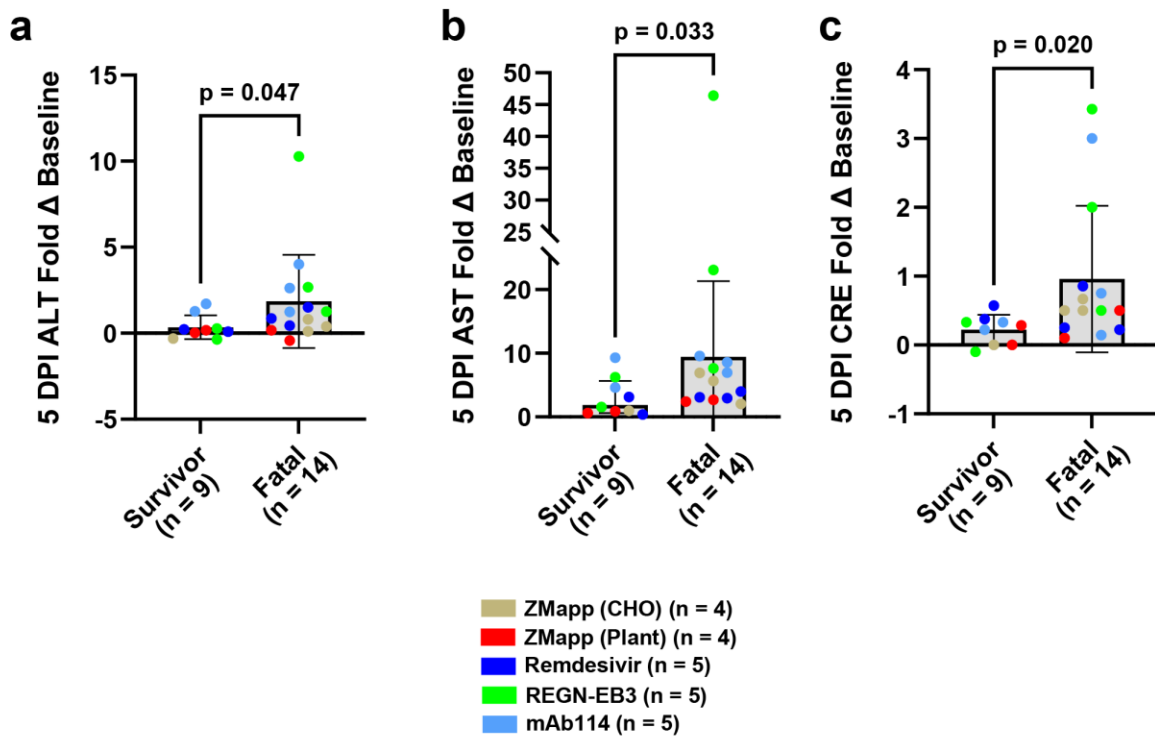
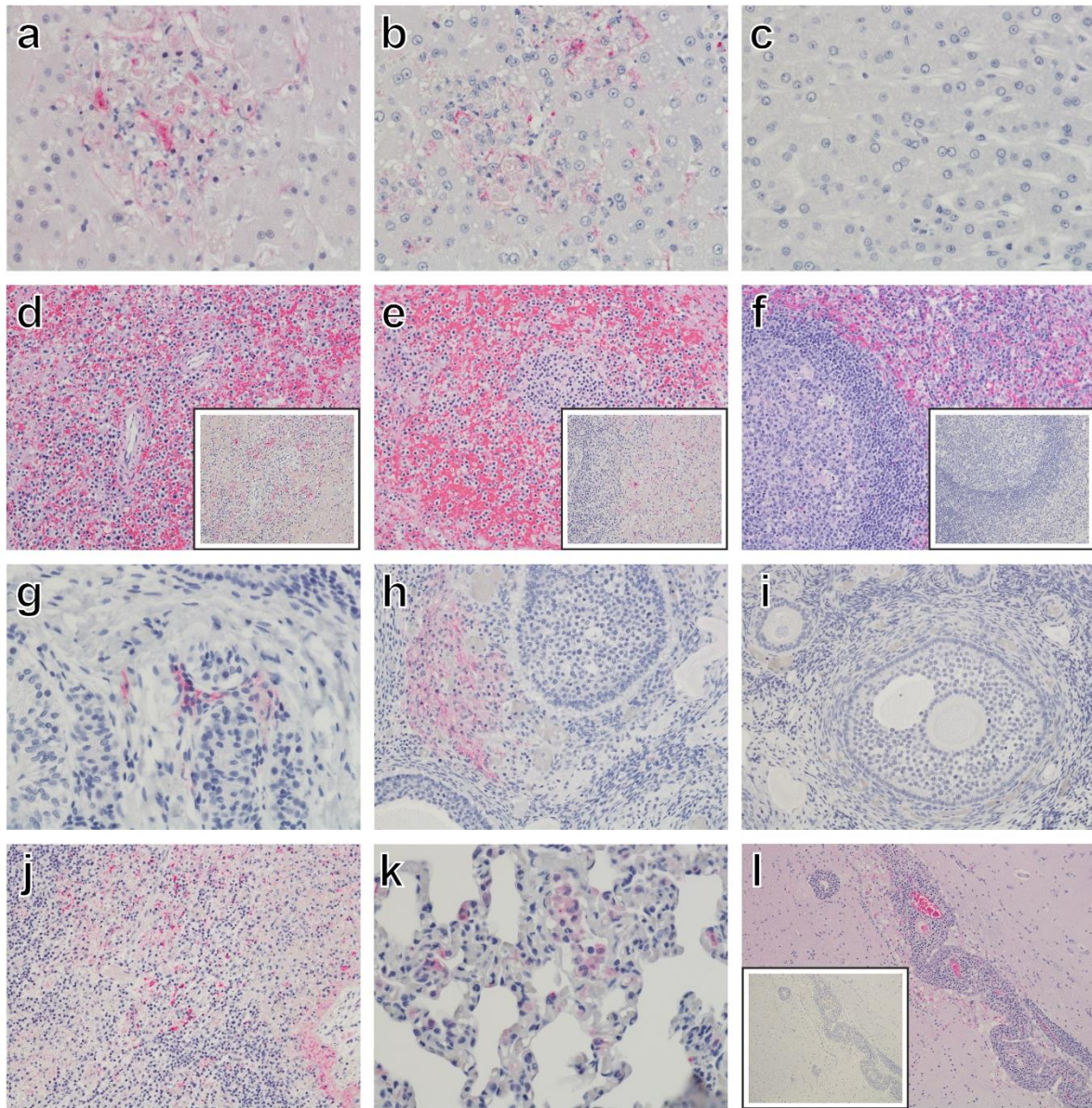


