Warwick). Our seminar series in the semester just finished, meanwhile, was run by postgraduate students at both universities and supported by the CSHHH and the Strathclyde-based Modern British History Network.

Third, the Centre has been able to host visiting fellows who have research interests complementary to those of its members and who are prepared to give talks on their present work. So far, these have been Professor William Hubbard (University of Bergen) in autumn 2009, delivering a paper on infant mortality in Norway and Scotland, and Professor Linda Bryder (University of Auckland) in spring 2010, delivering papers on Western childbirth practices and on the 1987 enquiry into the National Women's Hospital in New Zealand.

Fourth, the Award enabled the employment of a Research/Outreach Officer, Rhona Blincow. The Centre takes its outreach and public engagement activities very seriously and has a number of activities planned for the near future. So, for example, she and Chris Nottingham are putting together, with colleagues at the Royal

College of Physicians and Surgeons of Glasgow, a workshop on Glasgow's Medical Officers of Health, which will bring together historians, practitioners and policy makers. Elaine McFarland, Bobby Pyper (another colleague at GCU) and I are meanwhile planning a day event on John Boyd Orr and Alexander Fleming. Both men were products of Kilmarnock Academy, where the meeting will be held. It is being organised jointly with the Ayrshire Federation of Local History Societies and it is anticipated that it will be well attended and widely reported.

More generally, the Centre seeks to provide a supportive and collaborative environment for both staff and graduate students. A further flavour of this can be had from my colleagues' contributions on the following pages. More details of activities, publications and so on can be found at our website – [www.gcu.ac.uk/historyofhealth](http://www.gcu.ac.uk/historyofhealth) – which also includes the Centre's latest *Annual Report*. Anyone interested in our activities is encouraged to contact either me (address below) or Rhona Blincow (R.Blincow@gcu.ac.uk).

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## Maternal healthcare in industrial districts, c.1900–39

### JANET GREENLEES

**During the early years of the 20th century, maternal mortality was rising in Britain, with Scotland having the highest rates in the UK. After World War I, the government was determined to tackle this and other health problems. The healthcare matrix included provision by churches and employers.**

In Scotland, the Church of Scotland, or Kirk, provided various healthcare services. It was the first Protestant sect to open a hospital in Britain, in 1894: the Deaconess Hospital in Edinburgh. In the west of Scotland, from the early 20th century, the Kirk's social mission increasingly targeted young women's health and welfare. They introduced a layered strategy, which included training homes, preventative homes, rescue homes and mother and baby homes in poor neighbourhoods, to try to improve 'morality' and to provide basic healthcare for expectant mothers. In some communities, such as Paisley, the Kirk's healthcare efforts ran alongside those of the local employers. Yet, despite the importance of these services to the communities that they served, the extent and nature of their healthcare provision has received little historical

attention. This is a surprising void considering the centrality of the Kirk to many Scottish communities.

This project aims to examine the nature and extent of the Kirk's and employers' healthcare provision in industrial communities, with a particular focus on maternal health. The social and cultural impact of the Kirk and its assumptions about class and behaviour in relation to the healthcare provided remains to be seen. Likewise, women's responses to both the Kirk's and their employers' healthcare is unclear. While the Kirk publicised that it had widespread community support for its services, was this really the case? And why did the women accept or use these services or those provided by their employers? My previous research, into employers' healthcare provision in the USA, found that women often used it as a last resort rather than a first choice, despite the high quality of care offered in many cases. Will this prove the same in Britain? More broadly, an analytical and historical perspective of the role of different religions and employers in providing healthcare and their influence on both families and policy formation would enrich our understanding of women's healthcare choices and decision making.

Dr Janet Greenlees is Lecturer in History at Glasgow Caledonian University (E Janet.Greenlees@gcu.ac.uk)

# The malignant genius: drink and drugs control in the United Provinces of British India, 1907–47

**LUKE GIBBON**

In 1924, A A Waugh, the Officiating Excise Officer for the United Provinces (UP), compared the British attempt to control *abkari* (intoxicants) “to the familiar fable of the malignant genius who was confined in a bottle. He was likely to escape and overpower his captor if pressure on the bottle was not maintained. But an attempt to finish him off by sudden, intensive pressure would have been likely to result in his escape by the bursting of the bottle rather than his extinction.”

The colonial administration attempted to exercise monopoly control over the production, distribution and consumption of country spirit, European liquor, *tari*, *sendhi*, cannabis and opium. It also sought to crack down on the circulation of cocaine. This was the era of the emergence of a legal framework for international drugs control, codified in conventions such as the Geneva Opium Convention (1925). The focus was primarily on controlling the production and international distribution of narcotics. As R J S Dodd, Inspector-General of the UP police, put it: “We know that efforts are being made by the League of Nations to stop the importation of this wretched drug; but meanwhile it is our duty to get sent to jail all those who make large sums of money from the traffic.” In India control remained the business of the colonial agents, from licensing liquor distilleries and vendors to the registering and limiting of individual consumption.



In the UP the administration also had to manage poppy cultivation. By 1911 the province was the sole centre of production for the British Indian opium industry. The ‘weeding out’ of unproductive and unwilling cultivators began with the Ten Year Agreement (1907) with China and continued under conventions of the League. Remaining poppy tracts were widely scattered and often remote. By 1932 it was

reported that “out of the way licenses have escaped investigation for a number of years”. It was felt that “opium smugglers will always offer to cultivators many times the price which is offered by the Government”. ‘Leakage’ of government opium into illicit markets was a constant anxiety for the colonial agents.

From 1921 to 1935, facing interwar financial stringency, the provincial governments cut the number of *chaukidars* (village policeman), ‘the eyes and ears of the rural constabulary’, from 87 963 to 40 419. Moreover, in this period of peasant agitation, nationalist unrest and temperance campaigning, colonial agents felt increasingly isolated from hostile sections of the population. A sense of besiegement was evident during the Quit India campaign of August–September 1942: “Ghazipur [the opium factory] was entirely without communication with the outside world...British troops were stationed in the Factory for the first time in its history.” In the months preceding, the Excise Commissioner, B V Bhadkamkar, had reported: “In the matter of detection of excise crime the Excise Staff have to contend with the definitely hostile or obstructionist attitude on the part of the general public.”

The sense of impotence generated by diminishing resources and a hostile public was exacerbated by the challenge of the geographical and technological scope of *abkari* crime. Illicit hoarding of opium by licensed cultivators, illicit distillation of liquors, smuggling of intoxicating substances within, out of and into the UP, and unregistered consumption of intoxicants all had to be contained. Increasing prices and restrictions of *abkari*, as part of a ‘minimum consumption, maximum revenue’ policy, forced these activities further underground and into new geographical and technological channels. The activities of urban and rural populations – within the UP, from adjacent provinces and the Indian states of Rajputana and Central India – had to be tracked in the city, in the village, along waterways, trunk roads and railways, and even through the postal system.

On 28 June 1947, D Das, Excise Collector for Allahabad, reported that “a gang consisting of six persons who were not opium cultivators was winding its way down the river Ganges in a boat, when a search was effected by the Provincial Excise staff. The opium was found concealed in the thatch of the boat.” On the eve of independence for India, the Opium, Police and Excise departments of the UP were still struggling to keep a lid on the malignant genius of *abkari* crime.

Luke Gibbon is a postgraduate student in his first year of study at the University of Strathclyde (E.luke.gibbon@strath.ac.uk).

**Above:**  
Opium poppies.  
Rowan McOnegal

# The cultural economy of public health in British West Africa, c. 1865–1965

**RYAN JOHNSON**

The primary aim of my project is to understand the interplay and impact of culture and economics on the language and practical outcomes of public health policy in British West Africa, c. 1865–1965. It also attempts to place British West Africa within a global context.

While I will primarily investigate the successes and failures of public health policy in British West Africa, I will interpret them in relation to the rise of global uniformity and interconnectedness during this period. An analysis of public health policy is ideal in this respect because it speaks not only to larger global economic and political changes but also to the more difficult realms of culture, ideology and bodily practices. Overall, by drawing the local and the global together, this project will hopefully shed light on the changing nature of Britain's world system, and its evolving ambitions throughout the period under study, enriching not only the history of medicine and imperial and colonial history, but world history as well.



Integrated analysis of policy making and the importance of economic factors in colonial contexts is by no means exceptional, but it has become increasingly rare, the tendency being to eschew the more problematic areas of implementation and 'response' and to concentrate on rhetoric and cultures of colonialism. My project hopes to remedy this by placing both culture and economics in the same analytical framework. One particularly novel feature will be the attention given to commercial factors, which appear to have played a disproportionately important part in the development of colonial health policy in this region. When investigating the formation of public health policy in West Africa, historians have typically focused on policies of 'constructive imperialism' emanating from Joseph Chamberlain and the Unionists. The City,



however, is traditionally distanced from interests in West Africa. An exciting facet of the project is to question this assumption by investigating the intricate economic and cultural networks that linked the City with the majority of traders and merchants holding interests in West Africa.

