

Cécile TRAN KIEM

Infectious disease modeller and genomic epidemiologist

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[Google Scholar](#) | [GitHub](#) | [ORCID](#)

Research positions

- 2026- **Research Fellow**, Imperial College London - London, UK
Department of Infectious Disease Epidemiology, Wellcome Early Career Award
- 2022-2026 **Postdoctoral Research Fellow**, Fred Hutchinson Cancer Center - Seattle, WA, USA
Vaccine and Infectious Disease Division, Bedford Lab, advised by T. Bedford
- 2019-2022 **Graduate Student**, Institut Pasteur - Paris, France
Mathematical Modelling of Infectious Diseases Unit, advised by S. Cauchemez
- 2018 **Research Intern**, Conservatoire National des Arts et Métiers - Paris, France
MESuRS Lab, advised by K. Jean and L. Temime

Education

- 2019-2022 **PhD in Biomathematics and Biostatistics**, Sorbonne Université - Paris, France
- 2018-2019 **MSc in Health Data Analytics**, Imperial College London - London, UK
Distinction
- 2015-2018 **Engineering Degree**, École Polytechnique - Palaiseau, France
Master's level equivalent, biology, mechanics, applied mathematics. Outstanding Investment.

Funding

- 2026-2031 **Wellcome Early Career Award**, Principal Investigator, Wellcome Trust
Novel methods to characterize the determinants of infectious disease transmission from large pathogen sequence datasets, and inform their practical implementation
- 2019-2022 PhD Scholarship, French Ministry for Higher Education and Research

Honors and awards

- 2023 Prix de la chancellerie des universités de Paris – Guy and Suzy Halimi Prize
Doctoral award in epidemiology, infectious disease, cardiology and cancerology
- 2021 Institut Pasteur Young Scientist Award
- 2021 L'Oréal-UNESCO For Women in Science Young Talents Award France
- 2021 Best Poster Award, Doctoral School Pierre Louis de Santé Publique
- 2018 Dean's Master Scholarship, Imperial College London, Faculty of Medicine

Policy and public health impact

Between 2020 and 2022, my COVID-19 modelling work supported pandemic response in France. Led more than 60 reports communicated to French public health and governmental agencies, including the French COVID-19 scientific council, the Prime Minister's office, the Ministry of Health, the Senate, Santé publique France, regional health agencies, the Haute Autorité de Santé (HAS), and the Agence Nationale de la Sécurité du Médicament (ANSM).

Selected contributions

- 2021 **Booster administration.** Compared different booster distribution strategies. This work informed the decision to extend booster eligibility to all adults at the end of 2021, as well as discussions around booster use at the French Ministry of Health and the HAS.
- 2021 **Interventions targeting the unvaccinated population.** Evaluated the contribution of unvaccinated populations to transmission and assessed the potential impact of targeted interventions. These

analyses supported policy discussions at the French Senate and the Prime Minister's office on the implementation of a sanitary pass.

- 2021 **Vaxzevria risk-benefit assessment.** Compared risks and benefits associated with different uses of Vaxzevria (Oxford-AstraZeneca vaccine). These analyses informed recommendations of the HAS and the ANSM regarding the restriction of Vaxzevria use to people aged 55 years and older.
- 2020 **COVID-19 vaccine prioritization.** Compared vaccine prioritization strategies targeting different age and risk groups. Analyses supported recommendations by the HAS on prioritizing doses to older adults and people with multiple comorbidities at the start of 2021.
- 2020 **Healthcare demand planning.** Projected hospital and ICU demand during the first pandemic wave. Analyses supported planning by Santé publique France, the French Ministry of Health and regional health agencies and directly informed inter-regional transfers between more and less affected regions to avoid hospital saturation.

Presentations

Invited presentations (selected)

- 2025 Invited group seminar, Lo Lab, Stanford University - Palo Alto, CA, USA
- 2025 Department of Infectious Disease Epidemiology Seminar Series, Imperial College - London, UK
- 2024 Modelling and inference for pandemic preparedness workshop - Cambridge, UK
- 2023 Guest lecture, MSc in Health Data Analytics and Machine Learning, Imperial College London - online
- 2022 Junior Scientists and New Groups Symposium of Institut Pasteur - Paris, France
- 2021 YoungStats webinar, Recent advances in COVID-19 modelling - online

Contributed presentations (selected)

- 2023 EPIDEMICS⁹ conference - Bologna, Italy
- 2023 MIDAS Network Annual Meeting - Atlanta, GA, USA

Teaching and mentoring

Courses and workshops

- 2020 Course contributor, Université Paris-Saclay
Small Private Online Course - Ecological Transition and Challenges.
- 2019-2022 Teaching Assistant, Faculty of Pharmacy, Université Paris Cité
Biostatistics practicals and tutorials for medical and pharmacy students

Mentoring

- 2025 Lucy O'Brien (Smith College), Summer Undergraduate Research Program, Fred Hutch

Professional service

- 2025 Organizing committee: EPIDEMICS¹⁰ conference
- 2025 Master thesis evaluation: Paul Petit (Bioscience Master, ENS Lyon, advised by Samuel Alizon)
- 2020- Reviewer for BMC Public Health, Cell Host & Microbe, Cell Reports Medicine, EPIDEMICS, Med, Nature Communications, Royal Society Open Science, Statistics in Medicine.