



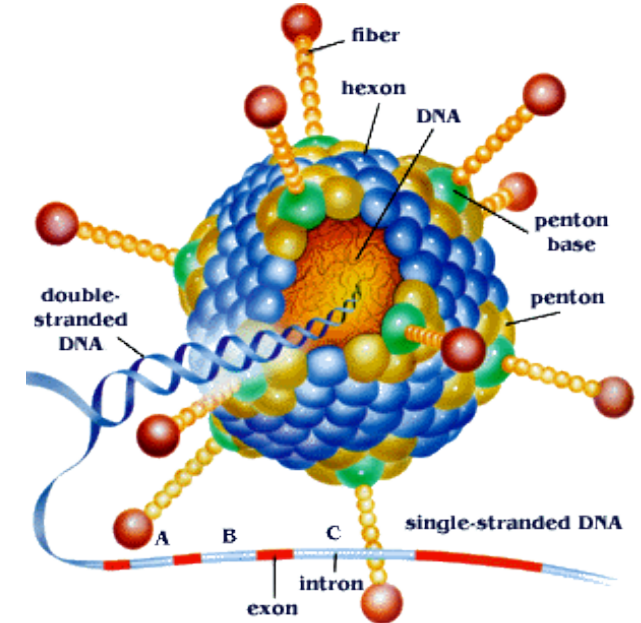
PANDEMIC SCIENCES INSTITUTE (PSI)

Forging a safer world through science

PADOVAX- Lassa Overview

ChAdOx1 Technology

- Non-replicating simian adenoviral vectored vaccine expressing antigen of choice
- Non-replicating due to E1 (and E3) gene deletion
- Simian adenovirus avoids issues with pre-existing immunity to human adenoviruses
- Vaccine antigen encoded in the viral genome - not a structural part of the virion
- Induces strong B and T cell responses after single vaccination
- Prior to April 2020, 12 phase I studies, 330 subjects vaccinated
 - ChAds in trials totalling over 6000 subjects of all ages
 - Consistent safety profile and strong immunogenicity after one dose
- Suitable for large scale, low cost manufacture
 - Can be stored at 2-8 °C for at least 6 months

