CRL 1505 Vs. Virus

Probiotics have been shown to effectively reduce the incidence of respiratory tract infections (RTIs). In particular, the strain Lactobacillus rhamnosus CRL 1505 has demonstrated an important capacity to keep RTIs at bay.

Clinical evidence:
A randomized, double-blind, placebo-controlled trial with 298 pre-school children (2-5 years old) that consumed either yogurt containing CRL 1505 (>108 cfu/day) or a placebo yogurt 5 days/week for 6 months showed [1]:

- Lower use of antibiotics
- A significantly reduced number of infections in children consuming the probiotic-containing yogurt. In particular, it lowered the incidence of:
  * upper respiratory tract infection
  * pharyngitis and tonsillitis
  * acute diarrhea

In vivo, preclinical evidence
- CRL 1505 led to an earlier immune response and reduced lung damage when nasal challenges with different types of virus were performed [2-3].
- CRL 1505 heightened infection resistance to the airway pathogen Streptococcus pneumoniae serotype 14, mice models [4-5]
- Heat-inactivated CRL 1505 when administered intranasally has similar benefits to those observed when the live probiotic is administered [6].

Mechanisms of action
The mechanisms of action of CRL 1505 have been unveiled in a series of in vivo models, and include increased basal levels of interferon gamma (IFN-γ) in the host, a key activator of the innate and adaptive immune system, and of the anti-inflammatory cytokine interleukin 10 (IL-10) [4]. These modulations allow the priming of the immune system to tackle RTIs through an overall stimulation of the immune system, intra and extra-intestinally [4].