The History of “Belgian” Tropical Medicine from a Cross-Border Perspective

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This article examines the development of a "Belgian" tropical medicine at the beginning of the twentieth century(1). It is, however, not simply a history of tropical medicine institutions in Belgium, nor a comparative investigation into what made medical practice in Belgian overseas territories peculiar. Instead, we seek to challenge the pre-fixed national frameworks that characterize much medical historiography concerning the colonial tropics by adopting a relational approach to this past. This allows us to explore how much "Belgian" tropical medicine was in fact constructed through interactions and exchanges across national, colonial and imperial borders, and also how the colonial dimension affected (the interplay between) medical-scientific nationalism and internationalism in the early 1900s.

Modern tropical medicine, the familiar story goes, emerged in Britain and later in other European countries as a distinct and "recognized field of teaching, research and professional practice" in close connection with developments in microbiology and the exigencies of imperialism(2). In several ways it has been the subject of a rather nation-centric historiography. For example, as tropical medicine is traditionally seen as a "European concept (...) exported to the colonies", historians have often investigated its institutional development in specific metropoles without really integrating the colonial world within the same analytical frame and thus truly considering colonies' impact on Europe's nation-states(3). This fits in with a more general division of labour

(1) List of abbreviations: Archives de l'Institut Pasteur (AIP); Instituut voor Tropische Geneeskunde (ITG); League of Nations Health Organization (LNHO); Ministère des Affaires étrangères – Archives africaines (MAEAA).

(2) Michael WORBOYS, "The Emergence of Tropical Medicine. A Study in the Establishment of a Scientific Specialty", in Gerald LEMAINE et al., eds., *Perspectives on the Emergence of Scientific Disciplines*, Chicago, Aldine, 1976, p. 75.

(3) Mark HARRISON, "Tropical Medicine in Nineteenth-Century India", in *British Journal for the History of Science*, vol. 25, 1992, 3, p. 299. For the analytical integration of metropole and colony, see Ann L. STOLER & Frederick COOPER, "Between Metropole and Colony: Rethinking a Research Agenda", in F. COOPER & A.L. STOLER, eds., *Tensions of Empire. Colonial Cultures in a Bourgeois World*, Berkeley, University of California Press, 1997, p. 158. A similar argument can be found in Douglas M. HAYNES, *Imperial Medicine. Patrick Manson and the Conquest of Tropical Disease*, Philadelphia, University of Pennsylvania Press, 2001. Recent histories of European tropical medicine institutions include Roland BAETENS, "Het Prins Leopold Instituut voor tropische geneeskunde te Antwerpen: een overzicht", in *Studium*, vol. 2, 2009, 2, p. 116-129; Helen POWER, *Tropical Medicine*

between historians of "metropolitan" medicine and those who study medicine in colonial locations, often in implicitly nationalist ways as well, as they take for granted single colonies as pertinent units of analysis(4). Some analyses are more inclusive of external reference points, but, given the common association of colonial expansion with the nation-state, solely focus on metropole-colony dyads(5). While modern European imperialism was unmistakably linked to the furthering of national interests, the shared colonial experience might at the same time have generated a larger sense of community that facilitated collaboration across imperial borders(6). Few historians, however, have looked at how medical developments within metropoles and colonies were shaped by such cross-border interactions beyond invoking somewhat vague notions of inter-imperial rivalry. In addition, even attempts to approach the history of tropical medicine from a comparative perspective have tended to reinforce nation-centric readings, by isolating "national styles" of colonial medicine without considering how these were actually categories constructed by doctors themselves through interactions and comparisons(7).

Our article aims to address the shortcomings of such "methodological nationalism" by linking the dynamics of metropole-colony interactions, consisting of reciprocal yet asymmetric relationships, to a broader context of inter-imperial exchange(8). In doing so it clearly draws on recent scholarly efforts to view modern European imperialism as an endeavour shaped through myriad connections across national, colonial and imperial borders, and (tropical) medicine and science as constituted through multidirectional

in the Twentieth Century: A History of the Liverpool School of Tropical Medicine, 1899-1990, London/New York, Kegan Paul International, 1999; Leo VAN BERGEN, *Van Koloniale Geneeskunde tot Internationale Gezondheidszorg. Een geschiedenis van de Nederlandse Vereniging voor Tropische Geneeskunde*, Amsterdam, KIT Publishers/NVTG, 2007; Lise WILKINSON & Anne HARDY, *Prevention and Cure. The London School of Hygiene and Tropical Medicine, a Twentieth-Century Quest for Global Public Health*, London, Kegan Paul, 2001.

(4) Existing historiography can then appear, to quote Warwick Anderson, as a juxtaposition of "inward-looking protonationalist histories of medicine" (Warwick ANDERSON, "Where is the Postcolonial History of Medicine", in *Bulletin of the History of Medicine*, vol. 72, 1998, 3, p. 528).

(5) A.L. STOLER & F. COOPER, "Between Metropole and Colony", *op. cit.*, p. 28.

(6) The idea of a larger sense of community in the context of European imperialism is suggested in A.L. STOLER & F. COOPER, "Between Metropole and Colony", *op. cit.* In relation to medicine and science, see also Deborah J. NEILL, *Transnationalism in the Colonies. Cooperation, Rivalry, and Race in German and French Tropical Medicine, 1880-1930*, University of Toronto, 2005 (unpublished Ph.D. dissertation); Benedikt STUCHTEY, "Introduction: Towards a Comparative History of Science and Tropical Medicine in Imperial Cultures since 1800", in B. STUCHTEY, ed., *Science across the European Empires, 1800-1950*, London, Oxford University Press, 2005, p. 1-45.

(7) See, for example, Michael WORBOYS, "The Comparative History of Sleeping Sickness in East and Central Africa, 1900-1914", in *History of Science*, vol. 32, 1994, 95, p. 89-102. For an archetypical discussion of the "French style" of colonial medicine, see Léon LAPEYSSONNIE, *La médecine coloniale. Mythes et réalités*, Paris, Seghers, 1984.

(8) On "methodological nationalism", see, for example, Pierre-Yves SAUNIER, "Learning by Doing: Notes about the Making of the *Palgrave Dictionary of Transnational History*", in *Journal of Modern European History*, vol. 6, 2008, 2, p. 161.

flows of practices, ideas, objects and people[9]. The focus here, however, is not so much on indigenous contributions to "Western" medicine as on the social history of metropolitan and overseas European doctors dealing with the tropics. Our study examines the history of "Belgian" tropical medicine roughly between 1900 and 1925, at a time when the "laboratory revolution in medicine" had made researchers in (African) colonies less open to local knowledge and, especially in the case of the Belgian Congo, the training of African doctors had far from begun[10]. Although it is clear that Africans played a crucial role as patients, research subjects, observers and medical auxiliaries, this paper is not focused on colonizer-colonized relationships[11]. It rather aims to focus narrowly on the "(medico-) scientific field" as a somewhat neglected aspect of the history of tropical medicine and a way of destabilizing the national contours traditionally used for its analysis. What we propose here, more specifically, is to view the construction of "Belgian" tropical medicine through Belgian experts' professional strategies and "struggles" for medical-scientific authority, control and autonomy as these were shaped by the complex relational geographies of modern colonialism[12].

Placing such "field" dynamics in a context that transcends national borders, this article particularly speaks to the theme of national versus international science. As social historians have well explored, nationalism and internationalism occurred simultaneously, and were intertwined, in the ideology and practice of late nineteenth- and twentieth-century science. Much

(9) See for example Sanjoy BHATTACHARYA, "Medicine", in Akira IRIYE & Pierre-Yves SAUNIER, eds., *Palgrave Dictionary of Transnational History*, Houndmills, Palgrave Macmillan, 2009, p. 708-711; David W. CHAMBERS & Richard GILLESPIE, "Locality in the History of Science: Colonial Science, Technoscience and Indigenous Knowledge", in *Osiris*, vol. 15, 2000, p. 221-240; Mark HARRISON, "Science and the British Empire", in *Isis*, vol. 96, 2005, 1, p. 56-63; Michael A. OSBORNE, "A Collaborative Dimension of the European Empires: Australian and French Acclimatization Societies and Intercolonial Scientific Co-operation", in Roderick W. HOME & Sally G. KOHLSTEDT, eds., *International Science and National Scientific Identity: Australia between Britain and America*, Dordrecht, Kluwer, 1991, p. 97-119; B. STUCHTEY, ed., *Science across the European Empires*, *op. cit.*

(10) Andrew CUNNINGHAM & Perry WILLIAMS, eds., *The Laboratory Revolution in Medicine*, Cambridge, Cambridge University Press, 1992; William BEINART, Karen BROWN & Daniel GILFOYLE, "Experts and Expertise in Colonial Africa Reconsidered: Science and the Interpenetration of Knowledge", in *African Affairs*, vol. 108, 2009, 432, p. 430. According to Lyons, "the first Congolese doctor did not graduate until 1961". See Maryinez LYONS, "The Power to Heal: African Auxiliaries in Colonial Belgian Congo and Uganda", in Dagmar ENGELS & Shula MARKS, eds., *Contesting Colonial Hegemony: State and Society in Africa and India*, London, British Academic Press, 1994, p. 214.