Another important aspect of the research is looking at the role of local men and women. West Africans had long been in contact with Europeans and Western medicine. Therefore, it is likely that they had a significant impact on the formation and execution of public health policy. The research will attempt to identify the ways in which West Africans were capable of influencing and shaping public health policy and practice in the region. One place to begin answering this question is investigating the many talented Western-trained West African physicians practising throughout the 19th and 20th centuries. A powerful West African elite, a class to which these physicians often belonged, also wielded significant influence in the region. Finally, the project will investigate the work of West African intermediaries and medical subordinates. This includes the work of vaccinators and dispensers trained by the colonial state, as well as that of healers and herbalists, who were an integral component within the network of healthcare providers in West Africa.

Overall, my proposed research is concerned with understanding problems affecting modern-day policies and programmes of public health in West Africa and the rest of the global South. How might current problems of healthcare implementation and delivery be rooted in the colonial past? And how can a study of public health in British West Africa help us to ameliorate these problems?

Dr Ryan Johnson is a lecturer in History at the University of Strathclyde (E.Ryan.Johnson@strath.ac.uk).

**Top right:**  
Head of a guild of  
herbalists,  
Nigeria, 1937.

**Above:**  
Hospital in Bathurst,  
Gambia, c. 1911.

# Occupational health and safety in the Scottish iron and steel industry, 1930–88

## DAVID BRADLEY

My thesis aims to explore the topic of occupational health and safety within the iron and steel plants in the west of Scotland. The period of study begins with the near-monopolisation of the industry under the Lanarkshire-based Colvilles firm in the 1930s, and ends with its privatisation in 1988. This industry went in and out of public ownership throughout the period, so there is potential for comparing occupational health and safety cultures under two distinct management regimes.



Although the field still lags behind its US counterpart, a number of recent academic studies on occupational health and safety have been produced in the UK. For example, the mining and railway industries and the asbestos and silicosis hazards have been explored by historians such as Johnston, McIvor, Hutter, Bartrip, Tweedale and Morrison. These studies have exposed the phenomenon of industrial politicking between unions and state and management bodies, and the matter of culpability. The body of literature on occupational health history has included distinct ‘employer/employee’ and ‘criminal/victim’ perspectives, especially when the volume of knowledge that employers and employees had concerning the hazardous nature of work has been considered. Similarly, the prioritisation of occupational health and

safety by trade unions has been addressed. Studies of occupational health and industry have also examined the concept of male work culture and ‘masculine’ behaviour; Johnston and McIvor have commented on the “hegemonic masculinity” that existed in industrial communities and the impact that this had on male bodies, particularly with regard to work in the coal- and asbestos-related industries. Steelmaking involved exposure to a variety of hazardous conditions, including dust, noise and heat. Therefore, the question of how safe labour in this industry was – and, indeed, how safe it could practically and conceivably be made – is important. For example, some workers questioned the rationality of providing protection in the form of earmuffs in an industry where communication with each other was essential, yet industrial deafness has become a problem for many former steelworkers.

Sources used in my study include trade union records (in particular, those of the Scottish Trades Union Congress, the Iron and Steel Trades Confederation and the Amalgamated Engineering Union), Factory Inspectorate reports, the Business Archives of the University of Glasgow and epidemiological studies. Using these, it will be possible to identify health and safety issues throughout the period under study. Health and safety issues emerging from these include the establishment of safety committees and the appointment of safety representatives, and other industry-specific issues such as protective equipment and clothing. The provision of convalescent care and facilities was also prevalent in the period immediately following World War II. Epidemiological studies have highlighted the risks associated with working in and living around steelworks, with regard to cancer-causing agents and respiratory ailments.

As well as covering documentary evidence, I am also undertaking an oral history project as part of this study. Semi-structured interviews are being conducted with current and former steelworkers across a range of positions within the industry about their working experiences, with particular regard to occupational health and safety. These will involve workers involved at shop-floor level, management representatives and medical professionals such as occupational hygienists. Such testimony serves to complement and corroborate the primary source analysis. Indeed, one English steelworker has remarked that “a textbook alone cannot describe the heat” of working in the steel industry: the oral history project more effectively explores the nature of work in the steel industry and its impact on the workforce and surrounding communities.

David Bradley is a postgraduate student in his second year of study at Glasgow Caledonian University (E.David.Bradley@gcu.ac.uk).

**Above:**  
Metal plants pose many occupational safety issues.  
Peisen Zhao/  
iStockphoto

## Wehrmacht health and medical services during the Italian campaign, 1943–44

### ALEX FLUCKER

My research is a case study of the medical services of the German Tenth Army during the first year of the Italian campaign, September 1943 to September 1944. Allied forces invaded mainland Italy in early September 1943, after the fall of Mussolini and their military success in Sicily. Rather than abandoning southern Italy, which had been half-expected by the Allies, the German response to the invasion has been described as “remarkably swift, efficient and massive”, as the Tenth Army – re-established especially for the Italian campaign – was sent south to repel the Allies. From then until its capitulation in 1945, the German Army managed to hold the Allies at bay, preventing them from advancing rapidly up the Italian peninsula with skilful defensive fighting.

My research investigates the ways in which its medical service both contributed to and hindered the Tenth Army’s performance. In civilian life, doctors are primarily concerned with the welfare of individuals; however, during wars the needs of individuals are secondary to military requirements, which are chiefly concerned with tactical and strategic considerations. In addition, military doctors in the Wehrmacht were also subject to National Socialist ideology in which the needs or desires of individuals were subservient to the needs of the collective. My thesis focuses on how Tenth Army doctors delivered appropriate healthcare to soldiers, and the extent to which these doctors were constrained by military objectives and National Socialist ideology.

In the thesis, these issues are explored through a series of thematic chapters that investigate the responses of the medical service to a number of challenges faced by the Tenth Army during the

Italian campaign. These challenges include malaria, sexually transmitted disease, mental illness, gastrointestinal problems and winter ailments, with a focus on frostbite and other cold injuries, as well as the challenges involved in the delivery of healthcare to soldiers caught up in mountain combat.

The research is founded on several historiographical traditions, although more particularly on the history of military medicine and the history of Third Reich. Early histories of the medical services (and of the rest of the Army) perpetuated the myth of a ‘clean’ Wehrmacht. A similar myth prevailed among the medical profession as a whole, where it was alleged that medicine had been a victim of Nazism. However, these myths have been gradually demolished owing to an increasing awareness of both the medical profession’s and the Wehrmacht’s close relationship with National Socialism, and a more critical analysis has begun to appear. Several recent works, which have been openly critical of the Wehrmacht medical service’s treatment of the soldiers under its care, have acted as direct catalysts for my research. These works include claims that the main interest of military doctors was to get their patients back to the front line as soon as possible, and claims that Wehrmacht doctors acted more as Nazi officers than as therapeutic healers.

A range of archival sources have been consulted and analysed for this study. These include all Tenth Army doctors’ daily notes and medical reports for the period, as well as memos and correspondence with colleagues in affiliated units. Also consulted were primary sources from the Military Medical Academy and the Army Health Inspection, both in Berlin, which provided insight into the attitudes and theories of higher-level medical staff that informed the theoretical context in which Tenth Army doctors worked.

Alex Flucker is a postgraduate student at Glasgow Caledonian University (E Alex.Flucker@gcu.ac.uk).

## Occupational and environmental health research at Glasgow

### ARTHUR MCIVOR

The cluster of folk at the Centre for the Social History of Health and Healthcare working on occupational and environmental health history are alive, well and research-active!

CSHHH Research Associate Andrew Perchard has recently completed work on his aluminium communities book, *Aluminiumville* (due out later

this year), which includes an extensive section on the development of medical science and the occupational and environmental health hazards of working in the aluminium smelters in the Scottish Highlands. Dr Perchard presented papers on the latter at the Canadian Society for the History of Medicine (Montreal, May 2010) and at the 4th International Conference on the History of Occupational and Environmental Health (San Francisco, June 2010).

Dr Perchard is currently developing his interests in deindustrialisation and health, focusing on traditional Scottish working-class communities, both in the central belt and in the Highlands.

CSHHH Research Associate Sue Morrison (previously a PhD student here) has just had her first book published, *The Silicosis Experience in Scotland* (Lambert Academic, 2010). Dr Morrison is currently pursuing her interests in Scottish environmental history. Wellcome Trust-funded PhD student William McDougall has recently started his investigation of the Society for the Prevention of Asbestos and Industrial Diseases, 1969–2000. He is researching the extensive archive donated by its founder, the late Nancy Tait, deposited at the University of Strathclyde Library/Archives in Glasgow. PhD student Emma Reilly, working on the military body in World War II, has been exploring the connections between the occupational health movement in the 1930s and 1940s and military medicine.

Ronnie Johnston and I continue with our collaborative work on occupational health history, developing our work on dust diseases, company occupational health strategies and occupational medicine in Scotland, together with new work on TB as an occupational disease. Papers on the latter were presented this year at conferences in Montreal and San Francisco (details above).

