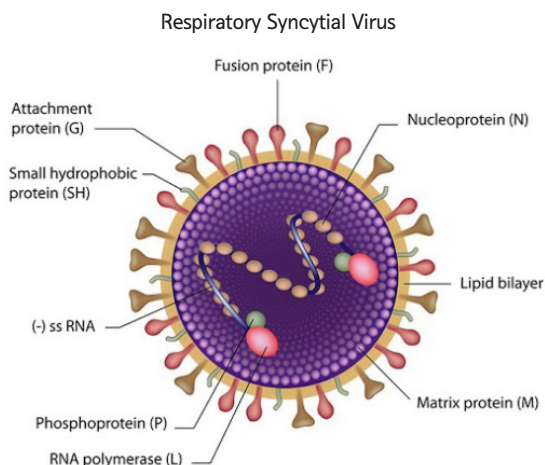
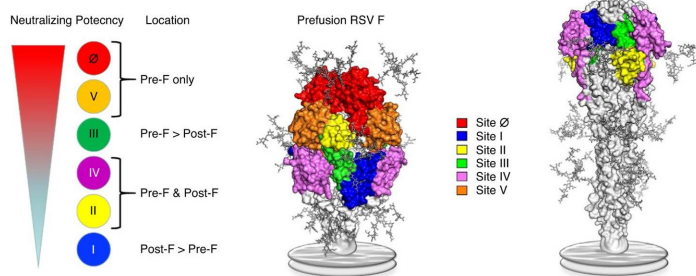


Respiratory Syncytial Virus & Pre F- protein

RSV infection causes bronchitis and pneumonia in infants, the elderly, and immunocompromised patients, and is a great threat to neonatal rooms and postpartum care centers, since they are easily transmitted by contact and respiratory droplets.



Target antigen : prefusion F



Respiratory Syncytial Virus Infection



Mere than
2,1 million

Pediatric Outpatient visits annually in the US

As many as
200,000

Infant deaths globally per year

An estimated
2-3%

Of all infants < age 2 are hospitalised with RSV



RSV accounts for up to
14,000

Deaths in people > 65 years in the US every year

As estimated
175,000

hospitalisations due to RSV in the early annually in the US

In the elderly there are as many as
2 million

Consultation with physicians in the US every year due to RSV infection



RSV is the leading cause of severe infection in severely immunocompromised patients, with mortality rates as high as

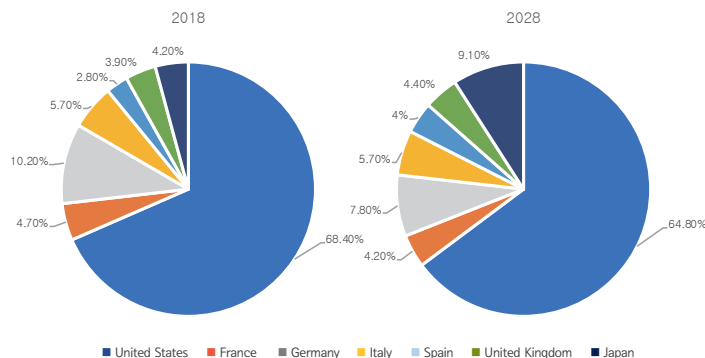
80%

"RSV infection in children, the immunocompromised and the elderly causes serious disease and there is a significant unmet medical need for treatment."

John DeVincenzo, MD, Professor of Pediatrics and Professor of Microbiology, Immunology, and Biochemistry, University of Tennessee School of Medicine

Estimated Market

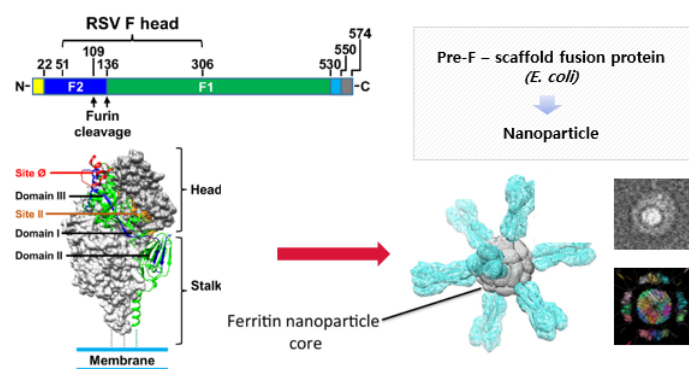
RSV : Opportunity Analysis and Forecasts to 2028 (Globaldata, July, 2019)



- The size of the RSV vaccine and treatment market is expected to grow from **\$418.6mn in 2018 to \$5.39bn in 2028 at a CAGR of 29.1%**.
- Currently, Synagis of AstraZeneca/AbbVie is a Mab drug licensed for the prevention of RSV infection in infants, but it is used only for urgent infants due to limited application at a very high price.

Nanoparticle RSV Vaccine

We develop Nanoparticle RSV vaccine based on the fusion of Stable pre-F protein and scaffold protein produced in *E. coli*.



Patent

Classify	Patent name	Number	Date
Domestic application	A Method for enhancing soluble expression of target proteins by using fusion protein of WHEP domain	10-2019-0171057	2019.12.19