

Going Viral

History of Science, Medicine, and Technology Postgraduate Conference 2020



Online Event

5 & 12 June 2020



Trending



**Social
Networks**



Anti-Bodies



**Search for a
Cure**

Front cover:

Designed and created by Floris Winckel, MSc Candidate,
History of Science, Medicine, and Technology
University of Oxford

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Introduction

Welcome to the 2020 History of Science, Medicine, and Technology Postgraduate Conference. These days there is only one story that dominates the news, and only one place to discuss it: Covid-19 and the internet. In “Going Viral” we take you on a scholarly journey through four stages of a pandemic in the age of social media. Guiding you on this journey are one DPhil, two MPhil and nine MSc students from four different continents and a variety of institutional backgrounds. Although most of us have trained as historians, we also have backgrounds in gender studies, immunology, and physics. HSMT is an expansive and constantly evolving area of scholarship; this is reflected in our selection of research projects. Taking you up to 1800 you will hear about natural philosophy in seventeenth-century England, and eighteenth-century botanical collecting practices, anatomical waxworks, and static electricity. Taking you through the nineteenth and twentieth centuries you will hear about public health in India, medical debates around transsexualism and physical education programs in the United States, cybernetics, and the history of lab mice. Like many areas of daily life, scholarship too has needed to adapt to a world consumed by a pandemic and a society which has transposed itself onto the internet (with varying levels of success). With this in mind we took the opportunity to find new and perhaps unusual ways of connecting our projects. Like most history, this conference is therefore as much a reflection of the present as it is an exploration of the past. We hope you find our panels thought-provoking. Please do not forget to wash your hands regularly.

Going Viral

5 & 12 June 2020
Online Event - Zoom

Programme

Friday 5 June – Day 1

13:30-14:00 **Zoom Login Open**

14:00-14:10 **Opening Remarks: Professor Mark Harrison**

14:15-15:40 **Session One – Trending**

Jessica Simkiss

Kenelm Digby's perplexing ontology of rarity and density: physics and metaphysics in early-modern English matter theory

Levi Hord

Medical conceptions of "desire" in establishing authenticity in diagnostic criteria for transsexuality, 1952-1979

Nikita Arora

Medicine gone 'soft': a case study of Lady Dane Rani Suraj Kaur Hospital, Faridkot, India (1898-1946)

Chair: Floris Winckel

15:40-16:00 **Screen Break – Optional HSMT Zoom Scavenger Hunt**

16:00-17:25 **Session Two – Social Networks**

Anneliese Schaaf

"Men of Paracelsus' Mind": negotiating intellectual boundaries & unorthodox philosophy in seventeenth-century England

Madeline White

The business of botany: botanical collection, scientific communities, and the East India Company in the early 18th century

Matt Calow

Rhetoric or reality? Changing priorities for rural health in the Central Provinces of British India, 1890-1939

Chair: Alan Yang

Going Viral

Friday 12 June – Day 2

13:30-14:00 **Zoom Login Open**

14:00-15:45 **Session Three – Anti-Bodies**

India Barrett

Anatomical adonises: aesthetics, politics, and ideals in representing the human body

Colin Williams

Meat the machine

Georgina Grant

Building Britain beautiful: eugenics, national identity and physical activity in the interwar period

Martijn van der Meer

The Dutch “intelligent lockdown” in historical perspective: a *conceptual history of heredity in Dutch interwar public health*

Chair: Madeline White

15:45-16:05 **Optional HSMT Pictionary**

16:05-17:40 **Session Four – Search for a Cure**

Floris Winckel

Static, or dynamic? Electricity in the Dutch Republic, 1745-1789

Alan Yang

The mouse’s promise: the rise of mice as models for human genetics and biology, 1900-1940.

