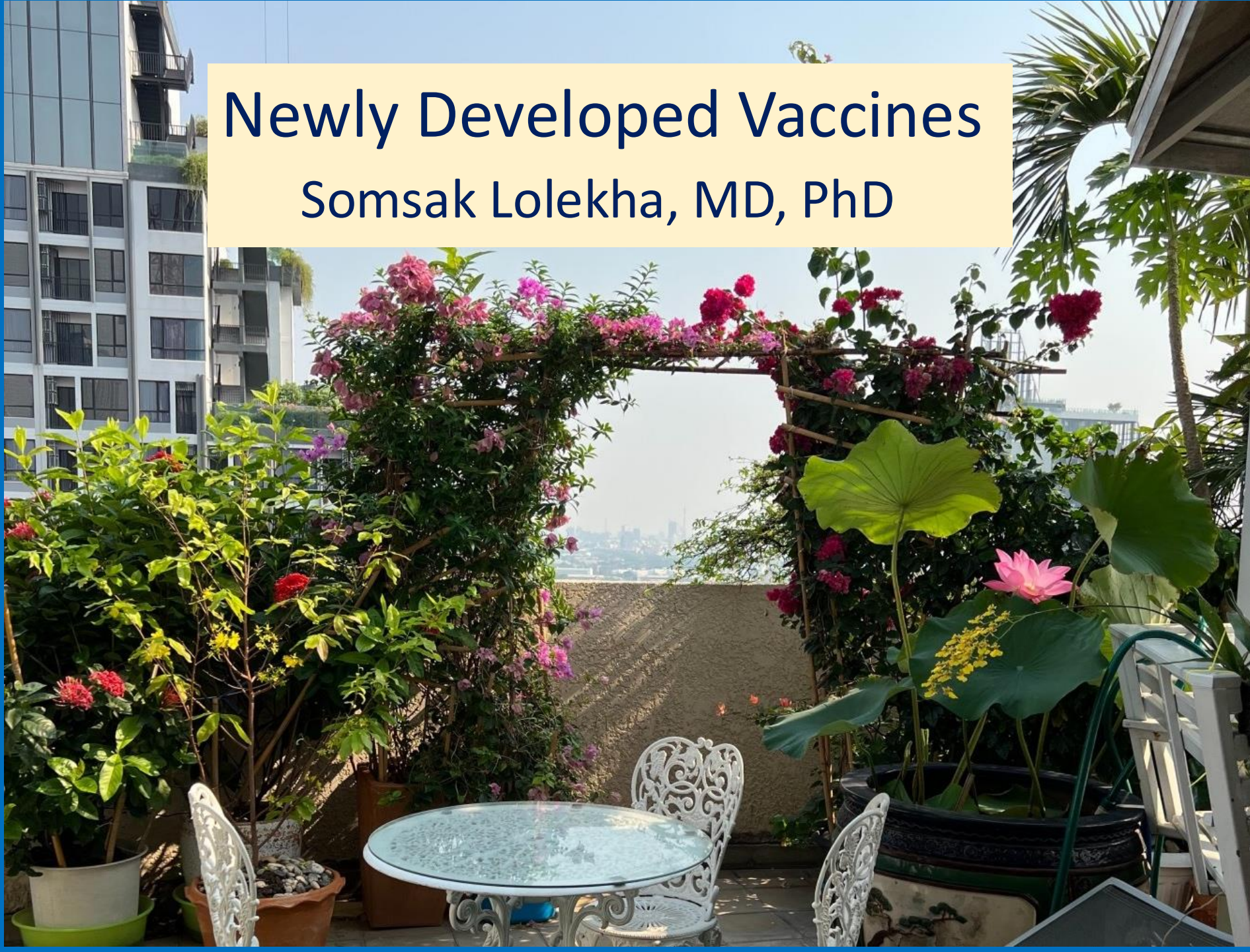


Newly Developed Vaccines

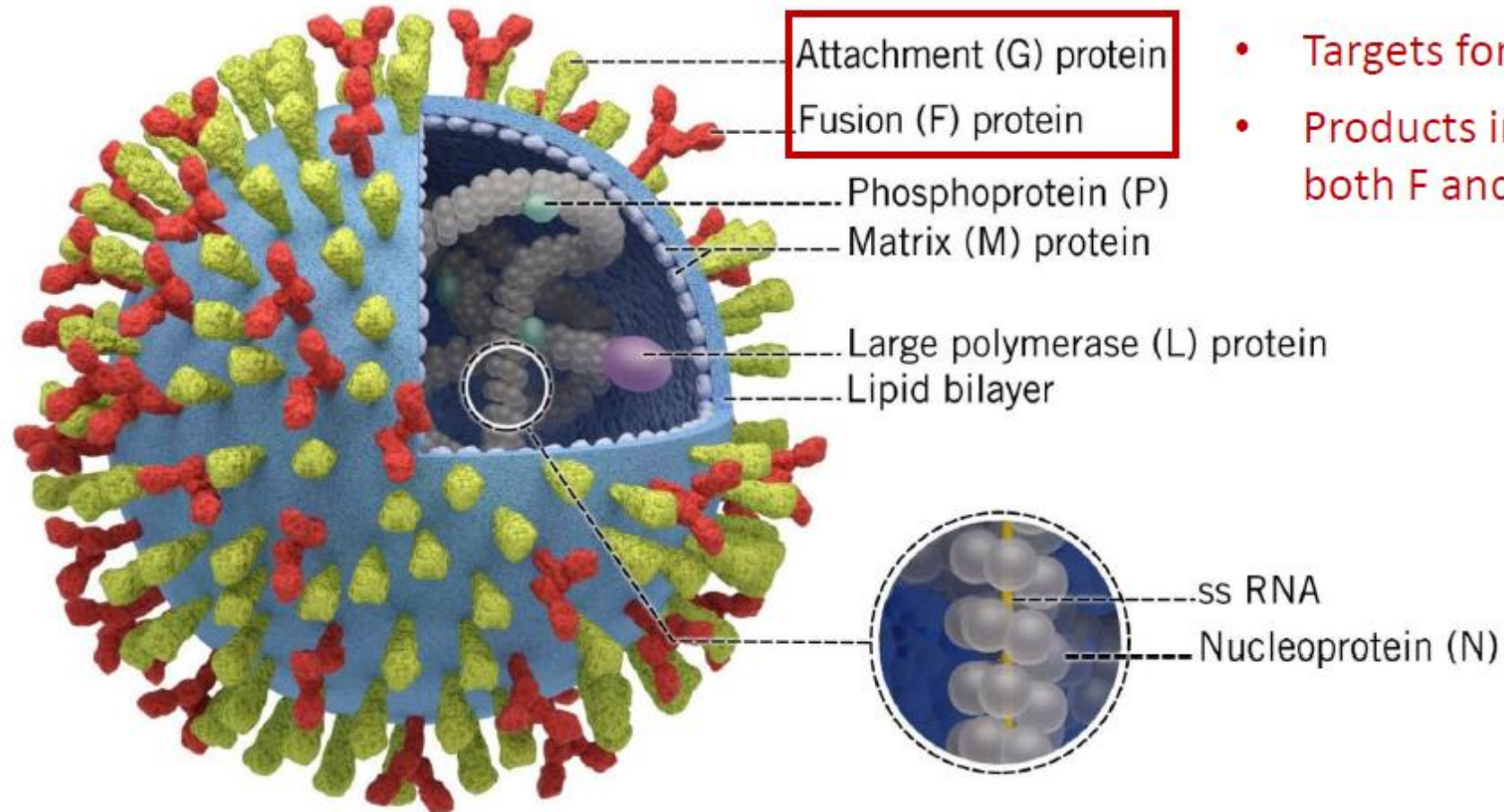
Somsak Lolekha, MD, PhD



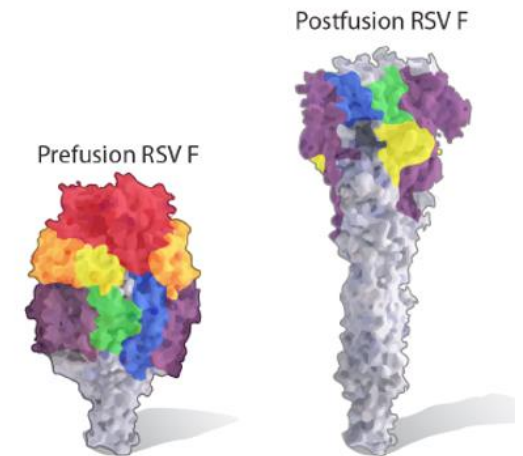
New vaccines

- RSV vaccines, Monoclonal antibody
- Meningococcal vaccine
- Dengue vaccine
- Enterovirus 71 vaccine
- Influenza vaccine
- Mpox vaccine
- Pneumococcal vaccines
- Chikungunya vaccine
- Malaria vaccine

RSV – virion structure



- Targets for neutralizing antibodies
- Products in target F alone or have both F and G

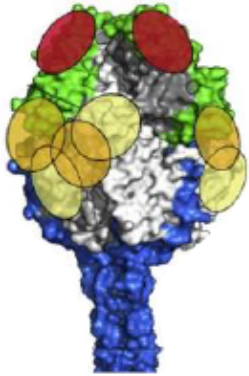


GSK's RSV older adult vaccine (Arexvy)

The combination of RSVPreF3 (120 µg) and AS01_E is designed to induce a robust humoral and cellular immune response, to help protect older adults and those with underlying comorbidities

RSVPreF3 OA Vaccine

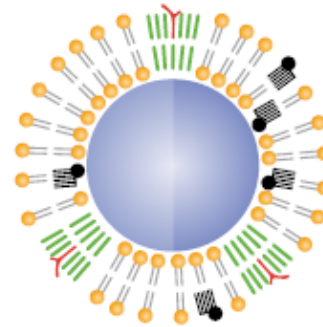
RSVPreF3 Antigen (120 µg)



