



# Preventing and controlling infectious diseases in the built environment of city regions: France-Singapore cross-views

7-8 December 2023  
Centre Panthéon,  
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## **Preventing and controlling infectious diseases in the built environment of city regions: France-Singapore cross-views**

In an increasingly networked and mobile world, infectious diseases are increasingly globalized, undermining the efforts of the World Health Organization to enhance pathogen control efficiency. Such diseases spread through various media and impact populations unevenly across fragmented infrastructures and ecologies. While planetary urbanization has rendered all regions vulnerable, large urban areas remain the epicenters for epidemic outbreaks and transmissions as they serve as dense nodes of rapid economic and infrastructural development, urban inequalities, mobility and migration, and broader environmental changes.

While a substantial body of research has explored the risk factors of specific infectious diseases in cities, limited knowledge exists on the interactions between different diseases with varying transmission dynamics. Furthermore, there is a research gap in understanding how urban residents, situated within diverse socio-cultural and built environments, perceive epidemics, prepare to respond, negotiate with public policies, and contribute through their lifestyles to the mitigation or the spread of diseases.

In tropical areas such as Singapore and French overseas territories (e.g., Guadeloupe, Martinique, Réunion), significant Dengue outbreaks are a persistent concern, while an alarming progression of this disease is observed in the south of mainland France. The co-evolution of dengue fever with recurring airborne diseases, such as COVID-19, and the lack of knowledge regarding a large spectrum of risk factors (e.g. relating to social, green and built infrastructures) further complicates public health management.

In this light, a collaborative team of French and Singaporean researchers embarked on charting predictive models of dengue outbreaks and inform public policies based on the feedback of populations. This project, known as SPACE (Shaping Public Adaptive Capacity for Environmental Infectious Diseases) is supported by the Singapore National Research Foundation and focusses on Singapore as their case-study. By placing social sciences and architecture at the core of its approach, the SPACE project seeks to fill the knowledge gap in epidemiological theory by investigating, through various scales and methods, the social and urban dynamics at play in epidemics.

This workshop will present the preliminary findings of SPACE researchers and engage in dialogue with researchers in France who are studying public health and disease issues from various perspectives and disciplinary approaches. It will cover a range of topics, including spatial mapping and modeling of the habitats and spread of infectious diseases, public communication strategies within and outside of pandemics, public health interventions including an epidemiological evaluation on the efficacy of Wolbachia projects, and urban planning and waste management, in relation to dengue control, COVID-19, and other diseases. These discussions will offer an opportunity to develop a multidisciplinary approach to improve epidemiological models as well as spark further dialogues around data production and research protocols.

This event will take place over two days and will be conducted in English. It is organized under the auspices of the Université Paris 1-Panthéon Sorbonne, which co-supervise, with CNRS, the two primary UMRs engaged in the SPACE project: Géographie-cités, the project leader unit, and PRODIG.





## Workshop of the SPACE Project

7 December 2023 (Thursday) Centre Panthéon, 12 place du Panthéon, Paris		
Welcome and Introduction Chair by: AVELINE-DUBACH Natacha		
9.30 am	Opening Address	FALLIES Cecile, Professor of Geography, Deputy- President of Paris 1 Panthéon Sorbonne
9.40 am	Objectives and Relevance of the France-Singapore Cooperation through the SPACE project	AVELINE-DUBACH Natacha, CNRS Research Director, French Lead PI of the SPACE project  HO Shirley, President's Chair Professor of Communication Studies & Associate Vice President (Humanities, Social Sciences, & Research Communication), NTU
10.00 am	<b>Keynote Speech</b>  What Has the Pandemic Taught Us About Capitalisms?	BOYER Robert, Political Economist, EHESS and Institut des Amériques, Active Member of the French Regulation School
11.00 am	Coffee Break	
Session 1. Mosquitos and Epidemiology of Infectious Diseases (Modelling Approaches). Chair by: HO Shirley		
11.20 am	Academic-Government Collaboration for Effective Public Health	COOK Alex, Associate Professor of Public Health at NUS
	Computational Approaches for Infectious Disease Epidemiology	LIM Jue Tao, Assistant Professor of Public Health at NTU
	Insights from Dengue Burden Modelling in Singapore	DICKENS Borame Sue Lee, Assistant Professor of Public Health at NUS
12.35 pm	Lunch	

*Session 2. Mosquitos and Epidemiology of Infectious Diseases (Southeast Asia and France).*  
*Chair by: LANDY Frederic*