Dan McAteer

Technocracy to counterculture: Gregory Bateson and the politics of “psybernetics”

Chair: Levi Hord

17:40-17:50 **Closing Remarks:** Dr Erica Charters

Jessica Simkiss

MSc Candidate

Worcester College

Trending

Kenelm Digby's perplexing ontology of rarity and density: physics and metaphysics in early-modern English matter theory

The dominance of corpuscular and mechanical philosophy and the displacement of scholastic Aristotelian natural philosophy are regarded as definitive characteristics of seventeenth century thought. The new philosophy pursued a reductive ontology of matter in motion, rejecting the wide array of Aristotelian actualities, potentialities, forms, elements, and qualities. My research considers the work of the English natural philosopher Kenelm Digby, who developed a corpuscular and mechanical account of natural phenomena within an Aristotelian framework. Digby's *Two Treatises*, published in 1644, was recognised by contemporaries as an important work of the new philosophy. Yet historians have left Digby's work remarkably understudied and little attention has been given to his matter theory. My research analyses Digby's matter theory, which sought to strike a balance between the ontological parsimony of the new philosophy and the 'common sense' explanatory power of scholastic physics. Digby's strange ontology of rarity and density did not rise to prominence, even as corpuscular and mechanical philosophy did more generally. However, Digby should be of interest to any historian concerned with the early development of the new philosophy in England, particularly in relation to the development of Cartesian thought, and how developments in early modern physics reflected particular ontological and metaphysical visions.

Levi Hord

MSc Candidate

Wadham College

Trending

Medical conceptions of “desire” in establishing authenticity in diagnostic criteria for transsexuality, 1952-1979

This talk examines published medical debates about the diagnostic criteria delimiting “genuine transsexuality” from 1952 to 1979. As the number of requests for medical transition multiplied, doctors began to search for objective, repeatable, and clinical criteria to delineate “authentic” claims from supposed “delusions” and “deceptions”. Noting a dearth of constitutive diagnostic criteria, this research queries of the significance of those factors that disqualified one from authenticity, and thus from medical treatment, during this period. This talk focuses on the role of desire in particular, and draws broader conclusions about the historical relationship between medical ethics, patient narrative, and the definition of “disorders” without physical symptoms.

Nikita Arora

MSc Candidate
Hertford College

Trending

Medicine gone 'soft': a case study of Lady Dane Rani Suraj Kaur Hospital, Faridkot, India (1898-1946)

My dissertation will analyse the archives of a women's hospital in British-colonial Punjab managed jointly by the British administration and the princely state of Faridkot, India. It will investigate the nature of western medicine in the hospital, its relationship with native women, and indigenous medicine(s). It will explore the lives of western as well as native women in the hospital whose lives were touched but not determined by western medicine. It will engage with rich historiography on medicine and gender in South Asia and argue that a 'model of medicalisation' might be insufficient to comprehend the impact of and engagement with western medicine. Through this analysis of women in the hospital, I aim to ask questions about medicine and selfhood, that is, how working under and with western medicine influenced women's perceptions and experiences of their own bodies and selves – gendered and otherwise. I intend to use theories of medical anthropology, psychoanalysis of selfhood, and feminist ontologies of the body to flesh out themes of selfhood, self-making, self-refashioning, and medical bodies in the archives of this hospital and Punjab at large.

Anneliese Schaaf

MSc Candidate

Kellogg College

Social Networks

“Men of Paracelsus’ Mind”: negotiating intellectual boundaries & unorthodox philosophy in seventeenth-century England

Over the course of the seventeenth century, various English natural philosophers attracted to unorthodox ideas (particularly those labeled contemporaneously and by later historians as “Paracelsian”) negotiated themselves and their work in order to justify their inclusion within orthodox intellectual spheres.

This analysis focuses on a selection of these natural philosophers – some historically categorized as “scientists” and some remembered chiefly for their unorthodoxies – to examine how these individuals negotiated themselves in their given intellectual environments and how successful their efforts were. Ultimately, analysing these negotiations demonstrates that the boundaries of “legitimate” natural philosophy and “nonsense” were fluid during the period.