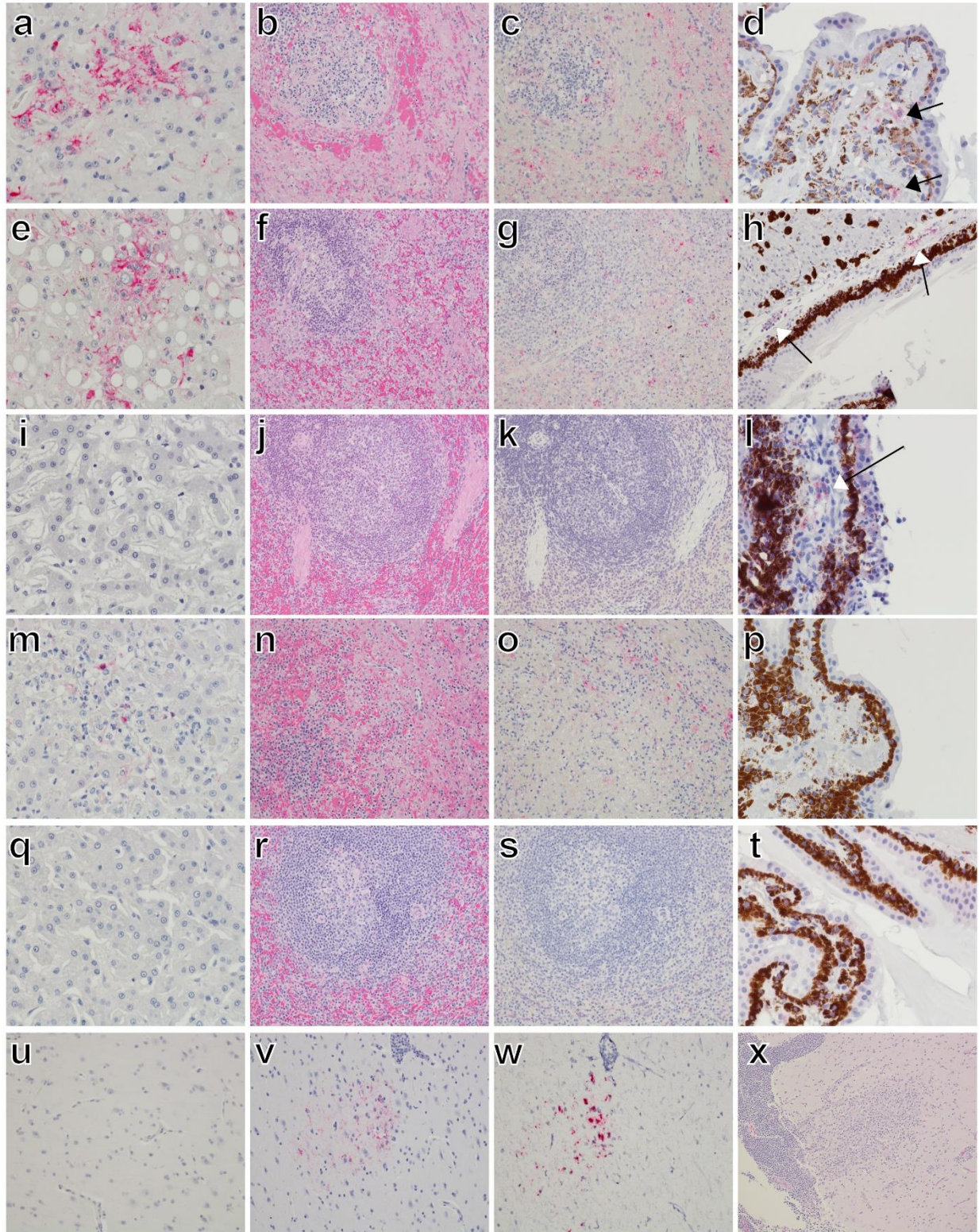


Supplementary Fig. 1: Comparisons of serum biomarkers of infection at treatment initiation (5 DPI) by clinical outcome. Fold change values (in comparison to baseline [day of challenge]) of serum ALT (**a**), AST (**b**), and creatinine (CRE) (**c**) were assessed at 5 DPI (day of treatment initiation) for animals that went on to survive challenge and compared to that from animals which succumbed to EVD. For all panels, bars represent the mean fold change $\pm$ SD for each group. For all panels, significance was determined by non-parametric Mann-Whitney U-test.



