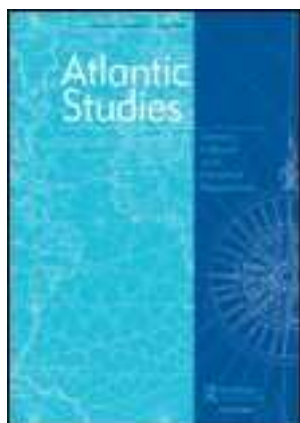


This article was downloaded by: [Ohio State University Libraries]

On: 10 January 2012, At: 11:07

Publisher: Routledge

Informa Ltd Registered in England and Wales Registered Number: 1072954 Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Atlantic Studies

Publication details, including instructions for authors and subscription information:

<http://www.tandfonline.com/loi/rjas20>

Making yellow fever American: The early American Republic, the British Empire and the geopolitics of disease in the Atlantic world

Katherine Arner

Available online: 17 Dec 2010

To cite this article: Katherine Arner (2010): Making yellow fever American: The early American Republic, the British Empire and the geopolitics of disease in the Atlantic world, *Atlantic Studies*, 7: 4, 447-471

To link to this article: <http://dx.doi.org/10.1080/14788810.2010.516197>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.tandfonline.com/page/terms-and-conditions>

This article may be used for research, teaching, and private study purposes. Any substantial or systematic reproduction, redistribution, reselling, loan, sub-licensing, systematic supply, or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae, and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand, or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

Making yellow fever American: The early American Republic, the British Empire and the geopolitics of disease in the Atlantic world

Katherine Arner*

Between 1793 and 1822, a series of successive yellow fever outbreaks ravaged the eastern seaboard of the United States. The outbreaks generated not only the biggest public health crisis in that period but also one of the most pressing and contentious disputes in medical theory. Often told as a national story, this article re-examines that controversy by situating it in the context of outbreaks, research, and debates in other parts of the anglophone Atlantic. It argues that American responses to disease were shaped by the young republic's post-imperial relations to both Great Britain and the West Indies. On a broader level, this study challenges current approaches in the formation of American natural knowledge and identity during this period. It looks beyond both national boundaries and relations to former metropolitan centers, locating some of the above developments in a more "multi-centered" Atlantic world.

Keywords: yellow fever; United States; West Indies; Great Britain; Atlantic world; medicine; politics

Between 1793 and 1822, successive yellow fever outbreaks tore through American seaport towns along the eastern seaboard, killing tens of thousands of people.¹ The new nation's most pressing public health issue also became one of the most hotly contested topics in early American medicine. Nearly a century before scientists would connect yellow fever to mosquito-borne pathogens, the outbreaks generated a flurry of conflicting claims over the cause and nature of the deadly disease. Historians have subsequently recreated the political and theoretical components of the controversy in accounts that begin with the famous outbreak in Philadelphia in 1793 and trace the contentious debates up and down the eastern seaboard until the final waves of pandemics in the 1820s.²

From the vantage point of the British medical writer Colin Chisholm, however, the yellow fever controversy began neither in Philadelphia nor in 1793, nor even among Americans. Rather, it was something that Americans had entered and ultimately altered for medical men on different sides of the Atlantic basin. This framed the story Chisholm laid out in 1809 in a public letter addressed to a colleague and correspondent, Dr John Haygarth.³

Chisholm had been stationed as a medical officer in the British West Indies in the late eighteenth century, where he studied and published on tropical diseases. Haygarth had resided in England his whole life, building a powerful reputation through the study of febrile diseases and erecting fever wards in medical institutions.⁴ While both men were separated by an ocean and two different working contexts, something had come to unite them by the time of Chisholm's publication: a burning

*Email: karner1@jhmi.edu

desire to change the course of the American debates over yellow fever. Chisholm's 1809 publication constituted a lengthy defense of both men's claims to studying the disease – a counter to the years of attacks both men had suffered at the hands of Americans. Referencing disease research from North America, the West Indies, and Great Britain, Chisholm fumed that “European and West Indian physicians are fully as much entitled to proclaim and act upon similar sentiments!”⁵

Chisholm's letter to Haygarth – as well as the events and people that facilitated it – is more than a quirky episode in the history of an otherwise American story. The professional woes of two Englishmen pull us into a historical account with a different narrative – one with outbreaks, actors, research, and interests in various parts of the anglophone Atlantic. They are a window into a vibrant controversy that, in fact, extended beyond geopolitical borders. As such, they present us with an opportunity to examine an overlooked but important angle in the intellectual, cultural, and political components of one of the most divisive issues in medical history during this period.

Examining the place of British and West Indian knowledge in American responses to yellow fever also provides us with a useful corrective to our understanding of medicine in the early American Republic and late eighteenth-century Atlantic world. Much of the scholarship on yellow fever in America rests on a broader historiographical paradigm in medical history that is confined to national boundaries. That is not to say that historians have ignored transnational influences. Still, any scholarship looking across new national boundaries has focused solely on Americans' interactions with the former metropole – educational institutions and circles in places like Edinburgh and London.⁶

The current essay positions American medicine in a more “multi-centered” Atlantic world. It builds on very recent developments in the fields of early American studies and science in the Atlantic world. In the realm of American history, scholars such as Sean Goudie and Edward Rugemer have argued for the place of the West Indies in both the cultural and political formation of the new nation. They thereby reposition the relationship between US and European colonialism, a relationship that has been largely distorted by the implicit chronology and binary structure of pre- and post-colonial theoretical conceptualizations. Such recent studies thus present a triangular dynamic that shaped political and cultural forms in the Atlantic world in the late eighteenth and early nineteenth centuries.⁷

Such a paradigm has begun to emerge in the history of science, as scholars like James Delbourgo have located North American and West Indian scientific practices and culture in exchanges and travels that integrated both worlds and not merely European centers.⁸ With few exceptions, though, scholars have continued to locate this phenomenon before independence.⁹ In contrast, this essay argues for the persistence of this dynamic in the early national period – one that had an impact on the formation of epistemological and cultural identity in the new nation. It was a complex interplay between America, Great Britain, and the West Indies that facilitated a controversy extending from the eighteenth century into the early decades of the nineteenth century. The experiences of two British men on opposite ends of the empire take us into a medical world that was neither solely national nor imperial in form. Rather, it was one shaped by the uneasy tensions between the continuities and transformations that marked the cultural and intellectual geography of the Atlantic world during this period.

An imperial backdrop to Philadelphia in 1793

Chisholm's 1809 reflection on the American debates is littered with references to outbreaks, research, and correspondents that take us beyond the eastern seaboard of North America. He takes us from Philadelphia and New York in the 1790s and early 1800s to English reports on the plague in the eighteenth century, to the Caribbean in the 1760s, to Haygarth's metropolitan research circles at the turn of the century. For Haygarth and Chisholm, America was one among several integrated sites in a series of exchanges and disputes that extended back several decades. In order to understand both men's relationship to the American responses to yellow fever, we need to situate them in the context of two phenomena: the outbreaks and subsequent research that were taking place in different parts of the British Atlantic, as well as the nature of Americans' post-imperial relations to that medical world.

I therefore begin this account not in America, but rather in the British Empire in an earlier part of the eighteenth century. By the time of the American outbreaks, yellow fever had already become a major concern among the British. Imperial expansion into new disease ecologies exposed British military, commerce, and medical practitioners to the disease. By the mid eighteenth century, the disease had ravaged Great Britain's imperial campaigns and plantation settlements in the West Indies. Outbreaks in the 1790s took an especially heavy toll among British troops in the Caribbean.¹⁰

Yellow fever had also come to pose a major challenge in disease theory for British practitioners. Both Haygarth and Chisholm were part of a large collection of medical men in both the colonies and Great Britain who tried to determine whether or not it was contagious and subject to quarantine. In the early half of the eighteenth century, it was very common to think of yellow fever as contagious and transportable. British medical writers applied European experience with the plague and domestic febrile diseases to their interpretations of the new disease. Like the plague, it appeared in epidemics that were relatively infrequent, and, like the plague in that island nation, it seemed to begin in coastal areas exposed to maritime traffic.¹¹ As with more familiar febrile diseases like typhus, it was believed that the infected could give off effluvia and thus spread the disease to others.

By the latter half of the eighteenth century, however, practitioners stationed in colonial settings had begun to dismantle this view. Many gradually adopted the opinion that it was merely a severe form of remittent fever – a disease that appeared to be particular to all hot, humid climates. Yellow fever, according to this theory, was not a separate and distinct disease. Local climate and miasmata triggered the emergence of outbreaks; not the arrival of infected ships. Older disease explanatory models did not apply.¹²

Nonetheless, a powerful minority continued to insist that the disease was contagious. This was particularly the case among several senior and influential officers in the army and navy medical departments – Colin Chisholm being one of them.¹³ A rising figure in medical military circles, Chisholm published a widely read account of a huge 1793 yellow fever outbreak in Grenada, in which he traced the importation of the disease to the journey and arrival of the ship *Hankey* from Bulama, on the west coast of Africa.¹⁴ He drew inspiration not only from colleagues and his own experience, but also research on the plague, including the recent *Treatise on Plague* by a prominent physician, Patrick Russell.

In addition to colonial practitioners, a number of established metropolitan physicians became invested in stemming the tide of non-contagionism. Much as Chisholm was building a reputation through his writings on yellow fever, John Haygarth had made a name for himself through his domestic studies and publications on typhus and other febrile diseases. He had erected fever wards and published instructions on preventing the spread of fevers. His work and reputation in the world of fever research rested on the notion that particular types of fever were transmissible. Haygarth's professional contacts and interests not only extended among many of his metropolitan colleagues, but also beyond Great Britain. He exchanged inquiries and advice with medical men studying febrile disease in contexts ranging from Caribbean environs to jails, to ships¹⁵ – hence, his rising interest in the problems surrounding yellow fever and his eventual correspondence with figures like Chisholm. Growing epistemological tensions within the empire had heightened a decades-old debate, enlisting the involvement and invested interests of metropolitan and colonial medical writers alike.