(11) For a ground-braking study of colonizer-colonized interactions and, in particular, the role of indigenous nurses as intermediaries in the medicalization of Congo, see Nancy R. HUNT, *A Colonial Lexicon of Birth Ritual, Medicalization and Mobility in the Congo*, Durham, Duke University Press, 1999.

(12) For science as a social field, see Pierre BOURDIEU, "The Specificity of the Scientific Field and the Social Conditions of the Progress of Reason", in *Social Science Information*, vol. 14, 1975, 6, p. 19-47. We also draw inspiration from Verbruggen, who distinguishes literary historians' common practice of situating texts in their cultural-historic context from his own approach of placing the writers themselves in (a transnational) context. Christophe VERBRUGGEN, *Schrijverschap in de Belgische Belle Époque. Een sociaal-culturele geschiedenis*, Ghent/Nijmegen, Academia Press-Uitgeverij Vantilt, 2009.

relevant historiography, however, remains silent on how scientific practice in colonial settings fits into this dual scheme(13). Here, the adoption of a framework that connects Belgium, colonial Africa and other imperial powers helps fill this lacuna. In the first instance we find inspiration in Douglas Haynes's emphasis on the "dynamic, dialectical relationship between the imperial metropole and the periphery" that underlay the institutionalization of tropical medicine in Britain: we consider how the two-way traffic of people, scientific material and research findings between Europe and Africa amounted to a logic of metropolitan control over medical research pertaining to the Congo, and contributed to the establishment of "Belgian" – in this case constructed as metropolitan — tropical medicine institutions(14).

Yet we also look at how nationalistic rhetoric and practice in tropical medicine could be constructed around the Empire as a whole, and especially at how this nationalism interrelated with inter-imperial exchanges and wider feelings of belonging. European tropical medicine specialists, according to Deborah Neill, shared a "transnational professional identity", largely because the common overseas experience led them to define identity on the basis of biological rather than national categories and to conceive of their roles in similar ways(15). In line with Neill's work we explore the "transnational orientation" of imperial medical research and practice by considering the unique possibilities for exchange offered by the colonial African context and the specific forms of sociability involved – from informal acquaintances in the field to official meetings. The Congo was indeed not simply Belgian tropical medicine's terrain of action but also a Belgian colony sharing thousands of kilometres of frontiers with French, British and Portuguese territories(16). At the same time, we insist that inter-imperial interaction advanced the position of Belgian experts and led to comparisons made by doctors themselves,

(13) As argued in Helen TILLEY, *Africa as a Living Laboratory. The African Research Survey and the British Colonial Empire: Consolidating Environmental, Medical and Anthropological Debates, 1920-1940*, University of Oxford, 2001 (unpublished Ph.D. dissertation). For internationalism in science, see, for example, Christophe CHARLE, Jürgen SCHRIEWER & Peter WAGNER, eds., *Transnational Intellectual Networks. Forms of Academic Knowledge and the Search for Cultural Identities*, Frankfurt am Main, Campus, 2004; Elisabeth CRAWFORD, *Nationalism and Internationalism in Science, 1880-1939: Four Studies of the Nobel Population*, Cambridge/New York, Cambridge University Press, 1992; EAD., "The Universe of International Science, 1880-1939", in Tore FRANGSMYR, ed., *Solomon's House Revisited: The Organisation and Institutionalisation of Science*, Canton, Science History Publications, 1990, p. 251-269; EAD., Terry SHINN & Sverker SÖRLIN, eds., *Denationalizing Science. The Contexts of International Scientific Practice*, Dordrecht, Kluwer, 1993. On medical internationalism, see Paul WEINDLING, ed., *International Health Organisations and Movements, 1918-1939*, Cambridge, Cambridge University Press, 1995.

(14) D.M. HAYNES, *Imperial Medicine*, *op. cit.*, p. 6.

(15) D.J. NEILL, *Transnationalism in the Colonies*, *op. cit.*

(16) In addition, Congo's capital Leopoldville was known for its cosmopolitanism and intense exchange with the "twin city" of Brazzaville, the capital of the Afrique Équatoriale Française (AEF) immediately across the river. On Brazzaville-Leopoldville as twin cities, see Charles D. GONDOLA, *Villes miroirs: migrations et identités urbaines à Brazzaville et à Kinshasa, 1930-1970*, Paris, L'Harmattan, 1997. On cosmopolitan Kinshasa, see Bob W. WHITE, *Rumba Rules: The Politics of Dance Music in Mobutu's Zaire*, Durham, Duke University Press, 2008; Filip DE BOECK & Marie-Françoise PLISSART, *Kinshasa. Tales of the Invisible City*, Ghent, Ludion, 2004.

which were an occasion for transfers as much as a mode of nationalistic imagination(17).

The article is organized chronologically, analysing three successive phases of the cross-border history of Belgian tropical medicine. The first part shows how the beginnings of medical practice, training and research in the context of the Congo Free State were both managed by the colonial administration and marked by a strong medical-scientific cosmopolitanism in the absence of tropical medicine expertise in Belgium, and hence only saw a timid involvement of the Belgian medical profession. In a second part, we follow the efforts of Belgian, Congo-based laboratory doctors to challenge metropolitan administrators' control and gain recognition as authorities in Congo-related medical matters, through connections with centres of excellence in the French and German Empires and through their affirmation of chemotherapeutic research as a specifically Belgian contribution to tropical medicine. Following this inter-imperial construction of Belgian expertise, the relocation of its centre from colony to metropole paved the way for a full institutionalization of tropical medicine in Belgium after World War One. The third part analyses the post-war attempts to consolidate Belgian tropical medicine as a metropolitan-based discipline on the one hand, and to safeguard and promote the Belgian character of medical work in the Congo on the other, in a context marked by new forms of medical internationalism and by the systematization of nationalistic references in tropical medicine.

Cosmopolitan beginnings: the Congo Free State's legacy

Although it is difficult to speak of a full-grown Belgian tropical medicine during the period of the Congo Free State, the Leopoldian project in Africa shaped the circumstances in which a Belgian field eventually materialized. More specifically, the Free State era saw a Congo administration relying heavily on foreign medical expertise and inter-imperial cooperation, especially in the face of disease problems that showed little consideration for colonial borders. These public health threats also greatly influenced the colonial state to gradually take control over the "labor and social production" of colonial doctors, at the expense of the Belgian academic medical world, with the establishment in Brussels of a special training program in tropical medicine as a watershed event(18).

Initially, medicine was not a special preoccupation of the Congo Free State's administrators(19). Medical issues became significantly more pressing,

(17) For an inspiring example of this approach in the case of French and British colonial administration, see Véronique DIMIER, *Le gouvernement des colonies, regards croisés franco-britanniques*, Brussels, Éditions de l'Université de Bruxelles, 2004.

(18) Haynes describes the British imperial state's power over the "making" of colonial doctors through the London School of Tropical Medicine in D.M. HAYNES, *Imperial Medicine*, *op. cit.*, p. 151.

(19) Few medically trained men were present in Congo, and those who were had seldom received any specific preparation to deal with Congo's disease environment. In addition, they rather performed military and administrative functions than acted as full-fledged medical

however, with the outbreak around 1899 of a severe sleeping sickness epidemic in Uganda, following which many other African colonies were affected. The disease soon dominated the research agendas of European medical specialists, who competed with each other to uncover its aetiology. It also triggered the beginnings of colonial medical services in much of sub-Saharan Africa, including the Congo. Given the status of sleeping sickness as an enormous threat to European colonialism, King Leopold II grew instantly aware of its symbolic value. In an attempt to attenuate the red rubber controversy and defend his imperial aspirations, he acted as an important patron of the new specialty of tropical medicine and of sleeping sickness research in particular. In 1903, for example, Leopold invited and subsidized a sleeping sickness expedition to the Congo Free State by the Liverpool School of Tropical Medicine, whose financer Alfred L. Jones was a personal relation with commercial interests in the king's colonial enterprise(20).

The Liverpool expedition was neither the first nor the last occasion for the Free State to rely on foreign nationals in medical matters. Given the lack of tropical medicine expertise in Belgium, many among the State's medical staff were recruited from countries with greater experience in "naval medicine" and tropical pathologies, such as Italy and Sweden(21). The (constructed) magnitude and border-crossing dimension of the sleeping sickness problem only predisposed the Free State even more to appeal for inter-imperial cooperation, albeit primarily in an informal way. The administration in Brussels also sought advice, for example from the London School of Tropical Medicine, or corresponded with Paris Pasteurian Alphonse Laveran, an expert in protozoal diseases(22).

Such informal exchanges were not specific to the Congolese case. In 1906-1907 the major European powers organized a number of sleeping sickness expeditions in East and Central Africa that worked within a similar context

practitioners. Performing few medical duties altogether, these doctors catered to Congolese patients even less. See, for example, Jules R. CORNET, *Bwana Muganga (Hommes en blanc en Afrique noire)*, Brussels, Académie royale des Sciences d'Outre-Mer, 1971.

(20) On sleeping sickness, Congo and the Liverpool School, see Maryinez LYONS, *The Colonial Disease. A Social History of Sleeping Sickness in Northern Zaire, 1900-1940*, Cambridge, Cambridge University Press, 1992; M. LYONS, "Medicine and Empire: The Funding of Sleeping Sickness Research in the Belgian Congo", in Michael TWADDLE, ed., *Imperialism, the State and the Third World*, London/New York, British Academic Press, 1992, p. 136-152.