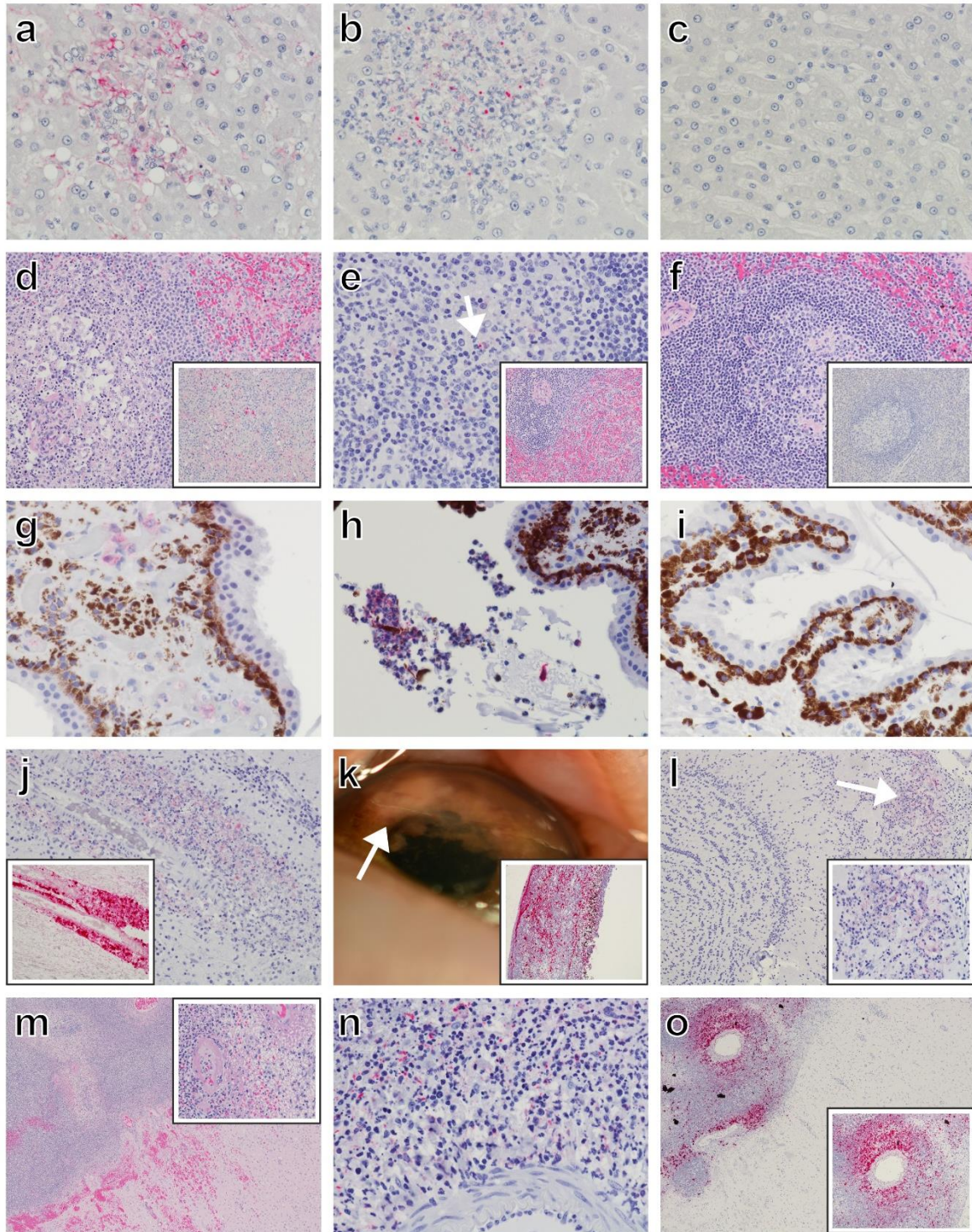
Supplementary Fig. 2: Histopathology images from ZMapp-treated macaques stained with hematoxylin and eosin (H&E) (d, e, f, l) and immunohistochemistry (IHC) (a, b, c, d inset, e inset, f inset, g, h, i, j, k, l inset) for anti-Ebola Zaire VP40 antibody in NHPs. Representative positive controls (a, d, d inset, g, j), treatment failure (b, e, e inset, h, k) treatment survivors (c, f, f inset, i, l, l inset). Images captured at 10x (l, l inset), 20x (d, d inset, e, e inset, f, f inset, h, i, j) and 40x (a, b, c, g, k) magnifications. Immunolabeling (red) of Kupffer cells, mononuclear cells, and hepatic sinusoidal lining cells in the liver (a, b). No appreciable immunolabeling in the liver (c). Spleen with lymphocyte depletions and necrosis of the white pulp (d, e) and immunolabeling of scattered individual mononuclear cells within the red and white pulp (d inset, e inset). No appreciable lesions or immunolabeling in the spleen (f, f inset). Immunolabeling of scattered interstitial cells of the testis (g) and of the theca cells in the ovary (h). No appreciable immunolabeling of the ovary (i). IHC positive mononuclear cells in the inguinal lymph node (j)

and alveolar septae of the lung (**k**). Lymphohistiocytic perivascular cuffs in the neuroparenchyma and within the choroid plexus (**l**). No appreciable immunolabeling of the choroid plexus (**l inset**).



Supplementary Fig. 3: Histopathology images from remdesivir and REGN-EB3-treated macaques stained with hematoxylin and eosin (H&E) (b, f, j, n, r, x) and immunohistochemistry (IHC) (a, c, d, e, g, h, i, k, l, m, o, p, q, s, t, u, v) for anti-Ebola Zaire VP40 antibody and *in situ* hybridization (ISH) (w) in NHPs. Representative positive controls

(a-d), Remdesivir treatment failure **(e-h)** remdesivir treatment survivors **(i-l, u)**, REGN-EB3 antibody treatment failure **(m-p)** REGN-EB3 antibody treatment survivors **(q-t, v-x)**. Images captured at 10x **(x)**, 20x **(b, c, f, g, h, j, k, n, o, r, s, u, v, w)** and 40x **(a, d, e, i, l, m, p, q, t)** magnifications. Immunolabeling (red) of Kupffer cells, mononuclear cells, and hepatic sinusoidal lining cells in the liver **(a, e, m)**. No appreciable immunolabeling in the liver **(i, q)**. Spleen with lymphocyte depletions and necrosis of the white pulp **(b, f, n)** and immunolabeling of scattered individual mononuclear cells within the red and white pulp **(c, g, o)**. No appreciable lesions or immunolabeling in the spleen **(j, r, k, s)**. Immunolabeling of scattered mononuclear cells within the ciliary body **(d, h, l arrows)** and no appreciable immunolabeling of the ciliary body **(p, t)**. Marked locally extensive lymphohistiocytic meningitis with focal extension into the underlying neuroparenchyma **(x)**. Lymphohistiocytic perivascular cuffs and focal IHC and ISH labeling within the neuroparenchyma **(v, w)**. No appreciable immunolabeling of the neuroparenchyma **(u)**.



Supplementary Fig. 4: Gross and histopathology images from mAb114-treated macaques stained with hematoxylin and eosin (H&E) (e, e inset, f, m, m inset) and immunohistochemistry (IHC) (a-c, d inset, e, f inset, g-j, l, l inset, n) for anti-EBOV Zaire VP40 antibody and *in situ* hybridization (ISH) (j inset, k inset, o, o inset) in NHPs.