The debate goes international

Both Chisholm's and Haygarth's involvement in the debates intensified dramatically at the turn of the century. At that time, their ideas had begun circulating in a new site of yellow fever outbreaks: the United States. An American edition of Chisholm's treatise appeared in 1799.¹⁶ A number of newspapers published a condensed version of Haygarth's instructions for preventing the spread of fever.¹⁷ Newspapers likewise published a series of excerpts from Chisholm's account. American medical writers read these pieces, reviewed them, talked about them, and reflected on their implications in correspondence and even diaries. Those pieces subsequently showed up as references in American studies of local outbreaks in Philadelphia, New York, and other parts of the country. By the early nineteenth century, the ideas and suggestions of both men had even converged in the published work of a New York-based doctor, David Hosack.¹⁸

The circulation of the ideas and publications of Chisholm and Haygarth exemplifies a much broader pattern in the American responses to yellow fever. While Americans observed, interpreted, and exchanged ideas about local outbreaks and communicated findings amongst themselves, many also thought about them in relation to outbreaks, interpretations, and reports in other parts of the Atlantic world. That international disease knowledge entered American discussions through a variety of channels – correspondence as well as various forms of print. American medical writers contrasted and compared observations of local yellow fever outbreaks with published observations of febrile diseases in Great Britain and the colonies. Classical British treatises from the early part of the century cropped up in excerpts, medical literature, and discussions regarding appropriate forms of prevention.¹⁹ The nation's first medical journal, the *Medical Repository*, also reviewed contemporary British works alongside domestic pieces. Foreign correspondence from West Indian medical writers appeared together with letters from Philadelphia, Maryland, Virginia, and other locations of domestic outbreaks.

In some respects, these developments are explained by a pattern in early national medicine that several historians have already brought to light. Knowledge from the former metropole continued to shape and interact with local knowledge in the

former periphery. Many of the Americans engaged in studying and writing on yellow fever had received much of their formal training in medical institutions in Edinburgh, London, and other parts of Great Britain. **Bodies of medical literature in Great Britain, along with contacts that Americans established during their travels, drew them into medical circles and print networks that continued to link the new nation to Great Britain.** As they had even before independence, Americans thought and wrote about their natural environs and disease ecologies in relation not only to other parts of North America, but also to those they read about and observed in the “Old World.”²⁰

The impact of these channels and modes of understanding natural phenomena can be seen in the yellow fever debates. Benjamin Waterhouse of Boston had corresponded heavily with Haygarth on the subject of smallpox. Now, Haygarth requested that his friend undertake a systematic study of the disease and collect information for him, so that Haygarth might himself analyze yellow fever and compare it to his own research on febrile diseases.²¹ **In Philadelphia, Benjamin Rush submitted his thoughts and observations on yellow fever to his long-time friend and colleague from the days of his medical tour in Great Britain, Dr John Coakley Lettsom in London.**²² Having himself investigated typhus in England, Lettsom eagerly received updates on the febrile diseases of America. Among other medical men, several members of the College of Physicians of Philadelphia drew on European experience with quarantine measures against the plague to advocate for such measures against yellow fever in Philadelphia’s ports.²³

On the whole, though, the dynamic guiding yellow fever debates was, in fact, shaped by a medical world somewhat different from the one we typically see in histories of medicine during this period. Americans were not only connected to circles back in the metropole. They had established contacts with many of the colonial writers who overlapped in those networks and studied in some of the same institutes. Chisholm had not only built up a correspondence with Haygarth; he also corresponded at length with contacts in medical and natural societies in New York – in particular, Dr David Hosack.²⁴ Hosack and Chisholm answered one another’s inquiries about epidemics in their localities. “I wish you could visit the United States,” Hosack added in one letter, “you would find materials for giving a blow to your enemies and of giving you immortal fame – three or four months residence here should be sufficient – and perhaps you might find your interests in other respects promoted.”²⁵ Hosack subsequently used Chisholm to establish other correspondents in the West Indies.

The world of natural history during this period also played a role in integrating the West Indies and America in the study of diseases like yellow fever. In the eighteenth century, many Anglo-Americans studied and thought about natural phenomena, climate, and health in relation to various colonies, both North American and Caribbean.²⁶ **Through this process, they built networks between those peripheral settings, exchanging reports and specimens.**²⁷ Even after independence, Americans maintained and applied similar networks and approaches to natural phenomena in their studies of yellow fever. Medical writers, for example, disagreed with plague and typhus analogies **by relating the American climate to both England and the West Indies. Rush supported the doctrine of local origins** by arguing “that neither Great Britain nor Ireland have ever, to my knowledge, been infected by this fever, notwithstanding their long and frequent intercourse with the West India

islands.” More probable were the peculiarities of the American climate, which, he argued, bore a far greater resemblance to places like Jamaica than Great Britain.²⁸

“Be assured my friend,” he wrote to Lettsom, “our yellow fever is no other disease than a higher grade of the common bilious fever of warm climates and seasons.”²⁹

Communities in natural history and medicine also overlapped, and medical writers thus transformed transnational networks in natural history and botany into channels for information regarding yellow fever. David Hosack, who engaged just as much in botanical projects as medicine, used correspondents on fauna and botanical gardens in the West Indies for information regarding the nature of outbreaks in that region.³⁰

Much as new national boundaries had not closed the United States to transatlantic disease patterns, they had not completely severed the web of knowledge networks that informed the ways in which Americans interpreted diseases and disease ecologies. Nor had they completely altered the ways in which Americans understood their ecological relations to other parts of the anglophone Atlantic. They had allowed a West Indian doctor like Chisholm to link up his ideas – and foster new links among others – to places in different parts of the anglophone Atlantic. Derived neither solely from local nor imperial knowledge, Chisholm’s understanding of the yellow fever debates was the product of an international phenomenon.

Producing dangerous channels

Chisholm and Haygarth eventually involved themselves even more in the debates for another reason. The American debates took on a shape that inspired not only curiosity, but also concern among many British writers. As Americans clashed over the cause of the disease, they wielded British ideas in conflicting ways. Moreover, as they accumulated more and more local experience with the disease, Americans increasingly utilized that local knowledge to judge and correct one another, as well as British correspondents. Some of the above examples, in particular Rush’s critique of Lettsom, demonstrate these points.

British contagionists had enjoyed the support that a number of American physicians had lent to their cause, among them the prestigious College of Physicians of Philadelphia.³¹ The college’s representatives, notably William Currie, also maintained tight connections with different printers in Philadelphia.³² Currie networked with David Hosack in New York, who maintained that the disease was contagious. Hosack, in turn, found an outlet for his views in the *New York Evening Post*, a popular gazette edited by his friend, William Coleman.³³ Contagionism also continued to inform the public health policies of a number of major ports.

Those British writers thus became alarmed by the eventual emergence of an increasingly organized network of Americans promoting countervailing views. In Philadelphia, Benjamin Rush broke off from the College of Physicians. He drew around him a circle of like-minded scholars – including former students – and created the Academy of Medicine. The primary goal of the new society was to promote the doctrine of local origins. Charles Caldwell, a former student of Rush, became vice-president and a particularly vocal proponent of the theory, who authored a series of orations on yellow fever and quarantine.³⁴

Rush and his followers were also connected to allies in other parts of the country, in particular New York. Rush and Caldwell both corresponded and collaborated with Noah Webster, a layman scholar and renowned prolific writer who had taken

a passionate interest in yellow fever. Webster not only published his own treatise on the disease, but he published his pieces in his own newspaper, the *Commercial Daily Advertiser*.³⁵ Webster, in turn, worked extensively with Elihu Hubbard Smith, one of the founding editors of the *Medical Repository* and another Rush disciple. In his diary, Smith noted many meetings with Webster regarding writings on the disease – both collaborative projects and peer review. Smith and his co-editors Samuel L. Mitchill and Edward Miller shared similar views on yellow fever. **While the *Medical Repository* was founded in 1797 as a venue for many medical and natural historical topics, the editors made the disease a primary subject.**³⁶ **Despite the nuances that separated their exact theories, all of these actors drew themselves together under the umbrella of the local origins theory.** They thereby joined up in promoting the idea that yellow fever was caused by some peculiarities of local climate and natural environs, and they campaigned to get rid of the strict quarantine measures that many port towns continued to uphold.

Perhaps most unsettling for British contagionists was that the observations and ideas of these men began circulating back to different parts of the British Empire by the beginning of the nineteenth century. Through correcting some of their British counterparts and claiming evidence from different parts of the empire, Americans had essentially begun to encroach on the sites that British rivals claimed for their own views. American non-contagionists' writings were also entering print circuits back in Great Britain. **Works by Rush and Webster had been published in London, and they were receiving some positive reviews both in medical and broader reading circles.**³⁷ The *Medical Repository*, which was enjoying a successful run and increasing subscription numbers, began to appear in the commentaries and reprinted foreign news of medical journals in Edinburgh and London (albeit not exclusively for fever studies).³⁸ In addition to this phenomenon, reading audiences in Great Britain were gaining more and more exposure to the writings of colonial officers on the non-contagiousness of the disease.³⁹

Several metropolitan medical men entered the debates in print in order to counter this trend. One anonymous physician responded to the development in the London newspapers, determined to stifle the “many erroneous opinions [that had] circulated in Europe relative to the Yellow Fever in America.” Before they trust in the ideas coming from America, he cautioned, readers ought to consider the stark difference between seasoned European disease responses and those of the young and fragile nation. American physicians pursued investigations with “an enthusiasm and rancour,” thus diminishing the authority a physician is capable of inspiring. “These circumstances should teach the world to beware of information which they receive through such channels.”⁴⁰

These developments promoted more active intervention by both Chisholm and Haygarth. In the case of Chisholm, American non-contagionists and contagionists alike began fighting over the position of his views in relation to their own. In the process, non-contagionists attempted to transform Chisholm's observations into evidence for their own views – effectively “stealing” the West Indies from both their American and West Indian rivals. As will be discussed below, Chisholm took offense at this move and took it upon himself to challenge those Americans more forcefully via both American and British print circuits.

