

Adjuvants and Waning Adult Immunity

Media Infographic

What Are Adjuvants?

Ad·ju·vant

From Latin, **adiuvare**: To aid
n. an ingredient in a vaccine that helps create a stronger immune response in the body.¹

Scientific advancements have also led to the development of adjuvant systems, which use a combination of adjuvants to help achieve a stronger immune response.²

How Adjuvants Can Help

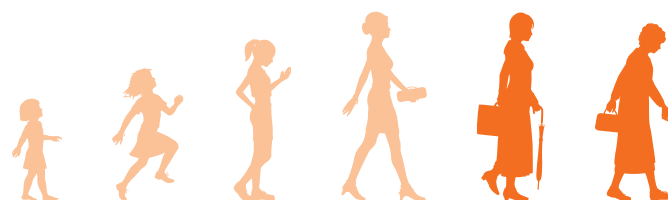
As we age, the cells in our immune system lose the ability to mount a strong and effective response to infection.³

Adjuvants and adjuvant systems can help enhance the quality and strength of the immune response to address the challenge of age-related decline in immunity.²

IMMUNITY



AGE



GSK's Innovation in Adjuvants

- GSK has been innovating in the area of adjuvant systems for more than 20 years and developed vaccines for malaria and shingles that utilize adjuvant systems.^{4,5}
- Age-related decline in immunity is recognized as important risk factor for vaccine-preventable diseases, including shingles and flu, because aging causes a natural decline in the body's immunity.⁶



1. US Centers for Disease Control and Prevention. Vaccine adjuvants. Available at: <https://www.cdc.gov/vaccinesafety/concerns/adjuvants.html>. Last accessed: September 2017.
 2. Garçon N et al. Vaccine adjuvants. In: Garçon N, Stern PL, Cunningham AL, editors. Understanding modern vaccines: perspectives in vaccinology. Amsterdam: Elsevier; 2011.
 3. Johnson RW et al. Herpes zoster epidemiology, management, and disease and economic burden in Europe: a multidisciplinary perspective. *Therapeutic Advances in Vaccines*. 2015;3(4):109-120.
 4. GlaxoSmithKline. Turbocharging the effect of vaccines. Available at <http://www.gsk.com/en-gb/behind-the-science/innovation/turbocharging-the-effect-of-vaccines/>. Last accessed: September 2017.
 5. Lal H et al. Efficacy of an Adjuvanted Herpes Zoster Subunit Vaccine in Older Adults. *N Engl J Med*. 2015;372:2087-96.
 6. Harpaz R, Ortega-Sanchez IR, Seward JF; Advisory Committee on Immunization Practices (ACIP), Centers for Disease Control and Prevention (CDC). Prevention of herpes zoster: recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Recomm Rep*. 2008 Jun;57(RR-5):1-30.