Representative positive control (**a, d, d inset, g**), treatment failure with DTTD (**b, e, e inset, h, j, j inset, k, k inset, l, l inset**) treatment survivor (**c, f, f inset, i, m, m inset, n, o, o inset**). Images captured at 4x (**m, o**), 10x (**k inset, l, o inset**), 20x (**d, d inset, e inset, f, f inset j, j inset**) and 40x (**a-c, e, g-i, l inset, m inset, n**) magnifications. Immunolabeling (red) of Kupffer cells, mononuclear cells, and hepatic sinusoidal lining cells in the liver (**a, b**). No appreciable immunolabeling in the liver (**c**). Spleen with lymphocyte depletions and necrosis of the white pulp (**d, e inset**) and immunolabeling of scattered individual mononuclear cells within the red and white pulp (**d inset, e arrow**). No appreciable lesions or immunolabeling in the spleen (**f, f inset**). Unilateral hypopyon and uveitis characterized as white debris with irregular borders within the anterior chamber and iris (**k arrow**). Immunolabeling of scattered mononuclear cells in the ciliary body of the eye (**g**) and rafts of mixed inflammation composed of neutrophils and mononuclear cells within the posterior chamber (**h**) Intense ISH labeling of the iris (**k inset**). No appreciable immunolabeling of the ciliary body (**i**). IHC positive cells within perivascular neutrophilic and lymphohistiocytic inflammation of the neuroparenchyma of the brainstem (**j**). Intense ISH labeling of perivascular inflammation in the brainstem (**j inset**). IHC labeling within neutrophilic and lymphohistiocytic inflammation of the most rostral portion of the olfactory bulb (**l arrow**). Higher magnification of the inflamed and degenerative olfactory bulb with IHC labeling (**l inset**). Locally extensive neutrophilic and lymphohistiocytic, hemorrhagic meningoencephalitis (**m**) with fibrinoid necrosis of vessel walls (**m inset**). IHC labeling of inflammatory cells surrounding vessels of the meninges (**n**) and ISH labeling (**o**). Higher magnification of the ISH labeling (**o inset**).

Supplementary Table 1. Clinical description and outcome of rhesus macaques challenged with EBOV and treated with ZMapp.

Subject No.	Sex	Treatment Group	Clinical illness	Clinical pathology
ZMP-1	M	<i>N. benthamiana</i>	Fever (d3, 5); decreased appetite (d4, 6); anorexia (d5, 7, 8); depression (d5-8); hunched posture (d5-7); weakness (d5-8); recumbency (d6-8); petechial rash (d5-8); unresponsiveness (d8). Subject euthanized (d8).	Lymphocytopenia (d5, 8); thrombocytopenia (d5, 8); monocytopenia (d8); erythrocytopenia (d8); granulocytosis (d3); anemia (d8); hypoglycemia (d8); hypocalcemia (d8); hypoalbuminemia (d5, 8); hypoproteinemia (d8); hypoamylasemia (d5); BUN ↑ (d5), ↑↑↑ (d8); CRE ↑↑↑ (d8); ALT ↑ (d8); AST ↑↑ (d5), ↑↑↑ (d8); GGT ↑ (d8); CRP ↑ (d3), ↑↑↑↑ (d5, 8).
ZMP-2	F	<i>N. benthamiana</i>	Fever (d5); decreased appetite (d5, 10); anorexia (d6, 7, 8, 9); petechial rash (d7-12); depression (d7-9); hunched posture (d7-9). Subject survived to study endpoint (d28).	Lymphocytopenia (d5); thrombocytopenia (d5, 8, 11, 21); monocytopenia (d8); granulocytopenia (d21); lymphocytosis (d11, 14, 28); monocytosis (d11, 14, 21, 28); granulocytosis (d3, 5); hypoglycemia (d8, 11, 14, 28); hypoalbuminemia (d8, 11, 14, 21, 28); hypoproteinemia (d11); hypoamylasemia (d5, 8); AST ↑↑ (d8), ↑ (d11, 14); ALP ↑ (d8, 11, 14); GGT ↑ (d8, 11, 14); CRP ↑↑↑↑ (d5); ↑ (d21).
ZMP-3	F	<i>N. benthamiana</i>	Anorexia (d6-8); petechial rash (7, 8); depression (d8); weakness (d8); recumbency (d8); unresponsiveness (d8). Subject euthanized (d8).	Thrombocytopenia (d5, 8); monocytopenia (d5); lymphocytosis (d8); granulocytosis (d3, 5); hypoglycemia (d8); hypoalbuminemia (d8); hypoamylasemia (d5); BUN ↑↑↑ (d8); CRE ↑↑↑ (d8); ALT ↑↑↑ (d8); AST ↑↑ (d5), ↑↑↑↑ (d8); ALP ↑ (d8); GGT ↑ (d8); CRP ↑↑↑↑ (d5, 8).
ZMP-4	M	<i>N. benthamiana</i>	Fever (d5); anorexia (d5-7); petechial rash (d7); depression (d7); weakness (d7); tremors (d7); hunched posture (d7); recumbency (d7); unresponsiveness (d7). Subject euthanized (d7).	Lymphocytopenia (d5, 7); thrombocytopenia (d7); monocytopenia (d5, 7); granulocytosis (d3, 5); hypocalcemia (d7); hypoalbuminemia (d7); BUN ↑↑↑ (d7); CRE ↑↑↑↑ (d7); ALT ↑ (d7); AST ↑ (d5), ↑↑↑↑ (d7); GGT ↑ (d7); CRP ↑↑↑↑ (d7).
ZMC-1	M	CHO	Decreased appetite (d6-9). Subject survived to study endpoint (d28).	Thrombocytopenia (d8, 11, 28); lymphocytosis (d11, 14); monocytosis (d11, 14, 28); granulocytosis (d3, 5, 8, 14); hypoalbuminemia (d8, 11); hypoamylasemia (d5, 8); AST ↑ (d8, 28); CRP ↑↑↑↑ (d5), ↑ (d28).
ZMC-2	F	CHO	Fever (d5); decreased appetite (d5); anorexia (6-10); depression (d7-10); hunched posture (d7-9); petechial rash (d5-10); epistaxis (d10); weakness (d10); recumbency (d10); unresponsiveness (d10). Subject euthanized (d10).	Lymphocytopenia (d5, 8); thrombocytopenia (d5, 8, 10); monocytopenia (d3, 8); erythrocytopenia (d8); monocytosis (d10); granulocytosis (d3, 5); Hct ↓ (d8); Hgb ↓ (d8); anemia (d8); hypoalbuminemia (d8, 10); hypoproteinemia (d10); hypoamylasemia (d5, 8, 10); BUN ↑ (d8), ↑↑ (d10); CRE ↑ (d10); ALT ↑↑ (d8), ↑↑↑ (d10); AST ↑ (d5), ↑↑↑ (d8), ↑↑↑↑ (d10); CRP ↑↑↑↑ (d5), ↑↑↑ (d8, 10).
ZMC-3	M	CHO	Fever (d5); anorexia (d5, 6, 9, 10), decreased appetite (d7, 8, 11); petechial rash (d5-11); depression (d11); hunched posture (d11); weakness (d11); recumbency (d11); epistaxis (d11). Subject euthanized (d11).	Lymphocytopenia (d5); thrombocytopenia (d5, 8, 11); lymphocytosis (d11); monocytosis (d3, 11); granulocytosis (d3, 5, 8, 11); hypoglycemia (d8, 11); hypocalcemia (d11); hypoalbuminemia (d8, 11); hypoproteinemia (d8, 11); hypoamylasemia (d5, 8, 11); BUN ↑↑ (d8); CRE ↑ (d8); ALT ↑↑ (d8); AST ↑ (d5), ↑↑↑ (d8); GGT ↑ (d8); CRP ↑↑↑↑ (d5, 8, 11).
ZMC-4	F	CHO	Fever (d5, 8); decreased appetite (d6, 8, 9, 12); anorexia (d7); petechial rash (d8-10). Subject survived to study endpoint (d28).	Lymphocytopenia (d5, 8); thrombocytopenia (d5, 8, 11); monocytopenia (d8); granulocytopenia (d11, 21); lymphocytosis (d11, 14); monocytosis (d11, 14, 21, 28); granulocytosis (d5); hypoalbuminemia (d8, 11, 14); ALT ↑ (d8, 11, 14); AST ↑↑ (d8), ↑ (d11); CRP ↑↑↑↑ (d5), ↑ (d8).
C-1	M	In-study control	Decreased appetite (d5); anorexia (d6); petechial rash (d5, 6); depression (d5, 6); hunched posture (d5, 6); weakness (d5, 6); recumbency (d6). Subject euthanized (d6).	Lymphocytopenia (d5); thrombocytopenia (d5, 6); monocytopenia (d5, 6); granulocytosis (d3, 5); hypocalcemia (d6); hypoalbuminemia (d5); BUN ↑↑ (d6); CRE ↑↑↑ (d6); ALT ↑ (d5, 6); AST ↑↑↑ (d5), ↑↑↑↑ (d6); CRP ↑↑↑↑ (d5, 6).
C-2	F	In-study control	Fever (d3, 5); anorexia (d5, 6); petechial rash (d5, 6); depression (d6); hunched posture (d6); weakness (d6); recumbency (d6). Subject euthanized (d6).	Lymphocytopenia (d3, 5); thrombocytopenia (d5, 6); monocytosis (d5, 6); granulocytosis (d3, 5); hypoglycemia (d6); hypoalbuminemia (d6); hypoamylasemia (d5, 6); BUN ↑ (d6); CRE ↑ (d6); ALT ↑↑↑ (d6); AST ↑↑ (d5), ↑↑↑↑ (d6); GGT ↑↑ (d6); CRP ↑ (d3), ↑↑↑↑ (d5, 6).

