

Facilitating the systematic genomic surveillance of malaria via a global network of travel clinics

GOALS AND OBJECTIVES

We aim to provide **actionable data** that is **complementary** to existing efforts and that can serve further **research**, inform **case management**, prioritise **efficacy studies**, and aid in **surveillance** and **control efforts**.

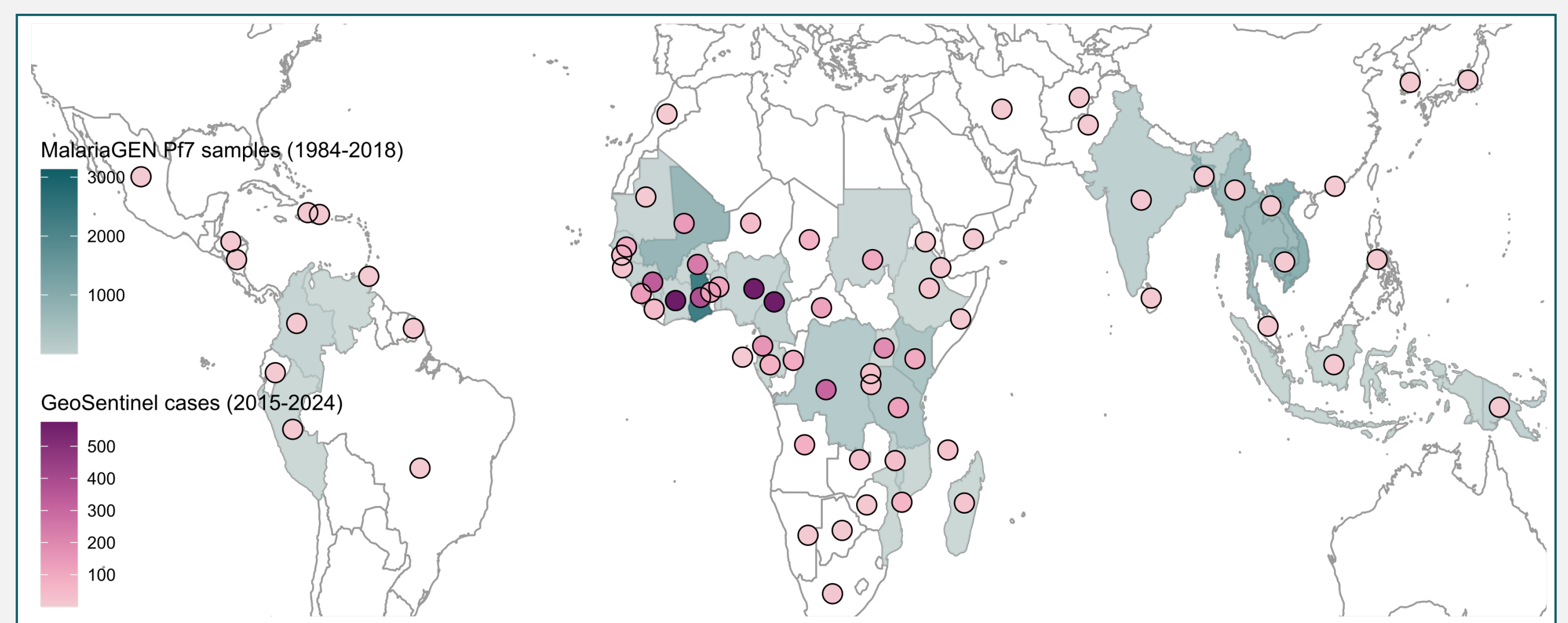
Build a **FAIR** and **frequently updated data platform** for the genomic epidemiology of travel-related cases.

Identify known and novel **markers of drug and diagnostic resistance**.

Investigate potential **drivers of treatment failure** among travelers.

