

## Supplementary Materials for

### **Rift Valley fever virus induces fetal demise in Sprague-Dawley rats through direct placental infection**

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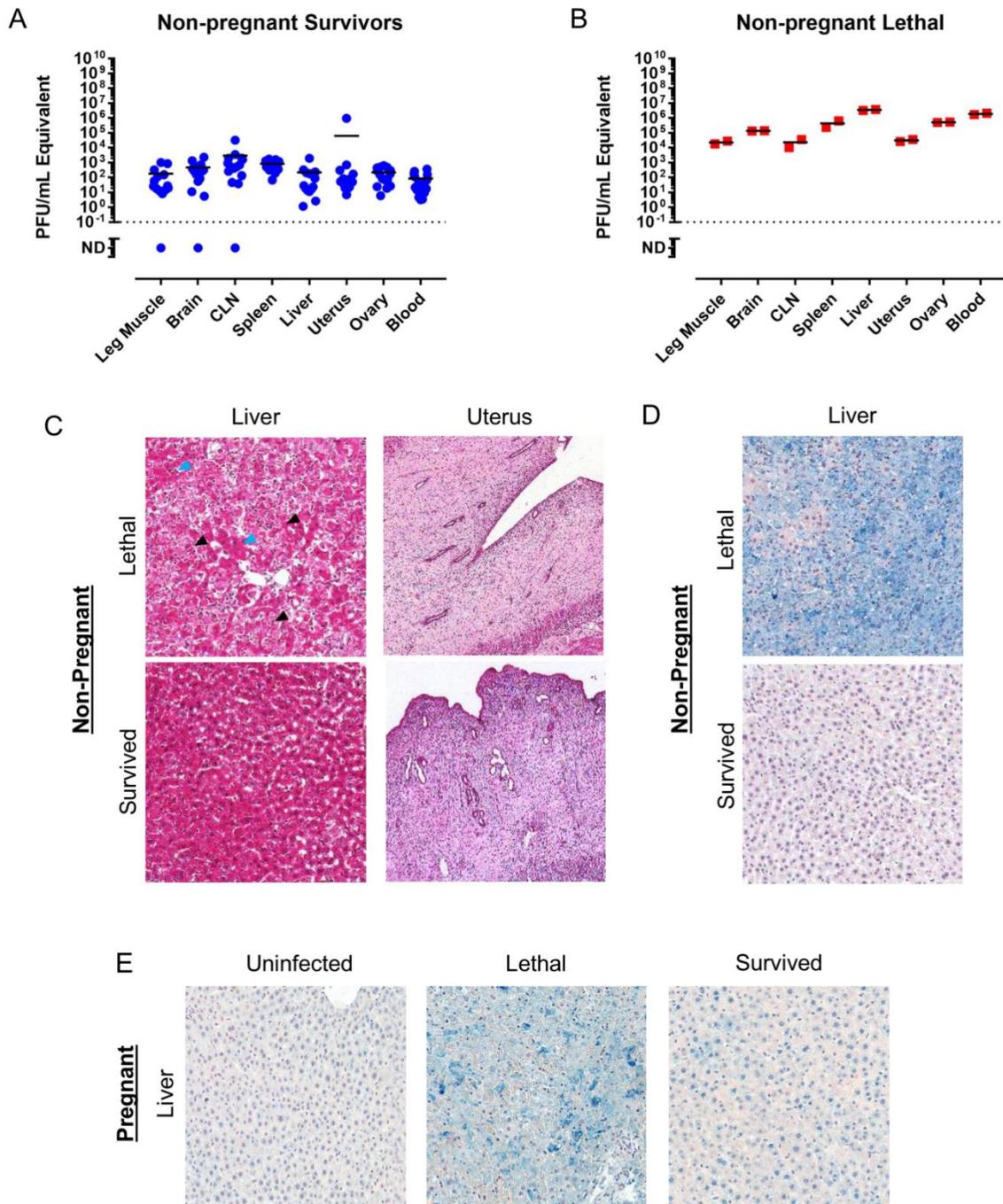
#### **This PDF file includes:**

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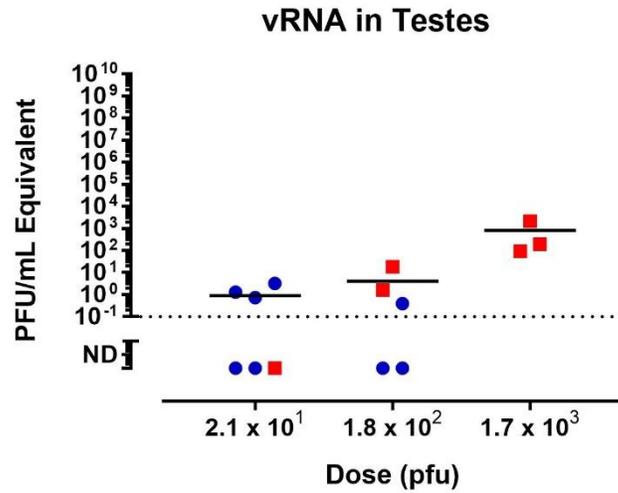
Fig. S2. Detection of RVFV in the testes of male rats.

Fig. S3. RVFV infection leads to fetal resorption.

Fig. S4. Evidence of vertical transmission of RVFV in an RVFV-infected early-gestation (E5) pregnant dam, with high viral titers in the placenta.