Days after EBOV challenge are in parentheses. “Treatment Group” column indicates whether animals received ZMapp produced in Chinese hamster ovary cells (CHO) or tobacco plant (*N. benthamiana*). All reported findings are in comparison to baseline (day of challenge [d0]) values. Decreased appetite is defined as $\leq 65\%$ of food consumed from the previous day. Anorexia is defined as no food

consumed from the previous day. Fever is defined as a temperature more than 2.5 °F over baseline, or at least 1.5 °F over baseline and ≥ 103.5 °F. Hypothermia is defined as a temperature ≤ 3.5 °F below baseline. Lymphocytopenia, monocytopenia, erythrocytopenia, thrombocytopenia, neutropenia, eosinopenia, and basopenia are defined by a $\geq 35\%$ drop in numbers of lymphocytes, monocytes, erythrocytes, platelets, neutrophils, eosinophils, or basophils, respectively. Lymphocytosis, monocytosis, neutrophilia, eosinophila, and basophilia are defined by a 100% or greater increase in numbers of lymphocytes, monocytes, neutrophils, eosinophils, and basophils, respectively. Hyperglycemia is defined as a 100% or greater increase in levels of glucose. Hypoglycemia is defined by a $\geq 25\%$ decrease in levels of glucose. Anemia is defined as a concurrent $\geq 25\%$ decrease in erythrocyte count, Hct, and Hgb. Hypoalbuminemia is defined by a $\geq 25\%$ decrease in levels of albumin. Hypoproteinemia is defined by a $\geq 25\%$ decrease in levels of total protein. Hypoamylasemia is defined by a $\geq 25\%$ decrease in levels of serum amylase. Hypocalcemia is defined by a $\geq 25\%$ decrease in levels of serum calcium. Increases in ALT, AST, ALP, CRE, CRP, Hct, and Hgb were graded on the following scale: $\uparrow$ = 1-5 fold, $\uparrow\uparrow$ = >5-10 fold, $\uparrow\uparrow\uparrow$ = >10-20 fold, $\uparrow\uparrow\uparrow\uparrow$ = >20-fold, $\downarrow$ = $\geq 50\%$ decrease. (BUN) blood urea nitrogen, (ALT) alanine aminotransferase, (AST) aspartate aminotransferase, (ALP) alkaline phosphatase, (CRE) Creatinine, (CRP) C-reactive protein, (Hct) hematocrit, (Hgb) hemoglobin.

Supplementary Table 2. Clinical description and outcome of rhesus macaques challenged with EBOV and treated with remdesivir.