Madeline White
MPhil Candidate
St Hugh's College

Social Networks

The business of botany: botanical collection, scientific communities, and the East India Company in the early 18th century

As early-modern voyagers returned from trips abroad laden with exotic flora and fauna, many took advantage of this influx of materials to amass vast botanical collections. By the eighteenth century, these herbaria documented the presence of flourishing botanical knowledge networks both at home and around the British colonies. While the more famous of these 'paper museums' today form the basis of Kew Gardens and the British Museum, the Du Bois Herbarium, compiled by East India Company treasurer Charles Du Bois (1658-1740), remains largely unstudied, and serves as a unique representation of botanical practices that emerged at the turn of the eighteenth century. Supported by a network of collectors and colleagues, this herbarium exemplifies the complex system of patronage and gentlemanly exchange that defined scientific inquiry in this period. Funneled through the machine of the Royal Society with the aid of East India Company manpower, Du Bois and his herbarium existed at the juncture of amateur science, imperial exploration, and global governance as these institutions restructured alongside an expanding British Empire.

Matt Calow

MPhil Candidate

Green Templeton College

Social Networks

Rhetoric or reality? Changing priorities for rural health in the Central Provinces of British India, 1890-1939

Public health priorities are malleable. They shift and react to changing political economic and cultural realities, even if the stated intention remains the same; “the protection and promotion of the health and welfare of [a state’s] citizens.” (Porter, 1994). The core themes behind this paper are situated in the tensions and juxtapositions that emerge when this intention interacts with colonial realities. By focusing on the relatively unexplored Central Provinces of British India, it has sought to examine how provincial policies shifted to reflect the rapidly changing political and intellectual context both nationally and internationally in the early twentieth century.

The rural hinterland, home to over 90% of the provincial population, emerged as a site of importance for public health in the 1890s. Public health policy in India was increasingly subjected to international scrutiny and the government was forced to intervene at the often-perceived source epidemic cholera. Understandings of responsibility in public health, however, were changing. The ‘social medicine’ movement argued that health outcomes of populations could be improved through socio-economic reform, education in hygienic practices, and most importantly with state intervention to provide the required infrastructure. Nationalist critiques of the Government of India’s inactivity in this respect found their way into the newly created, Indian majority, provincial legislative councils, where, after the reform act of 1919, responsibility for public health rested. Devolution of public health to Indian provincial councils resulted in a broader rhetoric of rural health. It reflected both changing understandings of public health internationally, and the growing concerns of Indian nationalism. Public health and social medicine could be vehicles for the regeneration and reconstruction of an ancient society after years of subjugation. Yet, whilst priorities shifted to reflect the specific needs of the rural population, policies were, in reality, still subject to the economic and political hierarchies of colonial rule.

India Barrett
MSc Candidate
Exeter College

Anti-Bodies

Anatomical adonises: aesthetics, politics, and ideals in representing the human body

La Specola, Florence, houses a glorious collection of anatomical waxwork artefacts. These were created between 1775-1900, and were used to educate the public about the body's organs and systems. The most striking objects within this collection are the full body specimens, as they depict idealised interpretations of male and female bodies that are both anatomically accurate and artistically inspired. The body was a vessel for social, cultural, and political ideas, and when placed in a medical context, these ideas were conveyed as if natural and objective. Furthermore, the waxworks were a representation of man's mastery over nature, which reflected the control of state institutions over their subjects. Historiography has thus far focused entirely on the Anatomical Venuses, the female models that infuse artistic, religious, and medical understandings of the body. Historians including Anna Maerker and Joanna Ebenstein have explored how these models represent ideas about femininity and beauty. In doing so, they convey a standardised image of what makes a female body, drawing on socially-constructed gender ideals to provide a medical affirmation. They also provide an uncomfortable insight into the male medical gaze. The Anatomical Venuses are impressive objects and useful for the history of medicine, but the male waxwork models have been unfairly neglected in historiography. This reflects a wider trend in the history of medicine and gender, whereby studies typically explore the forms that have been 'othered' within medical, social, and cultural discourses. The female form, racial typographies, and pathological specimens have all been subject to 'othering'. The male body is equally subjected to socio-cultural beliefs about masculinity, and yet this has been under-explored within historiography. This essay intends to take the approaches employed to explore the Anatomical Venuses, and apply these to the Anatomical Adonises so as to gain an understanding of how a masculine body was perceived. This will include exploration of social, cultural, and political influences over the medical construction of the male body. Further, what does it mean for a male body to come under the, implicitly male, medical gaze? There may also be the opportunity to look into the reception of these male bodies in Florence and in the cities that these models were transported to, including Vienna and London.