(21) Jean-Luc VELLUT, "La médecine européenne dans l'État Indépendant du Congo (1885-1908)", in Pieter G. JANSSENS, Maurice KIVITS & Jacques VUYLSTEKE, eds., *Médecine et hygiène en Afrique Centrale de 1885 à nos jours*, Brussels, Fondation Roi Baudouin, 1992, p. 64.

(22) Brussels, Ministère des Affaires étrangères – Archives africaines (MAEAA), Hygiène, 846.275, Secrétaire d'État to Governor General, 22 February 1903; MAEAA, Hygiène, 846.275, Secrétaire d'État to London School of Tropical Medicine, 23 January 1903; MAEAA, Hygiène, 846.275, Laveran to Administration, 22 June 1903; MAEAA, Hygiène, 846.277, Secrétaire Général du Département des Finances to Liebrechts, 29 August 1905; MAEAA, Hygiène, 847.280, Secrétaire Général du Département des Finances to Secrétaire Général du Département de l'Intérieur, 21 December 1906.

of rivalry and cooperation[23]. This practical internationalization of research led to two international sleeping sickness meetings in London in 1907 and 1908 and to the subsequent creation of the Sleeping Sickness Bureau, the first prototype of an international health organization for Africa, based in the British Colonial Office[24]. But no multilateral governmental agreements followed: a diplomatic failure, illustrating that formal medical collaboration between imperial governments was difficult to achieve at that time[25].

Despite its multiple informal contacts, it was the Free State's special relationship with Liverpool that proved particularly important in shaping its initial response to sleeping sickness and its role in overseeing tropical medical training and research. Many of the expedition members' recommendations were implemented in the colonial public health campaign[26]. In addition, John L. Todd, a Canadian doctor on the team, had a significant part in pleading with Leopold the need for a special tropical medicine course for Free State doctors[27]. Subsequently, a rudimentary training programme was instituted in Brussels under the informal leadership of former Free State doctor Emile Van Campenhout in 1906. This arrangement was formalized in 1910, after the Belgian takeover of the Congo, with the official establishment of a Brussels School of Tropical Medicine, modelled on its counterparts abroad, directed by Van Campenhout and authorized to grant the diplomas required to gain access to a medical career in colonial state service[28]. Thus, tropical medicine education was essentially taken out of the hands of Belgian universities, leaving the colonial administration in charge of the formation of its medical functionaries[29].

The Liverpool expedition also helped to establish an influential pattern of state-instructed medical inquiry. To gain a deeper understanding of sleeping sickness aetiology, pathology and epidemiology, the Liverpool researchers had relied heavily on governmental efforts to collect information and specimens for them from territorial and medical staff as well as from missionaries. Even after the expedition had left the Congo, Todd continued to do so

(23) The German bacteriologist Robert Koch, for example, conducted most of his research in the British territory of Uganda, while a French expedition took initial advice from the Liverpool School of Tropical Medicine, whose expertise was mostly based on its research in Leopold's Congo.

(24) For an overview of early international efforts in sleeping sickness control, see Helen TILLEY, "Ecologies of Complexity. Tropical Environments, African Trypanosomiasis, and the Science of Disease Control in British Colonial Africa, 1900-1940", in *Osiris*, vol. 19, 2004, p. 21-38.

(25) D.J. NEILL, *Transnationalism in the Colonies*, *op. cit.*, p. 213-215.

(26) The Liverpool expedition's influence on the Free State's sleeping sickness campaign is described in M. LYONS, *The Colonial Disease*, *op. cit.*, p. 92-100.

(27) R. BAETENS, "Het Prins Leopold Instituut", *op. cit.*, p. 117.

(28) "Koninklijk Besluit van 30 september 1910, School van Tropische Geneeskunde – oprichting", in *Ambtelijk Blad van Belgisch Congo*, vol. 2, 1910, p. 779.

(29) Arguing that colonial doctors needed special skills not required in European practice, Van Campenhout had advocated complementary tropical medicine training outside of the universities. Brussels, MAEAA, Hygiène, 4450.796, "Commission chargée d'étudier l'organisation d'un Institut ou École de médecine et hygiène exotiques", 1909.

to advance his scientific agenda[30]. Such state involvement would become a crucial feature of future research in the Congo. It particularly affected chemotherapeutic investigations into sleeping sickness, in which the Congo would play a significant role, especially after Leopold instituted a prize of substantial monetary value for the discovery of an effective remedy against the disease in 1906[31].

Initially, cures were tried in an *ad hoc* fashion at the discretion of individual colonial doctors, but more systematic research into sleeping sickness therapy was soon taken up at the instigation of the Free State. Administrators in Brussels regularly ordered the experimentation of purported trypanocidal drugs and treatment schemes. A well-known example is Atoxyl, an organic arsenic compound found effective in the treatment of trypanosome-infected animals by Liverpool scientists in 1905. As part of the broader collaboration between the Free State and the Liverpool School, the latter recommended to attempt treating sleeping sickness cases with Atoxyl[32]. Brussels shipped samples of the drug to the Congo, and in turn requested periodic reports from experimenters to get a sense of its therapeutic value[33]. Thus the administration actively stimulated and facilitated experimentation with trypanocidal substances, and also aimed at collecting and centralizing data from chemotherapeutic trials in the Congo.

Although it supported therapeutic trials that met the emerging scientific standards of the time – trials based on prior laboratory investigations of drug actions and conducted in controlled clinical settings by competent physicians – it would be wrong to regard the Free State as an outright champion of scientific therapeutic research[34]. In ordering systematic drug evaluations, Brussels did not necessarily discriminate between rational and more empirical remedies, or between average and scientifically inclined practitioners. For all its reliance on foreign specialists and occasional consultations of Van Campenhout, the Free State's medical decision-making was in the end left to administrators, not to medical professionals, let alone tropical chemotherapy experts. There was not even a colonial medical department in Brussels until 1910 – its first director was Van Campenhout, who thus brought the Colonial Ministry and the School even closer together[35].

In the Congo, however, two Belgian laboratory doctors would challenge the Free State's legacy of relying on foreign expertise and metropolitan

(30) For example, Brussels, MAEAA, Gouvernement Général, 15221, J.L. Todd to Governor General, 10 April 1904; MAEAA, Hygiène, 861.601, J.L. Todd to Liebrechts, 13 July 1908.

(31) J. BURKE and Jozef MORTELMANS, "Rol van België in de strijd tegen de slaapziekte en de dierlijke trypanosomiasis en hun studie", in *Mededelingen der Zittingen van de Koninklijke Academie voor Overzeese Wetenschappen*, vol. 26, 1980, 1, p. 118.

(32) Brussels, MAEAA, Hygiène, 847.278, J.L. Todd to Secrétaire Général du Département de l'Intérieur, 5 April 1906; MAEAA, Hygiène, 847.278, R. Ross to J. Todd, 6 April 1906.

(33) Brussels, MAEAA, Hygiène, 847.278, Secrétaire d'État to Governor General, 26 February 1906.

(34) Harry M. MARKS, *The Progress of Experiment. Science and Therapeutic Reform in the United States, 1900-1990*, Cambridge, Cambridge University Press, 1997, p. 17-41.

(35) M. LYONS, *The Colonial Disease*, *op. cit.*, p. 122.

administrators. They would start to make an issue of what they considered poor therapeutic choices on behalf of the Brussels administration and would try to carve out a place for themselves as medical-scientific authorities in Congo-related health problems through the issue of chemotherapy and their own exchanges with foreign scientists. How the activities and cross-border connections of the Leopoldville laboratory helped establish a Belgian expertise, from which a Belgian field of tropical medicine would eventually develop, will be discussed in the next section.

Building a Belgian scientific authority in tropical medicine: the inter-imperial construction of expertise

In 1899 a medical laboratory was established in the Congo at the instigation of the *Société belge d'Études coloniales* and with mainly private funds(36). The *Société* grouped Belgian scientific and other elites with an interest in Leopold's imperial endeavour and showed an early concern for tropical pathology(37). Whereas the Free State and its medical staff were not specifically or exclusively Belgian in character, the Leopoldville laboratory was clearly conceived to strengthen and showcase Belgian medical science and colonialism and, as such, was steeped in nationalistic discourse(38). Its African location presented great scientific and professional opportunities to Belgian medical elites, especially (Louvain) bacteriologists, who came to play a dominant role in Belgian tropical medicine.

In 1900, promising young doctor Alphonse Broden was sent to replace Van Campenhout as the laboratory's director. Broden had been working as an assistant of Louvain professor Joseph Denys, one of Belgium's most distinguished bacteriologists and member of the *Société*'s medical subcommittee(39). Ostensibly eager to refute the idea of Belgian backwardness in the inter-imperial competition to unlock the mystery of sleeping sickness, Broden

(36) However, the Free State and the Belgian government also contributed financially to the laboratory's operation. Louis PIERQUIN, *Historique du laboratoire médical et de l'Institut de médecine tropicale Princesse Astrid à Léopoldville*, Léopoldville, Institut de Médecine tropicale, 1958, p. 8.