Antigen engineered to preferentially maintain the pre-fusion conformation and display potent neutralizing epitopes to boost humoral immune response in older adults^{1,2}



AS01_E Adjuvant System

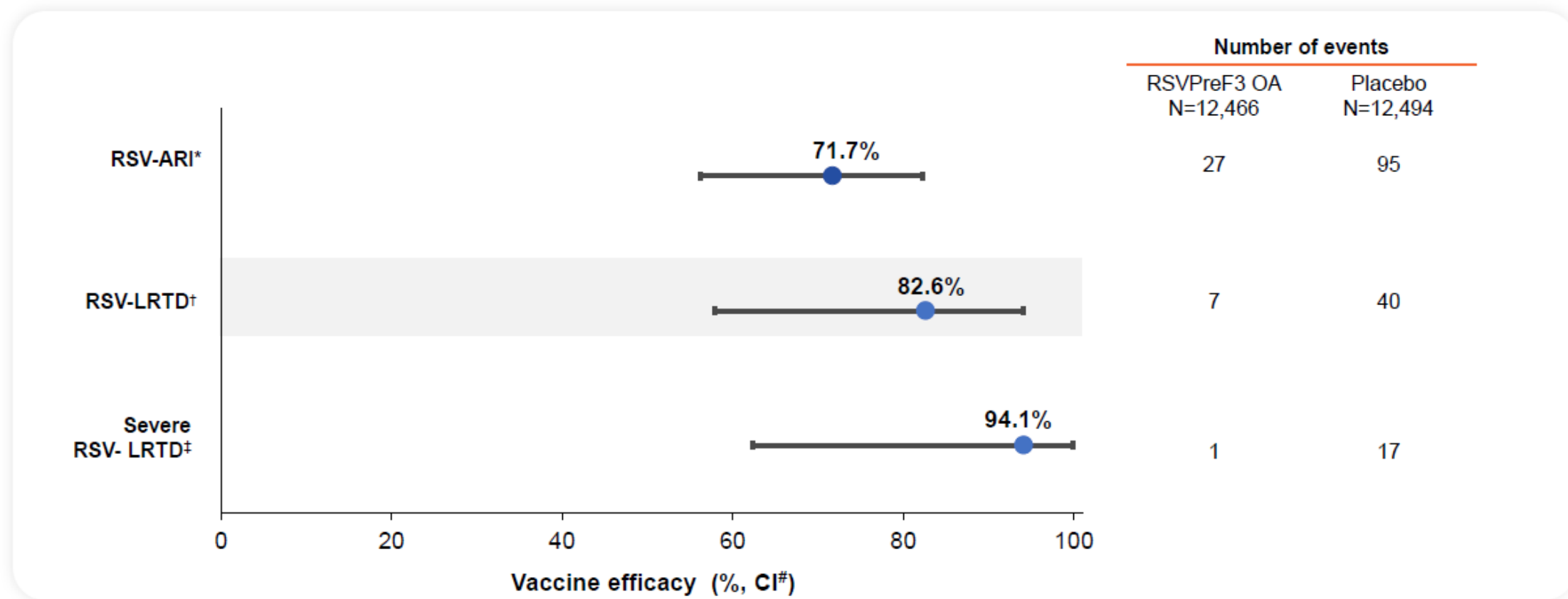


Boosts cellular immune response and restores the RSVPreF3 CD4+ T-cell level in older adults²



AS01_E, Adjuvant System 01_E (25 µg *Quilaja saponaria* Molina, fraction 21, 25 µg 3-Odesacyl-4'- monophosphoryl lipid A); OA, older adults.
Image of F protein reproduced from Graham BS, et al. *Curr Opin Immunol* 2015;35:30-38, Copyright 2015, with permission from Elsevier.
1. Graham BS, et al. *Curr Opin Immunol*. 2015;35:30-38; 2. Leroux-Roels I, et al. *J Infect Dis*. 2022;jiac327.

▶ Consistently high vaccine efficacy across the full spectrum of RSV disease



*ARI defined as ≥ 2 respiratory symptoms/signs for ≥ 24 hours or ≥ 1 respiratory symptom/sign + 1 systemic symptom/sign for ≥ 24 hours; †LRTD defined as ≥ 2 lower respiratory symptoms/signs for ≥ 24 hours including ≥ 1 lower respiratory sign or ≥ 3 lower respiratory symptoms for ≥ 24 hours; ‡ severe LRTD defined as LRTD with ≥ 2 LRTD signs or assessed as severe by the Investigator. All RSV cases confirmed by RT-PCR; #96.95% Confidence Interval (CI) for primary endpoint, 95% CI for all secondary endpoints; ARI, acute respiratory infection; LRTD, lower respiratory tract disease; RT-PCR, reverse transcriptase polymerase chain reaction. ClinicalTrials.gov, 2022. NCT04886596. <https://clinicaltrials.gov/ct2/show/NCT04886596> (accessed October 2022).