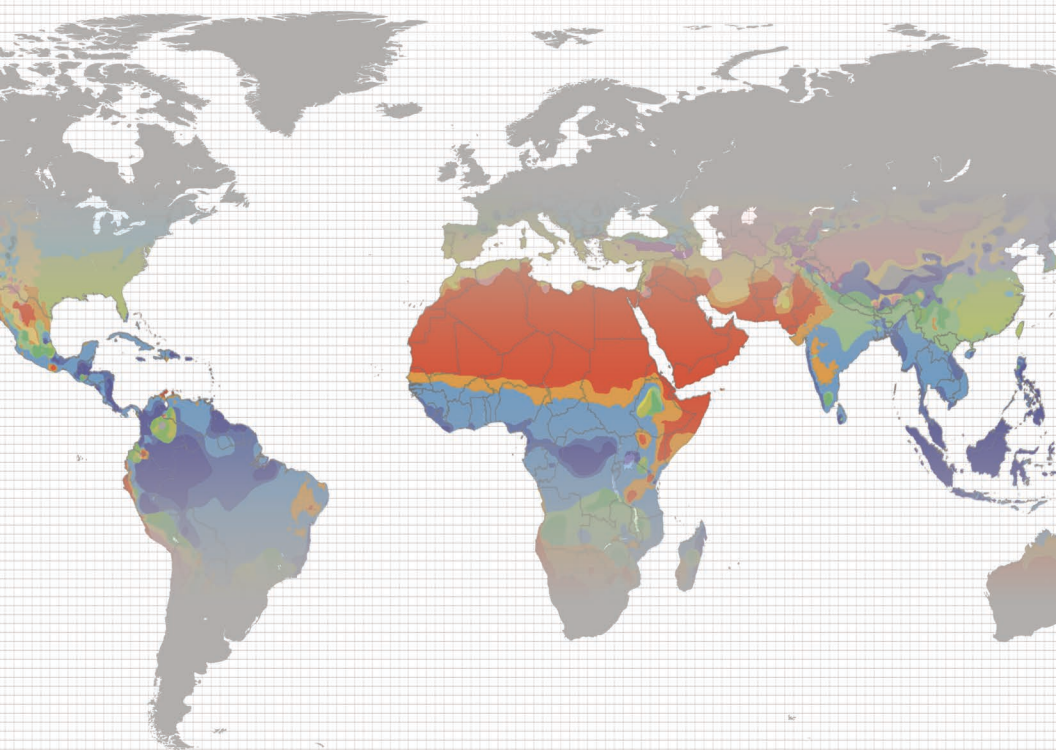


The World's First Modular

Naturally *Ventilated* Laboratory

Now Testing in Ormond Beach, Florida, USA



University of
**Central
Florida**





1/3 of the world's population is infected with Tuberculosis


which is considered the world's most serious public health concern. In 2014, 9.6 million people globally became infected with TB with an estimated 1.5 million TB-related deaths, 360,000 of whom were HIV-positive.

According to the World Health Organization (WHO) publication "Natural Ventilation for Infection Control in Health-Care Settings" 2009:

"There is a need to develop effective and appropriate engineering technologies and innovative architectural features to maximize the use of natural ventilation for different climatic conditions worldwide."