Colin Williams
DPhil Candidate
Mansfield College

Anti-Bodies

Meat the machine

Cyborg was spawned by its fathers Nathan S Kline and Manfred E Clynes on the 26 May 1960 to the Conference on the Psychophysiological Aspects of Space Flight, at the School of Aerospace Medicine at Brooks Air Force Base, Texas. Humiliated by Sputnik, the US government was desperate to claim the victory of propelling the first human into space. Cyborg was Kline and Clynes' answer to the problem of human survival in space. Rather than compensate environmentally for human fragility; obviate it through autonomic, exogenic augmentation. Their paper, "Drugs, Space and Cybernetics: Evolution to Cyborgs" imagined the human bio-form re-made through an act of participant evolution that would eliminate distinctions between 'animal' and 'machine'. Cyborg was an etymological, epistemological and ontological synthesis between cybernetics and organism. In 1948 Norbert Wiener had published "Cybernetics", so naming the constructed science of "control and communication in the animal and the machine". In September 1949, John Bates, a neurologist at the National Hospital for Nervous Diseases in London, convened the first meeting of a gathering of brilliant minds to discuss cybernetics. This became the Ratio Club and Alan Turing later became a member. From its inception, cybernetics had the power to subvert the normative binary duality of 'human' and 'machine', especially in relation to the mechanisms of mind and cognition. My research will produce the first book length treatment of the history of the Ratio Club and of the early British experience of cybernetics.

Georgina Grant

MSc Candidate

Harris Manchester College

Anti-Bodies

Building Britain beautiful: eugenics, national identity and physical activity in the interwar period

This thesis intends to investigate how ideas of national fitness were circulated in Britain during the interwar period. The interwar period was plagued by eugenic concerns which incited a fear of national degeneration. National fitness anxieties were exacerbated by Britain's poor performance at the 1936 Berlin Olympics, while European fascist nations such as Italy and Germany were celebrated for their excellent results and national fitness. This roused the British government to initiate campaigns to promote physical education, a focus on health, and well-being as a part of British life, largely driven by eugenic ideas of racial fitness and national strength. Through using a collection of government sources, private organisations, and online films, this study will consider why national fitness concerns emerged after 1918 and assess the links between gender, national fitness and eugenics during the interwar period.

Martijn van der Meer

Recognised Visiting Student

Utrecht University

Anti-Bodies

The Dutch “intelligent lockdown” in historical perspective: a *conceptual history of heredity in Dutch interwar public health*

In this project, I investigate how public health was conceptualized in the Dutch interwar period by looking at how the contested concept of heredity was used to articulate and legitimize the response towards three social problems: degeneration, alcoholism, and tuberculosis. The conceptual relation between heredity and these problems was different in many ways. Dutch eugenicists employed heredity with reference to population health and degeneration, while criticizing the top-down sterilization policies abroad and, paradoxically, propagated environmental reform. Abstainers remained faithful to a Lamarckian conceptualization of heredity to argue that any form of alcohol use could damage the hereditary mass of the population. Individuals should take their social responsibility in refraining from alcohol, they argued, and protect the health of the collective. The tuberculosis reformers employed heredity by downplaying its significance to articulate optimism for environmental reform. In the aftermath of the nineteenth-century debate on whether tuberculosis was a hereditary or contagious disease, the Dutch tuberculosis reformers chose to emphasize the disease’s ‘contagious cause’ – even when experts began to admit that heredity played at least a minor role as a causal factor. Besides these different conceptualizations, they share an emphasis on individual developmental health and a practical orientation towards improving the environment. This should be understood against the backdrop of an egalitarian political culture in which health was regarded as a private matter, the collective was understood as the multiplicity of individuals, and healthcare was organized bottom-up with a big role for civil initiatives and an absent but funding state. Dutch individual-oriented public health with its lack of strong top-down health policies is especially interesting from an international perspective. What does this history say about the Netherlands? Is the Dutch case an exception, or is the separation between individual- and population-oriented public health inherently problematic?

