**Project Narrative**

**INSTRUCTIONS:**

*Instructions are taken directly from the* [*NIH SF424 Application Guide*](https://grants.nih.gov/grants/how-to-apply-application-guide/forms-d/general-forms-d.pdf)*. For internal use only, do not distribute. Please delete prior to submission.*

**Format:** Max 3 sentences in length, 11pt font or larger (suggest fonts - Arial, Garamond, Georgia, Helvetica, Palatino Linotype, Times New Roman, Verdana), at least 0.5” margins, single column formats are highly encouraged. Attach this information as a PDF file.

**Content:** Describe the relevance of this research to public health in, at most, three sentences. For example, NIH applicants can describe how, in the short or long term, the research would contribute to fundamental knowledge about the nature and behavior of living systems and/or the application of that knowledge to enhance health, lengthen life, and reduce illness and disability. If the application is funded, this public health relevance statement will be combined with the project summary and will become public information.

This project proposes the development of an integrative real-time surveillance platform of dengue in Honduras. This platform will be composed by several systems that will combine laboratory diagnostics results and patient data digitized at the point of care (*DengueData*) with mobile app-based participatory syndromic surveillance data from the general population (*DengueDoctor*). It will also provide visualizations and reports of diagnostic performance indicators (*DengueVis*) and alerts to Community Health Workers on severe dengue cases reported through the mobile app (*DengueAlert*). This system will be initially deployed at the University Teaching Hospital in Tegucigalpa. The goals of this data integration are manyfold: first, and most generally, to improve the management and quality of dengue data; second, to evaluate the performance of novel rapid diagnostic tests against the PCR “gold standard”; third, to reduce both clinical misdiagnoses and false positives in rapid diagnostic tests; and fourth, to derive predictive models from the data that would allow forecasting disease spread at the regional and country levels in order to better inform public health interventions.