Haygarth had also taken offense at the American writers who attempted to insert their ideas in the same metropolitan circles in which he operated. A perceived danger

to the health of the American and West Indian inhabitants, Haygarth saw the presence of these views at home and in the United States as an indirect challenge to the theories on which his research and preventative methods rested. Haygarth became even more disgruntled in 1800 when a young American physician delivered his publication directly to a mutual colleague in England, John Coakley Lettsom. An aspiring doctor and gentleman scientist, **Charles Caldwell joined in Rush's public challenges to the College of Physicians of Philadelphia.** In 1799, he delivered an oration on a 1798 outbreak in Philadelphia, pronouncing the cause as local and thereby countering the college's assertion that it had been imported. It was this oration that Caldwell delivered to an esteemed friend of both Americans and reputed English medical circles.⁴¹

What Caldwell might have intended as an act of appealing to a circle of reputed medical men, Haygarth interpreted as a professional affront to his own work and that of an older, established body in American medicine. It prompted Haygarth to insert himself directly and publicly in the American debates.⁴² With that, then, Haygarth and Chisholm both entered the fray, expressing hopes to change the course of a debate that was threatening to turn a new site in the controversy into a formidable center for what British contagionists perceived as a dangerous view.

Battles over the "House of Contagion"

In looking back on both men's participation in the debates, Chisholm reified the strong bond between metropolitan fever research and disease knowledge in the West Indies. Right at the outset, he wrote to Haygarth:

We are, I am confident, both engaged in the same cause, the cause of truth and humanity; and I feel satisfied that whenever or wherever that cause is unjustly attacked, we shall be equally ready to vindicate and defend it. The frequent opportunities you have indulged me in of a free and reciprocal communication of sentiment on medical subjects, and more especially that most important one, infection, and the propagation of certain descriptions of fever by contagion, leave me no room to doubt that we think alike on it.⁴³

Chisholm portrayed West Indian and British medical writers as acting in unison in defending contagionism. They built their knowledge through "reciprocal communication" of ideas about "fever by contagion." Direct observation confirmed and profited from febrile research back in Great Britain.

Chisholm carried his argument even further by stretching his own experience from the West Indian environs to the North American climes. He commented on his "several years' residence in or near Philadelphia and New York, during the revolutionary war, having presented me with adequate opportunities of knowing the local circumstances of these cities as they relate to the production of disease."⁴⁴ In presenting both men's knowledge in such a manner, Chisholm was symbolically reclaiming three different parts of the Atlantic world for the cause of contagionism.

This was wishful thinking. By 1809, Haygarth and Chisholm had not only failed to alter the American debates, but they had become involved in a series of loud clashes with their American rivals. After asserting his experience in both Philadelphia and New York, Chisholm launched into pages of defensive reactions against the activities of the non-contagionists based in both of those cities. His criticism,

moreover, went beyond intellectual differences, for Chisholm accused the men in question of denying his and Haygarth's views by denying them "equal right" to interpret the disease.⁴⁵ There were political dimensions to the debates that affected both men's engagement with the Americans.

When many American non-contagionists fought against contagionism, they gave a political inflection to their arguments. A domestic disease became associated with the domain of the American interpreter – one who witnessed first-hand not only the disease, but also the local natural environs of which it was a product. Advocating their views involved promoting themselves as the most credible arbiters in the disputes. They were the ones who were not only right, but in the position to judge those who participated – including men like Chisholm and Haygarth.

Even if knowledge networks still spanned across the ocean, they were nonetheless in a state of flux in the late eighteenth century. The meanings and uses of those networks had become bound up in growing tensions over authority in knowledge claims. Earlier in the eighteenth century, actors in the periphery had more or less operated in a hierarchy of knowledge production in relation to European centers. Colonials acted as collectors of natural objects and observations for metropolitans to interpret and arrange. Over time, however, colonial figures began to challenge this trend, fashioning themselves as arbiters of knowledge – as more capable than foreigners in interpreting local natural phenomena. Political independence only heightened Americans' sensitivities to that position, which co-existed in awkward tension with their continued dependence on foreign sources and networks.⁴⁶

A complex interplay between local and international circumstances shaped the ways in which non-contagionists formed and promoted the above identity. At the local level, the lives of American citizens rested on correct interpretations of the disease and related preventative measures. Moreover, American medical men not only clamored for credibility among one another, but also among the laymen and merchants who steered local politics and public health policies.⁴⁷ This context amplified American sensitivity to international sources in a number of ways.

Foreigners' participation in the debates would have certainly heightened the sensitivity of those already harboring disapproval of American dependence on European scholarship and cultural forms. Noah Webster, for example, was simultaneously engaged in many projects centered on the promotion of cultural and intellectual independence. His writings on yellow fever fit into this as well, bearing a striking resemblance to these other projects in that they all centered on removing "corrupt" knowledge from the Old World and creating new forms for America.⁴⁸ In his massive *Brief History of Epidemic and Pestilential Diseases*, Noah Webster argued that contagionism was a doctrine which ultimately stemmed from plague writings of the early eighteenth century. Influential writers such as Dr Richard Mead, he noted (correctly), had not even witnessed the plague, thus generating harmful "errors." As a result, European rulers had built up systems of "inhumane and barbarous" quarantine laws. Many maintained those views to appeal to those in charge of those systems.⁴⁹ Webster consciously fashioned his *History* as a domestic source by an American about American environs and most applicable to interpretations of what he and others thought to be an American disease.

The tensions surrounding knowledge relations could even intervene in otherwise cooperative international relations. The young Charles Caldwell, for example, aspired to participate in intellectual and medical societies that encompassed circles

outside the United States and back in Great Britain. Much like Rush, he corresponded heavily with John Coakley Lettsom, even expressing disdain for the ways in which lingering political tensions between American and Great Britain disrupted medical and scientific exchanges.⁵⁰ Nonetheless, as we shall see below, Caldwell became notorious for tropes of patriotism and independence in several of his orations on quarantine and yellow fever.⁵¹

Regardless of the conflicting sentiments that non-contagionists harbored, foreign networks certainly shaped the ways in which they promoted themselves in public. In order to enlist broader audiences to their cause, non-contagionists entered transregional periodical networks to promote their views. The *Medical Repository* grew out of this effort. In order to control the local and international flow of disease theories, the editors of the journal turned it into a platform for their doctrine and mirrored the tactics of flourishing partisan gazettes by claiming to represent the “popular voice” while dismissing opponents as dangerous. Debate was limited to the nuances of the local origins theory; contagionist doctrines appeared only as the subject of merciless reviews.⁵²

The editors also exploited the transatlantic context of both the yellow fever debates and overlapping anxieties surrounding the country’s political and cultural relations to different parts of the former empire (a strategy also popular in the political gazettes).⁵³ **Writers depicted the doctrine of contagionism as an imported theory that was not grounded in first-hand observation. The editors of the *Medical Repository* incorporated this argument in their reviews of a number of British writings that supported the doctrine.** In the process, they discredited the Americans who “blindly” followed those ideas.⁵⁴ They simultaneously depicted the doctrine and its related quarantine measures as not merely fallible, but also “inhuman and barbarous” practices that had no place in a new and virtuous republic.⁵⁵

In support of their doctrine, by contrast, non-contagionists presented yellow fever as not only a product of American environs, but part of the domain of American research. They wove tropes of American intellectual independence into their arguments. In the *Medical Repository*’s inaugural edition, the editors proclaimed in their circular letter that they sought with their journal to cast aside what they classified as “systematic works” on North American natural phenomena. What America required, they insisted, was a “medical collection” of domestic studies grounded in first-hand observation. American medical men, they told their readers, possessed a keen advantage by virtue of their proximity to local natural phenomena and “the opportunities it affords of observing [and] comparing the diseases, or phenomena of each disease, and the operation of the same remedies, in the same or different complaints, in Europe and America.”⁵⁶ Americans thus drew both the West Indies and Great Britain into their rhetorical tactics. And they subsequently created a complex set of both obstacles and opportunities for the ways in which writers in both of those locales staked their authority and pushed their views. The experiences of Haygarth and Chisholm illustrate how.

These circumstances did not bode well for British contagionists. When Haygarth delivered a scathing public reaction to Caldwell and his American allies, he inspired a public uproar. This had much to do with his choice of medium and tone. Haygarth decided to enter the debate via a public letter, which he addressed to figures on both sides of the Atlantic: his English colleague Thomas Percival and the College of

Physicians of Philadelphia. Haygarth thereby openly positioned part of his English circle in the college's network of allies.⁵⁷

He conferred on the College of Physicians what he judged to be credible authority – joining their arguments and evidence from their 1798 report of a Philadelphia outbreak with his own research and observations of febrile diseases in England. He observed: “an establishment exactly similar to Fever Wards would be excellently adapted to check [yellow fever’s] progress.” England’s legacy of anti-plague measures, he then added, might apply as a model as well as a source of comparison in Americans’ explanation of the nature of disease. Observation of the most “enlightened” medical men in America confirmed the seasoned experience of medical writers in England – it confirmed that contagionism was a well-established and secure view.⁵⁸ **While non-contagionists fashioned themselves as proponents of a more modern view that broke from dogmatic theory, Haygarth portrayed them as irrational, radical elements who promised nothing more than dangerous instability.** While the men of the College of Physicians represented men of reason, Rush, Caldwell, and Webster were guided by “whimsical and irrational opinions.”⁵⁹

A young doctor fighting to promote his reputation and skill in medical and scientific as well as lay circles, Caldwell responded with a public letter of his own. He pulled the same move as Haygarth. Caldwell addressed it directly to a fellow American non-contagionist, Samuel Mitchill, and indirectly to Haygarth. He more-over employed political tactics to discredit not only the man’s claims, but also his motives and his authority to judge professional worthiness. He observed to Mitchill:

