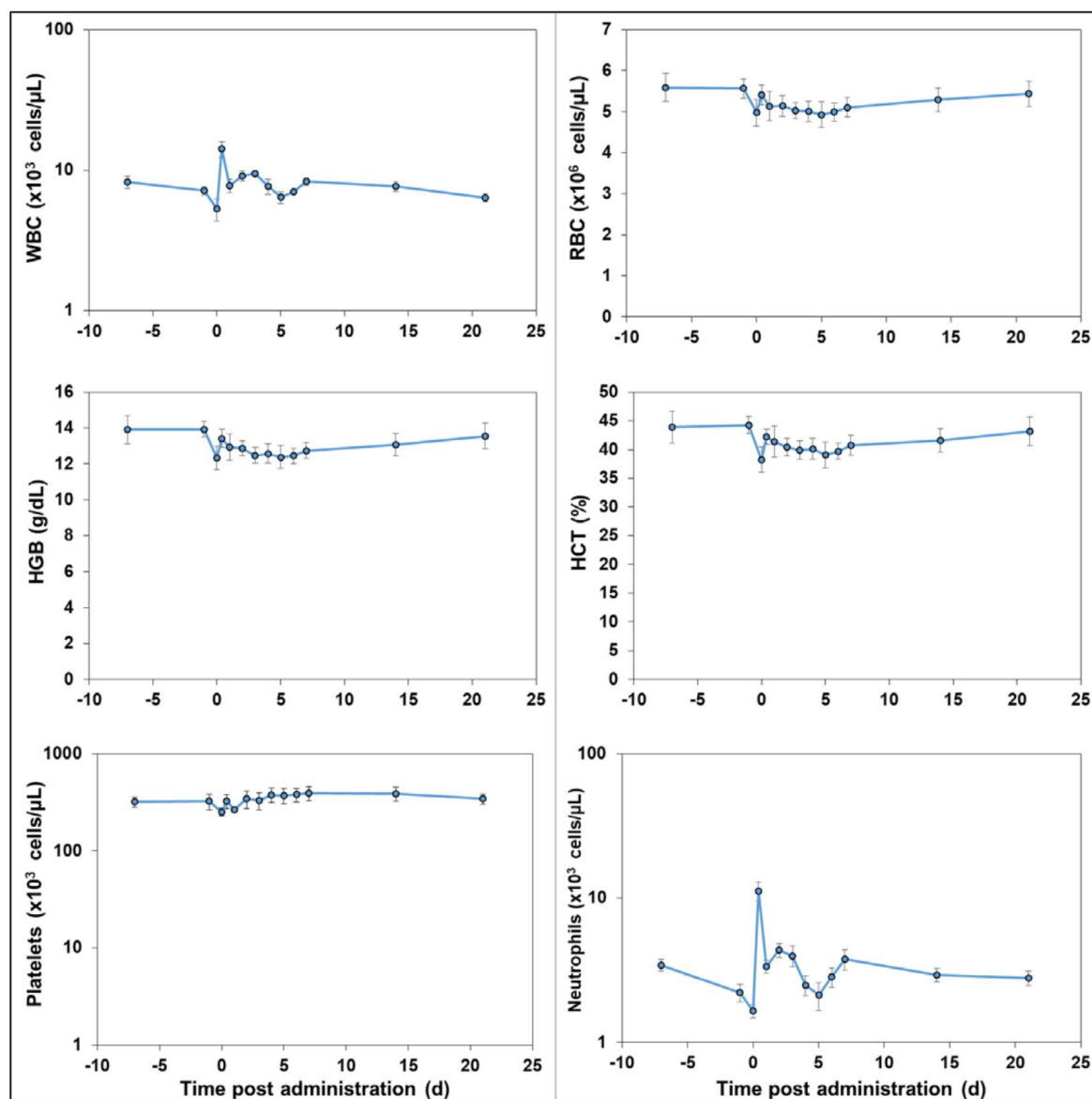
