

THE 2025 HSMT COHORT PRESENTS OUR



THROUGH THE HISTORY OF  
SCIENCE, MEDICINE, AND TECHNOLOGY

HSMT POSTGRADUATE  
CONFERENCE 2025

FACULTY OF  
HISTORY



UNIVERSITY OF  
OXFORD

### **Front cover:**

Designed by Megan Lee

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Faculty of History, University of Oxford

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## **Magical Mystery Tour**

We Wanna Hold Your Hand through a two-day voyage across the science, medicine, and technology of Yesterday! Come Together with the HSMT 2025 graduands as we celebrate the past year of work and discover compelling new research.

This annual conference, is co-organised by MSc, and first-year MPhil and DPhil candidates in the history of science, medicine, and technology, together with the Oxford Centre for HMST. It is an opportunity for the graduands to share their thesis research, which spans six centuries and multiple continents. They will seek to share stories which have gone untold, illuminate the mysteries of the past, and find magic in the material. We hope you can join us for this Magical Mystery Tour!

# Magical Mystery Tour

12-13 June 2025

Lecture Theatre, Faculty of History, George Street, Oxford

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## Programme

### Day 1: Thursday 12 June

09:45-10:15 **Registration and Tea/Coffee**

10:15-10:30 **Opening Remarks:** Dr Catherine Jackson

10:30-12:00 **Panel 1: “From Me to You” Science Communication**

*Chair: Megan Lee*

**Freya Saunderson**, A review of 19th century popular mathematics communication

**Suzanna Winterbourne**, “People are apt to look upon the subject in a wholly frivolous way”: children’s dress, growth and movement in British popular literature, 1880-1914

**Sydney Robinson**, Siting science: nationalisation and naturalisation at the Second International Congress of Eugenics

12:00-13:00 **Lunch**

13:00-14:30 **Panel 2: “Here Comes the Sun” Health in Empire**

*Chair: Joe Foster*

**Selina Wong**, Japanese imperialism on Hong Kong’s public health policies (1941-1945)

**Vidhyasai Annem**, Bacteriology in Bombay: the early years of the Bombay Bacteriological Laboratory, 1896-1920

**Camden Berry**, “A Fair Field and No Favour”: medical women’s pursuit for medical education and professionalization in Britain and British India, 1858-1914

14:30-14:50 **Break – Tea/Coffee**

14:50-16:45 **Panel 3: “Think for Yourself” Distrust**

*Chair: Aristotle Vainikos*

**Joe Foster**, The crank of Thames Ditton: Patrick Clavell Blount and the London anti-fluoride campaign, 1963-1972

**Scott Newman**, New York City’s authoritarian response to SARS-CoV-2

**Jackie Sizemore**, Anticipating the end: Heaven’s Gate as 20th century American transhumanism

**Rachael Andrews**, Distrust and Disinterest in Medical Advice and Practice in a Military Environment c.1900

16:45-17:00 **Closing Remarks:** Professor Mark Harrison

**Day 2: Friday 13 June**

09:30-10:00 **Registration**

10:00-10:15 **Opening Remarks: Professor Erica Charters**

10:15-11:15 **Panel 4: “Strawberry Fields Forever” Biotechnology**

*Chair: Freya Saunderson*

**Ilan Werblow**, The adoption of F1 hybrid crops in the United Kingdom

**Aristotle Vainikos**, Dynamics of future research planning at the Oxford Enzyme Group, 1969–1983

11:15-11:45 **Break – Tea/Coffee**

11:45-13:15 **Panel 5 – “Your Mother Should Know” Gender and Motherhood**

*Chair: Camden Berry*

**Madeline Hirons**, From invisibility to surveillance: the regulation of women's bodies in the Straits Settlement of British Singapore, 1890-1930

**Megan Lee**, A woman of experience: the tiçitl as an indigenous scientist in the Florentine Codex

**Sophia Nesamoney**, Small mouths, large wars: the birth of medical humanitarianism for paediatric malnutrition during World War II

13:15-13:30 **Closing Remarks:** Alex Aylward

**Freya Saunderson**

MSc Candidate

*Green Templeton College*

**Panel 1: “From Me to You”**

**A review of 19th century popular mathematics communication**

Modern popular mathematics communication happens through a variety of vectors, many of which did not exist during the 19th century. Yet this period contains many clear antecedents of what exists today, making this a useful area of study for those wishing to understand the origins of our modern culture of popular mathematics. This dissertation draws on a wide source-base of public-facing mathematics in the 19th century, comparing and contrasting them along lines such as class and gender.