Elevated on a throne of their own conceit, dazzled by the mock splendor of their own imaginary greatness, and strangely duped into a belief in the infallibility of their knowledge, these latter have ludicrously endeavored to play the part of medical pontiffs. Instead of addressing us as their equals and associates in science, they have, in appearance, only condescended to compassionate our supposed humble and benighted situation, to offer for us edicts, relative to the origin, nature, prevention, and cure, of the epidemics which have swept with such havoc over our country ... Let these medical despots of our mother country know, that neither mind nor spirit has suffered such a degeneracy in the man of the west.⁶⁰

Here, Caldwell transformed the admonishing tone and advice from an individual seasoned doctor into the embodiment of cultural imperialism. According to Caldwell, Haygarth’s advice to the College of Physicians of Philadelphia – to American medical writers as a whole – reflected more than efforts to push the direction of the debate over yellow fever. British writers became “medical despots,” their advice dictation – “edicts.” Haygarth had attempted to reinstate a colonial hierarchical order in knowledge production, in which medical men of Great Britain delivered medical theory to the “humble” and peripheral Americans. Caldwell wove tropes of monarchy and political independence into his arguments about authority in the study of American epidemics, thereby connecting post-imperial tensions over knowledge production to the broader circumstances of political independence:

As well might the parliament of Great Britain, in their present ignorance of our circumstances as a nation, attempt to legislate for all our emergencies, as her faculty to decide for us with regard to the nature, prevention, or cure of our epidemics.⁶¹

Caldwell won the public support of his colleagues, including Benjamin Rush. It was at this moment that Rush asserted more forcefully his conviction that yellow fever was not importable and contagious. To readers of the *Medical Repository* he insisted that Haygarth had unfortunately confounded the febrile disease he observed in England with the "West-India and American yellow fever."⁶² He added:

I once believed, upon the authorities of travelers, physicians and schools of medicine, that it was a highly contagious disease, generated chiefly by miasmata from living to diseased bodies. I am now satisfied this is not the case... For my change of opinion, upon this subject, I am indebted to Dr. Caldwell's and Mr. Webster's publications upon Pestilential Diseases.⁶³

The editors of the *Medical Repository* took advantage of the feud to push the doctrine of local origins. They lauded Caldwell's response and delivered a scathing review of Haygarth's letter.⁶⁴ The editors employed similar tropes of submission in their arguments. "Writing to the benighted regions of the west, from countries where light and science had an earlier dawn," the editors sneered, "the *wise men of the east* address the transatlantic people as gropers in darkness and error."⁶⁵ Together with Caldwell, the editors emphasized what they and other non-contagionists had already insisted: yellow fever was a domestic disease. It therefore did not belong to the domain of British medical knowledge, but to the domain of Americans to study and interpret. It was, as Caldwell insisted to his readers, one of "our epidemics."⁶⁶

In depicting contagionism in such a manner, the authors ultimately delivered an implicit attack on those American medical writers who would give credence to such "European" impulses. In his response to Haygarth, Caldwell drew in his local rivals, the College of Physicians of Philadelphia. Caldwell did not portray the college as a primary source of the doctrine of contagion. Rather, he turned the college into a victim of cultural imperialism which could either choose to fight it or continue to submit to it. He hoped that these physicians might exhibit

a high sense of their own dignity, and too just an abhorrence of caviling and misrepresentation, not to repel, in a becoming manner, such an intrusive overture from this conceited foreigner, to rule them in a matter respecting which he is equally ignorant and uninterested.⁶⁷

The College of Physicians could recant its views and unite with non-contagionists in fighting such abuse. Should it choose to continue promoting the unsettling doctrine, Caldwell implied, it would be blindly complying with an imperial design. It would submit to something that was an utter anathema to the nation. These physicians would essentially be traitors.⁶⁸

The editors of the *Medical Repository* likewise framed opposition to contagionism in terms of independence from an imperial force:

The HOUSE OF CONTAGION claiming title as sovereign, by descent and prescription from a long line of ancestors, over vast territories in the medical world, is losing its popularity and power, like some other great houses. Its dominions are in the tumultuary condition, and several of them are in a state of open heresy and rebellion.⁶⁹

As a liberating counterweight to contagionism's hegemony, the editors presented readers with "important collections of testimony" that spanned the young nation's eastern seaboard – New London, New York, Pennsylvania, Baltimore, Norfolk, and Charleston.⁷⁰

Haygarth's experience might have us view the tensions undergirding the dispute in the context of Americans' dilemmas over interrelated intellectual, cultural, and political independence from European centers. The West Indies, however, complicates this picture of identity politics. Americans contended not only with metropolitan relations, but also networks linking them to the Caribbean – a peripheral setting that presented another set of epistemological, as well as cultural and political relations to the new nation. Colin Chisholm's experiences capture this quite well. While also a contagionist, Chisholm was not painted with accusations of cultural imperialism. Nor could Americans easily cast his views as empty book knowledge. Rather, Chisholm saw his research simultaneously lauded, discredited, marginalized, and transformed into a work on the local origins of yellow fever.

Chisholm's ordeal began right around the same time as the Haygarth affair, and the two eventually became entangled. In 1798, the editors of the *Medical Repository* decided to review his *Essay on the Malignant Pestilential Fever*. Elihu Hubbard Smith and Noah Webster had grown anxiously aware of Chisholm's influence in the debates both abroad and at home.⁷¹ His theory and observations aside, Chisholm's knowledge source held considerable appeal for American contagionists. They eagerly drew him into their cause as a critical authority because he derived his observations from local, empirical observation. In many ways, he provided the counterpoint to Rush's account of the contested 1793 outbreak in Philadelphia, for during that same year, Chisholm had observed an outbreak in Grenada, which he claimed to have been imported from Africa.⁷²

Chisholm thus posed a greater dilemma for American non-contagionists than did metropolitans like Haygarth. They could not easily dismiss Chisholm's claims to first-hand knowledge. One of their initial tactics, then, was to wrestle West Indian knowledge from their rivals by wrestling Chisholm's work from evidence for contagionism. In their 1798 review of Chisholm's famed account, Smith and Webster set out to prove that Chisholm was, in fact, a closet non-contagionist. And they once again took advantage of international political tensions to make their case.

Smith and Webster found a way to deconstruct Chisholm's rich account by casting his argument for contagionism as driven by his participation in what a number of their New York and Philadelphia audiences viewed as the sinister side of the British Empire: slavery.⁷³ It was, perhaps, unfortunate for Chisholm that the very ship he identified as the source of yellow fever had carried a group of men active in the campaign for the abolition of the slave trade. Chisholm also placed himself in a predicament by castigating the men as driven by "fanatic enthusiasm." These were the very elements in Chisholm's account that Smith and Webster used to discredit him.⁷⁴

Webster and Smith told their readers that it was the prospect of patronage from West Indian planters that had driven Chisholm to pronounce the disease as imported and thereby justify halting the ship. "It will be remembered," they observed,

that the expedition to Bulama was set on foot by an Association of philanthropic gentlemen in England, with an express design of counteracting, as far as possible, the iniquitous traffic in human flesh. It will naturally be supposed that an enterprise like

this would be regarded with evil eyes, by the West-Indian planters; to whose opposition and intrigues the shameful delay of justice in the British Parliament, is chiefly to be attributed.

As with their rivals in the former metropole, Smith and his allies turned contagionism into something that reflected the dark side of the British Atlantic world.⁷⁵

Smith and Webster then proceeded to set up a tension between what was observed and what Chisholm had asserted. In order to disconnect Chisholm's first-hand knowledge from his pronouncement of contagion, Smith and Webster unraveled his argument to reveal the ways in which he had "let slip" his true belief. Chisholm had contradicted himself in his account of the course of the disease, they noted. And they paired many of his findings with their own. For example, a table which Chisholm had inserted as a record of the state of the climate

perfectly corresponds with what has uniformly been observed in the United States, and is in all respects such as might rationally be expected, from the operation of those local causes which will, sooner or later, be generally admitted as the originators of these formidable disorders.⁷⁶

By the end of the review, Smith and Webster had peeled away and discarded Chisholm's assertions about contagionism: "It is not, indeed, to be expected that the supporters of the theory of imported contagion will relinquish their general doctrine, though they should fail of deriving any countenance from what occurred in Grenada." The editors had claimed West Indian knowledge about the disease as evidence for their cause.⁷⁷

Chisholm and his American allies fought back. The *New York Evening Post* and a couple of Philadelphia newspapers printed long excerpts of his account and lashed out at the *Medical Repository*. A Philadelphia printer put out an American edition of his work the following year and Chisholm himself produced a newer, enlarged edition of his work in which he reiterated his argument and incorporated more data – including evidence from North America.⁷⁸

Despite this counterattack, a new development exacerbated Chisholm's troubles. By the beginning of the nineteenth century, America had turned into a critical site of debate not only among Americans, but also several other West Indian writers. Chisholm's colonial rivals began to challenge him not only within the British Empire, but from other sites in the anglophone Atlantic. The *Medical Repository* had expanded its readership beyond national borders, and non-contagionist medical writers from the British colonies started publishing in the journal. They transformed it into a transnational platform for the doctrine of non-contagion.⁷⁹

Non-contagionists' tactics shifted from drawing Chisholm into their body of evidence to a transnational effort to marginalize him. West Indian writers used spaces like the *Medical Repository* to attack Chisholm and turn him into a lone voice. For example, J.F. Eckard, a resident in the West Indies, used the *Medical Repository* to "correct" Dr Chisholm's statement regarding the outbreak on one of the islands. He did so because he was concerned that writers for a New York gazette would incorporate extracts from his work in their accounts of the outbreaks in the United States.⁸⁰ Americans joined them. Caldwell noted that even if Chisholm contrasted with metropolitan writers like Haygarth by claiming first-hand knowledge, evidence from

other West Indian writers was enough to prove his observations incorrect.⁸¹ In his critique of Haygarth, Rush cited nine West Indian writers in his work, proclaiming that, together with Haygarth, “Dr. Chisholm stands alone.”⁸² And in his report to the New York governor on the fallibility of quarantine against yellow fever, Edward Miller cast Chisholm’s views as singular and those of his American followers therefore just as flawed.⁸³