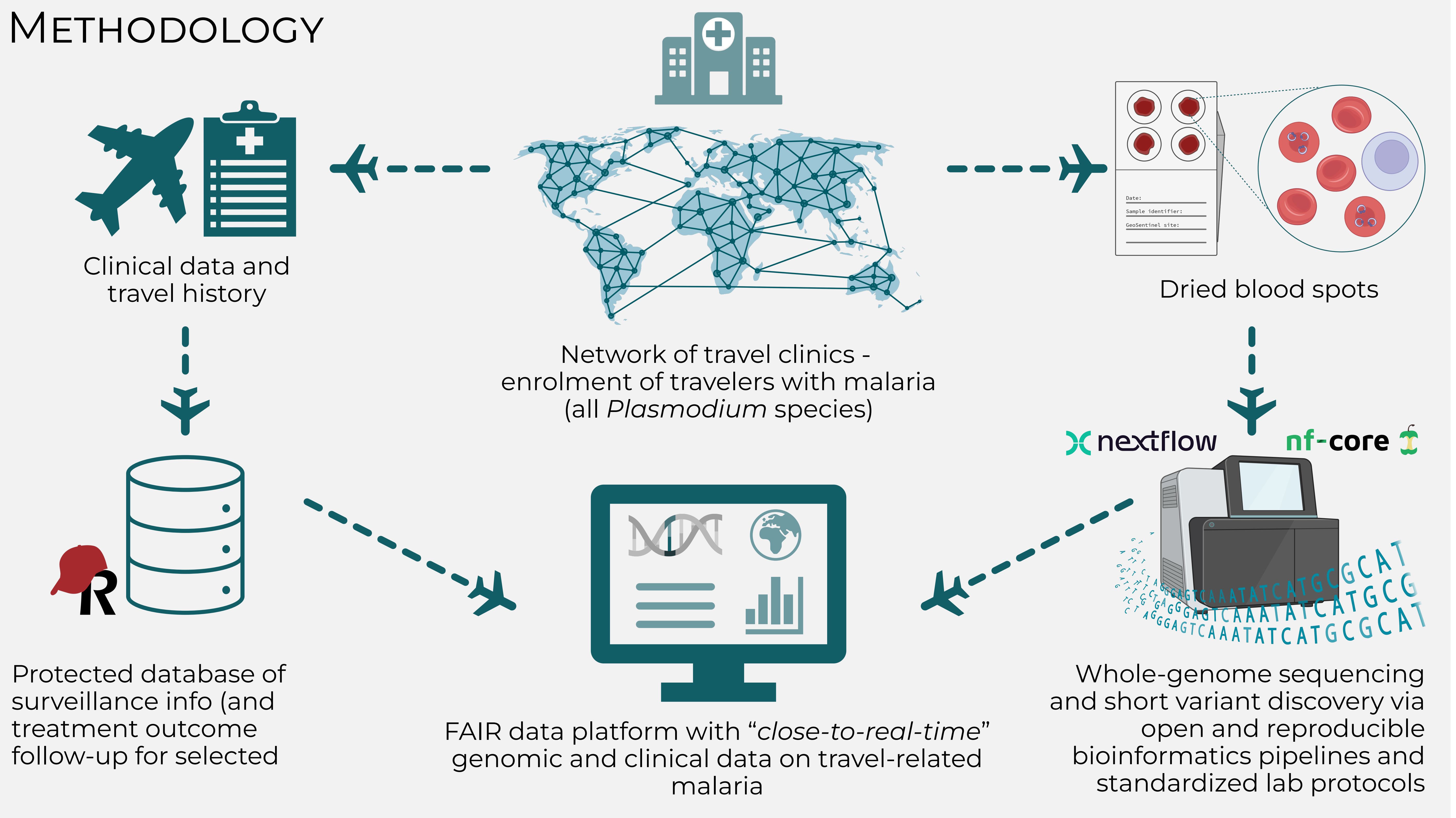
Build machine learning tools to **predict parasite geographic origin**.

TRAVELERS HARBOUR AN UNTAPPED SOURCE OF GENOMIC PARASITE DATA



Overview of distribution of *P. falciparum* samples in MalariaGEN's Pf7 genomic database (>16,000 samples between 1984-2018) and travel-related malaria cases reported by the network of GeoSentinel sites (>5,000 cases between 2015-2024).

METHODOLOGY



WHY DOES IT MATTER?



Increased **temporal** and **geographical** resolution



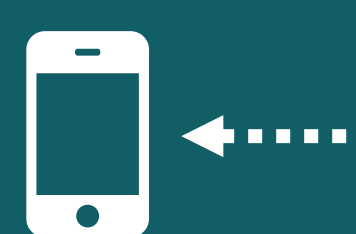
Prioritise **therapeutic efficacy studies** and inform **clinical practice**



Trace cases of **airport malaria** and contribute to **outbreak preparedness**



Identify drivers of **treatment failure**



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(Some) figures created with BioRender.com.

² GeoSentinel



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