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## Hybrid BSC RS/ ES Infodengue: a platform for monitoring the transmission of climate-sensitive diseases

## **Objectives**

Abstract: Dengue and other vector-borne diseases are modulated by environmental, demographic, and biological factors resulting in complex temporal and spatial patterns. The distribution of these diseases are expanding to higher latitudes and altitudes due to climate change, urbanization and other environmental changes. The goal of a precise surveillance is to detect as early as possible the occurrence of outbreaks both in endemic areas and in new regions. Traditional monitoring systems based on case notification present loss of opportunity due to reporting delays. Infodengue is a tool developed by a consortium of researchers and health professionals to provide early warnings for dengue and other urban arbovirus diseases in Brazil. Combination of different sources of meteorological, social and epidemiological data feed a pipeline of models that results in indicators of receptivity, transmission and outbreak. It currently provides weekly reports for 5300 municipalities in Brazil and has developed a large community of practice. In collaboration with BSC Global Health Resilience Team leader, Rachel Lowe, we are developing solutions based on climate data for expanding the temporal and spatial scales of Infodengue forecasts and extend the tool to be used in other countries.



Short bio: Claudia Codeço, PhD in Quantitative Biology,

is an associate researcher at Fiocruz, a Public Health Research Institution in Brazil, and leader of the Infodengue initiative. She develops research in epidemiology of transmissible diseases, mainly climate-sensitive diseases such as vector-borne, respiratory and water-borne diseases. She has experience in mathematical modeling and design of field studies, as well as developing analytical methods for disease surveillance. She is professor at the Epidemiology in Public Health and the Tropical Medicine Programs at Fiocruz and advisor to the Brazilian Ministry of Health.

## **Speakers**

Speaker: Claudia Codeço, Quantitative Biology PhD and Associate Researcher at Fiocruz, Brazil.

**Host:** Rachel Lowe, ICREA Research Professor and Global Health Resilience Team Leader, Earth Sciences Department.

Barcelona Supercomputing Center - Centro Nacional de Supercomputación

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