

## **FIGHTING NEGLECTED TROPICAL DISEASES IN THE NEW MILLENNIUM TITLE IN CAPITAL LETTERS ARIAL 12**

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Approximately 10 percent of the world's population, or about 700 million people, live below the World Bank poverty line of \$1.90 per day. Almost all of these individuals living in extreme poverty are infected with at least one neglected tropical disease (NTD). In the Latin American and Caribbean (LAC) region, the most common NTDs are the helminth infections (led by soil-transmitted helminth infections and schistosomiasis) and vector-borne diseases (led by arbovirus infections, Chagas disease, leishmaniasis, and vivax malaria). A global program is in place in conjunction with the WHO to implement mass drug administration in areas widely affected by NTDs, but modern 21st century forces are resulting in the emergence of additional NTDs. Among those forces is political instability and conflict, especially in Venezuela and surround nations, the Middle East, and Democratic Republic of Congo to name a few. Climate change is promoting NTDs emergence in Southern Europe and the Americas, while urbanization is a new factor driving helminth infections and vector-borne NTDs. Finally shifting poverty known as "blue marble health" is promoting pockets of disease and poverty among the poor living in wealthy countries, including the US and the three largest LAC economies – Argentina, Brazil, and Mexico. There is also an urgent need for new NTD technologies. In the area of vaccines, our National School of Tropical Medicine and Texas Children's Hospital CVD is developing next generation NTD vaccines, with two currently in clinical trials for hookworm and schistosomiasis, and a third for Chagas disease scheduled to begin phase 1 trials.