UVM Vaccine Testing Center Hosts first Symposium on Rotavirus Human Immunology



On May 15-16, 2017, the University of Vermont's Vaccine Testing Center hosted fifteen of the world's leading Rotavirus researchers at their *Symposium on Rotavirus Human Immunology: Advancing Science, Decreasing Disease*. These scientists joined investigators from the Vaccine Testing Center to tackle major outstanding scientific issues needed for the control of disease burden from Rotavirus diarrhea, the leading cause of child death due to severe diarrhea.

Before the advent of rotavirus vaccination approximately ten years ago, almost 600,000 child deaths occurred annually due to rotavirus throughout the world; most in infants under the age of one year. Despite the use and success of oral rotavirus vaccines which are >95% efficacious in high income countries, these vaccines are markedly less effective (about 50% effective) in low income countries. In addition, an improved immune marker which can correlate with vaccine-induced protection or identify children at risk of disease, is needed.

Symposium participants met to share their research and experiences toward understanding and improving vaccine performance and the development of new immunology assays to be used as a correlate of protection or risk. Scientists representing The Bill & Melinda Gates Foundation, the non-governmental organization PATH, and the U.S. Centers for Disease Control and Prevention were in attendance. In addition, eleven U.S. and international academic institutions were represented, including those from Columbia (Pontificia Universidad Javeriana, Dr. Manuel Franco Cortes), India (Christian Medical College, Dr. Gagandeep Kang), and Bangladesh (icddr,b; Dr. Rashidul Haque).

The Vaccine Testing Center (VTC), which received funding in 2015 from the Bill & Melinda Gates Foundation to explore rotavirus vaccine underperformance and define correlates of protection, organized the symposium. Faculty and staff from the VTC hosted and presented their research, including Beth Kirkpatrick, MD and Sean Diehl, PhD (Medicine); Benjamin Lee, PhD (Pediatrics); and graduate student E. Ross Colgate (Medicine and CTS program).