American non-contagionists also accommodated their West Indian brethren in their rhetorical strategies. Rather than negate the space of the West Indies, they increasingly drew it in as a fellow periphery fighting the dictates of a hegemonic center. If we revisit the *Medical Repository*’s attack on Haygarth, we see another layer in their deployment of the term “HOUSE” in “HOUSE OF CONTAGION,” for the editors, in fact, extended their list of allied localities beyond national borders, drawing in “Jamaica” and other colonial settings within the British Empire. The term “HOUSE” thus served a dual function. Read in the context of contemporary political print discourse within the United States, it could refer to monarchy and call forth arguments about political independence. To medical writers at home and abroad, however, “HOUSE” symbolized a center of dogmatic knowledge guarded by established, elite metropolitan medical circles. The language of “empire” and “independence” thus served as a malleable discourse – one appropriated toward different ends and among communities that extended beyond imperial boundaries during this period. By the time of Chisholm’s *Letter to John Haygarth*, Americans had united together with fellow medical men in British colonial settings in presenting support for the doctrine of local origins as a symbolic assertion of intellectual independence from the metropolitan centers of medicine.⁸⁴

The impact of this shift in the debates is reflected in both Chisholm’s and Haygarth’s subsequent struggles to maintain their authority. This may be seen in both men’s writings and correspondence with contacts in the United States. Following the public outcries, Haygarth struggled to find ways to defend the ideas in his treatise, and admitted to difficulties following that initial reception. He finally gave up on a potential second edition and resigned himself to submitting his advice privately and indirectly via Lettsom.⁸⁵

Chisholm’s exchanges with David Hosack also intensified after Miller’s address to the governor of New York. Chisholm wanted to intervene and counter the attacks, insisting that Hosack circulate a letter among newspapers in New York and Philadelphia. But Hosack cautioned his friend, expressing concern that the “angry oppressions . . . written with great animosity” in the letter would only serve to his disadvantage.⁸⁶ As with Haygarth, the political dimension of the disputes had presented Chisholm with obstacles to effectively defending his authority in the United States.

Chisholm’s publications reveal sensitivity not only to this turn in the disputes, but also to the ways in which that turn had affected his position within the British Empire. Chisholm issued a second edition of his famous treatise in London, explaining in the preface that the work had grown out of the need to counter the arguments of his West Indian rivals and also the contributors to the *Medical Repository* and the British informants who aided them. To both British readers and potential American readers, Chisholm tried to reassert his authority not only to participate in the debates, but also to connect his contagionist views to first-hand experience in the West Indies.⁸⁷

Chisholm's account of the ordeal in his *Letter to John Haygarth* was ultimately the product of a decade of intensified contests over medical authority in the anglophone Atlantic. It was an effort to revive a web of links that the American debates had, from his perspective, weakened. It also reveals the extent to which post-imperial political circumstances had permeated and altered the disputes. While emphasizing the strong link between the West Indies and Great Britain, Chisholm wrote:

I am aware that some of the most respectable of these gentlemen, hold in sovereign contempt the opinions and the sentiments of medical men of Europe, but more especially of Great Britain, when they militate against, or have a tendency to contravene those they have thought proper to entertain or impress; and that they more especially exclaim against their interference, their well-meant and benevolent interference, in endeavoring to correct their mis-statements, their misconceptions.⁸⁸

Chisholm's description here captures more than the frustrations caused by Americans' strategies in the debate. It also recalls that discursive strategy. Here and elsewhere, Chisholm chalked up non-contagionist views to the broader phenomenon of American prejudice against all things British. "[S]overeign contempt" and "militat[ion] against" the "benevolent interference" of medical men of the British Empire were not a far cry from references to the rebellion and dangerous fractiousness of former colonial citizens against their former mother country – images that were not unfamiliar to elite audiences and royal circles back in the metropole.

These contrastive images between British assistance and American detractors also recall those that appeared in the *London Morning Chronicle* in 1799. Ironically, as in the writings of non-contagionists across the pond, non-contagionism became "American" for both of these British men. But in this case, "American" ideas about yellow fever became associated with a broadly cast negative image of the empire's former colonies – an image that served to sever non-contagionism from the empire as a whole.

Conclusion

The yellow fever responses in America were inseparable from the new republic's relationship to the Atlantic world. The nation's post-colonial connections to different parts of the empire linked it to broader exchanges in disease ideas and disease environments. Broader political tensions had seeped into the writings of participants in the debate, shaping the terms of both local and transnational disputes and altering perceptions of authority in the Atlantic world. In short, theorizing on whether or not yellow fever was a disease of the Americas had become intertwined with the process and politics of making the disease part of the domain of Americans.

The disputes did not resolve themselves by 1810 and they would not be resolved for decades to come. Shortly before his death in 1825, Chisholm delivered one last defense of his views.⁸⁹ His appeal came right after a final wave of yellow fever pandemics had struck the Caribbean, United States, and Spanish coast. It also came in the midst of a revived debate that inspired several international journeys (virtual and real) among those afflicted areas. The Spanish outbreaks drew the attention not only of British colonial writers, but also French circles in Paris. Americans entered

the fray, wielding their long experience as grounds for authority on the issue. In 1821, over 200 Americans in cities stretching from New Orleans to Boston emerged as expert witnesses in one French physician's famous transoceanic quest for proof that yellow fever was not contagious.⁹⁰

American medical men also traveled abroad, disseminating their yellow fever views via print, correspondence, and actual trips to the Caribbean, Great Britain, and Paris, which was fast becoming a new rising medical center for Europeans and Americans alike.⁹¹ Much like the epidemics themselves, research on yellow fever continued as both a local and international phenomenon. This development merits a separate and fuller analysis. It raises critical questions about the nature of changes and continuities that marked both the Atlantic world and the medical world in the first half of the nineteenth century. For our purposes here, it serves as testimony that many American medical men continued to integrate themselves into an expanse of international disease research networks in the nineteenth century.

Notes on contributor

Katherine Arner is a PhD candidate in the History of Medicine and History at The Johns Hopkins University, Baltimore, USA. She is working on a dissertation about yellow fever in the late eighteenth-century Atlantic world.

Notes

1. K. David Patterson offers an excellent overview of the outbreaks together with approximate mortality levels during this period. New York suffered 11 epidemics and Philadelphia 10. Baltimore, a growing center for international trade, was hit by seven outbreaks. The worst epidemic, and the one that has received the most attention from scholars, was the 1793 outbreak in Philadelphia. Patterson estimates that at least 5000 people died. See Patterson, "Yellow Fever Epidemics"; see also Blake, "Yellow Fever."
2. The scholarship on yellow fever is vast. For two well-known, extensive studies of the 1793 outbreak, see Estes and Smith, *Melancholy Scene of Devastation* and Powell, *Bring out Your Dead*. Martin Pernick's analysis is particularly renowned. Pernick maps the debates over the source of the disease to the fights between the nation's emerging political factions. Hamiltonian Federalists, he argues, endorsed the view that the disease was contagious and subject to quarantine – a view that reflected their discontent with the arrival of French refugees from the West Indies. Republicans believed the disease originated locally, their views guided by fears of the moral and medical enervation of urban spaces. See Pernick, "Politics, Parties, and Pestilence"; see also Finger, "Epidemic Constitutions"; Miller, "Passions and Politics"; Stevenson, "Putting Disease"; and Taylor, "'We Live.'"
3. Chisholm and Haygarth, *Letter to John Haygarth*.
4. Mark Harrison discusses Colin Chisholm's career in *Great Independence of Mind*, 381–2. I am indebted to Mark Harrison for letting me use his manuscript. For a general overview of Haygarth's professional career, see Booth, *John Haygarth*.
5. Booth, *John Haygarth*, 6.
6. There are many examples of this in scholarship on the history of American medicine. For some of the most recent work, see Rosner, "Thistle on the Delaware"; Rosner, "Student Culture"; and Yokota, "'To pursue the stream.'" While investigating a slightly later period, John Harley Warner's work centers on the influential role of European medicine on American medicine. See Warner, *Against the Spirit*.
7. Goudie, *Creole America*; Rugemer, *Problem of Emancipation*.
8. See Delbourgo, *Most Amazing Scene*, esp. 165–99. Here, Delbourgo analyzes the work of Edward Bancroft, a natural historian who circulated between the Caribbean and North America. Susan Scott Parrish and Jan Golinski also reveal connections between the West