(37) As evidenced by the establishment of a subcommittee for the study of Congolese diseases. Général Albert DONNY, "Introduction", in Émile VAN CAMPENHOUT & Gustave DRYEPONDT, *Rapport sur les travaux du laboratoire médical de Léopoldville en 1899-1900*, Brussels, Hayez, 1901, p. VIII. See also Marc PONCELET, *L'invention des sciences coloniales belges*, Paris, Karthala, 2008, p. 69, 76.

(38) An example of this discourse can be found in Général A. DONNY, "Préface", in Alphonse BRODEN & Jérôme RODHAIN, *Rapport sur les travaux faits au laboratoire de la Société belge d'Études coloniales, à l'Hôpital des Noirs et au Lazaret pour Trypanosomiés à Léopoldville 1907-1908*, Brussels, Hayez, 1908, p. VI-VII: "L'annexion du Congo à la Belgique doit donner au Laboratoire de Léopoldville un renouveau d'activité. Successivement tous les pays qui possèdent des colonies africaines créent et dotent largement des établissements semblables. Notre patrie, où l'humanité comme la science furent toujours en honneur, se doit de continuer à soutenir le sien, de le mettre à même de marcher au premier rang dans la luttre contre les maladies tropicales".

(39) Général Albert DONNY, "Introduction", in É. VAN CAMPENHOUT & G. DRYEPONDT, *Rapport sur les travaux du laboratoire*, *op. cit.*, p. VIII.

soon turned to the study of African trypanosomiasis in Leopoldville[40]. He began to focus more clearly on therapy research from 1907 onwards, when Jérôme Rodhain, another former pupil of Denys who had completed a first term as a Free State doctor, joined the laboratory as Broden's assistant. As Rodhain was at the same time appointed director of the "native" hospital and lazaret of Leopoldville, where trypanosome-infected Congolese in state service were taken for isolation, he could supply ample human "material" for systematic drug experimentation[41].

The close association between laboratory and lazaret in Leopoldville prompted admiring gazes from the neighbouring Brazzaville, where a Pasteur Institute had been created after a sleeping sickness expedition in 1908. Laboratory doctor Leboeuf, for example, complained that it was hard to conduct well-controlled clinical trials in Brazzaville as long as there was no attached lazaret where, like in the Congo Free State, sleeping sickness patients could be forced to reside[42]. Such a comparison with research conditions across the Congo River was not a one-off event. In fact, multiple exchanges occurred between the adjacent laboratories through short mutual research visits and the reading of each other's publications. Belgian and French researchers thus compared treatment schemes, trial results and techniques, consulted each other on medical infrastructure and equipment, and stimulated each other's (competing) chemotherapeutic investigations[43].

A number of factors facilitated these border-crossing medico-scientific interactions. While Broden and Rodhain were committed to strengthening Belgian science, as bacteriologists they were also part of a much wider community of elite laboratory doctors. Their membership of French-speaking socio-cultural elites in Flanders probably increased their cultural affinities with the French doctors in Brazzaville even more. In addition, both laboratories were extremely close to each other and were confronted with the same epidemic in similar ecological conditions[44]. The movements of local populations across the Congo River – sometimes to benefit from or to avoid medical campaigns – also were a clear sign of the need for coordination. The "horizontal" connections, moreover, were complemented by "vertical" Franco-Belgian connections. Paris Pasteurian and trypanosome expert Félix Mesnil, a driving force behind the erection of the Brazzaville Institute,

(40) Alphonse BRODEN & Jérôme RODHAIN, "La lutte contre la trypanosomiase humaine dans l'État Indépendant du Congo", in *Bulletin de la Société belge d'Études coloniales*, vol. 15, 1908, p. 393-405.

(41) A. BRODEN & J. RODHAIN, *Rapport sur les travaux faits au laboratoire*, *op. cit.*, p. 1.

(42) Paris, Archives de l'Institut Pasteur (AIP), Fonds Mesnil, MES.3, Leboeuf, Dr Leboeuf to F. Mesnil, 30 September 1908.

(43) For example, Paris, AIP, Fonds Mesnil, MES.3, Leboeuf, Dr Leboeuf to F. Mesnil, 11 November 1908; AIP, Fonds Mesnil, MES.3, Leboeuf, Dr Leboeuf to F. Mesnil, 2 February 1909; AIP, Fonds Mesnil, MES.4, Martin, G. Martin to F. Mesnil, 19 May 1909; AIP, Fonds Mesnil, MES.4, Martin, G. Martin to F. Mesnil, 11 August 1909; AIP, Fonds Mesnil, MES.6, Blanchard, Dr Blanchard to F. Mesnil, 17 June 1913; AIP, Fonds Mesnil, MES.6, Heckenroth, Dr Heckenroth to F. Mesnil, 25 January 1913; Brussels, MAEAA, Hygiène, 848.285, Commissaire de district Moulaert to Governor General, 28 October 1908.

(44) Especially along the Congo River in the "Chenal" area.

played a significant mediating role. As colonial laboratories, both Brazzaville and Leopoldville depended on the "intellectual and practical support of colleagues at home", who in turn needed colonial researchers to study the tropics(45). In the absence of a comprehensive tropical medicine expertise in Belgium, it was Mesnil who acted as a critical scientific soundboard for Broden and Rodhain. They provided him with trypanosome samples and regularly presented their findings on sleeping sickness(46). Much of these found their way to the bulletin of the *Société de Pathologie exotique*, the tropical medicine society founded by Laveran in 1907 for which Mesnil acted as the secretary-general. The latter often sent journal articles by Broden and Rodhain to the researchers in Brazzaville(47). He controlled much of the medical knowledge production pertaining to both Congos and contributed greatly to the circulation of information among France, Leopoldville and Brazzaville. The logic of scientific patronage thus gave an inter-imperial shape to Belgian doctors' connections.

Beyond the crucial visits to and from Brazzaville and the correspondence with Mesnil, the Leopoldville laboratory was connected to the international medical community in other ways as well. Broden and Rodhain's furloughs in Europe, for example, were instrumental in building and maintaining scientific contacts across imperial borders. It enabled them to attend international conferences and visit famous medical institutions such as the Paris Pasteur Institute or the *Institut für Schiffs-und Tropenhygiene* in Hamburg(48). In the Congo they were kept informed of scientific developments in metropoles and colonies through specialized medical journals to which they contributed themselves. The Leopoldville laboratory from time to time also welcomed foreign researchers, such as Claus Schilling, a German colonial doctor from Togo who in 1907 undertook chemotherapeutic experiments with Paul Ehrlich's dyestuffs in Congo(49).

(45) M.A. OSBORNE, "A Collaborative Dimension", *op. cit.*, p. 2.

(46) For example, Paris AIP, Fonds Mesnil, MES.9, Correspondants étrangers. Belgique, A. Broden to F. Mesnil, 24 November 1906; AIP, Fonds Mesnil, MES.9, Correspondants étrangers. Belgique, A. Broden to F. Mesnil, 7 December 1906; AIP, Fonds Mesnil, MES.9, Correspondants étrangers. Belgique, Dr I. Heiberg to F. Mesnil, 9 October 1915.

(47) Paris, AIP, Fonds Mesnil, MES.3, Leboeuf, Dr Leboeuf to F. Mesnil, 2 October 1908; AIP, Fonds Mesnil, MES.4, Martin, G. Martin to F. Mesnil, 7 June 1909.

(48) Paris, AIP, Fonds Mesnil, MES.9, Correspondants étrangers. Belgique, A. Broden to F. Mesnil, 7 December 1906; AIP, Fonds Mesnil, MES.9, Correspondants étrangers. Belgique, A. Broden to F. Mesnil, 10 March 1913.

(49) Brussels, MAEAA, Hygiène, 857.367, C. Schilling to Secrétaire Général, 18 January 1907; Paris, AIP, Fonds Mesnil, Maladie du sommeil: Correspondance privée, G. Martin to F. Mesnil, 17 September 1907. Other examples are the Liverpool School's Congo expedition, which made use of the laboratory facilities in Leopoldville and consulted with Broden, or the head of the Cameroon medical services, Philalethes Kuhn, who toured the French Congo and visited the Brazzaville and Leopoldville installations in 1912 with the aim of organizing a similar research centre in the German territory. See London, Wellcome Library for the History of Medicine, Collection J.E. Dutton and J.L. Todd, Ms. 2262, "Expedition Diary — Congo", 4 September 1903-1 July 1904; Brussels, MAEAA, Gouvernement Général, 15221, Secrétaire Général du Département de l'Intérieur to Governor General, 19 August 1903; MAEAA, Gouvernement Général, 15221, J.L. Dutton to Governor General, 10 April 1904.

Importantly, the Leopoldville laboratory was eventually included in what Deborah Neill has unearthed as the colonial medical network of Ehrlich, the father of modern chemotherapy(50). Broden and Rodhain were "graciously and abundantly" provided with drug samples from Germany, systematically experimented them on Congolese patients and in return reported back to the director of the Frankfurt Institute for Experimental Therapy for publication(51). Together with their Pasteurian connections, the association with the world-renowned German scientist certainly advanced the laboratory's profile and reputation as a centre for chemotherapeutic research within the medical community(52). In addition, these cross-border exchanges contributed to Broden and Rodhain's recognition as chemotherapy experts, and as tropical medicine authorities more generally, by the administration.

