



**Politecnico
di Torino**

Dipartimento di Scienze
Matematiche "G. L. Lagrange"



When: Tuesday **June 28th, 2022** at **5PM**
Where: **Aula Buzano** (also streamed on: **Zoom**)

COLLOQUIUM

Prof. **Ira LONGINI**

Department of Biostatistics, University of Florida

The design and analysis of vaccine trials for emerging infectious disease threats; from Ebola to COVID 19, and now monkeypox

Abstract. It is important to find vaccines and therapeutics for global infectious disease threats as rapidly as possible. The vaccine trial design should be randomized and adaptive to account for initially sporadic transmission of the emerging infectious disease. This design has been used to find a successful Ebola vaccine, and is now in the field to find more COVID-19 vaccines. Future vaccine trials will be for monkeypox, chikungunya, Zika and other infectious disease threats.

In this talk, I will describe the statistical and operational components of a cluster randomized vaccine trial to find an emergency Ebola vaccine. I will describe the design and application of methods for Ebola transmission in Guinea, in terms of the statistical operating characteristics of the trial and analysis.

Bio. Prof. Ira Longini received his Ph.D. in Biometry and Biomathematics at the University of Minnesota in 1977. He began his career with the International Center for Medical Research and Training and the Universidad del Valle in Cali, Colombia, where he worked on tropical infectious disease problems and taught courses in biomathematics. Following that he was a professor of biostatistics at the University of Michigan, Emory University, and the University of Washington. In 2014 he became a professor of biostatistics at the University of Florida and Co-Director of the Center for Statistical and Quantitative Infectious Diseases (CSQUID), the Emerging Pathogens Institute, at the University of Florida. He is also a consultant to the World Health Organization in Geneva. Prof. Longini has won a number of awards for excellence in research, including the Howard M. Temin Award in Epidemiology for "Scientific Excellence in the Fight against HIV/AIDS", two CDC Statistical Science Awards for both "Best Theoretical and Applied Papers", and the CDC James H. Nakano Citation "for an outstanding scientific publications".