2.00 pm	Dengue and Covid-19 Geography: A Multi-City Comparison	TELLE Olivier, CNRS Researcher of Health Geography at CNRS/UMR Géographie Cités  BERAUD Josephin, Research Assistant at CNRS@CREATE
2.30 pm	60 Years After, When Mosquitos are Back to Business on the Occitanic Region Coastline: Problems, Issues and Challenges	GHIOTTI Stephane, CNRS Research Director, UMR AR-DEV, Montpellier
3.00 pm	Coffee Break	

*Session 3. Public Health Communication*  
*Chair by: COOK Alex*

3.20 pm	The Historical Denial of Lead Exposure in France: From Lead Paint to Notre-Dame Fire	RAINHORN Judith, Professor of History at Paris 1- Panthéon Sorbonne
3.50 pm	Crisis and Emergency Risk Communication: A Content Analysis of Government Messaging for Covid-19 in Singapore	HO Shirley, President's Chair Professor of Communication Studies & Associate Vice President (Humanities, Social Sciences, & Research Communication), NTU
	Public Acceptance of Dengue Prevention in the Presence of Secondary Risks	ROSENTHAL Sonny, Associate Professor of Communication at NTU
	Instilling Protection Motivation Against Covid-19 and Dengue	HYE KYUNG Kim, Associate Professor of Communication at NTU
	Communicating Dengue Amidst the Covid-19 Pandemic: A Content Analysis of Facebook Posts	CHUAH Soo Fei Agnes, Senior Research Fellow at NTU
5.00 pm	Ends	

<b>8 December 2023 (Friday)</b> Centre Panthéon, 12 place du Panthéon, Paris		
SPACE Workshop		
9.00 am	<b>Keynote Speech</b>  Global Health and the New World Order: Knowledge, Practices and Politics in International Public Health	GAUDILLIERE Jean-Paul, Historian, Research Director, INSERM, and Professor at EHESS
Session 4. Covid-19 and Mobility Chair by: TELLE Olivier		
10.00 am	The Myth of the Urban Exodus in Paris. What Daily Mobilities in Times of Pandemic?	VACCHIANI Céline, Associate Professor of Geography at University Reims-Champagne/UMR Géographie-Cités
10.30 am	Coffee Break	
10.50 am	Covid-19 and Mobility: Insights from Digital Traces	GAUVIN Laëtitia, Research Director at IRD, UMR PRODIG
11.20 am	Have Urban Mobility Policies been Modified by the Covid-19 Pandemic? The Case of the Paris Metropolitan Area	DEBRIE Jean, Professor of Geography at Université Paris 1 Panthéon-Sorbonne Panthéon-Sorbonne  MAULAT Juliette, Associate Professor of Geography at Université Paris 1 Panthéon-Sorbonne
Session 5. Public Policies, Social Infrastructure, and the Built Environment Chair by: JOYCE Sam Conrad		
11.50 am	Framing “Public Adaptive Capacity” Within the SPACE Project	PEYROUX Elisabeth, CNRS Senior Researcher of Urban Geography at CNRS/UMR PRODIG

12.20 pm	Lunch	
2.00 pm	Exploring Urban and Architectural Features and Disease Transmission	JOYCE Sam Conrad, Associate Professor of Architecture at SUTD
2.30 pm	Living with Mosquitoes in Singapore: Re-Animating the Urban Through and With Ecological Knowledges	WOODS Orlando, Associate Professor of Geography at SMU
3.00 pm	The Relationship Between Policy-Taker Motivations and Responsiveness to Dengue Policy Instruments	MUKHERJEE Ishani, Associate Professor of Public Policy at SMU  GUHA Panchali, Research Fellow at SMU
3.30 pm	Coffee Break	
Session 5. Public Policies, Social Infrastructure, and the Built Environment Chair by: PEYROUX Elisabeth		
3.50 pm	Public/Private Housing Landscapes and Dengue Control in Singapore	AVELINE-DUBACH Natacha, CNRS Research Director  MAHTANI Raksha, Research Associate at CNRS@CREATE  BANERJEE Kamalika, Research Fellow at CNRS@CREATE
4.20 pm	Arboreal Authoritarianism: Reflections and Public Perceptions on Dengue Control and Project Wolbachia in Singapore	MAHTANI Raksha, Research Associate at CNRS@CREATE
4.50 pm	Infrastructure of Responsibility: Politics of Liability in Sanitation Management in Singapore	BANERJEE Kamalika, Research Fellow at CNRS@CREATE  DE BERCEGOL Remi, CNRS Researcher of Urban Geography/PRODIG  LANDY Frédéric, Professor of Geography at University Paris Nanterre/UMR LAVUE
5.20 pm	Conclusion	AVELINE-DUBACH Natacha
5.30 pm	Ends	