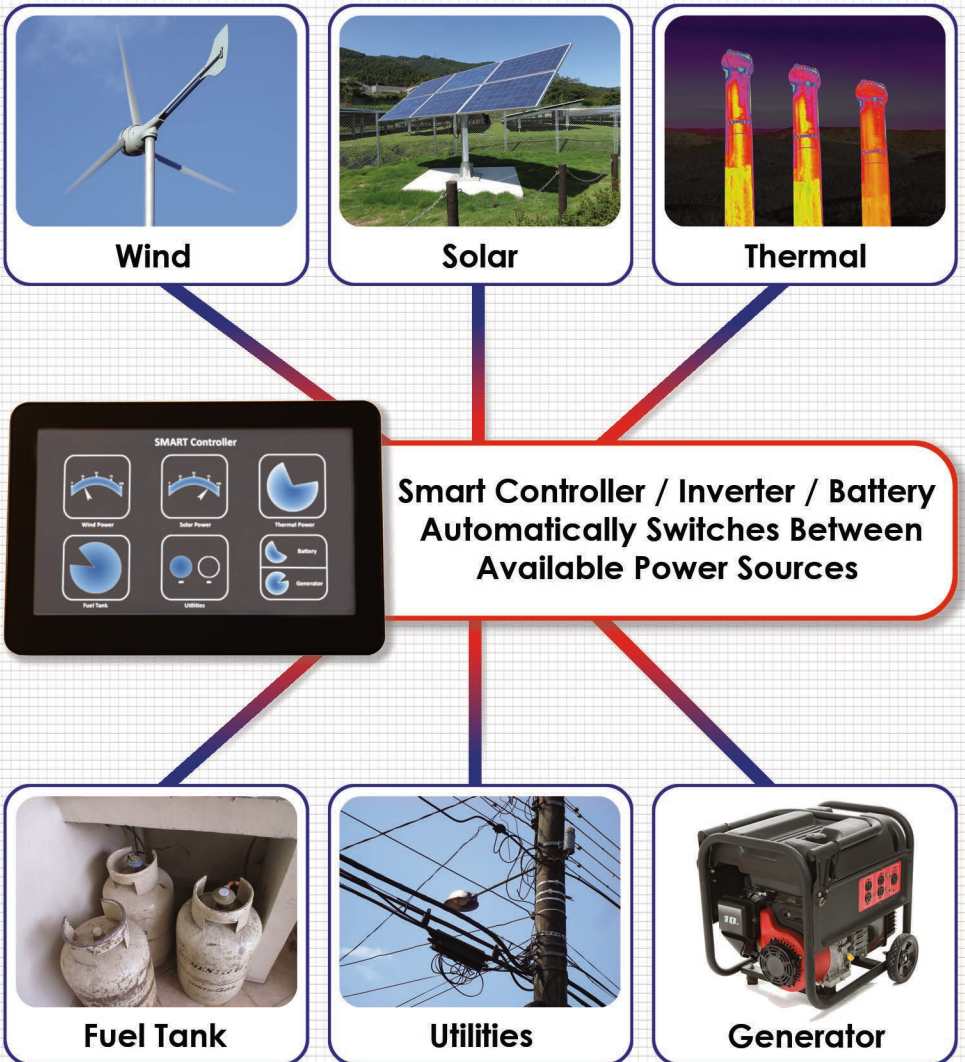


Testing on the Naturally Ventilated Laboratory is currently underway at Germfree Laboratories, Inc. in Ormond Beach, Florida, USA.



Operating and maintaining a laboratory in low-resource settings presents a wide range of problems. Foremost among these is providing low-cost, uninterrupted ventilation to the facility.

The Naturally Ventilated Laboratory utilizes smart stacks and smart controller technology to maintain ventilation by prioritizing environmental power sources (wind, solar, thermal) and seamlessly switching to traditional sources (fuel, utilities, generator, battery) when natural power is not available.



Laboratory Design

Laboratory Ventilation:

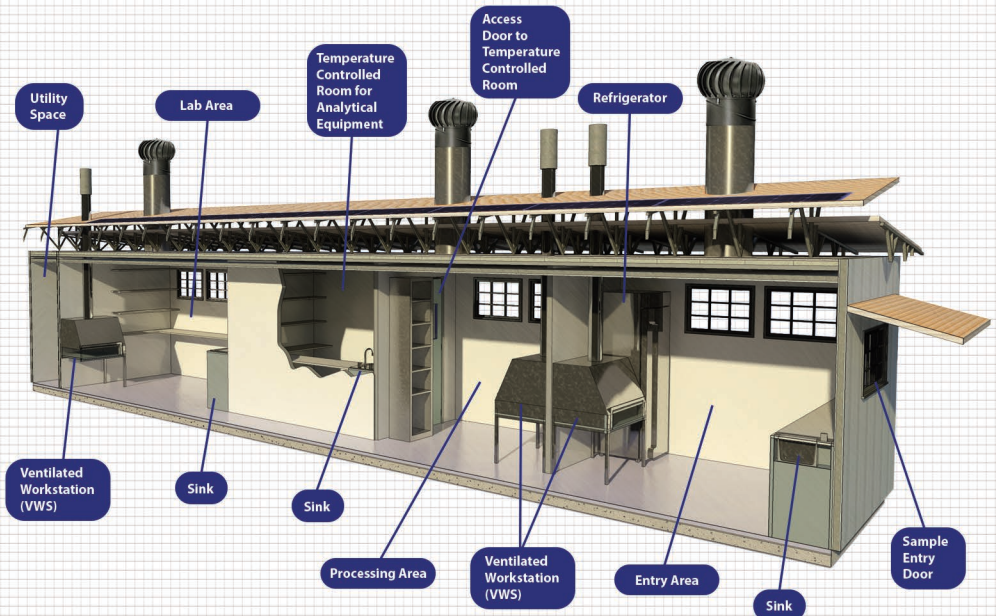
Primary Containment / Ventilation:

- Three (3) Ventilated Workstations (VWS) equipped with smart stacks and smart controller technology to ensure constant ventilation during changing environmental conditions.

Secondary Laboratory Ventilation:

- 24" (609mm) Smart Stack painted black with Turbine Ventilator. One exhaust stack provided for each laboratory space.
- Solar Chimney Plenum to line the length of the laboratory for additional ventilation.
- 10% open area for inward air flow. This is accomplished through purpose built windows, door spaces and controlled areas.

Laboratory Work Flow Layout:



For more information contact Germfree Laboratories, Inc.
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