An important strand of our work on occupational medicine/health in the CSHHH involves oral history methodology, and close liaison on this continues with the Scottish Oral History Centre at the University of Strathclyde. Recent interviews include several Scottish occupational hygienists and veterans of World War II working on the 'home front' in the Reserved Occupations.

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## Pharmacists and the National Health Service, 1942–48

### SUSAN OSBALDSTONE

**My MSc dissertation focuses on the decision of UK pharmacists to enter the National Health Service (NHS) in 1948. To do this, my research will focus on the claims and concerns of pharmacists, from the initial consultations on a health service in 1942 until 5 July 1948, when the NHS Acts came into effect. Although there is an abundance of literature available on the origins of the NHS, most of it focuses on either the high politics and government policies involved or the well-publicised claims of the British Medical Association (BMA). Most literature, if it mentions pharmacists at all, characterises their entry into the NHS as trouble-free, usually only stating that pharmacists did enter the NHS, the rate received for prescriptions and the differences in the Scottish and English rates.**

Pharmacists were generally in favour of the principles behind the NHS and, although their decision to enter the NHS was not as tumultuous as the doctors', it was not entirely unproblematic. I aim to explore the problems and concerns that faced pharmacists during the period 1942–48 and analyse how these problems were resolved, allowing an overwhelming majority of pharmacists to agree to dispense in the NHS. My research is based on a variety of primary sources including contemporary pharmacy journals, newspapers and a variety of NHS administrative, service and staff files that provide information on negotiations with the Ministry of Health, details of the pharmacists' working party and specific files relating to Scottish negotiations.

The research I have done thus far has highlighted pharmacists' concerns about remuneration under the new regime. They were worried that joining the NHS would result in a loss of private dispensing and that they would be forced to subsidise dispensing in the NHS as they had under National Health Insurance (NHI). Their main aim, with regard to finances, appears to have been securing reasonable compensation, which would reflect the high standard of work they were expected to perform; Scottish pharmacists, in particular, were keen to ensure that the higher rate they received for NHI dispensing continued in the new service. However, this led to internal divisions between proprietor chemists and employee chemists on the one hand, and retail chemists and hospital pharmacists on the other: each felt that the other would secure a more advantageous position.



Right:  
A pre-NHS London  
pharmacy.

The implementation of the NHS also prompted attempts to improve the professional status of pharmacists. Some thought that they should take the opportunity to enhance standards of education and training as it would be beneficial in future negotiations, particularly in relation to pay. This study will also analyse the popular perception of pharmacists during this period, as many thought that they did not publicise their case as well as the BMA, and that this had an adverse effect on their claims in the eyes of the public. While this research will discuss pharmacists' entry into the NHS nationwide,

it will also highlight the differences and continuities between Scotland and England and attempt to provide a more coherent understanding of what drove Scottish pharmacists to work in the NHS. I hope to enhance specific understanding of pharmacists' entry into the NHS in 1948 and also contribute to a more comprehensive understanding of the creation of the NHS, both in Scotland and in Britain as a whole.

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## Wounded Scotland: interwar disabled veterans

### EMILY ROTHAM

Scotland lost approximately 74 000 men in the Great War, but over 167 000 came back wounded. The extent of the injuries and disease suffered was great, and the effect was both physical and emotional – on the individuals and society.



Scotland contributed to the War as a part of Britain and therefore it and its people have been referred to sparsely in the British histories of the Great War. As Scottish history is a relatively new historiography, the interwar period appears limited in terms of literature on the effects of the War on Scottish culture and people. The disabled veteran is a neglected and forgotten figure in scholarly work, and so my study draws these two historical gaps together to investigate how attitudes changed towards disabled veterans in interwar Scotland.

My full-time doctoral research, funded by Glasgow Caledonian University, will first track the journey of the physically wounded soldier from the field to the rehabilitation hospitals in Scotland to understand where the British journey ended and the Scottish experience began during the War. However, the crux of my research will investigate interwar attitudes to disabled veterans from different classes and

geographical locations in Scotland, as well as the changing opinions within this disjointed group.

Therefore my choice of sources will address the different angles of society from which the chapters of my thesis will be carved. First, the press will be analysed – particularly the *Scotsman* and the *Glasgow Herald*, as well as local newspapers – to follow the changing representation of the disabled veteran from the hero, a worthy charitable object, to a potential political and physical threat to society. Secondly, the responses from the organisations and institutions that were directly involved with the rehabilitation of the disabled veteran in Scotland will be analysed through archival research on local charities, hospitals and rehabilitation centres, the poor law and the religious response.

One of the main aims of the thesis, however, is to add to the evolving historiography of disability history and find the voice or many voices of the Scottish disabled veteran. The starting-point for this search will be the local political arena that some disabled veterans greatly contributed to in Scotland. A further aim of the project is to challenge the definition of disabled veterans as a group: the label covers people with a vast array of ailments, injuries and disabilities – some temporary, others permanent – whose recovery and rehabilitation differed owing to their hospital, charitable and home experiences. Therefore to argue that they were connected to each other as a unified group simply because they were all victims of the War does not represent the complexity of the social and medical situation that disabled veterans found themselves in upon their return to Scotland.

My thesis is filling a significant gap in Scottish social history, about how attitudes towards individuals with disabilities have a nature of changing quite dramatically owing to social concerns and fears.

Emily Rotham is a postgraduate student in her first year of study at Glasgow Caledonian University (E.Emily.Rotham@gcu.ac.uk).

**Above:**  
Wounded Scots  
Guards. By Fortunino  
Matania, 1916.

## Health history and policy

### CHRIS NOTTINGHAM

My main current interest lies with the development of a study of child protection. As well as being a topic of intrinsic importance, it offers rich and vivid opportunities for someone concerned with the interactions between health and welfare issues and the realm of politics and policy.



It is an opportunity to write a history that could usefully illuminate the development of professional education, inter-professional relationships, the changing role of voluntary groups, and the constantly shifting relationships between politicians, the public, the media and health and welfare professionals, for child protection issues have proved one of the most powerful drivers of change in all of these areas. It is significant that concerns for child protection have recently led policy makers to link it with broader public health issues and to require the active engagement of all social and health professionals.

The project began and continues on the basis of my collaboration with Chris Robinson of the Scottish Government's Social Work Inspection Agency. Our interest is both academic and policy-oriented, and is based on a shared dissatisfaction with existing academic studies and the overly narrow focus of the official inquiries into the many high-profile cases of recent decades. The history we are currently writing aims to capture the development of child welfare issues in Scotland from the late 19th century until the present. We believe an accurate and nuanced understanding of past practice will serve to inform current debates. To this end we have just finished an article for the *British Journal of Social Work*, presented papers at two international conferences and delivered a keynote address to a range of professionals at an event organised by the Scottish Forum for Professional Ethics. We also intend to produce materials suitable for use in the education of a wide range of professionals. So far we have had active engagement with social workers, health visitors, health staff at the Queen Mother's Maternity Hospital in Glasgow and the police. Historical contextualisation, we feel, can be a useful factor in helping professionals

charged with this exceptionally difficult responsibility, and so far the reactions we have had suggest that they do too. We feel we can at least broaden the terms of the debate and stimulate interagency discussions. A recent development is engagement with a large Scottish and UK government-supported research project involving health and social agencies, local government and the police, on public health and community development with a particular stress on children's environments, in the Inverclyde district.

I am also currently leading an outreach project representing a collaboration between the Centre for the Social History of Health and Healthcare and the Royal College of Physicians and Surgeons of Glasgow. The focus of events, planned for 2011, are the Medical Officers of Health for Glasgow from the origins of the office in the mid-19th century up to its abolition in the 1974 health service reorganisation. From its development as an industrial city to the present day, Glasgow has been seen as a repository of strikingly poor population health. As such it has engaged the attention of every generation of public health reformers. In the light of this it is surprising that the Medical Officers, with the partial exception of James Burn Russell, have not attracted the historical attention that would seem appropriate.

This project will have its academic component: Glasgow clearly provides a useful case study in the development of the concept of public health itself and a useful focus for applying the conceptual frameworks that have been developed in studies of other public health regimes. However, the immediate focus will be on the organisation of an exhibition in the Royal College illustrative of the way in which the Medical Officers viewed the problems of their day, agitated and acted to alleviate them, and in the course of this made their contribution to the development of the modern city. As well as the exhibition there will be a series of lectures directed at different audiences (from older school students to postgraduates in history and the medical and health professions), articles in the Scottish press and the creation of a public health walk through the city. The success of the project will clearly depend on engaging individuals who are not currently directly involved with the Centre, and one of the benefits of the project will be to extend the reach of the Centre itself. We are currently arranging the larger organising committee, which will include academics from other institutions in the city and beyond, medical and health professionals, journalists with particular interests in health issues, independent researchers and public health professionals who have been involved in more recent efforts to improve the health of Glasgow's population.

