Robust nebulisation of ALX-0171, a nanobody® intended for clinical administration via nebulisation

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NON-CLINICAL SAFETY ASSESSMENT OF ALX-0171, A NANOBODY® INTENDED FOR CLINICAL ADMINISTRATION VIA NEBULISATION

# M1034

ALX-0171: first-in-class potential in RSV treatment

- **ALX-0171:** Unique Nanobody®
  - Neutralises and prevents SARS-CoV-2 viral entry
  - Reduced VEEV virion size
  - Composed of 3 variable region domains
  - Targets the spike epitope
  - High titre in VEEV FUS Fago
  - In vivo activity in 14-day test in pig compared with resistant bloodline

- **Methods:** Assays and calculations
  - Drug concentration was measured using validated, target-dependent fimbria binding assays. Results were compared to known positive and negative controls. ALX-0171 inhibited SARS-CoV-2 replication in Vero E6 in three independent studies. In a respiratory syncytial virus (RSV)-infected Vero E6 study, ALX-0171 was effective at a concentration of 0.05 μg/mL in reducing viral load and moderate toxicology when administered at the same concentration.

- **Conclusions:**
  - ALX-0171 primarily inhibited a wide range of RSV-A and -B strains in vitro
  - ALX-0171 potency in Vero E6 correlates with low viral load and moderate toxicology when administered at the same concentration.