



# Feasibility Study: LLISN – Loma Linda International Surveillance Network

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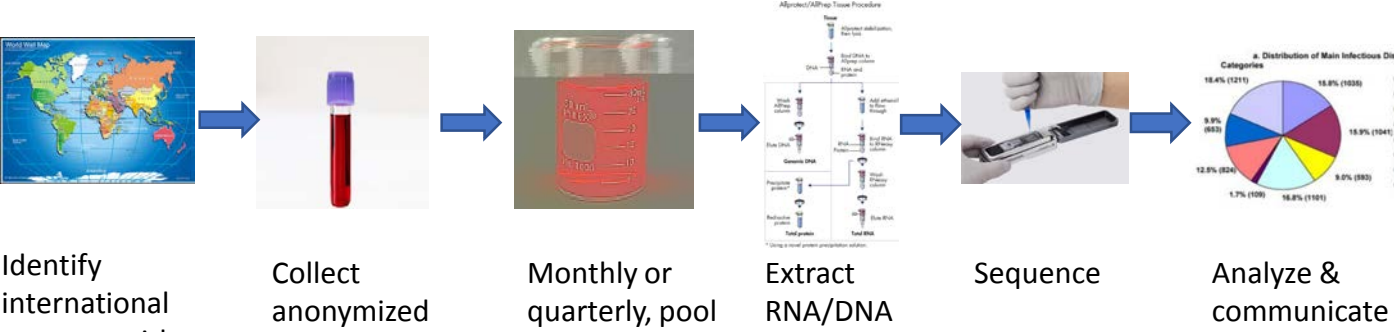
**Background:** Loma Linda University (LLU) is associated with educational and medical institutions in over 200 countries. This uniquely positions it to serve as a hub for a global surveillance network for pathogens as they appear in the human population seeking healthcare.

**Purpose:** To assess the feasibility of the Loma Linda International Surveillance Network – LLISN. For LLISH, three goals will be pursued. 1) To improve global surveillance and understanding of the pathogen population at the point at which humans seek health care; 2) To enhance infrastructure and expertise in our partners, and 3) To improve bioinformatics training at LLU

**Methods:** Interview potential stakeholders at LLU and potential partners. Assess options for collection, extraction, sequencing and analysis.

**Results:** High enthusiasm, support and advice were received from stakeholders. Next steps have been identified, including a potential internal funding source for pilot.

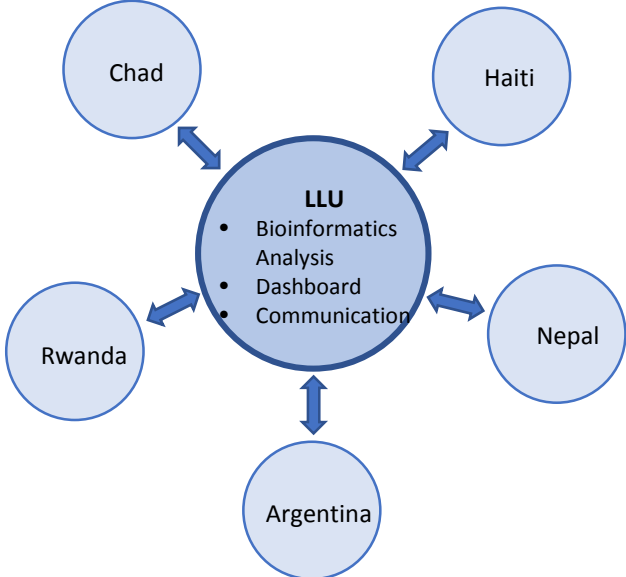
## Overall Approach:



## Anticipated Outcomes:

Our primary outcome will be a better understanding of pathogen emergence, transmission and cycles, enabling us to answer questions such as “How fast does a particular pathogen move from one global region to another?”, “Is there a seasonality to this particular pathogen?” and “Is the emergence of any novel flaviviruses suggested?” This enhanced understanding will then inform and improve prevention and mitigation strategies. Additional anticipated outcomes include infrastructure development for our partners, enhanced training opportunities at LLU, new external funding for LLU, and increased status and impact.

## Information Flow:



Identify international partners with capacity and interest

Collect anonymized blood samples (perhaps 1/100 drawn)

Monthly or quarterly, pool the samples

Extract RNA/DNA

Sequence

Analyze & communicate



**Innovation:** We believe this project uniquely combines:

- True, scalable and flexible global reach
- Species-agnostic detection and quantitation
- Focus on the point at which humans seek healthcare

## Discussion, Conclusions and Next Steps:

Results from the Feasibility Study are positive and encouraging. We will move ahead with the two next immediate steps:

- Finalize initial partners
- Apply for pilot funding