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**Above:**  
Historical study of child protection issues can add perspective to current policy debate.  
*Anthea Sieveking*

# Tuberculosis, the state and international intervention in India, 1914–82

## NIELS BRIMNES

**A study of tuberculosis control in India in a short 20th century is more than just a study in disease control. The nature of TB – ever-present but hardly visible, ‘chronic’ but infectious, and intimately connected to issues of poverty – makes it particularly suitable for analyses of the shifting features of the state and of the nature and impact of international health interventions during India’s transition. As the country moved from being ruled by colonial authorities with limited capacity and will to intervene against disease to a post-colonial state with a modernist ideology and ambitions to develop through state regulation and intervention, TB control strategies changed profoundly. This study also offers an excellent perspective on major social and political developments in modern India.**

Although probably prevalent in India for centuries, TB was not discovered as a major health problem in India until the 20th century. In 1909 the Director of the Indian Medical Service, Sir Pardey Lukis, noted that it was spreading at an “alarming rate in all the larger cities of India”, and he suggested that the causes of the disease be investigated and arrangements made both for its prevention and treatment. Similarly the 1914 All-India Sanitary Conference, held in Lucknow, passed a resolution recording that TB demanded “serious attention and special methods for dealing with it”.

This project will ask why the 'magic bullets' of the immediate post-independence period did not succeed in eliminating TB

In the following decades TB continued to command attention. In 1930 the public health commissioner declared: “There is little doubt that the population of the large towns, and especially of the larger industrial urban areas are very severely infected.” Three years later the Commissioner identified TB as “certainly one of the of the main health problems in India, ranking next to malaria in this respect. In fact, it may be regarded as an epidemic disease.”

The authoritative report of the Bhore Committee – established in 1943 to lay out the guidelines for a future health service in India – noted that there were 2.5 million cases of TB in India and that the disease caused 500 000 deaths every year. By mid-century, it was recognised that only malaria claimed more deaths. The control strategy advocated by the Committee in many ways summarised the way colonial authorities had approached the disease. Recognising that a strategy based on expensive sanatoria or

hospitalisation was not feasible in India, it placed “an organised domiciliary service” centred on approximately 200 TB clinics in the forefront of its proposed control programme. Supplemented by educational efforts, limited care and supervision was all colonial India could offer.

Shortly after independence, the context of TB control changed dramatically. Within a relatively short period of time the Indian health authorities obtained what had been denied to their colonial predecessors: two specific biomedical remedies against the disease. These potential ‘magic bullets’ were BCG vaccination and domiciliary chemotherapy. BCG vaccination was introduced in 1948 by the International Tuberculosis Campaign, a Scandinavian vaccination initiative, and mass vaccination conducted from 1951 through massive campaigns supported by the WHO and UNICEF. Antibiotic drugs effective against TB were discovered from the 1940s and in the following decades it was established – largely through trials conducted in India with assistance from the British Medical Research Council and the WHO – that these drugs were effective even if administered on a domiciliary basis. These findings made large-scale chemotherapy against TB realistic in India, and they became instrumental in developing the DOTS programme, which today is the centrepiece of WHO efforts to combat the disease worldwide.



In 1959 a National Tuberculosis Institute was established in Bangalore to design an integrated TB control programme. This ran from the early 1960s to the early 1990s, but faced considerable obstacles and difficulties. In the 1990s a new programme – the Revised National Tuberculosis Control Programme – started operating. Although this was more successful than its predecessor, TB remains a major problem in India. According to figures available from the Institute’s website, TB in 2005 caused 330 000 deaths in India. During the swine flu panic in 2009, the magazine *Frontline* remarked with sobriety that the greatest killer in India was not the new scare, but an old acquaintance: pulmonary TB. In India, TB has indeed been a disease that refused to go away.

Utilising material located in India, Britain, the USA, Switzerland and Scandinavia, this project will seek to

### Right:

The tuberculosis ward of a central Indian hospital.

answer questions relating to the history of medicine, the state and international organisations. Among other things, it will ask how TB was discovered as a major health problem in India, and how colonial efforts to control the disease developed. It will ask why the ‘magic bullets’ of the immediate post-independence period did not succeed in eliminating the TB problem. It will ask how the state and the state’s ability to intervene in Indian society changed over time, and particularly how and to what extent the post-colonial state constituted a break with its colonial predecessor when it came to the implementation of disease control measures. And it will ask how the relationship between India and international health

organisation, mainly the WHO and UNICEF, evolved. Finally, it is my hope that the project will show how the histories of disease control, decolonisation and globalisation in the 20th century are thoroughly intertwined and constitute a challenging, but also highly rewarding, field of investigation.

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## Romanian eugenics and its international context

### MARIUS TURDA AND TUDOR GEORGESCU

**The legacy of 20th-century eugenics has propelled fresh research into a myriad of international ideological movements, professional networks and population policies. As a result, scholars now know a great deal about the relationships between British, US, German and Scandinavian eugenic movements – and the international networks that linked many of their protagonists.**

We have also gained considerable insights into attempts by European (Italian, French and Spanish) and South American eugenicists to create a ‘Latin’ brand of eugenics. Although recent scholarship has focused increasingly on case studies outside of western Europe, and their relationships with the established ones, little attention has yet been paid to how Romanian eugenicists engaged with the animated international discussion and proliferation of eugenics themes and methodologies.

With a 12-month research grant from the Wellcome Trust, this pilot project on Romanian eugenics in its international context investigated the influences of both local and international agents on how and why Romanian eugenics emerged and evolved between 1918 and 1944. To approach this in its international context invites us to examine how eugenic ideas were mobilised, and how scientific networks aided their dissemination into eastern Europe. While state institutions certainly played a key role in the development of eugenic projects and often take centre stage in research projects, they do so at the expense of investigations into the significance of outstanding individuals, intellectuals, professionals and social agencies.

Interwar Romania offers a particularly rewarding case study owing to, among other things, its numerous and increasingly aggressive nation-building projects aiming

to incorporate new territories after World War I that had created ‘Greater Romania’, the profound socio-cultural and economic differences between these various new regions, as well as an internationally networked elite in search of national roots. Reconstructing this institutional network linking the local, the regional, the national and the international is central to understanding how eugenic ideas travelled between the national and international stages, and how they were ultimately adopted or rejected. In doing so, this pilot project mapped the diversity of participants involved in national debates on health and hygiene, ranging from state institutions, churches and ethnic minorities to the general public in newspapers and local health initiatives in the regional capitals of Romania (Cluj, Chişinău, Craiova and Iaşi).

Exploring these contexts meant exploring archives that had until recently been inaccessible, and locating new holdings (commonly considered destroyed). So far, we have been working with a number of hitherto-unknown sources discovered in the archives of the Ministry of Health, the Securitate (secret police), the Institute of Hygiene, the Institute of Legal Medicine and the Romanian Academy of Sciences.

Our preliminary results point to the existence of a vibrant eugenic movement and culture in Romania between 1918 and 1944, embodied by a host of eugenics societies and organisations, including: the Eugenics and Biopolitical Section of the ‘Astra’ Association in Cluj, established by the physician Iuliu Moldovan in 1927; the Anthropological and Demographic Section of the Romanian Social Institute, established by the demographer Sabin Manuilă in 1935; and the Romanian Royal Society of Eugenics and Heredity, established in 1935 by the neurologist Gheorghe Marinescu. In 1939 these societies formed the Union of the Eugenics Societies in Romania under the presidency of the neuropsychiatrist Constantin Parhon, at the time also president of the International Latin Federation of

Eugenics Societies. During the 1940s there was also a Bio-Anthropological Section of the Central Institute of Statistics directed by the racial anthropologist Iordache Făcăoaru and a Section on Eugenics, Protection of Mothers and Infants of the Romanian Academy of Medicine (members included the eugenicists Gheorghe Banu and Făcăoaru and the anthropologist Francisc Rainer). Moreover, we have discovered that the Royal Society of Eugenics had two sections in the provinces: one in Craiova, in the region of Oltenia in western Wallachia (president Ion Vasilescu-Bucium) and the other in Chişinău (president I Lepşi). Like Cluj, Chişinău became part of Romania in 1918.

Considering the broad range of eugenic movements in Romania between 1918 and 1944, it soon becomes apparent that eugenics was an intrinsic part of a broad spectrum of new nation-building agendas, ranging from public health and social welfare to racial research. Eugenics, moreover, widely served as a vehicle for transmitting medical, social and cultural messages, reflecting modernity's relationship with state-sponsored policy initiatives. Sometimes these initiatives

transcended political differences or served opposing ideological camps. Romanian eugenicists classified and utilised national identities in a political climate where different biological and cultural definitions of the nation competed for legitimacy.

A more nuanced historical and critical approach is needed to study eugenics from a local and regional perspective. Histories of western and eastern European eugenics must be explored together in order to retrace the experience of eugenics between regions and states as well as within multi-ethnic boundaries. The reinterpretation of the eugenic experiences in Romania is a fine example of how the history of eugenics can be comprehensively investigated and contextualised as the transnational phenomenon it undoubtedly was.

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## The case of Nicolai and spectral illusions theory

### SHANE MCCORRISTINE

In 1799 Christoph Friedrich Nicolai, a Berlin bookseller and philosopher of a sceptical disposition, read a paper to the Royal Society of Berlin entitled 'A Memoir on the Appearance of Spectres or Phantoms occasioned by Disease, with Psychological Remarks'. After its translation into English in Nicholson's *Journal of Natural Philosophy, Chemistry and the Arts* in 1803, it attained status as a paradigmatic case throughout the psychological literature of 19th-century Britain.

