Neutralizing Antibodies and COVID-19

Attacking the coronavirus will require a diverse set of approaches, including both vaccines and treatments, such as antibodies.

Developing any approach against COVID-19 involves assessing key factors:

- **Stage of disease**: When to apply the medicine to prevent the infection or treat the disease.
- **Viral exposure**: A vaccine will not help an already-infected patient.
- **Escape mutations**: Potential resistance to a vaccine or treatment.
- **At-risk populations**: Factors linked to worse outcomes (e.g., age, concurrent diseases).

Neutralizing Antibodies as Potential Treatments

Identified and characterized using various methods, including from the blood of COVID-19 survivors, neutralizing antibodies target the viral spike protein that SARS-CoV-2 uses to gain entry into host cells. Neutralizing antibodies, therefore, are specifically designed to treat COVID-19.

Key Characteristics of Neutralizing Antibodies

Potential utility to be applied either as a single antibody or a combination based on potential resistance.

Wide range of potential uses as treatment or prevention [PEP, PREP]

Next Steps

Lilly has a unique set of antibodies with an integrated strategy to address COVID-19. The safety and efficacy of these antibodies is being tested in carefully controlled randomized clinical trials. And depending on those results, Lilly is committed to working with regulators to bring potential therapies to patients as quickly and safely as possible.