- Indies and North America in studies of both climate and botany. See Parrish, *American Curiosity* and Golinski, "American Climate," esp. 151–63.
9. Kathleen Murphy's chapter on natural history, "Patriotic Science and Transatlantic Patriots: Natural History in the Age of Revolution," presents an initial attempt to explore the character of this phenomenon post-independence. See Murphy, "Portals of Nature," chap. 5.
 10. Geggus, "Yellow Fever"; Watts, *Epidemics and History*, esp. chap. 6. For a much more extensive discussion of the outbreaks and their impact on British imperial projects, see McNeill, *Mosquito Empires*.
 11. Harrison, *Great Independence of Mind*, 372–3. Among the most popularly referenced sources was an officially endorsed treatise published by the Royal Physician Richard Mead in 1720. He wrote the treatise, in part, at the behest of leading figures in Parliament and the Crown; the treatise went through nine editions. Arnold Zuckerman discusses Mead's position as well as the dominance of contagionist theory in relation to the profound influence of Mead's work over the course of the eighteenth century, including in yellow fever discussions. See Zuckerman, "Plague and Contagionism."
 12. Harrison, *Great Independence of Mind*, 376–84; see also Harrison, *Climates and Constitutions*.
 13. Booth, *John Haygarth*; Harrison, *Great Independence of Mind*, 377–82.
 14. Chisholm, *Malignant Pestilential Fever* (1795).
 15. Booth, *John Haygarth*, 63–71, 110–113.
 16. Chisholm, *Malignant Pestilential Fever* (1799).
 17. *Philadelphia Gazette and Daily Advertiser*, August 4, 1802; *Poulson's American Daily Advertiser*, August 4, 1802; *Commercial Advertiser* [New York], August 6, 1802.
 18. Hosack, *Observations on the Laws*. Hosack expressed his indebtedness to both men's comments in the preface of the volume.
 19. Currie, *Impartial Review*, 10; Currie, *Memoirs*, 134; Currie and Palmer, *Observations*, 24. Currie praised Richard Mead's work as unsurpassed, calling him "the most learned physician of this or any age." See *Philadelphia Gazette and Universal Daily Advertiser*, February 15, 1799.
 20. See Golinski, "American Climate," 153–6, and Parrish, *American Curiosity*, 77–89.
 21. Booth, *John Haygarth*, 119; see also Cash, *Dr. Benjamin Waterhouse*, 114–21.
 22. See, for example, Letter to John Coakley Lettsom, 13 May 1804, in Rush and Butterfield, *Letters of Benjamin Rush*, 2: 880; see also 917 and 1045. Rush had met Lettsom in London in 1768 while Rush was studying and traveling in Great Britain. They remained good friends and colleagues. Lettsom also served as a critical channel through which Rush submitted work to be published and endorsed in England. Lettsom also hosted students of Rush who left to study medicine in Great Britain for a few years. See Rush and Butterfield, *Letters of Benjamin Rush*, 2: 313.
 23. College of Physicians of Philadelphia, *Facts and Observations*, 20.
 24. Chisholm belonged to learned societies in both England and the United States. See Goodwin, "Chisholm, Colin."
 25. Letter to Colin Chisholm, New York, 9 July 1808, in Letters and Papers of David Hosack, 1795–1835, American Philosophical Society, Philadelphia. See also Letter to Colin Chisholm, 12 August 1809 and Letter to Colin Chisholm, 31 October 1810.
 26. Goudie discusses the ways in which Americans thought about features of their climate and constitutions in relation to the West Indies. See Goudie, *Creole America*, 86–7, 180–6; see also Golinski, "American Climate," 160–3.
 27. Susan Scott Parrish, Kathleen Murphy, and James Delbourgo have all identified exchanges and travels that took place between these peripheral settings in the study of nature. See Parrish, *American Curiosity*, 128–35; Murphy, "Portals of Nature," esp. chap. 5; and Delbourgo, *Most Amazing Scene*, 165–99.
 28. Rush, *Account*, 163–4.
 29. Letter to John Coakley Lettsom, 13 May 1804, in Rush and Butterfield, *Letters of Benjamin Rush*, 2: 880; see also 917 and 1045.
 30. See, for example, Letter to Dr Dancer of Jamaica, 19 September 1809 [copy], in the Letters and Papers of David Hosack, 1795–1835, American Philosophical Society, Philadelphia.

31. The College of Physicians of Philadelphia was established in 1787 by some of the most influential and well-known physicians of Philadelphia, including Benjamin Rush and John Redman. Of course, Rush broke off from the college during the yellow fever debates. In addition to other professional activities, the college advised local authorities on public health regulations. See Bell, *College of Physicians*, 1–39.
32. Benjamin Rush commented on this phenomenon in his letters to his colleagues. He wrote to Noah Webster in 1799: “Our printers and booksellers (one excepted) are among the believers in the importation of the yellow fever, and hence they cannot easily be persuaded duly to appreciate your opinions.” See Rush and Butterfield, *Letters of Benjamin Rush*, 2: 811.
33. Letter to Dr Currie, 16 August 1809. Hosack makes reference to Coleman’s assistance in his correspondence with Currie. See Letter to Dr Currie, 30 October 1809. Both these letters can be found in the Letters and Papers of David Hosack, 1795–1835, American Philosophical Society, Philadelphia.
34. Rush commented on the foundation and purpose of the organization in a letter to Ashton Alexander, a physician in Baltimore. See Rush and Butterfield, *Letters of Benjamin Rush*, 2: 796–7; see also “Charles Caldwell.” For a comment on Charles Caldwell’s orations, see Stevenson, “Charles Caldwell.”
35. Webster, Currie, and Spector, *Noah Webster*, 13.
36. Smith and Cronin, *Diary*, 383–6, 388, 391.
37. Booth, *John Haygarth*, 120–2. A review of Rush’s *Account* appeared in the *Gentleman’s Magazine*, no. 64 (1794): 838–40.
38. Kahn and Kahn show that the *Medical Repository* was enjoying subscriptions in 14 states in 1797, the highest number being in New York, Philadelphia, and Boston. The journal would thrive until 1824. See Kahn and Kahn, “*Medical Repository*.” Articles from the *Medical Repository* appeared in reprint and commentary in such major journals as the *Edinburgh Medical and Surgical Journal* and the London-based *Medical and Philosophical Journal*. See, for example, *Edinburgh Medical and Surgical Journal*, no. 7 (1805): 422, and *Medical and Philosophical Journal*, no. 2 (1800): 568.
39. Harrison, *Great Independence of Mind*, 385.
40. *London Morning Chronicle*, January 17, 1799; reprinted in *Lloyd’s Evening Post*, January 23, 1799.
41. Caldwell, *Semi-Annual Oration*.
42. Haygarth recalled most of this exchange in an 1806 letter to John Coakley Lettsom. See John Haygarth to John Coakley Lettsom, 8 October 1806, in Lettsom Correspondence, Wellcome Institute for the History of Medicine, London.
43. Chisholm and Haygarth, *Letter to John Haygarth*, 1.
44. *Ibid.*, 8.
45. *Ibid.*, 6.
46. See Delbourgo, *Most Amazing Scene*, 232–8; Lewis, “Democracy of Facts”; Parrish, *American Curiosity*, 118–35; and Yokota, “‘To pursue the stream,’” 184–211.
47. The impact of political economy on debates over quarantine – in particular American seaports’ reliance on Atlantic trade – merits further study. Merchants played a critical role in local public health politics, and there is evidence that their ideas about quarantine policy were, in part, informed by practices of critical ports in other parts of the Atlantic world. For an initial investigation into this, see Arner, “Preserving the Republic.”
48. Webster’s uniquely American dictionary and spellers are two famous examples. See Brückner, “Lessons in Geography”; Cmiel, “‘Broad Fluid Language,’” 921; and “Noah Webster.”
49. Webster, *Brief History*, 26–7.
50. Even when relations between both countries grew very rocky in the 1810s, Caldwell deprecated the hostilities and hoped “that Englishmen and Americans may again salute each other as friends – friends in a national as well as in a personal and literary capacity.” See Charles Caldwell to John Lettsom, 12 June 1810, in Lettsom Correspondence, Wellcome Institute for the History of Medicine, London.
51. In addition to the example that follows, Caldwell famously presented yellow fever as an example of the “greatness” of American nature. See Caldwell, *Oration*.

52. See Waterman, "Arthur Mervyn's *Medical Repository*," esp. 222–4.
53. For more on this strategy in the partisan gazettes, see Robertson, "'Look on This Picture.'" I also draw on Goudie's *Creole America* and Rugemer's *Problem of Emancipation*, which integrate the role of West Indian slavery politics into the ways in which Americans constructed imagined reader communities.
54. "Review of A Treatise," 374.
55. Webster, *Brief History*, 26–7. Similar examples may be found in "MEDICAL & PHILOSOPHICAL NEWS," 225, and "Review of An Act," 50.
56. "Circular Address," 20–2.
57. Haygarth and Percival, *Letter to Dr. Percival*, 144.
58. *Ibid.*, 141.
59. *Ibid.*, 155.
60. Caldwell, *Reply*, 10–11.
61. *Ibid.*, 10–12.
62. Rush, "Facts," 156.
63. *Ibid.*
64. "Review of A Reply to Dr. Haygarth," 330–4.
65. "Review of A Letter to Dr. Percival," 180.
66. Caldwell, *Reply*, 16; "Review of A Letter to Dr. Percival," 182.
67. Caldwell, *Reply*, 47–8.
68. *Ibid.*, 46–7.
69. "Review of A Letter to Dr. Percival," 199.
70. *Ibid.*, 200.
71. In his diary, Smith recorded studying it with great intensity and meeting with Webster to discuss it. See Cronin, *Diary*, 384–400.
72. Chisholm, *Malignant Pestilential Fever* (1795).
73. Smith and a number of his colleagues had been very active lobbyists in the New York Manumission Society. See Cronin, "Elihu Hubbard Smith," 478. For the role of the West Indies in early national discourse on the slave trade (particularly in the northern sector), see Goudie, *Creole America*, 175–99, and Rugemer, *Problem of Emancipation*, 42–72.
74. Chisholm, *Malignant Pestilential Fever*, 83 (1795).
75. "On the ORIGIN of the PESTILENTIAL FEVER," 492.
76. *Ibid.*, 487–8.
77. *Ibid.*, 495.
78. Chisholm, *Malignant Pestilential Fever* (1801). Long excerpts from Chisholm's new piece appeared in "History of the Origin and Progress of the Yellow Fever" in the *New York Evening Post*, September 1, 1803 and September 2, 1803; reprinted in *Poulson's Daily Advertiser* [Philadelphia], September 5, 1803 and September 6, 1803; also reprinted in the *New York Herald*, September 5, 1803.
79. See, for example, Davidson, "Practical and Diagnostic Observations" and Rule, "Considerations." I am indebted to Mark Harrison for directing my attention to these activities.
80. Eckard, "Correction of Chisholm's Misstatement"; see also Rush, "Facts," 156. Harrison also discusses the ways in which West Indian non-contagionists attacked Chisholm within the British Empire. See Harrison, *Great Independence of Mind*, 390–1.
81. Caldwell, *Reply*, 12.
82. Rush, "Facts," 156.
83. Miller, "Report," 146–9.
84. "Review of A Letter to Dr. Percival," 200. Harrison elaborates on this political performance among colonial officers, arguing that they portrayed the theory as a "badge of professional identity" – an attempt to establish the primacy of first-hand experience over what they regarded as the speculative hypotheses of metropolitan physicians. See Harrison, *Great Independence of Mind*, 372.
85. See John Haygarth to John Lettsom, 18 October 1806, in Lettsom Correspondence, Wellcome Institute for the History of Medicine, London.
86. Letter to Colin Chisholm, New York, 9 July 1808.
87. Chisholm, *Malignant Pestilential Fever*, xiii–xxi (1801).