Floris Winckel

MSc Candidate

Lincoln College

Search for a Cure

Static, or dynamic? Electricity in the Dutch Republic, 1745-1789

In the mid-eighteenth century, electricity rapidly grew in popularity to become the poster child of natural philosophy and scientific sociability. Amongst the earliest European nations to foster this new science was the Dutch Republic, where electricity became a widespread socio-cultural phenomenon in the 1740s. Historians have attributed this popularity to a wide and consistent interest amongst Dutch publics in the miraculous healing abilities of electricity, as well as an established culture of urban sociability and consumption which provided a strong foundation for electrical entertainment to flourish. Additionally, contemporaries associated moral and religious virtues with electricity which resonated with the national and civic values of the country at the time. This has remained the accepted historical interpretation since the 1990s. However, historians of science have since explored eighteenth-century Europe using other approaches, focussing for example on the importance of material culture, the roles of women and the scientifically-disenfranchised, and different cultures of scientific consumption. These historiographical frameworks have helped provide a more dynamic picture of scientific activity and culture in the eighteenth century. Looking at the age of 'useful static electricity' - bounded by the invention of the Leyden jar in 1745 and the emergence of animal electricity in the early-1790s – this essay will seek to re-evaluate interactions with electricity in Dutch society. More specifically, it will assess practices of medical electricity, ways in which electricity was produced and consumed by the public, and how contemporaries used this new science to reflect on society and politics. I aim to demonstrate how static electricity can – ironically – become a dynamic historical phenomenon when different publics, practices, and approaches are taken into account.

Alan Yang
MSc Candidate
New College

Search for a Cure

The mouse's promise: the rise of mice as models for human genetics and biology, 1900-1940

Most people know that laboratory mice are a “thing” but are not aware of how mice, of all creatures, rose to become the most popular model organism in biomedical research. Following the rediscovery of Mendel’s laws in 1900, Harvard professor William E Castle purchased a cohort of fancy mice from a retired-schoolteacher-turned-mouse-fancier named Abbie Lathrop. Castle had decided to buy the mice because he was in the process of setting up a new lab for the study of mammalian inheritance, a total departure from his previous work on the anatomy of sea squirts. As one of the earliest adherents to Mendel’s laws in America, he helped pioneer a new experimental science of genetics which aimed to work out the rules of heredity in different species. Even after their entry into the laboratory, mice were therefore still not the special models they are today during the early 1900s. Drawing on the scholarship of Robert Kohler on T H Morgan’s fruit flies, I compare mice with competing experimental subjects like rats and fruit flies and argue that mice eventually emerged as a popular model organism not because of any special biological properties but because of a unique promise its practitioners made. This was a promise to use mice to elucidate the genetics of human cancer, which had become a leading killer and a national priority in America by the 1920s. More so than any other creature, mice became the model which promised to bring the rigor of animal experimentation to bear on a human problem that mattered – cancer.

Dan McAteer

MSc Candidate

St Edmund Hall College

Search for a Cure

Technocracy to counterculture: Gregory Bateson and the politics of "psybernetics"

Hailed by one historian as the harbinger of 'postmodern ecological consciousness' (Chaney), cybernetician Gregory Bateson is known today for his double bind theory of schizophrenia (1956) and as a countercultural 'guru' (Turner). However, Bateson's countercultural status is an awkward one. Elitist, technocratic, and involved in psy-ops, Bateson sought explanation of human phenomena in terms of hierarchical, homeostatic systems – key features of the 'high modernist social science' of Talcott Parsons and others (Heyck). Bateson's guru reputation was therefore contingent and constructed, the product of a strange encounter between memory of Versailles (1919) and the libertarian self-actualisation of the 1960s.

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