Using primarily archival material, such as the penny magazine of the Society for the Diffusion of Useful Knowledge and the Ladies' Diary, this dissertation will look at both the kinds of mathematics being communicated and the manner in which it is communicated. These materials are situated within a wider sphere of public science, which will also be considered, though this is not the main focus. Ultimately, this dissertation will aim to answer the question of whether there is a noticeable difference between the kinds of mathematics promoted to different social groups at this time and, if so, what that might say about the nature of the society that produced the material.

**Suzanna Winterbourne**

MSc Candidate

*Hertford College*

**Panel 1: “From Me to You”**

**“People are apt to look upon the subject in a wholly frivolous way”:  
children’s dress, growth and movement in British popular literature, 1880-  
1914**

Using published periodical literature such as *Baby*, the *Girls Own* and *Boys Own Papers*, and the *Rational Dress Society’s Gazette*, this thesis presents advice-giving about children’s clothing and exercise as a public health intervention. Firstly, anxieties about younger children’s clothing and bodily development are explored through literature produced for adults. Secondly, literature targeted to older children is used to assess concerns about adolescent exercise and bodies, particularly along gendered lines. Through a deep reading of the published literature, including advertisements, visual images, clothing patterns, and ‘letters to the editor’ sections, this paper will argue that periodical literature was increasingly a communal space in which medical expertise was communicated, accepted, challenged and rejected, often in comparison to the lived expertise of mothers and children themselves.

It will further argue that anxieties about the physical form of children rest on the idea of the child’s body as an unfinished, imperfect adult body, and that popular literature encourages self-scrutiny to prevent a race of deformed adults. Healthy clothing and physically fit bodies, therefore, are framed as crucial steps towards good citizenship. By widening the typical methodologies used in public health history to incorporate those from media history, fashion history, and the history of childhood, we can see how the child’s body becomes entangled with fin-de-siècle public health beyond the typical story of safe and sufficient food, vaccination campaigns, and education in schools. Instead, this paper emphasises the role of popular literature in communicating public health and encouraging its social internalisation.



**Sydney Robinson**

MSc Candidate

*Wadham College*

**Panel 1: “From Me to You”**

**Siting Science: nationalisation and naturalisation at the Second International Congress of Eugenics**

A century ago on New York City’s Upper West Side, one of the world’s preeminent natural history museums opened its doors for an event that was, even then, considered to be on the fringes of science. The American Museum of Natural History (AMNH) would host both the Second and Third International Congresses of Eugenics in 1921 and 1932, but for organisers of the 1921 conference, the event was an important opportunity to legitimise eugenics and shift the movement’s centre of gravity from English to American shores.

This paper interrogates the importance of siting in the public recognition of ideas at the boundaries of science. Specifically, I examine the museum’s role in advancing three interconnected goals of conference organizers: an assertion of a rising American branch of eugenics, an appeal to a broader public audience, and an overt inclusion of the human world within the scope of natural history. By examining conference planning documents, correspondence between organisers, and photographs of the public exhibitions, I illustrate organisers’ intentions of making eugenics newly American, publicly accessible, and epistemologically legitimate via both theoretical and physical proximity to natural history.



**Selina Wong**

MSc Candidate

*Christ Church*

**Panel 2: “Here Comes the Sun”**

**Japanese imperialism on Hong Kong’s public health policies (1941-1945)**

This thesis examines the role of medical development in Japanese imperialism, focusing on Hong Kong during its occupation (1941-1945). It argues that medical knowledge was central to Japan’s strategy for asserting modernity and justifying colonial rule. Drawing on Western medical ideals, Japan used public health policies, such as vaccination drives and anti-malaria campaigns, to assert sovereignty and demonstrate imperial power. These initiatives, while addressing disease, also functioned as tools of political control, reinforcing the image of Japanese hygienic modernity and imperial dominance. The thesis further investigates responses to these policies through the experiences of British medical officers and local residents, assessing their effectiveness and reception. It then turns to the post-war period, examining how the British restructured Hong Kong’s health system to restore authority and erase Japanese influence. Finally, a comparative analysis situates Hong Kong within a broader imperial framework, highlighting how medicine functioned as a strategic instrument in Japan’s pursuit of empire and its modernising ambitions.