88. Chisholm and Haygarth, *Letter to John Haygarth*, 7–8.
89. Chisholm, *Manual*.
90. For more on British colonial figures, see Harrison, *Great Independence of Mind*, 398–404. William Coleman has written on the expeditions of several French medical writers to Spain, where they observed and generated conflicting views on the cause of a series of outbreaks between 1819 and 1822. Subsequently, one of those physicians, Nicholas Chervin, traveled along the eastern seaboard of the United States in order to survey American opinions as proof for his own theory that the disease was not contagious and imported. See Coleman, *Yellow Fever*. For an overview of the survey, see Wasserman and Mayfield, “Yellow Fever Survey.”
91. American opinion on yellow fever began entering French medical print via both traveling Americans and Frenchmen like Chervin. See, for example, Chervin, *De l’Opinion des médecins*, in which Chervin addressed American activities in both the United States and Paris. Exchanges also continued between Americans and British colonial figures. This is reflected in Hosack’s correspondence during this period as well as the works of other physicians. See, for example, a Baltimore-based physician’s attack on British contagionist Edward Bancroft in 1821: Davidge, *Essay*.

References

- Arner, Katherine. “Preserving the Republic: Quarantine, Fever and Nation in Early Republic America.” Paper presented at the Johns Hopkins Program in the History of Science, Medicine and Technology Colloquium, Baltimore, April 2, 2009.
- “ARTICLE III: MEDICAL ESSAYS. – No. II. INTRODUCTION. On the ORIGIN of the PESTILENTIAL FEVER, which prevailed in the island of Grenada, in the years 1793 and 1794.” *Medical Repository* 1, no. 4 (1798): 471–96.
- Bell, Jr., Whitfield J. *The College of Physicians of Philadelphia: A Bicentennial History*. Canton, MA: Science History Publications, 1987.
- Blake, John B. “Yellow Fever in Eighteenth-Century America.” *Bulletin of the New York Academy of Medicine* 44, no. 6 (1968): 673–86.
- Booth, Christopher C. *John Haygarth, FRS (1740–1827): A Physician of the Enlightenment*. Philadelphia: American Philosophical Society, 2005.
- Brückner, Martin. “Lessons in Geography: Maps, Spellers, and Other Grammars of Nationalism in the Early Republic.” *American Quarterly* 51, no. 2 (1999): 311–43.
- Caldwell, Charles. *An Oration of the Causes of the Difference in Point of Frequency and Force, between the Endemic Diseases of the United States of America, and Those of the Countries of Europe, Delivered, by Appointment, to the Philadelphia Medical Society, on the Fifth Day of February, 1802*. Philadelphia: Thomas and William Bradford, 1802.
- Caldwell, Charles. *A Reply to Dr. Haygarth’s “Letter to Dr. Percival on Infectious Fevers”; and His “Address to the College of Physicians at Philadelphia, on the Prevention of the American Pestilence,” Exposing the Medical, Philosophical, and Literary Errors of that Author, and Vindicating the Right Which the Faculty of the United States Have to Think and Decide for Themselves, Respecting the Diseases of Their Own Country, Uninfluenced by the Notions of the Physicians of Europe*. Philadelphia: Thomas and William Bradford, 1802.
- Caldwell, Charles. *A Semi-Annual Oration, on the Origin of Pestilential Diseases, Delivered before the Academy of Medicine of Philadelphia, on the 17th day of December 1798*. Philadelphia: Thomas and Samuel F. Bradford, 1799.
- Cash, Philip. *Dr. Benjamin Waterhouse: A Life in Medicine and Public Service*. Sagamore Beach, MA: Boston Medical Library and Science History Publications, 2006.
- “Charles Caldwell.” American National Biography. <http://www.anb.org> (accessed March 20, 2009).
- Chervin, Nicholas. *De l’Opinion des médecins américains sur la contagion ou la non-contagion de la fièvre jaune*. Paris: J.B. Baillière, 1829.
- Chisholm, Colin. *An Essay on the Malignant Pestilential Fever Introduced into the West Indian Islands from Boullam, on the Coast of Guinea, As It Appeared in 1793 and 1794*. London: C. Dilly, 1795.

- Chisholm, Colin. *An Essay on the Malignant Pestilential Fever Introduced into the West Indian Islands from Boullam, on the Coast of Guinea, As It Appeared in 1793 and 1794*. By C. Chisholm, M.D. and Surgeon to His Majesty's Ordinance in Grenada. To Which Is Annexed, a Description of the American Yellow Fever, Which Prevailed at Charleston in 1748, in a Letter from Dr. John Lining. Philadelphia: Thomas Dobson, 1799.
- Chisholm, Colin. *An Essay on the Malignant Pestilential Fever, Introduced into the West Indian Islands from Boullam, on the Coast of Guinea, As It Appeared in 1793, 1794, 1795, and 1796. Interspersed with Observations and Facts, Tending to Prove That the Epidemic Existing at Philadelphia, New-York, &C. Was the Same Fever Introduced by Infection Imported from the West Indian Islands: and Illustrated by Evidences Found on the State of Those Islands, and Information of the Most Eminent Practitioners Residing on Them*. London: F. Gillet, 1801.
- Chisholm, Colin. *A Manual of the Climate and Diseases of Tropical Countries in Which a Practical View of the Statistical Pathology, and the History and Treatment of the Disease of the Countries Is Attempted to Be Given*. London: Printed for Burgess and Hill, 1822.
- Chisholm, Colin, and John Haygarth. *A Letter to John Haygarth... Exhibiting Farther Evidence of the Infectious Nature of This Fatal Distemper in Granada, During 1793, 4, 5, and 6; and in the United States of America from 1793 to 1805, in Order to Correct the Pernicious Doctrine Promulgated by Dr. Edward Miller, and Other American Physicians, Relative to This Destructive Pestilence*. London: Mawman, 1809.
- "Circular Address." *Medical Repository* 1, no. 1 (1797): 20–2.
- Cmiel, Kenneth. "'A Broad Fluid Language of Democracy': Discovering the American Idiom." *Journal of American History* 79, no. 3 (1992): 913–36.
- Coleman, William. *Yellow Fever in the North: The Methods of Early Epidemiology*. Madison: University of Wisconsin Press, 1987.
- College of Physicians of Philadelphia. *Facts and Observations Relative to the Nature and Origin of the Pestilential Fever, Which Prevailed in this City, in 1793, 1797, and 1798*. Philadelphia: Thomas Dobson, 1798.
- Cronin, James E. "Elihu Hubbard Smith and the Friendly Club." *Publications of the Modern Language Association of America* 64, no. 3 (1949): 471–9.
- Currie, William. *An Impartial Review of That Part of Dr. Rush's Late Publication, Entitled "An Account of the Bilious Remitting Yellow Fever As It Appeared in the City of Philadelphia, in the Year 1793," Which Treats of the Origin of the Disease. In Which His Opinion Is Shewn to Be Erroneous; the Importation of the Disease Established; and the Wholesomeness of That City Vindicated*. Philadelphia: Thomas Dobson, 1794.
- Currie, William. *Memoirs of the Yellow Fever Which Prevailed in Philadelphia, and Other Parts of the United States of America, in the Summer and Autumn of the Present Year, 1798*. Philadelphia: J. Bioren, 1798.
- Currie, William, and William T. Palmer. *Observations on the Causes and Cure of Remitting or Bilious Fevers: To Which Is Annexed, an Abstract of the Opinions and Practice of Different Authors; and an Appendix, Exhibiting Facts and Reflections Relative to the Synochus Icteroides, or Yellow Fever*. Philadelphia: William T. Palmer, 1798.
- Davidge, John B. *An Essay on the Disease Called Yellow Fever: With Observations Concerning Febrile Contagion, Typhus Fever, Dysentery, and the Plague: Partly Delivered as the Gulstonian Lectures, before the College of Physicians, in the Years 1806 and 1807/by Edward Nathaniel Bancroft; and Republished, with Notes, by John B. Davidge*. Baltimore: Cushing and Jewett, 1821.
- Davidson, George. "Practical and Diagnostic Observations on Yellow Fever, As It Occurs in Martinique, and on the Remedial Effects of Calomel and Opium in the Same, together with Some Observations on the Glandular Disease of Barbadoes." *Medical Repository* 2 (second Hexade) (1805).
- Delbourgo, James. *A Most Amazing Scene of Wonders: Electricity and Enlightenment in Early America*. Cambridge, MA: Harvard University Press, 2006.
- Eckard, J.F. "Correction of Chisholm's Misstatement Respecting the Prevalence of Malignant Fever at St. Thomas's." *Medical Repository* 1 (second Hexade) (1804): 336–8.
- Estes, J. Worth, and Billy G. Smith, eds. *A Melancholy Scene of Devastation: The Public Response to the 1793 Philadelphia Yellow Fever Epidemic*. Canton, MA: Science History Publications, 1997.