The laboratory's relationship with the Congo's colonial administration had indeed been strained, largely because Broden felt overlooked in the formulation of colonial medical policy. The Free State authorities, although they consulted him from time to time on sleeping sickness issues, relied more on the advice of Liverpool and did not necessarily distinguish between laboratory doctors and general practitioners in matters of medical research. After the Congo became a Belgian colony in 1908, the laboratory came under the authority of the colonial government, and its director was incorporated in the colonial medical staff, but his position did not improve. On the contrary, Broden had to give up some of his scientific autonomy, and the absence of a colonial medical hierarchy put him on a par with the rest of the medical practitioners in the Congo.

When Broden and Rodhain began criticizing the administration's therapeutic decision-making, they therefore did so on scientific grounds, but also because of their perceived inferior social position and lack of power in the Congo. They aspired to raise the scientific standards of drug evaluation and of medical practice in general(53). Broden condemned the Free State's premature and unfounded therapeutic choices and, soon after Belgian annexation,

Philaletes KUHN, "Die Schlafkrankheit in Kamerun", in *Medizinische Klinik*, Bd. 27, 1914, p. 1131-1135.

(50) Deborah J. NEILL, "Paul Ehrlich's Colonial Connections: Scientific Networks and Sleeping Sickness Drug Therapy Research, 1900-1914", in *Social History of Medicine*, vol. 22, 2009, 1, p. 61-77.

(51) Antwerpen, Instituut voor Tropische Geneeskunde (ITG), Onderzoek, 5.1.1, "A. Broden. Rapport sur le Fonctionnement du Lazaret pour Trypanosés de Léopoldville durant le 1er Semestre 1910", s.d.

(52) Researchers at the Brazzaville medical laboratory in the French Congo also hoped to advance the reputation of their institute by collaborating with Ehrlich. See D.J. NEILL, "Paul Ehrlich's Colonial Connections", *op. cit.*, p. 69.

(53) Broden and Rodhain advocated selecting experimental treatments recommended by "observateurs autorisés", controlling for factors that could influence trial outcomes and including examinations of the cerebrospinal fluid to assess treatment success in trypanosome-infected subjects. Brussels, MAEAA, Hygiène, 4419.602, A. Broden and J. Rodhain, "La lutte contre la trypanose humaine (maladie du sommeil)", 1909. A. BRODEN & J. RODHAIN, *Rapport sur les travaux faits au laboratoire*, *op. cit.*, p. 79-80; J. RODHAIN, "Les laboratoires de recherches médicales et les fondations pour coloniaux", in Fernand PASSELECQ, *L'essor économique belge – Expansion coloniale. Étude documentaire sur l'armature économique de la colonie belge du Congo*, Brussels, L. Desmet-Verteneuil, p. 173.

complained that Brussels systematically ignored the observations made by the Leopoldville laboratory(54). He particularly disliked receiving government instructions to test therapeutic agents or treatment schemes that his and Rodhain's research had already discarded(55). By 1909 Rodhain openly disapproved of the dearth of African medical experience among those making colonial medical policy in Brussels(56).

The laboratory's inter-imperial chemotherapeutic exchanges, however, eventually made it very hard for the colonial government to bypass Broden and Rodhain's work. Through their interaction with Ehrlich, for example, the Belgian researchers had access to promising new trypanocidal drugs that were not yet commercially available but were handed out only to a selection of skilful clinical investigators(57). Other colonial physicians wanted to experiment with these substances as well, but apparently lacked the scientific credentials and connections to obtain them(58). The Colonial Ministry was not able to acquire the drugs either, however eager it was to learn of Ehrlich's new chemotherapeutic discoveries(59). In 1910 the Leopoldville scientists' strategic advantage was more conspicuous than ever. When Van Campenhout met Ehrlich in Berlin that year, he heard the German scientist appreciate Broden's results with arsenophenylglycin(60).

Broden and Rodhain thus distinguished themselves from other members of the colonial medical staff through chemotherapy and their embeddedness in international medical science. They claimed the leadership of sleeping sickness research in the Congo for their laboratory and wanted to concentrate all aspects of drug evaluation in Leopoldville(61). Illness, however, forced Broden to retire prematurely from the Congo in 1911. The name he had made for himself at the laboratory first secured him a faculty position at the

(54) Brussels, MAEAA, Hygiène, 847.283, A. Broden to Governor General, 1907; MAEAA, Hygiène, 848.284, A. Broden to Governor General, 7 April 1909.

(55) Antwerpen, ITG, Fonds Dubois, FD26, A. Broden, "Le Satoxyl du Docteur Cammermeyer", 23 March 1910.

(56) Brussels, MAEAA, Hygiène, 4419.602, J. Rodhain, "Note sur l'organisation du service medical au Congo Belge", 1909.

(57) Such as Salvarsan and Arsenophenylglycin.

(58) Like Dr Cammermeyer from Boma or Dr Polidori from Katanga. Brussels, MAEAA, Hygiène, R146.591, Dr Cammermeyer to Governor General, 10 October 1910; MAEAA, Hygiène, R146.591, Dr Polidori to Governor General, 9 October 1910.

(59) Brussels, MAEAA, Hygiène, R146.591, Minister of Colonies to Governor General, 18 November 1910; MAEAA, Hygiène, 848.285, "Note concerning arsenophenylglycin", 27 February 1909.

(60) Van Campenhout was sent to Berlin in 1910 to attend a medical conference and talk to Ehrlich. Brussels, MAEAA, Hygiène, 849.291, Minister to Dr Van Campenhout, 30 September 1910; MAEAA, Hygiène, 849.291, "Note concerning P. Ehrlich", 19 September 1910; MAEAA, Hygiène, 849.291, Dr Van Campenhout, "Conversation avec le docteur Ehrlich", 1910; MAEAA, Hygiène, 849.291, Dr Van Campenhout, "Quatrième Congrès international de l'assistance des aliénés", 1910.

(61) From Leopoldville, indications for general therapeutic practice in the colony could then be generated. Brussels, MAEAA, Hygiène, 4419.602, J. Rodhain, "Le service medical à Leopoldville (suite à la note du Dr Broden)", 1909; MAEAA, Hygiène, 4419.602, A. Broden to Minister of Colonies, 25 June 1909.

Brussels School of Tropical Medicine and, soon afterwards, the directorship of that educational institution(62).

Broden's move to Belgium signalled an important shift in the locus of expertise from colony to metropole. It helped to root colonial medical decision-making more firmly in the medical profession, as Broden could take advantage in Brussels of the School's close association with the Colonial Ministry to exert greater influence over colonial medical research and policy. He managed therapeutic access to the Congo, for example, by overseeing what drugs and treatments were sent to the colony for testing and general practice(63). Moreover, Broden's position at the *École de Médecine tropicale* not only signified the presence of a true scientific authority on tropical diseases in Belgium but also more generally contributed to the advancement of tropical medicine as a respectable medical specialty in the Belgian metropole. As director, Broden focused on improving the School's (research) infrastructure, and, especially after the First World War, he would further strengthen tropical medicine's institutional basis in Belgium as well as increase metropolitan control over medical knowledge production pertaining to the Congo. The inter-imperial construction of Belgian expertise in Leopoldville thus resulted, through the asymmetrical logic of colonialism, in the building of a metropolitan-based discipline. The latter allowed Broden to underscore tropical medicine's truly "Belgian" character and therefore enhance its "cultural power" at a time when, the next section will show, new forms of both nationalism and internationalism affected the ideology and practice of medicine in connection with the colonial tropics(64).

Belgian medical nationalism and internationalism after World War One

In her study of French and German tropical medicine, Deborah Neill identifies a shift from a "sense of European community" to nationalism after the First World War(65). Elisabeth Crawford has stated, however, that while it is indeed common to consider scientific internationalism as a "casualty" of the war, the picture is more complex(66). While the post-war years saw both a stronger nationalist discourse and a forging of particular alliances in tropical medicine in the wake of new political constellations, as well as an intensified intergovernmental collaboration in the field of African health under the auspices of the League of Nations, there were also important continuities.

(62) Brussels, MAEAA, Hygiène, 4444.731, Note to 2e Direction Générale from Director General (4e Direction), 6 February 1912.

(63) Brussels, MAEAA, Hygiène, R147.597, A. Broden, "Note concernant 'Anti-hématurie tea'", 10 September 1913; MAEAA, Hygiène, R147.598, A. Broden to 2e Direction Générale, 29 October 1913; MAEAA, Hygiène, R147.599, Chef de division (2e Direction Générale), "Remarques concernant la note de M. le docteur Broden du 14 janvier, relative aux réquisitions médicales", 21 March 1914.

(64) Haynes argues that the "appeal to the nation enhanced the cultural power of (Ronald) Ross's research" in D.M. HAYNES, *Imperial Medicine*, *op. cit.*, p. 124.

(65) D.J. NEILL, *Transnationalism in the Colonies*, *op. cit.*, p. 290-323.

(66) E. CRAWFORD, *Nationalism and Internationalism in Science*, *op. cit.*, p. 49-76.

One such continuity was the maintaining of informal relationships among medical scientists, notably between Belgian doctors and French Pasteurians(67). Another concerned the quest for respectability of Belgian experts. After the war, Broden extended tropical medicine's institutional infrastructure in Belgium by founding both a specialized medical society and a journal in 1920, modelled on the French *Société de Pathologie exotique* and its bulletin. The *Annales de la Société belge de Médecine tropicale* allowed him to continue his pre-war agenda of consolidating the Brussels School's control over Congo-related medical research. With a national forum for the publication of colonial doctors' observations, Broden could be sure that the fruits of colonial medical investigations were not simply reaped by metropolitan science, but by Belgian science in particular(68). It secured a clearer profile and a firmer position for him and Belgian tropical medicine, both within Belgium's medical-scientific landscape and the international field of tropical medicine(69).