**Vidhyasai Annem**

MSc Candidate

*Wolfson College*

**Panel 2: “Here Comes the Sun”**

**Bacteriology in Bombay: the early years of the Bombay Bacteriological Laboratory, 1896 - 1920**

1896 was a watershed moment for bacteriology in India. Decades of mounting social tension to build formal laboratories was met by a deadly plague epidemic in Bombay. The future political and economic ramifications of handling this outbreak, protracted by national and international attention on India's medical capacity, led to the establishment of the Plague Research Laboratory, later known as the Bombay Bacteriological Laboratory. Using annual laboratory reports, public health reports, contemporary periodicals, photographs, scientific papers, correspondence, and conference proceedings, this paper explores the role of the laboratory in its early decades.

The climate during which it emerged was one where science within India was hailed as a moral force of nation building. Thus, the construction of laboratories was not merely an extension of scientific development, but also of social development, and the activities of the lab reflected this. Concurrently, the laboratory was embedded in a larger sociomedical fabric, one that it was actively responsive to. These exchanges, including its relationship with officials, medical institutions, and communities, both locally and internationally, illuminate how the laboratory oriented itself especially in the face of epidemics or war. Fundamentally, this paper examines the identity of the Bombay Bacteriological Laboratory from 1896-1920 as an institution engaged in research and distribution within a broader network of privileged production.

**Camden Berry**

MSc Candidate

*St Cross College*

**Panel 2: “Here Comes the Sun”**

**“A Fair Field and No Favour”: medical women’s pursuit for medical education and professionalization in Britain and British India, 1858-1914**

Only two women appeared on the pages of the new British Medical Registry in 1865. After the successes of Drs Elizabeth Blackwell and Elizabeth Garrett Anderson, British women faced insurmountable, endless rejections from medical schools run by a male physician population influenced by Victorian-era gender expectations and a desire for increased professionalisation. Determined medical women in the United Kingdom, spearheaded by Sophia Jex-Blake, consequently opened their own medical schools and turned to British India to cut out their own niche and prove the value of their jobs to their male counterparts. This paper examines the establishment of this global network as medical women tried to find their entrance into the British medical profession, looking particularly at interactions between colonialism, feminism, and medical professionalisation.

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This dissertation also explores the less studied network used by medical women from British India to Britain. In doing so, I argue the aforementioned movement from Britain to India was not a one-way street, as women in India sought out inclusion in British medical schools in addition to their participation in the British Indian medical education and hospital systems. Archival research has revealed a limited number of records on these early Indian medical women compared to their British and American counterparts, sparking a conversation regarding how historians should approach gaps in their archives, and what we can learn from these archival absences.

**Joe Foster**

DPhil Candidate

*St Catherine's College*

**Panel 3: "Think for Yourself"**

**The crank of Thames Ditton: Patrick Clavell Blount and the London anti-fluoride campaign, 1963-1972**

Patrick Clavell Blount (1906-1999) was volunteered to be the head of the London chapter of the National Pure Water Association on the 23rd of May 1963. What followed would be over thirty years of circulars, speeches, and meetings, all with the singular focus on the resistance of water fluoridation in Great Britain. Blount almost immediately encountered challenges from both within and outside of the LAFC, with long-lasting ramifications for the anti-fluoridation movement in this country. Starting with a brief outline of the history of fluoridation before Blount, I will then discuss how the LAFC changed over the course of the 1960s, before identifying key turning points and developments which cast a long shadow over the next three decades. Finally, I will conclude by showing why this focus on Blount in chapter one is helpful for the rest of my DPhil thesis.

**Scott Newman**

MPhil Candidate

*St Catherine's College*

**Panel 3: "Think for Yourself"**

**New York City's authoritarian response to SARS-CoV-2**

This paper begins with a definition of authoritarianism and assesses whether New York City's public health response to SARS-CoV-2 meets it. By examining and contextualising the historical record and discussing past pandemics in NYC, I demonstrate that it does. I then argue that this episode of authoritarianism fits into a broader history of American authoritarianism, and discuss how entrenched democracies like the United States fall victim to authoritarianism. Finally, I subject the historical record to three lenses of analysis: philosophy, social psychology, and permission structures. I conclude by identifying implications, limitations, and areas for further study.

