
PUBLICATIONS AND/OR PATENTS

Patents:

- Chattopadhyay, I. (2022). “Methods and systems for genomic based prediction of virus mutation” (Patent No. WO2022108965A1). World Intellectual Property Organization. URL: <https://patents.google.com/patent/WO2022108965A1>

TABLE 2
Pending Patent on Core Algorithm

Title	METHOD OF CREATING ZERO-BURDEN DIGITAL BIOMARKERS FOR DISORDERS AND EXPLOITING CO-MORBIDITY PATTERNS TO DRIVE EARLY INTERVENTION
Patent Application Type	International
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Applicant	The University of Chicago
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WIPO IP Portal Link	https://patentscope.wipo.int/search/en/detail.jsf?docId=WO2021061702
IP Filing Plans	File non-provisional patent application in the United States and foreign jurisdictions by nationalization date 03/23/2022

Publications:

- Huang, Yi, and Ishanu Chattopadhyay. “Universal risk phenotype of US counties for flu-like transmission to improve county-specific COVID-19 incidence forecasts.” PLoS computational biology 17, no. 10 (2021): e1009363.
- Dhanoa, J., Manicassamy, B. and Chattopadhyay, I., 2018. “Algorithmic Bio-surveillance For Precise Spatio-temporal Prediction of Zoonotic Emergence.” arXiv preprint arXiv:1801.07807.
- Chattopadhyay, Ishanu, Emre Kiciman, Joshua W. Elliott, Jeffrey L. Shaman, and Andrey Rzhetsky. “Conjunction of factors triggering waves of seasonal influenza.” Elife 7 (2018): e30756.
- Li, Jin, Timmy Li, and Ishanu Chattopadhyay. “Preparing For the Next Pandemic: Learning Wild Mutational Patterns At Scale For For Analyzing Sequence Divergence In Novel Pathogens.” medRxiv (2020): 2020-07.
- Chattopadhyay, Ishanu, Kevin Wu, Jin Li, and Aaron Esser-Kahn. “Emergenet: Fast Scalable Pandemic Risk Assessment of Influenza A Strains Circulating In Non-human Hosts.” (2022).