- Finger, Simon. "Epidemic Constitutions: Public Health and Political Culture in the Port of Philadelphia, 1735–1800." PhD diss., Princeton University, 2008.
- Geggus, David. "Yellow Fever in the 1790s: The British Army in Occupied Saint Domingue." *Medical History*, no. 23 (1979): 38–58.
- Golinski, Jan. "American Climate and the Civilization of Nature." In *Science and Empire in the Atlantic World*, ed. James Delbourgo and Nicholas Dew, 153–74. New York: Routledge, 2008.
- Goodwin, Gordon. "Chisholm, Colin (c.1747–1825)." In *Oxford Dictionary of National Biography*, ed. H.C.G. Matthew and Brian Harrison. Oxford: Oxford University Press, 2004. <http://www.oxforddnb.com> (accessed October 2, 2010).
- Goudie, Sean X. *Creole America: The West Indies and the Formation of Literature and Culture in the New Republic*. Philadelphia: University of Pennsylvania Press, 2006.
- Harrison, Mark. *Climates and Constitutions: Health, Race, Environment and British Imperialism in India, 1600–1850*. Delhi: Oxford University Press, 1999.
- Harrison, Mark. *A Great Independence of Mind: British Medicine in an Age of Commerce and Empire, c.1660–c.1830*. Forthcoming.
- Haygarth, John, and Thomas Percival. *A Letter to Dr. Percival, on the Prevention of Infectious Fevers. And An Address to the College of Physicians at Philadelphia, on the Prevention of the American Pestilence... Read to the Literary and Philosophical Society of Bath*. Bath: R. Cruttwell, 1801.
- Hosack, David. *Observations on the Laws Governing the Communication of Contagious Diseases, and the Means of Arresting Their Progress*. New York: Van Winkle and Wiley, 1815.
- Kahn, R.J., and P.J. Kahn. "The Medical Repository – The First US Medical Journal (1797–1824)." *New England Journal of Medicine*, no. 337 (1997): 1926–30.
- Lewis, Andrew J. "A Democracy of Facts, an Empire of Reason: Swallow Submersion and Natural History in the Early American Republic." *William and Mary Quarterly* 62, no. 4 (2005): 663–96.
- McNeill, J.R. *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620–1914*. New York: Cambridge University Press, 2010.
- "MEDICAL & PHILOSOPHICAL NEWS: DOMESTIC. Pestilence. History of the Disease. Origin of the Disease. Non-Contagiousness of the Disease. QUARANTINE MANIFEST. The following Goods are considered as dangerous, or liable to carry infection. Not dangerous are estimated: BALTIC TRADE." *Medical Repository* 3 (second Hexade) (1805): 215–21.
- Miller, Edward. "Report on the Malignant Disease, Which Prevailed in the City of New-York, in the Autumn of 1805, Addressed to the Governor of the State of New-York." In *The Medical Works of Edward Miller Late Professor of the Practice of Physic in the University of New-York, and Resident Physician of the City of New-York*, ed. Samuel Miller, 80–152. New York: Collins and Co., 1814.
- Miller, Jacqueline. "Passions and Politics: The Multiple Meanings of Benjamin Rush's Treatment of Yellow Fever." In *A Melancholy Scene of Devastation: The Public Response to the 1793 Philadelphia Yellow Fever Epidemic*, ed. J. Worth Estes and Billy G Smith, 79–96. Canton, MA: Science History Publications, 1997.
- Murphy, Kathleen. "Portals of Nature: The Pursuit of Natural History in Eighteenth-Century British Plantation Societies." PhD diss., Johns Hopkins University, 2007.
- "Noah Webster." American National Biography. <http://www.anb.org> (accessed July 2, 2010).
- Parrish, Susan Scott. *American Curiosity: Cultures of Natural History in the Colonial British Atlantic World*. Chapel Hill: University of North Carolina Press, 2006.
- Patterson, K. David. "Yellow Fever Epidemics and Mortality in the United States, 1693–1905." *Social Science and Medicine* 34, no. 8 (1992): 855–65.
- Pernick, Martin. "Politics, Parties, and Pestilence: Epidemic Yellow Fever in Philadelphia and the Rise of the First Party System." In *A Melancholy Scene of Devastation: The Public Response to the 1793 Philadelphia Yellow Fever Epidemic*, ed. J. Worth Estes and Billy G. Smith, 119–46. Canton, MA: Science History Publications, 1997.
- Powell, J.H. *Bring out Your Dead: The Great Plague of Yellow Fever in Philadelphia in 1793*. Philadelphia: University of Pennsylvania Press, 1949.

- "Review of A Letter to Dr. Percival (of Manchester, in England), on the Prevention of Infectious Fevers: and an Address to the College of Physicians at Philadelphia on the Prevention of the American Pestilence. By John Haygarth, M.D.F.R.S. &c." *Medical Repository* 5, no. 2 (1802): 179–200.
- "Review of An act for making further provision for the effectual performance of Quarantine; and also an Order in Council for carrying the same into operation. Passed 45th Geo. III. March and April, 1805." *Medical Repository* 1 (third Hexade) (1809): 49–58.
- "Review of A Reply to Dr. Haygarth's 'Letter to Dr. Percival on Infectious Fevers,' and his 'Address to the College of Physicians at Philadelphia, on the Prevention of the American Pestilence,' exposing the Medical, Philosophical, and Literary Errors of that Author, and vindicating the Right which the Faculty of the United States have to think and decide for themselves respecting the Diseases of their own Country, uninfluenced by the Notions of the Physicians of Europe. By Charles Caldwell, M.D." *Medical Repository* 5, no. 3 (1802): 330–34.
- "Review of A Treatise on the Plague and Yellow Fever; with an Appendix, containing Histories of the Plague at Athens, &c. By James Tytler, Compiler of the Medical Part of the Encyclopedia Britannica." *Medical Repository* 3, no. 4 (1800): 373–80.
- Robertson, Andrew W. "'Look on This Picture . . . and on This!' Nationalism, Localism, and Partisan Images of Otherness in the United States, 1787–1820." *American Historical Review* 106, no. 4 (2001): 1263–80.
- Rosner, Lisa. "Student Culture at the Turn of the Nineteenth Century: Edinburgh and Philadelphia." *Caduceus* 10, no. 2 (1994): 65–86.
- Rosner, Lisa. "Thistle on the Delaware: Edinburgh Medical Education and Philadelphia Practice, 1800–1825." *Social History of Medicine* 5, no. 1 (1992): 19–42.
- Rugemer, Edward Bartlett. *The Problem of Emancipation: The Caribbean Roots of the American Civil War*. Baton Rouge: Louisiana State University Press, 2008.
- Rule, John. "Considerations on the Origin, Causes and Character of Yellow Fever, As It Appears in the United States and West-Indies." *Medical Repository* 6 (second Hexade) (1809): 323–31.
- Rush, Benjamin. *An Account of the Bilious Remitting Yellow Fever, As It Appeared in the City of Philadelphia, in the Year 1793*. By Benjamin Rush, M.D. Professor of the Institutes, and of Clinical Medicine, in the University of Pennsylvania. Philadelphia: Thomas Dobson, 1794.
- Rush, Benjamin. "Facts Intended to Prove the Yellow Fever Not Be Contagious, and Instances of Its Supposed Contagion Explained upon other Principles." *Medical Repository* 6, no. 2 (1803): 155–71.
- Rush, Benjamin, and L.H. Butterfield. *Letters of Benjamin Rush*. 2 vols. Princeton: Princeton University Press, 1951.
- Russell, Patrick. *A Treatise on Plague: Containing a Historical Journal, and Medical Account, of the Plague, at Aleppo, in the Years 1760, 1761, and 1762. Also, Remarks on Quarantines, Lazarettos, and the Administration of Police in a Time of Pestilence*. London: G.G.J. and Robinson, 1791.
- Smith, E.H., and James E. Cronin. *The Diary of Elihu Hubbard Smith (1771–1798)*. Philadelphia: American Philosophical Society, 1973.
- Stevenson, Lloyd G. "Charles Caldwell: The Hero as Orator." In *Autobiography of Charles Caldwell, M.D.*, v–xxvi. New York: Da Capo Press, 1968.
- Stevenson, Lloyd G. "Putting Disease on the Map: The Early Use of Spot Maps in the Study of Yellow Fever." *Journal of the History of Medicine and Allied Sciences* 20, no. 3 (1965): 226–61.
- Taylor, Sean P. "'We Live in the Midst of Death': Yellow Fever, Moral Economy, and Public Health in Philadelphia, 1793–1805." PhD diss., Northern Illinois University, 2001.
- Warner, John Harley. *Against the Spirit of System: The French Impulse in Nineteenth-Century American Medicine*. Princeton: Princeton University Press, 1998.
- Waserman, Manfred J., and Virginia Kay Mayfield. "Nicholas Chervin's Yellow Fever Survey, 1820–1822." *Journal of the History of Medicine and Allied Sciences* 26, no. 1 (1971): 40–51.
- Waterman, Bryan. "Arthur Mervyn's *Medical Repository* and the Early Republic's Knowledge Industries." *American Literary History* 15, no. 2 (2003): 213–47.

- Watts, Sheldon. *Epidemics and History: Disease, Power, and Imperialism*. New Haven: Yale University Press, 1997.
- Webster, Noah. *A Brief History of Epidemic and Pestilential Diseases with the Principal Phenomena of the Physical World, Which Precede and Accompany Them, and Observations Deduced from the Facts Stated*. Hartford: Hudson and Goodwin, 1799.
- Webster, Noah, William Currie, and Benjamin Spector. *Noah Webster: Letters on Yellow Fever Addressed to Dr. William Currie, with an Introductory Essay by Benjamin Spector*. Baltimore: Johns Hopkins University Press, 1947.
- Yokota, Kariann Akemi. "'To pursue the stream to its fountain': Race, Inequality, and the Post-Colonial Exchange of Knowledge across the Atlantic." *Explorations in Early American Culture*, no. 5 (2001): 173–229.
- Zuckerman, Arnold. "Plague and Contagionism in Eighteenth-Century England: The Role of Richard Mead." *Bulletin of the History of Medicine* 78, no. 2 (2004): 273–308.