**Jackie Sizemore**

MSc Candidate

*St Catherine's College*

**Panel 3: "Think for Yourself"**

**Anticipating the end: Heaven's Gate as 20th century American  
transhumanism**

In the aftermath of the 1997 suicides of the American intentional community known as Heaven's Gate, the world seemed uncertain how to integrate the group's history into broader narratives. The group's fixations on technological solutions, overcoming human qualities, and reaching a real utopian world on another planet were viewed by the public as extreme cult views fuelled: by brainwashing leaders. Within academic scholarship, Heaven's Gate received little attention except for occasional religious scholarship around millenarianism. However, Heaven's Gate's emergence in the 1970s-1990s paralleled the development of the modern transhumanist movement. By comparing the major texts and milestones of Heaven's Gate's public-facing and internal-facing beliefs with those of transhumanism, I will argue that Heaven's Gate becomes an important micro-history on the trajectory of transhumanist principles put into practice before the 21st century.

**Rachael Andrews**

DPhil Candidate

*New College*

**Panel 3: “Think for Yourself”**

**Distrust and Disinterest in Medical Advice and Practice in a Military  
Environment c.1900**

Traditionally medical aid was provided to the British Army either by “camp followers” – usually women who would care for those too sick or injured to stay with the companies, or by privately hired surgeons who would remain at a safe distance from the fighting and were paid for the number of men they treated. As the medical profession gained a higher status, generally linked with the growing scientific skill required to practice medicine, the medical body began to expect a higher level of professional respect. In 1898, following lengthy political battles, medical officers of the British Army were nominally granted status as commissioned officers holding military rank yet distrust – and perhaps more potently disinterest – in the military medical services would persist from the majority of the military body.

Worsening the matter, the military doctor was believed to be inferior to his civilian colleague as long periods of foreign service stagnated professional development. The practical implications of this were that medical advice for sanitation and disease prevention were often overlooked in favour of ease, and the resulting casualty statistics were then used as justification of this distrust as it was argued that a competent medical service would not be plagued with the numerous issues that the Royal Army Medical Corps faced on the battlefields of South Africa at the turn of the century.



**Ilan Werblow**

MSc Candidate

*St Antony's College*

**Panel 4: “Strawberry Fields Forever”**

**The adoption of F1 hybrid crops in the United Kingdom**

Hybrid crops, the results of breeding two different plants for their desired traits, have significantly impacted the world of agriculture and resulted in massive increases in yields since their adoption. F1 hybrids are specifically the first generation of a male sterile hybrid crop and produce an even greater yield and more vigorous plants. First introduced in maize crops in the 1920s and 30s, they quickly took off in the US; however, their adoption in the UK was significantly slower. This dissertation focuses on the hurdles to the adoption of hybrid crops in the United Kingdom, from the preference for certain species to a lack of excitement for the new crops among many British agricultural scientists. Even so, some successful F1 hybrids produced in the United Kingdom became widespread, and this dissertation will examine these successes and place them in the context of the broader agricultural science funding and research structures.

**Aristotle Vainikos**

MSc Candidate

*Lady Margaret Hall*

**Panel 4: “Strawberry Fields Forever”**

**Dynamics of future research planning at the Oxford Enzyme Group, 1969-1983**

This dissertation analyses the evolution of the Oxford Enzyme Group’s research programme from 1969 to 1983. The Oxford Enzyme Group was a novel government-funded entity meant to coordinate research on enzymes by some 20 scientists spread across eight Oxford departments. What research questions guided the Group’s work and how did members decide on them? How did input and demands from the research councils or industry matter? I show that work shifted away from fundamental chemistry toward methodological studies and biological topics as the Group’s successful technical facilities, especially NMR spectrometers spun-out by partner companies, influenced the types of research questions that could be predictably solved. Doubling-down on advancing and applying these methods gradually appeared more productive and less risky than exploratory research on new biochemical systems. Throughout, decision-making followed debate within a subgroup of more veteran, generalist scientists, who in turn sought to design research questions that encompassed members’ shared interests.

