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Born in 1989 in Washington, D.C.

Studied Statistical Epidemiology at the University of Oxford and Harvard University

FELLOWSHIP

College for Life Sciences

ARBEITSVORHABEN

Analytical Framework for Pandemic-Resilient & Sustainable Cities

The COVID-19 pandemic has made visible the deficiencies in how we imagine, plan, and manage our cities and live together in them. Cities became the hotspots of COVID-19 transmission, and incidence variation within cities highlighted social and health inequalities. Also, cities are the main sources of carbon emissions today. On the other hand, cities in all their diversity have become the dominant form of human settlement and are the major driving force behind innovation, social change, and cultural and economic activity. Yet, little is known about which city forms are most resilient to absorbing shocks like those from infectious disease outbreaks and/or epidemics. I propose to build an interdisciplinary research programme at the intersection of pandemic sciences and environmental sustainability. This project aims to develop the backbone theory to enable future city planning to be more adaptive so the cities can be more liveable.

Recommended Reading

Kraemer, Moritz U. G., Robert C. Reiner Jr., Oliver J. Brady, Jane P. Messina, Marius Gilbert, David M. Pigott, Dingdong Yi, et al. (2019). "Past and Future Spread of the Arbovirus Vectors *Aedes aegypti* and *Aedes albopictus*." *Nature Microbiology* 4: 854–863. <https://doi.org/10.1038/s41564-019-0376-y>.

Kraemer, Moritz U. G., Chia-Hung Yang, Bernardo Gutierrez, Chieh-Hsi Wu, Brennan Klein, David M. Pigott, Open COVID-19 Data Working Group, et al. (2020). "The Effect of Human Mobility and Control Measures on the COVID-19 Epidemic in China." *Science* 368: 493–497. <https://doi.org/10.1126/science.abb4218>.

Kraemer, Moritz U. G., Verity Hill, Christopher Ruis, Simon Dellicour, Sumali Bajaj, John McCrone, Guy Baele, et al. (2021). "Spatiotemporal Invasion Dynamics of SARS-CoV-2 Lineage B.1.1.7 Emergence." *Science* 373: 889–895. <https://doi.org/10.1126/science.abj0113>.

Kraemer, Moritz (Washington, DC [u.a.],2021)

Spatiotemporal invasion dynamics of SARS-CoV-2 lineage B.1.1.7 emergence

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=181311014X>

Kraemer, Moritz (Washington, DC [u.a.],2020)

The effect of human mobility and control measures on the COVID-19 epidemic in China

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1813108390>

Kraemer, Moritz (London,2019)

Past and future spread of the arbovirus vectors *Aedes aegypti* and *Aedes albopictus*

<https://kxp.k10plus.de/DB=9.663/PPNSET?PPN=1813106509>