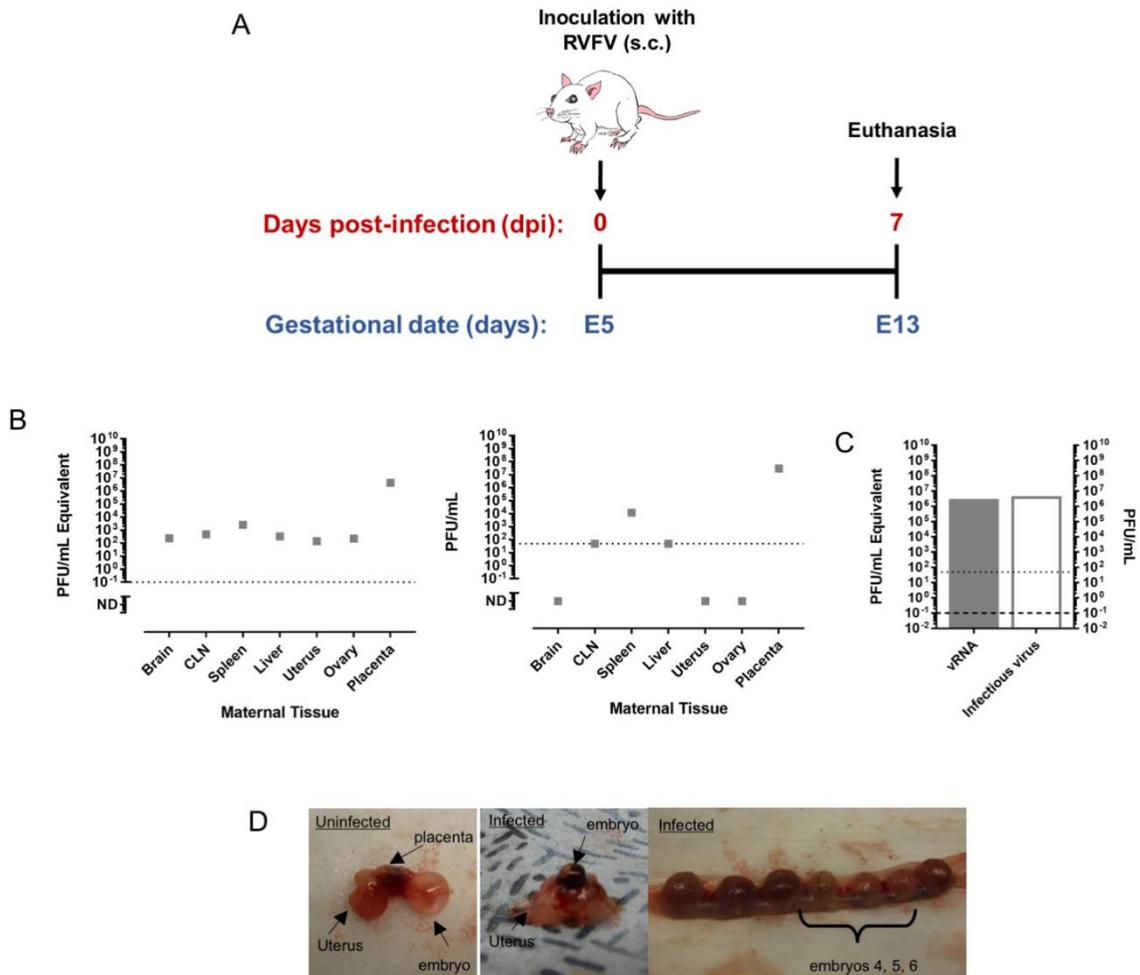
**Fig. S1. RVFV is present in the ovary and uterus of nonpregnant female rats.** Tissues from non-pregnant female rats shown in Fig. 1B were tested for vRNA by q-RT-PCR. Rats that (A) survived (n=15) or (B) succumbed (n=2) to infection. (C) H&E staining or (D,E) chromogen staining (blue) for RVFV antigen in the indicated tissues. (C and D) tissues from infected non-pregnant rats that succumbed to infection (2 dpi) or survived (18 dpi). (E) RVFV antigen staining of liver from uninfected, lethal (4 dpi), or surviving pregnant dams (18 dpi; E14). Black or blue arrow heads highlight evidence of necrosis or hemorrhaging, respectively. 20x objective images.



**Fig. S2. Detection of RVFV in the testes of male rats.** Male Lewis rats were infected with RVFV (s.c.). Testes samples were taken from rats that succumbed to disease (red squares) and those that survived (blue circles) and tested for vRNA by q-RT-PCR.



**Fig. S3. RVFV infection leads to fetal resorption.** Photographic evidence of fetal resorption within the uterus of two of three dams who succumbed to RVFV infection.



**Fig. S4. Evidence of vertical transmission of RVFV in an RVFV-infected early-gestation (E5) pregnant dam, with high viral titers in the placenta.** (A) An early gestation (E5) dam was infected with  $1.46 \times 10^5$  pfu (s.c.) and then euthanized at the pre-determined date of 7 dpi (E13) with no signs of disease. (B) vRNA (left) and infectious virus (right) within maternal tissue. (C) vRNA (left y-axis, solid grey bar) and infectious virus (right y-axis, open grey bar) within pooled embryos (16 embryos). (D) Photographic evidence of embryos from uninfected or infected dams at E13. Uterus containing embryos from an infected dam (right panel).