Specific to the post-war years, however, was the development of closer formal ties among French, British and Belgian tropical medicine societies in response to the new political realities. Together they announced the suspension of collaboration with Germany and established with this new solidarity a European space of tropical medicine expertise limited to "the colonial Nations" – Germany being excluded not only as a defeated enemy but especially as one without a colonial Empire(70).

Despite these closer formal ties, Belgian experts at the same time took part in the game of accusations, justifications, comparisons and rivalries that gave interwar tropical medicine its distinctive (and sometimes almost comic) chauvinism. Broden, for example, wanted to maintain and promote medical work in the Congo as a Belgian undertaking and insisted on appointing Belgian nationals to the colonial medical staff, especially in laboratory positions; similar pronouncements were made in the Afrique Équatoriale Française (AEF) – although staff shortages led the French to enrol dozens of Russian hygienists in their health service(71). Broden also advised against

(67) About his French colleagues Broden wrote: "Que ce soit à Paris, en Algérie, au Maroc, à Tunis, nous sommes toujours si bien reçus par tous ceux qui appartiennent aux Instituts Pasteurs, que nous nous permettons même d'abuser!". Paris, AIP, Fonds Mesnil, MES.9, Correspondants étrangers. Belgique, A. Broden to F. Mesnil, 25.5.1922.

(68) Antwerpen, ITG, Onderzoek, 5.3.1, "Société belge de Médecine tropicale. Exposé des Motifs", s.d.

(69) The "domestication" of Belgian tropical medicine research was only partial, however, as the School for Tropical Medicine would not become a true research institution until the 1930s, largely because it lacked the required infrastructural capacities until its relocation to Antwerp. In addition, the laboratories in the Congo continued to play a significant role in medical research until decolonization. On the "domestication" of tropical medicine in the British case, see D.M. HAYNES, *Imperial Medicine*, *op. cit.*

(70) Alphonse LAVERAN, "Allocution du Président", in *Bulletin de la Société de Pathologie exotique*, vol. 12, 1919, p. 3-8. In practice, and although there were disruptions, Belgian, French and English tropical medicine experts were nevertheless still in contact with German scientists after the war.

(71) For example, Antwerpen, ITG, Fonds Dubois, FD26, Note from A. Broden, 8 May 1914; Brussels, MAEAA, Hygiène, 4444.740, A. Broden to Minister of Colonies, 13 August 1929.

the Belgian Colonial Minister's direct appeals for help from the Rockefeller Foundation to fight the sleeping sickness epidemic in Congo, which had been expanding during the war(72). When Louise Pearce of the Rockefeller Institute for Medical Research wanted to experiment with a new trypanocidal drug in Leopoldville in 1920, Broden responded positively, but afterwards criticized her for not giving enough credit to colonial laboratory doctor Van den Branden for his assistance(73). Rodhain claimed that it would have been more elegant of the Americans had they simply sent the drugs to Leopoldville and let the Belgian doctor conduct the trials, but he kept on corresponding with Pearce during the 1920s, and she was made a corresponding member of the Belgian Society for Tropical Medicine(74). Interestingly, the French doctors across the "Pool" were initially opposed to the new drug tested by Pearce, who sent them samples which they found ineffective; only after a series of new tests, carried out with samples given by Leopoldville, did they finally adopt the "American" drug (which received the name of "Tryparsamide")(75). This experience was one of the rare connections established between French and Belgian colonial doctors and the Rockefeller Foundation, whose relative insignificance in colonial Africa contrasted with its major role in the rise of medical internationalism and in public health reform in interwar Europe, Latin America and Asia(76).

The most famous episode of medico-pharmaceutical nationalism concerns the experimentation of Bayer 205, another product of German chemotherapeutic science. The loss of colonial territories had obviously dealt a serious blow to the German tropical medicine community, which saw its funding compromised and had to secure permission of foreign officials to conduct research in the field(77). Part of the solution was found by a deployment to the East. During the Russian Famine of 1920-1921, German researchers

(72) Brussels, MAEAA, Hygiène, 4404.302, A. Broden and E. Van Campenhout, "Note pour Monsieur le Ministre", 16 December 1919; MAEAA, Hygiène, 4403.301, Note concerning cooperation with the Rockefeller Foundation from Director General (7e Direction), 1923; MAEAA, Hygiène, 4404.302, Note to Minister of Colonies from A. Broden, 22 April 1924.

(73) Antwerpen, ITG, Onderzoek, 5.2.5, A. Broden to Director General (9e Direction), 29 December 1920; Brussels, MAEAA, Hygiène, 4403.301, A. Broden, "Note concernant le mémoire de Miss L. Pearce", 1922.

(74) Brussels, MAEAA, Gouvernement Général, 15716, J. Rodhain to Dr Van den Branden, 7 July 1920; MAEAA, Gouvernement Général, 15716, L. Pearce to J. Rodhain, 17 June 1924; Sleepy Hollow (NY), Rockefeller Archive Center, Rockefeller University Archives, RG 450 P315 (Louise Pearce Papers), Box 1, Folder 2, A. Broden to L. Pearce, 20 May 1922.

(75) The large river lake formed by the Congo between Leopoldville and Brazzaville. Rita HEADRICK, *Colonialism, Health and Illness in French Equatorial Africa, 1885-1935*, Atlanta, African Studies Association Press, p. 323.

(76) Paul J. WEINDLING, "Philanthropy and World Health. The Rockefeller Foundation and the League of Nations Health Organisation", in *Minerva*, vol. 35, 1997, 3, p. 269-281; Ludovic TOURNÈS, "La Fondation Rockefeller et la naissance de l'universalisme philanthropique américain", in *Critique internationale*, vol. 35, 2007, April-June, p. 173-197. The absence of the Rockefeller Foundation in interwar Africa was clearer in the case of sleeping sickness, however, than of other diseases, notably yellow fever. Heather Bell, for example, describes an episode of direct involvement of the Rockefeller Foundation in yellow fever prevention in the Anglo-Egyptian Sudan. Heather BELL, *Frontiers of Medicine in the Anglo-Egyptian Sudan, 1899-1940*, Oxford, Oxford University Press, 1999.

(77) D.J. NEILL, *Transnationalism in the Colonies*, *op. cit*., 290-299.

observed a replication of tropical conditions, which led to the creation of a German Institute of Tropical Medicine in Moscow(78). German researchers possessed one strategic advantage, though: the new trypanocidal drug Bayer 205, whose formula the Bayer company was unwilling to disclose and which was refused too-quick a commercial release. Proven effective against Camel trypanosomiasis during trials in Russia, Bayer 205 was presented by German doctors as a miracle cure against sleeping sickness that could justify, if not "the restoration of Germany's Empire", a right for German doctors to experiment in Africa(79).

The Belgian colonial administration was very receptive to the German innovation. It used diplomatic channels to acquire more information, and it invited and funded the German doctor Friedrich Kleine, who was experimenting with the drug in Northern Rhodesia, to continue his work in Congo in 1921-1923(80). Broden had maintained contacts with German scientists in order to obtain drug samples himself. But once again doubtful of politicians' willingness to promote the interests of Belgian medical science, he criticized the administration for getting involved too eagerly in the quest for Bayer 205. He felt that this had put the Belgians too much at the mercy of the Bayer Company and Kleine(81).

While Kleine announced that his trials had confirmed the drug's potential, the Bayer 205 episode (and controversy) was not over. First, Belgian doctors gradually adopted it and began to use it as a preventive drug (given to the totality of populations, including healthy people)(82). This "chemoprophylactic approach" was generalized in the Belgian Congo in the late 1920s and appropriated as a "Belgian method" – all the more so since doctors in the French Congo considered it inefficient and dangerous. Second, Bayer 205's formula was discovered in 1924 by the French chemist Fourneau, at a moment when patents did not protect drugs. Fourneau's drug was tested in

(78) Paul J. WEINDLING, *Epidemics and Genocide in Eastern Europe, 1890-1945*, Oxford, Oxford University Press, 2000, p. 177-178; Wolfgang U. ECKART, "'Creating confidence': Heinz Zeiss as a Traveller in the Soviet Union, 1921-1932", in Susan Gross SOLOMON, ed., *Doing Medicine Together: Germany and Russia between the Wars*, Toronto, University of Toronto Press, 2006, p. 199-239.

(79) Elizabeth HACHTEN, "How to Win Friends and Influence People: Heinz Zeiss, Boundary Objects and the Pursuit of Cross-National Collaboration in Microbiology", in S.G. SOLOMON, ed., *Doing Medicine Together*, *op. cit.*, p. 199-239, p. 165; D.R. HEADRICK, *Colonialism, Health and Illness, op. cit.*, p. 323.

(80) Brussels, MAEAA, Hygiène, 4403.301, Minister of Colonies to Minister of Foreign Affairs, 17 June 1922; MAEAA, Hygiène, 4403.301, Minister of Colonies to Director of Bayer Company, 17 June 1922; MAEAA, Hygiène, 4403.301, Vice-Governor of Katanga to Minister, 19 May, 1922; MAEAA, Hygiène, 4403.301, Note from 7e Direction Générale, 1 July 1922; MAEAA, Hygiène, 4403.301, Governor Heenen to Minister of Colonies, 12 October 1923.