Subject No.	Sex	Clinical illness	Clinical pathology
RDV-1	M	Decreased appetite (d5, 6, 11); anorexia (d7-10); petechial rash (d6-8); depression (d10, 11); hunched posture (d10, 11); periocular edema (d30-32). Subject survived to study endpoint (d35).	Lymphocytopenia (d5, 8); thrombocytopenia (d5, 8, 11); monocytopenia (d5, 8, 11, 28, 35); eosinopenia (d8); basopenia (d8, 11); monocytosis (d21); neutrophilia (d5, 8, 11, 14, 21, 28, 35); eosinophilia (d5, 21, 28); basophilia (d21, 28); hypoalbuminemia (d8, 11, 14, 21); hypoamylasemia (d5, 8, 11); CRE ↑ (d8); ALT ↑ (d8, 11, 14); AST ↑ (d5, 11, 14), ↑↑ (d8); CRP ↑↑↑ (d5), ↑↑↑ (d8), ↑ (d14, 21, 28).
RDV-2	F	Decreased appetite (d0-3, 5); anorexia (d6); petechial rash (d5, 6); depression (d6); recumbency (d6). Subject euthanized (d6).	Lymphocytopenia (d6); thrombocytopenia (d5, 6); monocytopenia (d5); basopenia (d6); monocytosis (d6); neutrophilia (d5, 6); eosinophilia (d5); basophilia (d5); hypoglycemia (d6); hypoalbuminemia (d6); hypoamylasemia (d5); BUN ↑ (d6); CRE ↑ (d6); ALT ↑ (d6); AST ↑ (d5), ↑↑↑ (d6); ALP ↑ (d5), ↑↑ (d6); GGT ↑ (d6); CRP ↑↑↑ (d5), ↑↑↑↑ (d6).
RDV-3	M	Fever (d5, 6, 9); decreased appetite (d5); anorexia (d6-9); petechial rash (d6-9); depression (d8, 9); hunched posture (d8, 9); recumbency (d9). Subject euthanized (d9).	Lymphocytopenia (d5); thrombocytopenia (d5, 8, 9); neutropenia (d8); basopenia (d8, 9); monocytosis (d8); neutrophilia (d5); eosinophilia (d5); basophilia (d5); hypoalbuminemia (d8, 9); hypoamylasemia (d5, 8, 9); BUN ↑ (d9); CRE ↑ (d9); ALT ↑↑ (d8), ↑↑↑ (d9); AST ↑ (d5), ↑↑↑ (d8), ↑↑↑↑ (d9); CRP ↑↑↑↑ (d5), ↑ (d8).
RDV-4	F	Decreased appetite (d0, 1, 5-9, 12, 13), anorexia (d10, 11); fever (d5, 6); petechial rash (d5, 6, 8-17, 19, 20); weakness (d9); recumbency (d9-11); depression (d10-13); hunched posture (d12, 13). Subject survived to study endpoint (d35).	Lymphocytopenia (d5, 8); thrombocytopenia (d8, 11, 14); monocytopenia (d5, 8, 11, 21, 28, 35); eosinopenia (d8); basopenia (d8); lymphocytosis (d14, 21); neutrophilia (d5, 11, 21, 28, 35); eosinophilia (d5, 11, 28); basophilia (d5, 14); hypoalbuminemia (d8, 11, 14, 21); hypoamylasemia (d5, 8, 14); BUN ↑ (d11); AST ↑ (d8, 11, 14); ALP ↑ (d5, 8, 11, 14, 21); CRP ↑↑↑ (d5), ↑ (d8, 11, 14).
RDV-5	M	Fever (d5); anorexia (d5); petechial rash (d5, 6); weakness (d5); hunched posture (d5); recumbency (d5); unresponsiveness (d5). Subject euthanized (d5).	Lymphocytopenia (d5); thrombocytopenia (d5); monocytopenia (d5); neutrophilia (d5); eosinophilia (d5); hypoamylasemia (d5); ALT ↑ (d5); AST ↑ (d5); CRP ↑↑↑ (d5).
C-3* (In-study Control)	F	Anorexia (d5, 6); petechial rash (d5, 6); hunched posture (d5, 6); depression (d6); lethargy (d6); recumbency (d6). Subject euthanized (d6).	Lymphocytopenia (d5); thrombocytopenia (d5, 6); basopenia (d5); monocytosis (d5, 6), neutrophilia (d5, 6); eosinophilia (d6); hypoamylasemia (d5, 6); BUN ↑ (d6); CRE ↑ (d5), ↑↑ (d6); ALT ↑ (d6); AST ↑↑ (d5), ↑↑↑ (d6); ALP ↑ (d5), ↑↑ (d6); GGT ↑ (d6); CRP ↑↑↑↑ (d5, 6).

Days after EBOV challenge are in parentheses. All reported findings are in comparison to baseline (day of challenge [d0]) values. Decreased appetite is defined as $\leq 65\%$ of food consumed from the previous day. Anorexia is defined as no food consumed from the previous day. Fever is defined as a temperature more than 2.5 °F over baseline, or at least 1.5 °F over baseline and ≥ 103.5 °F. Hypothermia is defined as a temperature ≤ 3.5 °F below baseline. Lymphocytopenia, monocytopenia, erythrocytopenia, thrombocytopenia, neutropenia, eosinopenia, and basopenia are defined by a $\geq 35\%$ drop in numbers of lymphocytes, monocytes, erythrocytes, platelets, neutrophils, eosinophils, or basophils, respectively. Lymphocytosis, monocytosis, neutrophilia, eosinophilia, and basophilia are defined by a 100% or greater increase in numbers of lymphocytes, monocytes, neutrophils, eosinophils, and basophils, respectively. Hyperglycemia is defined as a 100% or greater increase in levels of glucose. Hypoglycemia is defined by a $\geq 25\%$ decrease in levels of glucose. Anemia is defined as a concurrent $\geq 25\%$ decrease in erythrocyte count, Hct, and Hgb. Hypoalbuminemia is defined by a $\geq 25\%$ decrease in levels of albumin. Hypoproteinemia is defined by a $\geq 25\%$ decrease in levels of total protein. Hypoamylasemia is defined by a $\geq 25\%$ decrease in levels of serum amylase. Hypocalcemia is defined by a $\geq 25\%$ decrease in levels of serum calcium. Increases in ALT, AST, ALP, CRE, CRP, Hct, and Hgb were graded on the following scale: ↑ = 1-5 fold, ↑↑ = >5-10 fold, ↑↑↑ = >10-20 fold, ↑↑↑↑ = >20-fold, ↓ = $\geq 50\%$ decrease. (BUN) blood urea nitrogen, (ALT) alanine aminotransferase, (AST) aspartate aminotransferase, (ALP) alkaline phosphatase, (CRE) Creatinine, (CRP) C-reactive protein, (Hct) hematocrit, (Hgb) hemoglobin. * Shared in-study control with REGN-EB3 treatment study (Table 3).

Supplementary Table 3. Clinical description and outcome of rhesus macaques challenged with EBOV and treated with REGN-EB3.

