

# Inhibitors for RSV Infection

**R**esearchers at the University of South Florida have developed a method for treating or reducing the likelihood of developing a respiratory syncytial virus (RSV) infection.

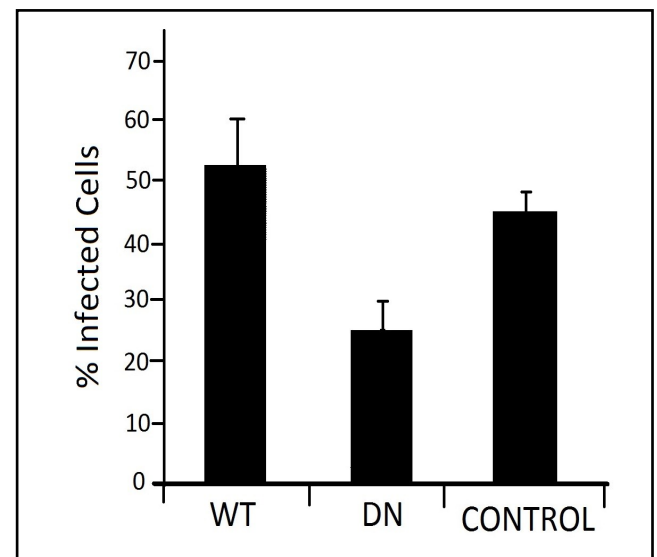
Respiratory syncytial virus (RSV) is a respiratory pathogen that produces annual epidemics of respiratory illness primarily in infants, but also in adults. The cells on the surface of the skin are the main targets of RSV infection. RSV causes bronchiolitis and exacerbates asthma and may also lead to life-threatening respiratory conditions resulting in prolonged hospitalization and death in high-risk individuals. The molecular pathology of RSV infection, specifically the early events of virus–host interaction, are poorly understood. This highlights a need for greater understanding and an effective treatment for RSV infection.

Our researchers have developed a novel method for treating RSV infection using inhibitors of signal transducers and activators of transcription (STAT) or the extracellular signal-regulated kinase (ERK1/2) signaling pathway. Treatment with STAT results in altered expression of genes involved in RSV pathology. Administering an effective amount of inhibitors of STAT or ERK is an effective method for the treatment of inflammation as well as the infection in patients afflicted with RSV.

### ADVANTAGES:

- Beneficial during annual epidemics
- Treats inflammation as well as infection

### *Method for Treating RSV Infection Using STAT Inhibitors and ERK Inhibitors*



*RSV Infected Cells Decreases >60% with ERK Inhibitors (DN) Compared to STAT Inhibitors (WT) and Control*