(81) Brussels, MAEAA, Hygiène, 4403.301, A. Broden to Minister of Colonies, 8 August 1922; MAEAA, Hygiène, 4404.302, Note to Minister of Colonies from A. Broden, 22 April 1924; Antwerpen, ITG, Onderzoek, 5.2.8, Dr Heymann to A. Broden, 29 March 1923; ITG, Onderzoek, 5.2.10, A. Broden to Secrétaire Général, 23 October 1923.

(82) D.R. HEADRICK, *Colonialism, Health and Illness*, *op. cit.* On chemoprophylaxis as a Belgian approach, see Guillaume LACHENAL, *Biomédecine et décolonisation au Cameroun, 1944-1994. Technologies, figures et institutions médicales à l'épreuve*, Université Paris 7 Denis-Diderot, 2006, chaps. 2-3 (unpublished Ph.D. dissertation).

the French and Belgian Congos and eventually commercialized in France and Belgium. While Bayer decided to rename it "Germanin", the Belgian product was named "Belganyl"(83).

Strikingly enough, the patriotism that permeated the field of tropical medicine in the post-war context coincided with unprecedented internationalization of colonial medical policy and research. That nationalism and internationalism were mutually constitutive was especially clear in the debates at the League of Nations. From 1922, the transformation of former German colonies into League of Nations mandates placed territories such as the French Cameroon, the Belgian Ruanda-Urundi or the British Tanganyika under international scrutiny(84). The three "administrating powers" had to present their "civilizing efforts" in official annual reports, prepared by colonial and metropolitan authorities and examined yearly at the Permanent Mandate Commission. This publicity enabled direct comparisons and made public health action an obvious benchmark of colonial goodwill and know-how. Medical efforts, especially the campaigns against sleeping sickness, were all the more important given that from 1925 onwards, several German ex-colonial doctors published a series of attacks in the German press in which they claimed that Africa's sleeping sickness problems proved the failure of the allied powers' colonial medical policies. Initially centred on French Cameroon, the attacks were also particularly harsh on the Belgians, describing the Congo as a source of sleeping sickness infection for its neighbouring colonies (especially the Tanganyika mandate and former German East Africa)(85). In this propaganda, Belgium's medical record in the Congo was taken as evidence of its ineptitude to be a colonial power, a reproach to which the Belgians were very sensitive(86).

The role of the League of Nations as a stage for imperial rivalries and German revanchism is well known(87). The discussions on sleeping sickness illustrate that it also served as a laboratory for the internationalization of colonial debates and practices. In addition, the international significance of the sleeping sickness crisis served as leverage, at the national level, for the medical profession to obtain support within the state. In Belgium, Broden was increasingly backed by members of the colonial administration in his desire to retain the Belgian character of medicine in the Congo. In the French Empire, Eugène Jamot, a former director of the Pasteur Institute in Brazzaville, capitalized on the threat of German claims to demand funding for his sleeping sickness campaigns in Cameroon. Lastly, the German attacks

(83) D.R. HEADRICK, *Colonialism, Health and Illness*, *op. cit.*, p. 327-329.

(84) On health in Ruanda-Urundi, see Anne CORNET, "Politiques sanitaires, État et missions religieuses au Rwanda (1920-1940). Une conception autoritaire de la médecine coloniale?", in *Studium*, vol. 2, 2009, 2, p. 57-67.

(85) For example, Antwerpen, ITG, Onderzoek, 5.3.9, E. STEUDEL, "L'état actuel de la lutte contre la maladie du sommeil en Afrique (traduction)", 1929.

(86) On Belgium's fears of foreign criticism concerning its capacities as a colonial power, see, in particular, Guy VANTHEMSCHE, *Congo. De impact van de kolonie op België*, Tielt, Lannoo, 2007, p. 97-100.

(87) Michael D. CALLAHAN, *Mandates and Empire. The League of Nations and Africa, 1914-1931*, Brighton, Sussex Academic Press, 1999; ID., *A Sacred Trust. The League of Nations and Africa, 1929-1946*, Brighton, Sussex Academic Press, 2004.

brought Belgian and French doctors closer together, as they conferred with each other about how to respond to the German propaganda and commented positively in the press on each other's achievements in the fight against sleeping sickness[88]. Beyond its medical dimension, this cooperative response was one of the first instances of a common Belgo-French effort to legitimize colonialism in front of the "international community"[89].

The League of Nations played another significant role in the internationalization of tropical medicine, through a series of initiatives under the auspices of its Health Organization (LNHO). The role of the LNHO as a catalyst of international exchange – for example in the domain of statistics – has been well described in the case of European and American public health[90]. Its role in colonial medical policies was equally important, especially in the domain of sleeping sickness control, where it could build on the experience of the *Sleeping Sickness Bureau*. It participated in the making of an international sphere of expertise, where a distinctively colonial medical identity could be defined and shared among Belgian, British, Portuguese and French doctors.

Belgians took a prominent role in the efforts of the LNHO to coordinate the fight against sleeping sickness in Africa. The Expert Committee, set up in 1922 to organize exchanges of information among the authorities of the various colonies and empires, was composed of long-time specialists of sleeping sickness, who had known each other since the beginning of the century: the French and Belgian representatives, Gustave Martin and Van Campenhout, were both former colonial doctors in the Congos[91]. The Committee's regular meetings were followed by two major conferences in London (1925) and Paris (1928), where the Belgians, including Rodhain and Van Campenhout, proved especially active in promoting formal intergovernmental cooperation – without much success. In Paris their draft proposal for an ambitious multilateral agreement was abandoned, presumably because of opposition from the British and French delegations. The final text only recommended step-by-step "bilateral agreements" between colonies, a recommendation only the Belgians seemed to put into practice, with Portuguese Angola and, in 1931, with the French AEF[92].

(88) Brussels, MAEAA, Hygiène, 4405.306, Note to Minister of Colonies from J. Rodhain, 24 November 1930; MAEAA, Hygiène, 4405.306, Dr Duren to J. Rodhain, 20 November 1930; MAEAA, Hygiène, 4405.306, Note to Minister of Colonies from Directeur Général (7e Direction Générale), 29 April 1930.

(89) John KENT, *The Internationalization of Colonialism: Britain, France, and Black Africa, 1939-1956*, Oxford, Clarendon Press, 1992.

(90) P.J. WEINDLING, ed., *International Health Organisations*, *op. cit.*

(91) Brussels, MAEAA, Hygiène, 4461.912, LNHO president L. Rajchman to E. Van Campenhout, 20 September 1922.

(92) Geneva, League of Nations, League of Nations Health Organization (LNHO), CH 334, "Minutes of the International Conference on Sleeping Sickness held in London at the Colonial Office from May 19th to 22nd, 1925", 1925; League of Nations, LNHO, CH 743, "Report of the Second International Conference on Sleeping-Sickness held in Paris, November 5th to 7th, 1928", 1928; "Convention franco-belge sanitaire comportant une série de mesures proposées à préserver notre A.E.F et le Congo Belge contre le danger des maladies épidémiques (J.O. du 4 septembre 1931)", in *Annales de Médecine et de Pharmacie coloniales*, vol. 29, 1931, p. 925-928.

Belgian doctors, however, had not always championed the LNHO's projects unconditionally. Van Campenhout, for example, welcomed the League's initiative in as far as it held the promise of international funds to support the fight in the Congo. But he openly opposed the idea of sending an autonomous mission to investigate sleeping sickness, especially one under the leadership of Friedrich Kleine. He argued that research should be left to the local colonial laboratories, and he found great support for this with Martin, former director of the Brazzaville Pasteur Institute(93). The question was partly solved in 1925 when it was decided to leave some issues to the laboratories and at the same time establish a special international Commission under the direction of Dr Lyndhurst Duke from the British colony of Uganda(94). Although Broden was initially not in favour, in the end the Belgians participated. They felt that not partaking in the mission would put Belgian colonial medicine in a bad light internationally, and so Dr Lucien Van Hoof from the Leopoldville medical laboratory was sent to Entebbe(95). In 1928 he signed the final report of the Commission together with the other members Duke and Kleine.

What was produced in these post-war exchanges – apart from guidelines for research and standardization? Part of the answer may lie in the informal socializing that occurred around the meetings, in the field during the work of the Entebbe Commission, or on other occasions such as the large tropical medicine conference organized in Luanda in 1923, where 75 French, Belgian, British and Portuguese colonial doctors and metropolitan experts gathered for 15 days. The reports from this conference – detailing in dozens of pages the "ceremonies and promenades" enjoyed by the congressists – reveal that there was much more at stake than the mere exchange of technical information(96). Through mutual knowledge and informal discussion, for example during the boat trip to the conference, common ideas about the colonial experience were shaped. So were self-definitions of diverging yet interacting national approaches to tropical diseases, including sleeping sickness: international exchanges, here, were key to the imagination and materialization of national styles. For example, the contact with the Belgian doctor Emile Lejeune

(93) Brussels, MAEAA, Hygiène, 4461.913, Note to Secrétaire Général from E. Van Campenhout, 20 August 1924; MAEAA, Hygiène, 4461.913, E. Van Campenhout, "Compte-Rendu sommaire des discussions du Comité Médical réuni à Londres sous les auspices de la Société des Nations en septembre 1924", s.d.; MAEAA, Hygiène, 4461.914, E. Van Campenhout to G. Martin, 25 February 1925; MAEAA, Hygiène, 4461.914, G. Martin to E. Van Campenhout, 23 February 1925.