Subject No.	Sex	Clinical illness	Clinical pathology
REGN-1	F	Decreased appetite (d1); anorexia (d5-8); petechial rash (d5-8); depression (d6-8); hunched posture (d6-8); weakness (d8); hypopnea (d8); recumbency (d8). Subject euthanized (d8).	Lymphocytopenia (d5); thrombocytopenia (d5, 8); monocytopenia (d5, 8); basopenia (d5, 8); neutrophilia (d5, 8); hypoalbuminemia (d8); hypoamylasemia (d5, 8); CRE ↑ (d5, 8); ALT ↑ (d5, 8); AST ↑↑ (d5, 8); ALP ↑ (d5), ↑↑ (d8); GGT ↑ (d8); ↑↑↑ (d5), ↑↑ (d8).
REGN-2	M	Anorexia (d5, 6); petechial rash (d5, 6); depression (d6); hunched posture (d6); recumbency (d6). Subject euthanized (d6).	Lymphocytopenia (d5); thrombocytopenia (d5, 6); basopenia (d5, 6); monocytosis (d5, 6); neutrophilia (d5); eosinophilia (d6); hyperglycemia (d6); hypocalcemia (d5, 6); hypoalbuminemia (d6); hypoamylasemia (d5); BUN ↑ (d5), ↑↑↑ (d6); CRE ↑ (d5), ↑↑↑ (d6); ALT ↑↑↑ (d5, 6); AST ↑↑↑ (d5, 6); CRP ↑↑↑ (d5, 6).
REGN-3	F	Decreased appetite (d1, 5, 7-9, 11, 12); anorexia (d6); petechial rash (d5-10). Subject survived to study endpoint (d35).	Lymphocytopenia (d5); thrombocytopenia (d8); monocytopenia (d5, 8, 11, 14, 21, 28, 35); eosinopenia (d8, 11, 21, 28, 35); basopenia (d8, 11, 28, 35); lymphocytosis (d11, 14); neutrophilia (d5, 8, 14, 35); eosinophilia (d5); basophilia (d5); hypoglycemia (d8, 21); hypoalbuminemia (d8, 11, 14); AST Lymphocytopenia (d8); ALP Lymphocytopenia (d8, 11, 14); CRP ↑↑↑ (d5), ↑ (d8).
REGN-4	M	Decreased appetite (d5, 9, 10); anorexia (d6-8); petechial rash (d5-11); weakness (9); recumbency (d9, 10); depression (d10, 11); hunched posture (d11). Subject survived to study endpoint (d35).	Lymphocytopenia (d8); thrombocytopenia (d5, 8, 11); monocytopenia (d8, 11, 21, 28); basopenia (d5, 8, 11); lymphocytosis (d11, 14); neutrophilia (d5, 8, 11, 14, 21, 28, 35); eosinophilia (d28, 35); basophilia (d28, 35); hypoglycemia (d21, 28); hypoalbuminemia (d8, 11, 14, 21, 28, 35); hypoamylasemia (d5, 8, 21); ALT ↑ (d28, 35); ALT ↑ (d28, 35); AST ↑↑ (d5, 8), ↑ (d11, 28, 35); ALP ↑ (d28); GGT ↑ (d28, 35); ↑↑↑ (d5), ↑↑ (d8).
REGN-5	F	Anorexia (d5-8); hunched posture (d5-8); petechial rash (d5-8); depression (d6-8); emesis (d7); hypopnea (d8); recumbency (d8). Subject euthanized (d8).	Lymphocytopenia (d5, 8); thrombocytopenia (d5, 8); monocytopenia (d5, 8); basopenia (d5, 8); neutrophilia (d5, 8); hypoalbuminemia (d8); hypoamylasemia (d5); BUN ↑↑ (d8); CRE ↑↑↑ (d8); ALT ↑ (d5), ↑↑ (d8); AST ↑↑↑ (d5, 8); ALP ↑ (d5), ↑↑ (d8); GGT (d8); CRP ↑↑↑ (d5, 8).
C-3* (In-study Control)	F	Anorexia (d5, 6); petechial rash (d5, 6); hunched posture (d5, 6); depression (d6); lethargy (d6); recumbency (d6). Subject euthanized (d6).	Lymphocytopenia (d5); thrombocytopenia (d5, 6); basopenia (d5); monocytosis (d5, 6), neutrophilia (d5, 6); eosinophilia (d6); hypoamylasemia (d5, 6); BUN ↑ (d6); CRE ↑ (d5), ↑↑ (d6); ALT ↑ (d6); AST ↑↑ (d5), ↑↑↑ (d6); ALP ↑ (d5), ↑↑ (d6); GGT ↑ (d6); CRP ↑↑↑ (d5, 6).

Days after EBOV challenge are in parentheses. All reported findings are in comparison to baseline (day of challenge [d0]) values. Decreased appetite is defined as $\leq 65\%$ of food consumed from the previous day. Anorexia is defined as no food consumed from the previous day. Fever is defined as a temperature more than 2.5 °F over baseline, or at least 1.5 °F over baseline and ≥ 103.5 °F. Hypothermia is defined as a temperature ≤ 3.5 °F below baseline. Lymphocytopenia, monocytopenia, erythrocytopenia, thrombocytopenia, neutropenia, eosinopenia, and basopenia are defined by a $\geq 35\%$ drop in numbers of lymphocytes, monocytes, erythrocytes, platelets, neutrophils, eosinophils, or basophils, respectively. Lymphocytosis, monocytosis, neutrophilia, eosinophila, and basophilia are defined by a 100% or greater increase in numbers of lymphocytes, monocytes, neutrophils, eosinophils, and basophils, respectively. Hyperglycemia is defined as a 100% or greater increase in levels of glucose. Hypoglycemia is defined by a $\geq 25\%$ decrease in levels of glucose. Anemia is defined as a concurrent $\geq 25\%$ decrease in erythrocyte count, Hct, and Hgb. Hypoalbuminemia is defined by a $\geq 25\%$ decrease in levels of albumin. Hypoproteinemia is defined by a $\geq 25\%$ decrease in levels of total protein. Hypoamylasemia is defined by a $\geq 25\%$ decrease in levels of serum amylase. Hypocalcemia is defined by a $\geq 25\%$ decrease in levels of serum calcium. Increases in ALT, AST, ALP, CRE, CRP, Hct, and Hgb were graded on the following scale: ↑ = 1-5 fold, ↑↑ = >5-10 fold, ↑↑↑ = >10-20 fold, ↑↑↑↑ = >20-fold, ↓ = $\geq 50\%$ decrease. (BUN) blood urea nitrogen, (ALT) alanine aminotransferase, (AST) aspartate aminotransferase, (ALP) alkaline phosphatase, (CRE) Creatinine, (CRP) C-reactive protein, (Hct) hematocrit, (Hgb) hemoglobin. * Shared in-study control with remdesivir treatment study (Table 2).

Supplementary Table 4. Clinical description and outcome of rhesus macaques challenged with EBOV and treated with mAb114.