Following a diagnosis of "violent giddiness" due to excessive study, Nicolai was accustomed to being bled twice a year by his physician. But Nicolai inadvertently missed his appointment in the second half of 1790, with intriguing results. One morning in February 1791, during a period of considerable stress and melancholy in his life, he saw the apparition of a deceased person in the presence of his wife, who, however, reported seeing nothing. This apparition haunted him all day, and in the subsequent weeks the number of these ghostly figures increased. However, Nicolai resolved to coolly use his powers of observation to study the phenomenon and attempt, if he could, to trace its cause.

When the apparitions began to speak to him, he resolved to be bled by his physician, and leeches were applied to the anus one April morning. Almost immediately, Nicolai noted the acute link between his physiological

condition and the spectacle of phantoms that haunted his sensual world: his awareness of the apparitions swarming around him in the surgical room gradually disappeared and by the afternoon of his bleeding the ghostly figures seemed to move more and more slowly, then became paler, and had finally dissolved into the air by the evening. Ruminating upon this very graphic illustration of the connection between bodily disequilibrium (in the form of disordered venereal circulation), the natural vivacity of the imagination and the appearance of spectres in the visual sphere, Nicolai described it as a lesson for philosophers and sceptics to be both more credulous of accounts of ghost-seeing and at the same time less credulous of such phenomena that show "how far the human imagination can go in the external representation of pictures; it may also admonish those well-disposed persons not to ascribe to their visions any degree of reality, and still less to consider the effects of a disordered system, as proofs that they are haunted by spirits".

Modelling himself on the new breed of psychological investigators, Nicolai distinguished his response to the appearance of ghosts from those of the insane, the fanatical, the superstitious or the lovers of the marvellous, who would readily impart reality to such hallucinations, while he "made them subservient to my observations, because I consider observation and reflection as the basis of all rational philosophy".

This decision by Nicolai not to ascribe any objective reality to his visions, not to believe in what he saw and what was presented to his senses, proved a landmark,

showing the length to which practitioners of the new empirical psychology were prepared to go in the pursuit of knowledge of the internal and external worlds. In contemporary cultural terms it also demonstrated a courageous amount of faith in the powers of self-observation and the strength of the medical imagination to map out the gothic shadows of the psyche. Nicolai's memoir provided medical philosophers with a lucid example of "with what delusive facility the imagination can exhibit not only to deranged persons, but also to those who are in the perfect use of their senses, such forms as are scarcely to be distinguished from real objects". The notion that a person could dream while awake seemed like an uncanny contradiction in terms, yet it is clear that in Nicolai's narrative the sensual objects perceived by the ghost-seer were taken as the objects of the dream world: valid and yet false. Nicolai reasoned 'as if' he were awake by discounting the phenomena in his sensual field and exercising the use of enlightened reason. Inaugurating the psychological investigation of visual hallucinations, the case demonstrated the startling potential for the blending of separate spheres of human experience previously considered inviolable and self-contained.



**Above:** Nicolai reasoned that apparitions were evidence not of ghosts but of physiological disorder.  
M Eric Honeycutt/  
iStockphoto

Coming at the turn of the 19th century, Nicolai's narrative highlighted the huge challenge that ghost-seeing would present to the empirical philosophies of the time due to the fact that ghost-seers appealed directly to the evidence of their senses to support their claims of supernatural visitation – most frequently the evidence of the sense of sight, considered the most veridical human sense. Furthermore, Nicolai's

grounding of abnormal perception in the specific conditions of the subjective imagination raised disturbing questions about the subjective nature of human vision and the simultaneously atomised and permeable characteristics of human psychology. It is with this case, obsessively returned to throughout the 19th century, that the ghost-seer enters the modern age as a figure haunted by his own projections.

The translation of Nicolai's narrative into English in 1803 contributed greatly to the formation of spectral illusions theory, a rationalist and sceptical theory that maintained an intellectual continuity and ideological consistency in the British medical imagination until the spread of spiritualism in the 1850s. Drawing upon the tradition of the sceptics who had attacked belief in witchcraft in the 17th and 18th centuries, these works rehearsed well-known cases of mass delusion and fallacious perception, often alarmingly dismantling any confidence in the capacity of the human mind to accurately interpret the world around it and to distinguish fact from fiction. Two of the most influential studies upon the nature and origin of hallucinations in the early 19th century centred their examinations on the supposed sighting of apparitions and phantoms of the dead.

In *An Essay Towards a Theory of Apparitions* (1813), the Manchester physician John Ferriar wrote that apparitions could be explained by what he termed a "renewal of external impressions" through which a visual memory could be reanimated via the visual sense. Indeed, Ferriar extended the principle of a renewal of external impressions to liken ghost-seeing to benign aesthetic states such as dreaming and artistic composition, describing them as waking dreams because they were "composed of the shreds and patches of past sensations". Samuel Hibbert in *Sketches of the Philosophy of Apparitions; or, an Attempt to Trace Such Illusions to Their Physical Causes* (1824) enlarged upon Ferriar's writings and outlined the similar thesis that "apparitions are nothing more than ideas, or the recollected images of the mind, which have been rendered as vivid as actual impressions". Agreeing with Ferriar that ghosts could be understood as waking dreams, Hibbert used analogies with the chemical world to illustrate the changeable nature of the individual's mental state, such as the intoxications of dangerous miasmas and the "visionary world" induced by exposure to nitrous oxide. A recurring reference point in Hibbert's text was that the "renovation of past feelings" through association to a certain level of intensity could produce apparitions in the mind of the percipient.

Through stressing the optical sense in their theories of spectral illusions, Ferriar and Hibbert supported those who argued that such visual phenomena had a peripheral origin in the brain. They stressed that people who experienced spectral illusions were neither insane nor ghost-seers, but merely peripherally affected by abnormal impressions and could be treated by such down-to-earth methods as bleeding and the application of active purgatives. The secular implications of theories

that anchored the supernatural in the venerable fluctuations of the body were easily detected by contemporaries. One physician recorded the case of a gentleman from Silesia who was “liable from time to time to a hemorrhoidal flux” and who was followed all over his house, and into bed, by a “spectral company” that included his niece and her husband. Whereas in previous centuries such an episode would have elicited a variety of supernatural interpretations, in this case the prescription was more down to earth: “Gentle laxatives; bathing of the feet; and afterwards a tincture of cinchona restored him to his usual state of health”.

It is clear that these physiological theories of visual hallucinations formed the basis for later psychological theories based upon the similarities between the

phantasmagoric nature of the dream world and the ghost-seeing experience, for by withdrawing the origins of ghosts from the supernatural world these theories laid responsibility for such marvels on the occult workings of the human mind. By the mid-19th century it was argued that it was in the “shadowy border-land betwixt physiology proper and pure psychology that apparitions wander” and the debate in English and French psychology became not whether these perceptions were veridical or not but whether they had a central or peripheral origin in the brain.

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## Get back to where you once belonged: responses to South Asian doctors in the National Health Service, c.1960–80

### ANDREW HULL AND SANJOY BHATTACHARYA

**Nowhere, perhaps, can history speak to policy more clearly than on the issue of overseas qualified doctors in the NHS. A xenophobic attitude towards immigration was the hatred that dare not speak its name in the recent British general election, as the reception of Gordon Brown’s unfortunate comments that became known as ‘bigotgate’ showed all too clearly.**

This time around it is immigrants from new (eastern) European Union states who are arousing in some British citizens irrational terrors about the ‘other’ in our midst. A particular focal point for such fears now is European doctors working in the NHS; the reputations of the many, to whom we owe the continued operation of the NHS, have been sacrificed to the few unfortunate cases where terrible errors have been made (e.g. 2008’s David Gray/Dr Daniel Urbani case). A moral panic has ensued, spawning headlines such as “Foreign doctors’ poor English is killing patients, say MPs: tighter controls on GPs from overseas ‘must be introduced immediately to save lives’”.

It is ironic that South Asian doctors, the previous focus of the overseas doctor panic, still have to take the PLAB English language test to practise, while European doctors have not since the 1983 Medical Act. Moreover, South Asian doctors have also been subjected to the stringent new points-based immigration system. This is highly reminiscent of the way that overseas qualified doctors (OQDs) were treated 30–40 years ago: a heavy-handed type of control, characterised by historians as also highly politicised and infused with the casual racism that still

permeates British society, that Dr Surendra Kumar, then Chairman of the Overseas Doctors Association, warned against in October 2001: “We must not repeat what happened in the 1960s and 1970s when doctors from the Indian subcontinent were encouraged to come here and then found themselves mishandled and discriminated against. They were moved from pillar to post and many ended up being pushed into the less attractive specialisations or given GP posts in inner-city areas.”