This dissertation emphasises the strategic interactions and choices embedded in research planning and fundraising, which have become essential to academic science. It also uncovers the techniques and assumptions that scientists have employed to perceive or predict progress within their fields. The dissertation updates historiography on NMR’s development and commercialization, on biochemistry’s post-war trajectory, and on changing models of cross-sector scientific partnership. Special attention is paid to the wider context of Britain’s economic situation during the 1970s and the impact on research funding policy.

The project draws on a large but understudied set of correspondence, funding applications, and meeting minutes located in the Bodleian’s Special Collections.

**Madeline Hirons**

MSc Candidate

*Lady Margaret Hall*

**Panel 5: “Your Mother Should Know”**

**From invisibility to surveillance: the regulation of women's bodies in the  
Straits Settlement of British Singapore, 1890-1930**

Singapore supplied the British Empire's demand for tin and rubber by relying heavily on imported male labour from China and India, resulting in a skewed sex ratio of one woman to ten men in the colony. In politics and healthcare, Malay, Chinese, Japanese, and Indian women had largely been ignored as they were seen to have no economic benefit for the state. Over time, at the turn of the twentieth century, the realisation that controlling women's bodies could ensure a healthier and more cost-efficient future workforce pushed the colonial government to take a greater interest in regulating women's health. Thus began campaigns of formally training midwives in institutionalised settings to promote the ideal medical future of the empire, as well as promoting social purity and perceptions of morality through discouraging prostitutes who were cast as vectors of disease. This paper focuses on the work of denominational institutions and British social hygiene societies that fought for the protection of women and girls through legal and medical reform, while continuing to uphold colonial constructs of what a “fit mother” or woman should be.

**Megan Lee**

MSc Candidate

Green Templeton College

**Panel 5: “Your Mother Should Know”**

**A woman of experience: the *tiçitl* as an indigenous scientist in the Florentine Codex**

*A General History of the Things of New Spain*, better known as the Florentine Codex, is a 12-volume encyclopaedia of Mexica (or Aztec) life written between 1558 and 1577. Its creation was a collaborative effort between Bernadino de Sahagun, a Franciscan friar, and his elite Mexica students at the Colegio de Santa Cruz de Tlatelolco, the earliest university in the Americas. Its content is rooted in Mexica knowledge; its form is from classical Europe. The Florentine Codex is thus an artefact of the middle ground, where the incommensurable epistemologies of indigenous Americans and Europeans met.

This paper explores the role of the *tiçitl*, usually understood as a female healer and relegated by Spanish observers to the role of the midwife. The *tiçitl* was an expert whose medical knowledge came from experience, experimentation, and ritual. At a time when the authority of classical texts was being challenged by discoveries in the New World, the *tiçitl* represented an alternative model of knowledge creation and dissemination. Her depiction in the Florentine Codex exemplifies the Spanish struggle to assimilate and subjugate indigenous knowledge to European categories. With that in mind, this paper also seeks to add nuance to the historical debate over the concepts of indigenous science and medicine.

**Sophia Nesamoney**

MSc Candidate

*St Cross College*

**Panel 5: “Your Mother Should Know”**

**Small mouths, large wars: the birth of medical humanitarianism for  
pediatric malnutrition during World War II**

While the health of soldiers has been a focus for historians of medicine and warfare, the health of civilians, particularly children, has been less explored. Wartime childhood malnutrition provides a valuable lens through which to examine the intersection of medicine, international human rights, and the coordination of global aid in history.

The awareness of children as “collateral damage” in warzones largely gained prominence during World War II, following reports of thousands of starving children across Europe. This led to the creation of organisations such as Oxfam and UNICEF, declarations protecting the human right to food, and medical reports documenting the serious long-term impacts of starvation on children’s bodies. It also led to important discussions regarding how to best treat malnutrition without further overwhelming children’s digestive systems, and how to coordinate aid in war-torn regions.

This paper will make use of scholarly articles written by physicians, reports from organizations such as Oxfam and UNICEF, newspaper clippings, and both written and visual documentation of particular pediatric cases. It will examine how the medical, human rights, and international aid communities worked independently and together to address child malnutrition during and shortly after World War II. It will also seek to understand how child malnutrition crises led to shifts in how the world spoke about children’s bodies, medical neutrality, and unacceptable practices during war. Finally, it will examine the influence of international politics and resource constraints on the delivery of aid.

## PARTICIPANTS

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## NOTES



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