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## Pilot prospective multicentric case control study of severe pneumonia in children under five years of age

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Pneumonia is one of the leading causes of child mortality in developing countries accounting for an estimated 2 million deaths annually. Pneumonia can have a viral or bacterial origin; however, the etiological cause of pneumonia is difficult to diagnose. Since 2008, the Emerging Pathogens Laboratory of the Fondation Mérieux has been conducting a research program on the development of sensitive molecular assays for the identification, the typing, and the characterization of pathogens responsible for pneumonia. The principal objective of the pilot multicentric study is to identify the viral and bacterial agents associated with severe pneumonia in hospitalized children less than five years of age in developing countries and to determine the etiological distribution and involvement in the onset of pneumonia. The secondary objectives are: To study the co-infection viral/bacterial co-infection and if it constitutes a risk factor in the severity of the disease; To establish a correlation between the type of pathogens identified (bacterial or viral) and the biomarkers: C reactive protein (CRP) and Procalcitonin (PCT); and To identify the serotypes of *Streptococcus pneumoniae* in nasopharyngeal and blood samples. This is a 12 months pilot prospective multicentric case-control study carried out in 9 countries: Brazil, Cambodia, China, Haiti, Lebanon, Madagascar, Mali, Mongolia, Paraguay; one participant center per country. Total study sample size is of 900 cases and 900 controls; respectively of 100 cases and 100 controls from each participant country. The study start in 2010 and the relevance and impact of this study will be presented before or after pneumococcal vaccine introduction programs.

### Biography

Gláucia Paranhos-Baccalà is the Research Director at the Emerging Pathogens Laboratory (LPE) in Lyon of Fondation Mérieux. Gláucia Paranhos-Baccalà has completed his Ph.D at the age of 26 years from São Paulo University in Brazil and postdoctoral studies from Pasteur Institute in Paris. She worked as Assistant Professor at the Medicine School, Sao Paulo University, Brazil for the Tropical Medicine Department. She joined bioMérieux in 1990. She has published more than 60 papers in reputed journals and serving as an editorial board member of repute. Dr. Paranhos-Baccalà's research interests centered on molecular and cellular biology and on biochemistry of proteins to create tools for diagnostic and therapeutic approaches.