Subject No.	Sex	Clinical illness	Clinical pathology
m114-1	M	Decreased appetite (d6-9, 11, 12, 14); hematochezia (d8); hunched posture (d8-14); petechial rash (d8, 9); depression (d10-14); periorbital edema (d10-14); conjunctivitis (d14); ocular discharge (d14). Subject euthanized (d14).	Lymphocytopenia (d5, 8, 14); thrombocytopenia (d5, 8); monocytopenia (d8); basopenia (d8); monocytosis (d5, 8, 11); neutrophilia (d5, 8, 11, 14); eosinophilia (d5, 11, 14); basophilia (d5, 11, 14); hypoalbuminemia (d8, 11, 14); hypoamylasemia (d5, 8, 11, 14); ALT ↑ (d5, 11), ↑↑ (d8); AST ↑↑ (d5, 8), ↑ (d11); CRP ↑↑↑ (d5, 14), ↑↑ (d8), ↑ (d11).
m114-2	F	Petechial rash (d4-7); decreased appetite (d5, 6, 8-11, 33, 34); facial edema (d11-13); anorexia (d35). Subject survived to study endpoint (d35).	Lymphocytopenia (d5); thrombocytopenia (d5, 8, 11); neutropenia (d8, 21); eosinopenia (d8); basopenia (d8, 11); lymphocytosis (d11, 14, 21, 28); monocytosis (d8, 11, 14, 21, 28, 35); neutrophilia (d5, 35); eosinophilia (d5, 21, 35); basophilia (d5, 21, 35); hypoalbuminemia (d8, 11); hypoamylasemia (d5); ALT ↑ (d5, 8); AST ↑ (d5, 8, 11); CRP ↑↑ (d5).
m114-3	M	Decrease appetite (d6, 7); anorexia (d8, 9); hunched posture (d8); depression (d9); weakness (d9); dyspnea (d9); hunched posture (d9); petechial rash (d9); recumbency (d9); hematochezia (d9). Subject euthanized (d9).	Lymphocytopenia (d5, 8, 9); thrombocytopenia (d8, 9); monocytopenia (d8); basopenia (d8); monocytosis (d5, 9); neutrophilia (d5, 8, 9); eosinophilia (d5, 9); basophilia (d5); hypoglycemia (d8, 9); hypoalbuminemia (d8, 9); hypoamylasemia (d5, 8, 9); BUN ↑ (d9); CRE ↑ (d9); ALT ↑ (d5), ↑↑ (d8), ↑↑↑ (d9); AST ↑↑ (d6), ↑ (d8), ↑↑↑ (d9); ALP (d9); GGT ↑ (d8, 9); CRP ↑↑↑ (d5, 9), ↑↑↑ (d8).
m114-4	F	Decreased appetite (d1, 5, 10, 11, 22, 23); anorexia (d4, 6-9); petechial rash (d5-10); depression (d6, 7); hunched posture (d6, 7). Subject survived to study endpoint (d35).	Lymphocytopenia (d5); thrombocytopenia (d5, 8, 11, 21); neutropenia (d14, 21, 35); basopenia (d8, 21); monocytosis (d5, 8, 11, 14, 21, 28, 35); neutrophilia (d28); eosinophilia (d5, 11, 35); basophilia (d35); hypoglycemia (d11); hypoalbuminemia (d5, 8, 11); hypoamylasemia (d5, 8); ALT ↑ (d5, 8); AST ↑↑ (d5), ↑ (d8, 11); ALP ↑ (d5, 8, 11, 14, 21); CRP ↑↑↑ (d5), ↑ (d8).
m114-5	M	Hunched posture (d5-8); petechial rash (d5-8); depression (d6-8); weakness (d6, 8); anorexia (d6); decreased appetite (d7, 8); ecchymosis (d8); recumbency (d8). Subject euthanized (d8).	Lymphocytopenia (d5, 8); thrombocytopenia (d5, 8); eosinopenia (d8); basopenia (d8); monocytosis (d5); neutrophilia (d5, 8); eosinophilia (d5); hypoglycemia (d5, 8); hypoalbuminemia (d5, 8); hypoproteinemia (d8); hypoamylasemia (d8); BUN ↑ (d5, 8); CRE ↑ (d5); ALT ↑ (d5, 8); AST ↑↑ (d5, 8); ALP ↑ (d5); GGT ↑ (d5); CRP ↑↑↑ (d5, 8).
C-4 (In-study Control)	F	Decreased appetite (d1, 5); depression (d4, 5); hunched posture (d4, 5); recumbency (d4, 5); weakness (d5); petechial rash (d5). Subject euthanized (d5).	Lymphocytopenia (d5); thrombocytopenia (d5); monocytopenia (d5); neutrophilia (d5); eosinophilia (d5); hypoglycemia (d5); hypocalcemia (d5); hypoalbuminemia (d5); BUN ↑ (d5); CRE ↑ (d5); ALT ↑↑ (d5); AST ↑↑↑ (d5); ALP ↑ (d5); GGT ↑ (d5); CRP ↑↑↑ (d5).

Days after EBOV challenge are in parentheses. All reported findings are in comparison to baseline (day of challenge [d0]) values. Decreased appetite is defined as $\leq 65\%$ of food consumed from the previous day. Anorexia is defined as no food consumed from the previous day. Fever is defined as a temperature more than 2.5 °F over baseline, or at least 1.5 °F over baseline and ≥ 103.5 °F. Hypothermia is defined as a temperature ≤ 3.5 °F below baseline. Lymphocytopenia, monocytopenia, erythrocytopenia, thrombocytopenia, neutropenia, eosinopenia, and basopenia are defined by a $\geq 35\%$ drop in numbers of lymphocytes, monocytes, erythrocytes, platelets, neutrophils, eosinophils, or basophils, respectively. Lymphocytosis, monocytosis, neutrophilia, eosinophila, and basophilia are defined by a 100% or greater increase in numbers of lymphocytes, monocytes, neutrophils, eosinophils, and basophils, respectively. Hyperglycemia is defined as a 100% or greater increase in levels of glucose. Hypoglycemia is defined by a $\geq 25\%$ decrease in levels of glucose. Anemia is defined as a concurrent $\geq 25\%$ decrease in erythrocyte count, Hct, and Hgb. Hypoalbuminemia is defined by a $\geq 25\%$ decrease in levels of albumin. Hypoproteinemia is defined by a $\geq 25\%$ decrease in levels of total protein. Hypoamylasemia is defined by a $\geq 25\%$ decrease in levels of serum amylase. Hypocalcemia is defined by a $\geq 25\%$ decrease in levels of serum calcium. Increases in ALT, AST, ALP, CRE, CRP, Hct, and Hgb were graded on the following scale: ↑ = 1-5 fold, ↑↑ = >5-10 fold, ↑↑↑ = >10-20 fold, ↑↑↑↑ = >20-fold, ↓ = $\geq 50\%$ decrease. (BUN) blood urea nitrogen, (ALT) alanine aminotransferase, (AST) aspartate aminotransferase, (ALP) alkaline phosphatase, (CRE) Creatinine, (CRP) C-reactive protein, (Hct) hematocrit, (Hgb) hemoglobin.