# Recombinant RSV antigens

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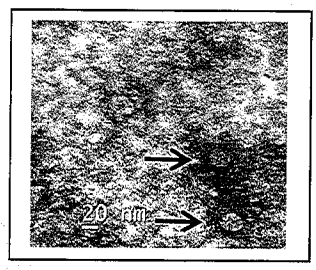


## Experience:

https://www.ntuh.gov.tw/Ped/peo/DocLib6/%E9%BB%83%E7%AB%8B%E6%B0%91.aspx

## Market Needs:

Respiratory syncytial virus (RSV) has been recognized as the most common cause of lower respiratory tract infections in infants and young children. According to the report from WHO, RSV is responsible for an estimated 199,000 deaths annually worldwide. RSV can also infect and cause diseases in people of all ages, most severely in the elderly and in immuno-compromised individuals. There is still no licensed vaccine against RSV infections.

## Our Technology:

To get a better understanding of the RSV F-associated antibody responses induced after vaccination against RSV, we constructed recombinant HRØ24 carrying antigenic site Ø, site II (A1) and site IV (A2) of RSV F protein inserted between HRN and HRC regions to mimic the natural trimeric conformation of RSV F protein. Humoral immunologic responses against HRØ24, FIRSV, sites Ø, II, and IV as well as protective efficacy of these recombinant HRØ24 were evaluated in mice. Using this approach, we demonstrated the characteristics of the immune response and the mechanisms of protection.

## Strength:

The majority of RSV vaccine strategies involve induction of antibodies to the RSV F glycoprotein. The vaccine design of most competitors targets on full length of RSV F protein (~63.5 kDa) but ours targets on shorter version of RSV F protein (~17.9 kDa).

## Competing Products:

Live attenuated approaches have been in development for decades by NIAID and/or MedImmune, and until recently were the only candidates in clinical testing (Ph1 and Ph2). While the majority are still at the preclinical stage, 4 of these newer candidates have now entered clinical development – Novavax (Ph3, but recent news indicating failure), GSK (Ph1), and MedImmune (Ph1) testing RSV F protein-based candidates and GSK (Ph1, 2013 acquisition of Okairos) testing an Adenovirus/MVA prime/boost candidate expressing RSV F, and a N and M2-1 fusion protein.

## Intellectual Properties:

The technology is not yet submitted for any patent application.

## Contact (do not need to fill out):

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