(94) Brussels, MAEAA, Hygiène, 4461.914, "Société des Nations. Conférence Internationale sur la maladie du sommeil. Procès-verbal de la seconde séance tenue à Londres le mardi 19 mai 1925 à 15 heures", s.d.; MAEAA, Hygiène, 4461.914, "Société des Nations. Conférence Internationale sur la Maladie du sommeil. Procès-verbal de la quatrième séance tenue à Londres le jeudi 21 mai 1925 à 11 heures", s.d.

(95) Brussels, MAEAA, Hygiène, 4461.914, Note to 7e Direction Générale from A. Broden, 7 July 1925; Brussels, MAEAA, Hygiène, 4461.914, Minister of Colonies to Governor General, 11 June 1925; MAEAA, Hygiène, 4461.915, Note to Secrétaire Général from E. Van Campenhout, 23 September 1925.

(96) Dr HECKENROTH, Dr LEGER, Dr MARCEL & Dr NOGUE, "L'Afrique occidentale française au congrès de médecine tropicale de Saint-Paul de Loanda (Juillet 1923)", in *Annales de Médecine et de Pharmacie coloniales*, vol. 22, 1924, p. 5-76.

at Loanda proved important in the invention of the "French methods" of sleeping sickness control by Eugène Jamot(97).

Irony and playfulness were part of the interactions as well. In his autobiography, Friedrich Kleine, who was invited to the League of Nations Conference on Sleeping Sickness in 1925, remembered Van Campenhout reporting on the Belgian successes against the epidemic in the Congo. "The experts in the room must have found the presentation of such achievements exhilarating", he noted, "because we all know that the programme [against sleeping sickness in the Congo] exists only on paper, and that very little is realized against the epidemic". A Belgian delegate sitting next to him put in a good word, with a self-derision that reveals much of the difficulty, for the historian, to take for granted the nationalism of his "subjects": "to fight against sleeping sickness, the British take away the natives from the infected area, the Germans clear the bush and promote agriculture, and the Belgians write reports"(98).

Although this would require further research, a closer look at the norms and forms of transnational medical sociabilities thus reveals the importance, but also the fundamental ambivalence, of the reference to "national styles" of colonial medicine in the interwar period – by colonial doctors as well as historians.

Conclusion

By adopting a relational, cross-border perspective on Belgian tropical medicine, we have aspired to show in this article how the use of *a priori* national labels and frameworks conceals much of the historical dynamics at work in the development of this medical field in the first decades of the twentieth century(99). Here, the early history of Belgian tropical medicine is seen through the interplay of the "national" and the "transnational" as shaped by the colonial African context. Considering in particular the role of cross-border exchanges and interactions in both forging and challenging the scientific authority and autonomy of Belgian doctors in relation to the politics of Belgian colonialism and the international medical community, in the establishment of a metropolitan-based discipline as well as in the construction of a national medical style, it becomes clear that Belgian tropical medicine was never simply or essentially "Belgian".

Reciprocally, the same may be said of the "French methods" of tropical disease control: while the classic historiography of colonial medicine in France has presented figures such as Eugène Jamot as the incarnations of some French colonial "spirit", our work suggests that in this case also, the

(97) P.G. JANSSENS, "Eugène Jamot et Émile Lejeune. Pages d'histoire", in *Annales de la Société belge de Médecine tropicale*, vol. 75, 1995, 1, p. 1-12.

(98) Friedrich KLEINE, *Ein Deutscher Tropenarzt*, Hannover, Schmorl & von Seefeld, 1949, p. 99.

(99) For critiques of *a priori* categorizations in historiography, see, in particular, Michael WERNER & Bénédicte ZIMMERMAN, "Beyond Comparison: *Histoire croisée* and the Challenge of Reflexivity", in *History and Theory*, vol. 45, 2006, 1, p. 30-50.

exchanges with Belgian, British, Portuguese and German colonial doctors have been crucial to the invention of the so-called "French style" of sleeping sickness control. For example, the ties of major colonial doctors such as Eugène Jamot or Marcel Vaucel, who both spent years in Brazzaville, with their colleagues and friends "on the other side the Pool" would be worth investigating in more detail(100).

Although central to the shaping of both Belgian and French experiences of tropical medicine, the inter-imperial exchanges between Brazzaville, Leopoldville, Paris, Brussels and later Antwerp did not materialize into formal institutional cooperation until the very last days of colonial rule in French and Belgian Africa. In 1948 an "African Conference on Tse-Tse and Trypanosomiasis" brought together in Brazzaville most French, Belgian, British and Portuguese specialists of the research on and fight against sleeping sickness. The Conference resulted in the creation of a new institution, the "Bureau Permanent Interafricain de la Tsé Tsé et des Trypanosomiases" (BPITT), based at the Princess Astrid Institute of Tropical Medicine in Leopoldville and co-directed by the latter's director and the French director of the Brazzaville Pasteur Institute. The Bureau functioned steadily during the 1950s, centralizing, translating and circulating all member states' publications related to sleeping sickness. Not without irony, it was at the precise moment when the newly created WHO began to promote forms of *non-colonial* health interventionism in Africa that the BPITT embodied this alternative, explicitly "inter-colonial" form of institutional collaboration. While the British rapidly distanced themselves from the BPITT, French and Belgian doctors envisioned it as a symbol of colonial powers' benevolence and expertise, and they briefly hoped to expand its actions to all tropical diseases in Africa. However, with the increasing pressure for decolonization and the rise of the WHO (which opened its African offices in Brazzaville) they soon understood that such an option was outdated: barely begun, the era of colonial medical internationalism was already over.

ABSTRACT

Myriam MERTENS & Guillaume LACHENAL, *The History of "Belgian" Tropical Medicine from a Cross-Border Perspective*

This article examines the development of a "Belgian" tropical medicine at the beginning of the twentieth century. It is, however, not simply a history of tropical medicine institutions in Belgium, nor a comparative investigation into what made medical practice in Belgian overseas territories peculiar. Instead, we seek to challenge the pre-fixed national frameworks that characterize much medical historiography concerning the colonial tropics by adopting a relational approach to this past. This allows us to explore how much "Belgian" tropical medicine was in fact constructed through interactions and exchanges across national, colonial and imperial borders,

(100) Marcel VAUCEL, "Les acquisitions de la médecine tropicale dans ces cinquante dernières années", in *Annales de la Société belge de Médecine tropicale*, vol. 36, 1956, 5, p. 655-664, cited on p. 664.

and also, how the colonial dimension affected (the interplay between) medical-scientific nationalism and internationalism in the early 1900s.

Tropical medicine – colonial Africa – sleeping sickness – chemotherapy – cross-border interactions

RÉSUMÉ

Myriam MERTENS & Guillaume LACHENAL, *Perspectives transfrontalières sur l'histoire de la médecine tropicale "belge"*

Cet article examine le développement d'une médecine tropicale "belge" au début du 20e siècle. Il ne se limite cependant pas à une histoire des institutions de médecine tropicale en Belgique ou à une étude comparative pour identifier d'éventuelles spécificités des pratiques médicales dans les colonies belges. Nous souhaitons plutôt revenir de manière critique sur le cadrage national qui caractérise une grande partie de l'historiographie de la médecine tropicale et coloniale, en adoptant une approche relationnelle. Cette approche nous permet d'explorer comment la médecine tropicale "belge" était en fait construite comme telle par des interactions et des échanges à travers les frontières nationales, coloniales et impériales ; comment aussi la dimension coloniale a marqué l'interaction entre nationalisme et internationalisme dans le domaine scientifique et médical dans les premières années du XXe siècle.

Médecine tropicale – Afrique coloniale – maladie du sommeil – chimiothérapie – interactions transfrontalières

SAMENVATTING

Myriam MERTENS & Guillaume LACHENAL, *De geschiedenis van de "Belgische" tropische geneeskunde vanuit grensoverschrijdend perspectief*

Dit artikel schetst de ontwikkeling van een "Belgische" tropische geneeskunde aan het begin van de twintigste eeuw. Het is echter niet zomaar een institutionele geschiedenis van de tropische geneeskunde in België, noch een comparatief onderzoek naar het specifieke karakter van de geneeskundige praktijk in de Belgische overzeese gebieden. Door een relationele benadering van het verleden trachten we de vooraf vastgelegde nationale kaders die veel van de medische geschiedschrijving over de koloniale tropen typeren te doorbreken. Dit laat ons toe na te gaan in hoeverre de "Belgische" tropische geneeskunde eigenlijk werd geconstrueerd doorheen interacties en uitwisselingen over nationale, koloniale en imperiale grenzen heen, alsook hoe de koloniale dimensie (de wisselwerking tussen) het medisch-wetenschappelijk nationalisme en internationalisme van de vroege twintigste eeuw beïnvloedde.

Tropische geneeskunde – koloniaal Afrika – slaapziekte – chemotherapie – grens-overschrijdende interacties