### Of the 3800 increase in UK hospital staff between 1960 and 1967, 3000 were born overseas

Our ongoing research has already revealed much of this unpalatable story. By the early 1960s, OQDs from the Indian subcontinent (ISC) were coming to the UK in increasing numbers for training, clinical experience and qualifications, and to secure better wages. Wartime mistakes with medical school quotas had delivered an acute shortage of home-produced medical graduates, which was filled by temporarily opening the gates (embodied in the 1962 Immigration Act) to OQDs. These incoming doctors found that, up to about 1969, jobs, although often in less desirable areas and specialties and at a junior level, were plentiful. Of the 3800 increase in UK hospital staff between 1960 and 1967, 3000 were born overseas; by the mid-1960s, OQDs (mostly from the ISC) made up 40 per cent of NHS junior staff. However, once British-born doctor numbers began to rise again, the numbers of OQDs allowed in was reduced, and those remaining found it harder and harder to get posts that British doctors wanted; hence many highly qualified people who had planned on consultant careers ended up as inner-city GPs.

In 1962, as his Hospital Plan dramatically expanded NHS staffing needs, Enoch Powell, Secretary of State for Health, appealed for help from ISC doctors to bridge the skills gap caused by the 1957 Willink Report's gross underestimations of home demand for UK-produced doctors. George Godber became Chief Medical Officer in 1962 and immediately raised medical school intakes, but this would not mean more new doctors until five years later. Powell thus welcomed South Asian doctors as temporary educational migrants: after in-post postgraduate training and Royal College Fellowship examinations, they would go home, to be replaced by a new cohort. Temporary staff shortages would be covered with no sacrifice of higher posts to OQDs – a win-win situation, as the UK could rightly claim to be fulfilling post-colonial obligations, while not contributing to ISC brain drain, and at the same time getting cheap labour for the most onerous NHS junior grades. As more home-produced doctors came back on stream, the flow of ISC doctors would gradually be turned off. At the same time, efforts were also made to ensure that the OQDs remained in junior positions and did not get into permanent career-grade jobs.

The increasing short-term importance of OQDs to the NHS led, in the 1960s and 1970s, to the evolution of complex administrative mechanisms for processing and approving potential NHS junior employees from the Commonwealth. This caused the Ministry of Health to introduce a more formal 'Clinical Attachment Scheme' in 1966 (made compulsory in 1969). This was intended to assess the OQDs' clinical competence and their skill in the English language, as well as to find them a suitable NHS position post-assessment.

But there was a critical tension at the heart of the British government's response. Departments concerned with immigration (the Home Office and the Department of Labour) wished to restrict numbers, as did the Cabinet, bowing to popular perceptions of over-immigration and subsequent racial tension. The Ministry of Health wished only to keep the NHS fully staffed. But the Cabinet also had other considerations, shared by the Overseas Development Ministry. The ISC was not only a major market for British capital goods (including arms) but also a potential bulwark and ally against Soviet expansionism in the region. India, in particular, it was felt, had to be kept on side and thus it was important not to appear to be stealing doctors from a developing former colony. India was by the mid-1960s experiencing an acute shortage of medical personnel, especially in government medical service positions, and it had begun to try to stop its doctors from entering a heated international medical marketplace. The UK government, thus, had to walk a tightrope between its own immediate health and social needs and its wider economic and diplomatic interests. This resulted in a series of contradictory impulses. For instance, the government provided funding to Indian projects aimed at creating postgraduate medical training institutes, while continuing to employ the ISC medical personnel the NHS needed. At another level, some government departments appeared to argue that the discriminatory

treatment directed at Indian practitioners in the UK medical job market aimed to redress the shortage of medical professionals in the ISC by forcing postgraduates to return to their home countries.

By 1969, with rising home production of doctors, the profession's own attitudes towards OQDs were hardening. The British Medical Association and junior hospital doctors were strongly lobbying for language testing for immigrant doctors to be included in the new Medical Act. Department of Health and Social Security literature sent abroad to inform potential immigrants about procedures echoed such concerns and for the first time spelt out standards of English required, making it clear that the best jobs would go to those with the best language skills. However, it was not now just a case of having good command of the written and spoken language: "facility in colloquial English and knowledge of the intonation and rhythms of everyday speech in Britain" were also demanded.

### India, it was felt, had to be kept on side and thus it was important not to appear to be stealing doctors from a developing former colony

Surendra Kumar's hope of learning lessons from this shabby treatment of OQDs in the 1960s was dashed when in March 2006 the government succeeded in overcoming a final legal challenge to its Highly Skilled Migrant Programme. Now any junior doctor trained in a non-EU state (again) needed a permit and any NHS Trust wishing to employ non-EU medical staff had to prove there was no home-grown or EU-qualified doctor able to fill the post before it could appoint an OQD. This left about 16 000 working NHS doctors, mostly from the ISC, suspended from work and in limbo. One committed suicide, stressed by the debts he had run up while not able to work, waiting for his employment status to be confirmed. The Department of Health commented in a February 2007 statement (which carried strong echoes of the 1960s): "It has become clear that, due to the changing labour market, the category in the immigration rules for doctors and dentists that allowed permit-free training has led to the displacement of UK graduates, and there has been a growing consensus that changing the rules is the right thing to do."

We know that history never repeats itself; there are no direct lessons, but there are lessons about the mechanics of power – what Bloch called the "science of change" and Hamlin the "realm of motives, strategies, interests, ideologies and power". In this realm we can clearly see the parallels between 1962, 2006 and 2010, and that the study of history can speak to the fundamental morality of our policy as well as to its efficiency and effectiveness.

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# Perspectives on Modern Maternal Health and Healthcare, 1850–2000

## JANET GREENLEES

This workshop took place at Glasgow Caledonian University in April 2010, with minor volcanic interruptions from Iceland. The Wellcome Trust (via the Enhancement Award held by the Centre for the Social History of Health and Healthcare) and the Economic History Society financially supported the event. The Centre's Outreach/Research Officer, Rhona Blicow, ably handled the complex administrative and funding arrangements.

Participants included clinicians, as well as academics and postgraduates from universities in Britain, Denmark, New Zealand and the USA – although the latter's paper was delivered by another participant as volcanic ash prohibited travel and technological difficulties prevented video links. This interdisciplinary workshop not only enhanced the Centre's interests in the field of maternal and family health, but also marks the start of what will hopefully develop into a network of academics and practitioners interested in the history of maternal healthcare.

My introductory session on 'The Medicalisation of Motherhood: Recent developments in research' set the scene for the workshop. Thereafter, a number of themes emerged. On the issue of institutions, contributions came from Linda Bryder (University of Auckland) on changes in Western childbirth practices around the mid-20th century and highlighting the increasing importance of hospitalisation and medicalisation, and Salim Al-Gailani (University of Cambridge) on the importance of John William Ballantyne in the development of antenatal care and educating the mother in Edinburgh and how it set the model for the rest of Britain. Dealing with the services provided for expectant mothers, and keeping the Scottish thread, were papers from Alison Nuttall (University of Edinburgh) on the increased use of hospitals in Edinburgh as the choice of birthplace between the Wars and Helen Bryers (NHS Highlands) on the development of maternity services in the Highlands and Islands between 1912 and 1948. Providing the perspective of service users, Angela Davis (University of Warwick) utilised oral histories to describe women's experiences of maternity services, particularly medical interventions, between 1970 and 1990.

Closely allied with service users was the theme of health education surrounding maternal care. Signild Vallgårada (University of Copenhagen) explained the Danish government's policy drive towards maternal obedience and self-reliance. Elizabeth Toon (University of Manchester) highlighted British efforts, in the form

of the cervical cancer screening campaigns targeted at mothers. This specific focus on mothers tied in to Allison Hepler's (University of Maine, Farmington) paper on maternal health in the US workplace and the government's shifting health priorities, from protecting the mother to protecting the fetus. This generated debate about the use of fetal rights for both maternal health legislation and abortion rights campaigns.



Finally, another theme emerged concerning fertility and maternal mortality. Paul Atkinson (University of Leeds) illustrated how rising expectations of the family contributed to falling fertility rates in Britain between 1860 and 1920, while Alice Reid (University of Cambridge) depicted the difficulties in defining the boundaries of maternal mortality in late 19th-century Scotland.

It has often been remarked that historians have underexplored the history and meaning of maternal health and healthcare, focusing instead on maternal mortality. The Glasgow workshop was, it is to be hoped, an important step towards addressing this gap in our historical understanding. While nothing formal was agreed, future meetings of interested researchers are anticipated and ways to further promote and develop this research area are being explored. Anyone with interest in this field is welcome to contact me.

Dr Janet Greenlees is Programme Leader of the MSc Health History in the Centre for the Social History of Health and Healthcare at Glasgow Caledonian University (E.Janet.Greenlees@gcu.ac.uk).

**Right:**  
Maternity has become increasingly medicalised.  
*Anthea Sieveking*

# Genetics and medicine: recording and preserving the historical foundations

## PETER S HARPER

Problems concerning human heredity, in particular those relating to inherited diseases, have been of interest to scientists and natural philosophers since well before the beginning of the 19th century, while after 1900 much of the initial evidence supporting Mendelism came from human examples. As specific disciplines, through, the science of human genetics and its related clinical field, medical genetics, have only existed since World War II. Their rapid development over the past 60 years has resulted in their becoming key parts of science and medicine.