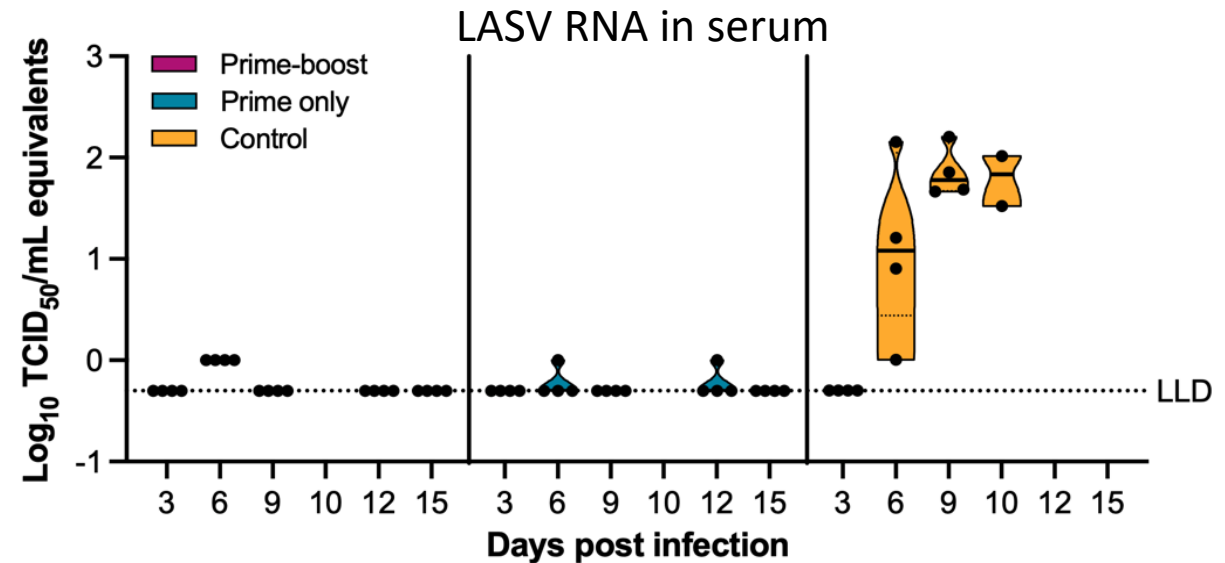
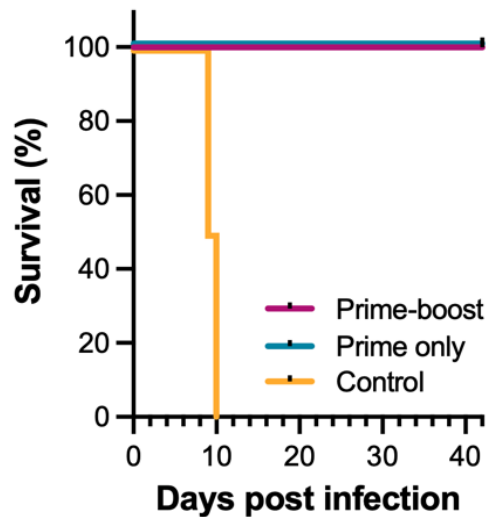
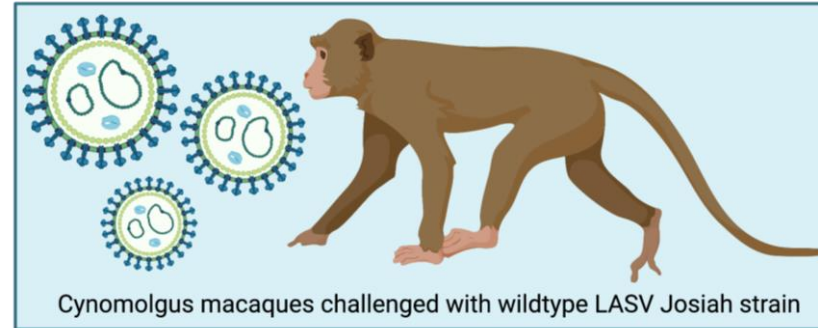


ChAdOx1 Lassa Development Status

Awaiting Progression through Stage Gate to WP 2

- Development completed to date:
 - Pre-GMP starting material has been prepared by the Clinical Biomanufacturing Facility (CBF) at the University of Oxford.
 - Vaccine efficacy demonstrated in guinea pigs (homologous challenge)
 - Cross-reactivity demonstrated in mice, GP challenge, reports available
 - Vaccine efficacy demonstrated in NHPs
 - Fischer RJ *et al.* ChAdOx1-vectored Lassa fever vaccine elicits a robust cellular and humoral immune response and protects guinea pigs against lethal Lassa virus challenge. NPJ Vaccines. 2021 Mar 2;6(1):32

ChAdOx1 Lassa NHP Challenge



- Vaccinees are protected from lethal infection and display limited clinical signs of disease. Transient viremia is observed in a few vaccinees.

ChAdOx1 Lassa Development Plans

- GMP Manufacture of 1000L batch of ChAdOx1 Lassa Drug substance and fill for Phase I trial
- Phase Ia First in Human Study – UK trial led by Oxford Vaccine Group
 - Open label non-randomised lead-in group followed by placebo controlled, randomised, double blind, first-in-human, single/multi centre, phase I clinical trial
 - Healthy adults aged 18 – 55 years with no previous ChAdOx1 exposure
 - 51 Volunteers – Lead in group n=6
- Toxicology Study
- Phase Ib West Africa Trial
 - More information on local partners preferred strategy in progress
- Model-based evaluation of trial designs for Lassa fever vaccine candidate
 - Explore the performance characteristics and resource implications of different trial designs for Lassa fever vaccine trials including:
 - Typical transmission pattern of recurrent spillovers from the rodent host
 - Hypothetical major outbreak driven by person-to-person transmission with sporadic super-spreading events on the hospital referral network.