The realisation that much of the history of this area was in danger of being lost, but that it was still possible to save it if action was taken rapidly, led to the formation of the Genetics and Medicine Historical Network ([www.genmedhist.org](http://www.genmedhist.org)) in 2003, which has received support through a Wellcome Trust project grant.

Through its website, its newsletter and its workshops bringing historians and scientists together, the Network has helped to create an awareness of the richness of this field as a source for historical studies, by both historians and social scientists. Its programmes of locating key record sets and of recorded interviews with older workers in the field have helped to save valuable written and oral information that would otherwise have been lost, and to encourage others outside the UK to undertake similar activities. Not all historians, though, are aware of the initiative and how it might be relevant to their own work, so the notes below are intended as a summary of the Genetic and Medicine Historical Network's activities.

**International workshops on genetics, history and medicine:** These alternate-year events have been extremely fruitful in bringing together workers from

different disciplines. Past workshops have been held in Mendel's Abbey in Brno, Czech Republic, and in Barcelona, Spain; the fourth was in Gothenburg, Sweden, in June 2010.

**Personal scientific records:** Around 20 important and substantial record sets of UK workers have been identified, in collaboration with the National Cataloguing Unit for the Archives of Contemporary Scientists (NCUACS). Some have already been catalogued and a major proposal is currently under consideration for cataloguing the others to form a comprehensive archive of British human geneticists. It is hoped that this will be facilitated by the current restructuring of NCUACS under the auspices of the Science Museum. Together with the small number of earlier records of deceased workers already archived, this will represent a substantial resource for those researching the field. Taking a prospective approach has also helped to avoid loss of material that might otherwise have been discarded.

**Human Genetics Historical Library:** Unique in the world, this aims to be a definitive collection of books on or relating to human and medical genetics and has already reached almost 3000 volumes, based entirely on donations and bequests. It is curated by Cardiff University Special Collections and Archives ([www.cardiff.ac.uk/insrv/libraries/solar/](http://www.cardiff.ac.uk/insrv/libraries/solar/)), and Wellcome Trust funding has allowed cataloguing of the initial 1500 books, with full information available online ([www.genmedhist.info/HumanHistLib/](http://www.genmedhist.info/HumanHistLib/)). The Library has helped to save a series of important individual and institutional collections from disposal or destruction. Digitisation of the entire Library (subject to copyright) is under consideration.

The Library has close links with other important collections containing numbers of books on genetics, such as the Wellcome Library and the John Innes Centre, and is also linking with collections in continental Europe to increase its cover of languages other than English.

**Interviews with medical geneticists:** A series of 70 recorded interviews has been carried out over the past five years with prominent older workers in the field, both scientists and clinicians, and transcripts are being prepared. It is planned that full edited transcripts and audioclips will be placed on the Network website, but this has been delayed pending further funding. The value of the interviews is poignantly shown by the fact that 12 of the workers interviewed have subsequently died.



**Right:**  
Participants at the 2005 International Workshop on Genetics, Medicine and History meeting at Mendel's Abbey in Brno.

**Right:**

Paul Emmanuel Polani (1914–2006), pioneer medical geneticist, interviewed for the Network's archive. Courtesy of Paediatric Research Unit, Guy's Hospital



**The core group:** The activities noted above have involved a considerable number of people worldwide, but the core project has been coordinated at Cardiff University by Peter Harper, University Research Professor (Emeritus) in Human Genetics, Peter Keelan, Head of Cardiff University Special Collections, and Joanne Richards, Coordinator of the Genetics and Medicine Historical Network, with the assistance of Karen Pierce of Cardiff University Libraries and in close cooperation with Dr Tim Powell of NCUACS.

Peter S Harper is University Research Professor (Emeritus) in Human Genetics, Cardiff University.

## Noted Surgeon, Fine Citizen: The life of Archibald E Malloch, MD, 1844–1919

### STEFANIA CROWTHER

Born and educated initially in Ontario, Canada, Archibald (Archie) Edward Malloch (1844–1919) completed his medical training at the University of Glasgow between 1864 and 1867, and then served as dresser and House Surgeon to Joseph Lister at the Glasgow Royal Infirmary in 1868. On his return to Canada in 1869, he established a medical practice in the burgeoning city of Hamilton, Ontario, where he applied Lister's principles of antisepsis to his surgery.

Malloch was a contemporary and friend of Sir William Osler, but, as Charles Roland expresses it in this, the first published monograph on Malloch: "Their careers differed markedly – Osler became an international figure, author of important papers and monographs and of what was, for decades, the best textbook in English, professor in four universities in three countries – Archie a Hamilton practitioner for fifty years, undistinguished and unheralded except locally."

Roland argues for Malloch's importance as the first to introduce Listerism to Canada, and to defend antisepsis and germ theory against those such as William Canniff (1830–1910) who sarcastically denied the potential for "mischievous little animals floating in the air to commit depredations", believing that "nature will invariably heal if not interfered with".

Roland has surmounted a significant obstacle in composing the book, that of the lack of primary evidence. Malloch was not a devoted keeper of case notes, and he published only 13 medical articles. Roland infers from comments in letters from Malloch to his son, such as: "it is a gift to be able to write as you seemingly do with't trouble", that Malloch was

not confident as a writer. Roland paints a remarkably clear portrait of the man through careful reading of the scant evidence at his disposal, particularly letters to Malloch from his mother, and detailing the social and medical milieu in which he lived and worked. Roland's approach makes the book a joy to read, and it will appeal to the non-specialist at the same time as making an important contribution to scholarship on 19th-century Canadian medical history.

The first three chapters are concerned with Malloch's upbringing in Brockville, Ontario. These discuss: his parents, George and Elizabeth; the medical curriculum and teaching at Queen's College, Kingston, where he began his training; and "the day to day illnesses, accidents, and various traumas" suffered by citizens of Brockville that preoccupied physicians and that his mother often mentioned in her letters. The following chapter takes us to Glasgow. Roland begins by sketching the answers to two questions: "What was Glasgow like in the middle of the nineteenth century? What of its medical world?" before explaining the significance of this period of Malloch's life, when he met Lister, the man whose 'disciple' he was to become, and when he developed partial deafness. Roland is at his best in the four chapters on Malloch's medical practice in Hamilton, and his sadly unsuccessful venture to establish a medical school in there. In these he is able to draw on Malloch's case notes and publications. Finally, Roland turns his attention to Malloch's domestic life, friends and leisure pursuits.

A biography based on scarce primary evidence is necessarily dissatisfying in places, such as when Roland admits: "Of his day-to-day professional life we have no specific details. It can safely be concluded that he saw the full range of disorders, real and imagined, that afflicted Ontarians." To evoke for the reader what that might include, Roland employs a long quotation from Mark Twain. What can be known about Malloch himself is supplemented with longer passages about his

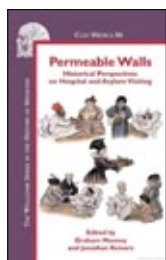
family, friends and colleagues than one might find in a biography more helpful to the historian. The tenth chapter, for example, on the relationship between the Osler family and the Mallochs, concentrates instead on his son, Thomas Archibald (1887–1953). This is nonetheless interesting reading: ‘T Archie’ became almost a surrogate son to the Oslers, and a great comfort after the untimely death of their own son, Edward Revere, from wounds in Belgium in 1917. As librarian of the New York Academy of Medicine, T Archie played an important role in cataloguing William Osler’s many papers, which contributed to building his dominant legacy at the expense of less prolific contemporaries, who fell into historical obscurity, including, somewhat ironically, T Archie’s own father.

Although Roland ultimately deserts his stated aim, of introducing Malloch into the canon of men who have made notable contributions to Canadian medicine, this book is extremely worthwhile, and will stand as the most authoritative and engaging work on Malloch for some time.

Roland CG. Noted Surgeon, Fine Citizen: The life of Archibald E Malloch, MD, 1844–1919. Montreal: Osler Library and American Osler Society; 2008.

Stefania Crowther is a Research Assistant at the Wellcome Trust Centre for the History of Medicine at UCL.

## Permeable Walls: Historical perspectives on hospital and asylum visiting



### DIANA E MANUEL

While the subtitle alone could have sufficed for this attractively produced work, the short main title emphasises the fact that hospital walls could, did and still do act as barriers controlling the range of visitors entering them.

The institutions under scrutiny include general hospitals’ isolation hospitals and those specialising in mental disorders, children’s conditions and venereal diseases. Their diverse locations are mainly in English-speaking former colonies and the timespan the two centuries from 1750. This long period offers the possibility of indicating some of the major changes in for instance the rule-bound management practices and fundraising, the therapies available, the nature and quality of staff handling the patients, and the hospitals’ relations with their surrounding communities. In her essay on New York asylums in the 19th century Janet Miron suggests that these hospitals were deeply embedded with the social and cultural landscape of the time.

The editors, in addition to their valuable joint introductory chapter, each contribute a further significant chapter. Graham Mooney writes on isolation hospitals and Jonathan Reinartz on hospital visiting in 19th-century provincial England. The chapters as a whole deal eloquently with the underlying relationships, highly complex and sometimes controversial, between the hospitals and their visitors, especially parents in the case of sick children.

The visitors to the hospitals included family members (generally not children), and other members of the

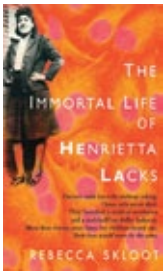
public such as entertainers and members of religious groups, although in some hospitals nuns could be part of the hospital staff. Other visitors were salaried officials such as inspectors, whose responsibilities were to monitor and report on the performance of and conditions within the different institutions. The inspectors were often steered away from ‘unfavourable’ or potentially sensitive aspects of the hospitals. Most welcome of all the visitors were those – especially philanthropists – who made financial contributions.

There were perpetual efforts by the hospitals to deflect attention away from the doctors. But the authors pay some attention to the professionalisation of medicine, including reference to the status of regular physicians compared with that of the so-called ‘mad doctors’. The famous illustration of the ‘Twelfth Night Entertainment’ in Hanwell Lunatic Asylum, to the west of London, which appeared in the *Illustrated London News* in 1848 is included. There is, however, no mention of the physician John Conolly, who, having earlier served as the Resident Physician to Hanwell, resigned his professorship in the University of London (University College London) because medical students were not allowed to visit patients in lunatic asylums. Nor is there mention of his contemporary Marshall Hall, who was widely consulted in his central London practice for nervous disorders and who was involved in establishing the specialist hospital for nervous disorders in Queen Square in Bloomsbury. Hall also made fortnightly visits out to Moorcroft Asylum in Uxbridge, west London, where one of his patients composed a birthday poem to him.

Mooney G, Reinartz J (eds). *Permeable Walls: Historical perspectives on hospital and asylum visiting*. Amsterdam/New York, NY: Rodopi; 2009.

Dr Diana E Manuel is Honorary Senior Research Fellow at the Wellcome Trust Centre for the History of Medicine at UCL.

# The Immortal Life of Henrietta Lacks



**LOIS REYNOLDS**

When Johns Hopkins scientist George Gey received a slice of a cervical cancer tumour from surgeon Richard TeLinde in 1951 with encouragement to grow the cells as a tissue culture, he was standing on the shoulders of giants.

In Britain, the Medical Research Council started from 1923 to fund 'experimental culture methods' and their application to radiological research at Thomas Strangeways's laboratory in Cambridge, a departure from simple observation of the cells' behaviour. After Strangeways's early death in 1926, Dr Honor Fell took over and during the interwar period, Strangeways Research Laboratory grew cells from ears, mammary glands, ovaries, salivary glands, the pancreas, and hair and teeth, work sensationalised by the popular press as being at the point of creating life, as featured in Aldous Huxley's 1932 novel *Brave New World*. Fell wrote in 1947: "The elements of tissue culture are deceptively easy to learn but to apply the technique successfully to a specific problem is usually extremely difficult and demands much technical experience". The technical advances were as much about the composition of the media on which the cells were placed as on the apparatus to keep them alive.

Every biologist knows about the nearly 60-year-old HeLa cell line, classified as immortal, a continuous subculture. At Johns Hopkins Medical School in Baltimore, Maryland, whose hospital endowed public wards to treat the destitute in the local community, a poor young black woman in her early 30s attended a clinic complaining of vaginal bleeding after bearing her fifth child. No permission was sought from her, or later from her family, for the use of her cells in research, although she signed an operation permit. Her subsequent treatment was the accepted protocol (radiation tubes on the inner and outer surfaces of the cervix kept in place with rolls of gauze followed X-ray treatment every weekday for a month). She died nine months later.

Gey and his wife Margaret successfully cultured the tumour cells, using various tissues of chick embryo, human placenta and calf fetus as the medium, bathed in the new roller tube apparatus, admirable at a time when most cultured cells died even with meticulous hygiene. Gey was generous with his successful cell line, personally delivering them to many colleagues in the USA, from where they spread across the world. Although Gey did not want the cells' donor identified, misspelled versions of her name appeared in print. However, by 1967 Stanley Gartler made

public his research that HeLa had contaminated 18 different human cells lines and compromised research. Gey died in 1970 and his colleagues Howard Jones and Victor McKusick reappraised HeLa in the journal *Obstetrics and Gynaecology*.

Who was HeLa? She has been called Helen Lane and Henrietta Lake, but her name was Henrietta Lacks. Rebecca Skloot follows others in exploring her story, but in *The Immortal Life of Henrietta Lacks* she has interwoven a very human story, brought vividly to life with interviews with Henrietta's widower, surviving children and the extended Lacks family in Maryland and Virginia, along with many of the researchers through whose hands the cell line passed. These cells helped to make polio vaccine, have been to the moon and by now have multiplied by their trillions, as did the US dollars made by biomedical companies supplying medical researchers with her cells. No money ever reached the family for education or medical bills.

Henrietta Lacks received a tribute, read into the records of the US House of Representatives in 1997, the same year that a BBC documentary about her and HeLa was broadcast. No official honour came from Johns Hopkins, but respect was shown to her family, somewhat belatedly: one researcher, Christoph Lengauer, sent Henrietta's daughter an image of her mother's chromosomes and took her around his lab where cultures from the cells were stored. In 2001 the National Foundation for Cancer Research had organised their annual conference in Henrietta's name, cancelled because of 9/11. The path to convey to her family what happened at the end of her life and the importance of the cell line to medical progress was dogged by lawsuits, bureaucracy, bad luck and the death of Skloot's primary collaborator, Deborah Lacks, in 2009.

This volume is as haunting a tale as those from the US civil rights movement. It is also an accessible introduction for students and others interested in postwar medical research and the growth of the ethical treatment of human experimentation. And, more importantly, it vividly portrays the inequalities in healthcare that have plagued the USA for a century, perhaps soon to be mitigated. (Aspects of British developments in tissue culture can be accessed in the Wellcome Library's Archives and Manuscripts collection: [library.wellcome.ac.uk/archmss.html](http://library.wellcome.ac.uk/archmss.html).)

Skloot R. *The Immortal Life of Henrietta Lacks*. New York, NY: Crown Publishers; 2010.

Lois Reynolds is a Research Assistant at the Wellcome Trust Centre for the History of Medicine at UCL.

# The Wellcome Trust and its support for the history of medicine

## A statement from the Trust.

It was with regret that the Wellcome Trust and University College London (UCL) announced in April 2010 the decision to work towards closure of the Wellcome Trust Centre for the History of Medicine at UCL. The decision to wind down the Centre was not taken lightly and it will be phased over a two-year period, allowing time for discussion, planning and support with regard to the careers of current staff and students.

The decision was taken in the knowledge that across the UK there is a strong and vibrant history of medicine community, due in part to Wellcome Trust funding. A continuing commitment is set out in the Trust's new Strategic Plan (February 2010).

Professor Mark Harrison of the University of Oxford commented: "For many years now the Wellcome Trust has invested generously in the history of medicine, attracting some of the world's finest historians to work on the subject. As a result, there are thriving research centres around the UK at universities such as Cambridge, Exeter, Manchester, Oxford and Warwick. The decision to close the UCL Centre was solely the result of local problems and the Wellcome Trust remains as fully committed to the history of medicine as ever. Indeed, the new Investigator Awards which the Trust is providing should enable us to tackle some big subjects that have been neglected for far too long."

Professor Mark Jackson, University of Exeter, said: "The planned closure of the Wellcome Trust Centre for the History of Medicine at UCL has understandably generated anxieties about the future of the field. However, the Wellcome Trust's ten-year Strategic Plan outlining the challenges for the future makes it clear

that research in medical history and the humanities, which allows us to understand the social and cultural contexts in which medicine is practised and in which health and disease are experienced, continues to constitute a critical component of the Trust's commitment to engineering improvements in human and animal health."

The Wellcome Trust will ensure researchers will continue to have facilities and space to make full use of the Wellcome Library, one of the world's leading resources for scholars of medical history.

For details of the Wellcome Trust Strategic Plan 2010–20, see [www.wellcome.ac.uk/strategy](http://www.wellcome.ac.uk/strategy).

For details of the Wellcome Trust Investigator Awards, see [www.wellcome.ac.uk/investigatorawards](http://www.wellcome.ac.uk/investigatorawards).

For details of the Trust's Medical History and Humanities funding programme, see [www.wellcome.ac.uk/medicalhumanities](http://www.wellcome.ac.uk/medicalhumanities).

- Since 2000, the Wellcome Trust has spent approximately £70 million on history of medicine research in the UK.
- In 2008/09, the Wellcome Trust made 109 grants totalling over £6 million to support research in medical history and invested a further £600 000 on cataloguing and conserving archival material for historians of medicine.
- In 2007/08, the Wellcome Trust funded the creation of two new centres of excellence for research in the medical humanities, at the University of Durham and King's College London, with £3.8 million.

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