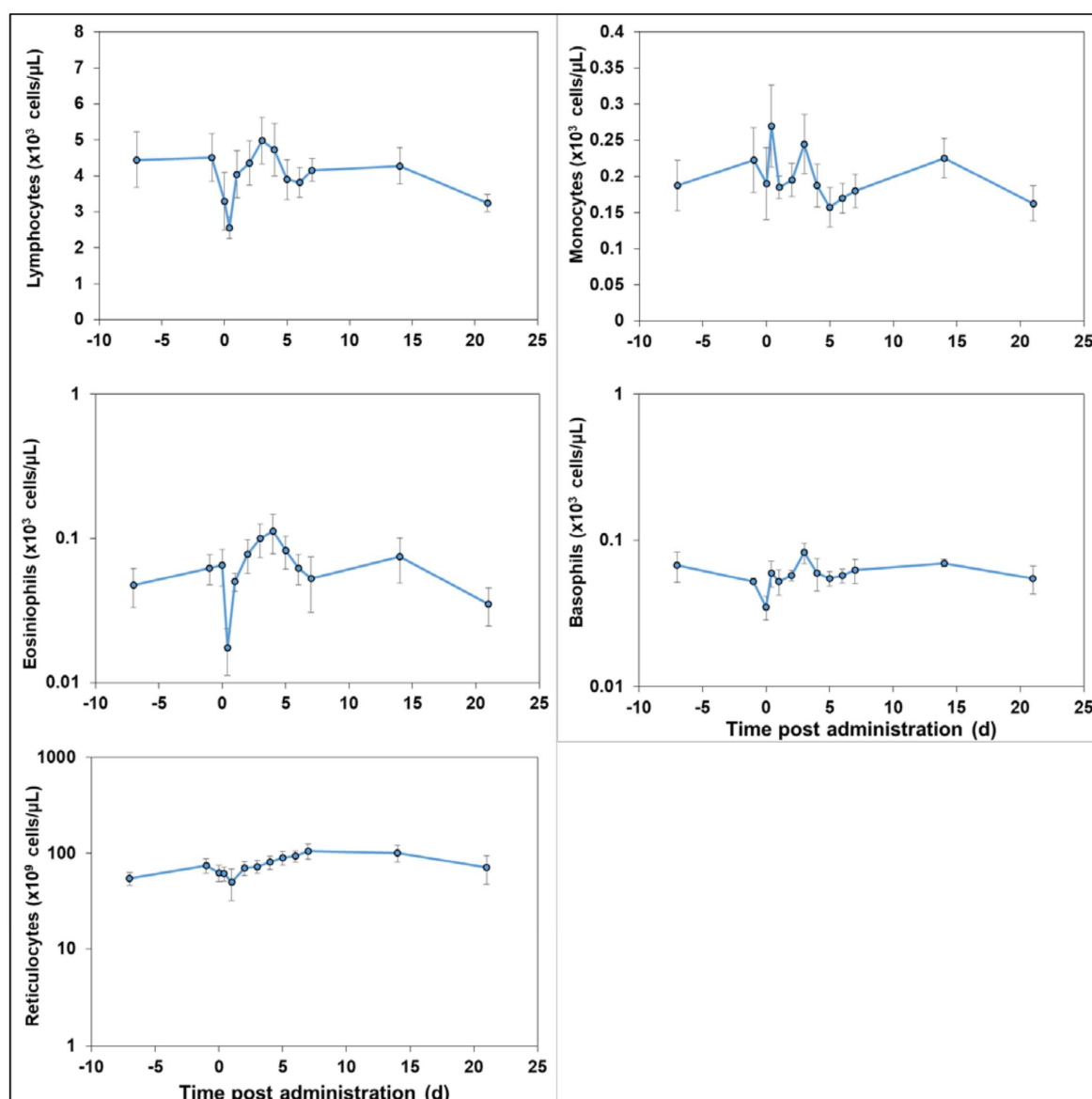
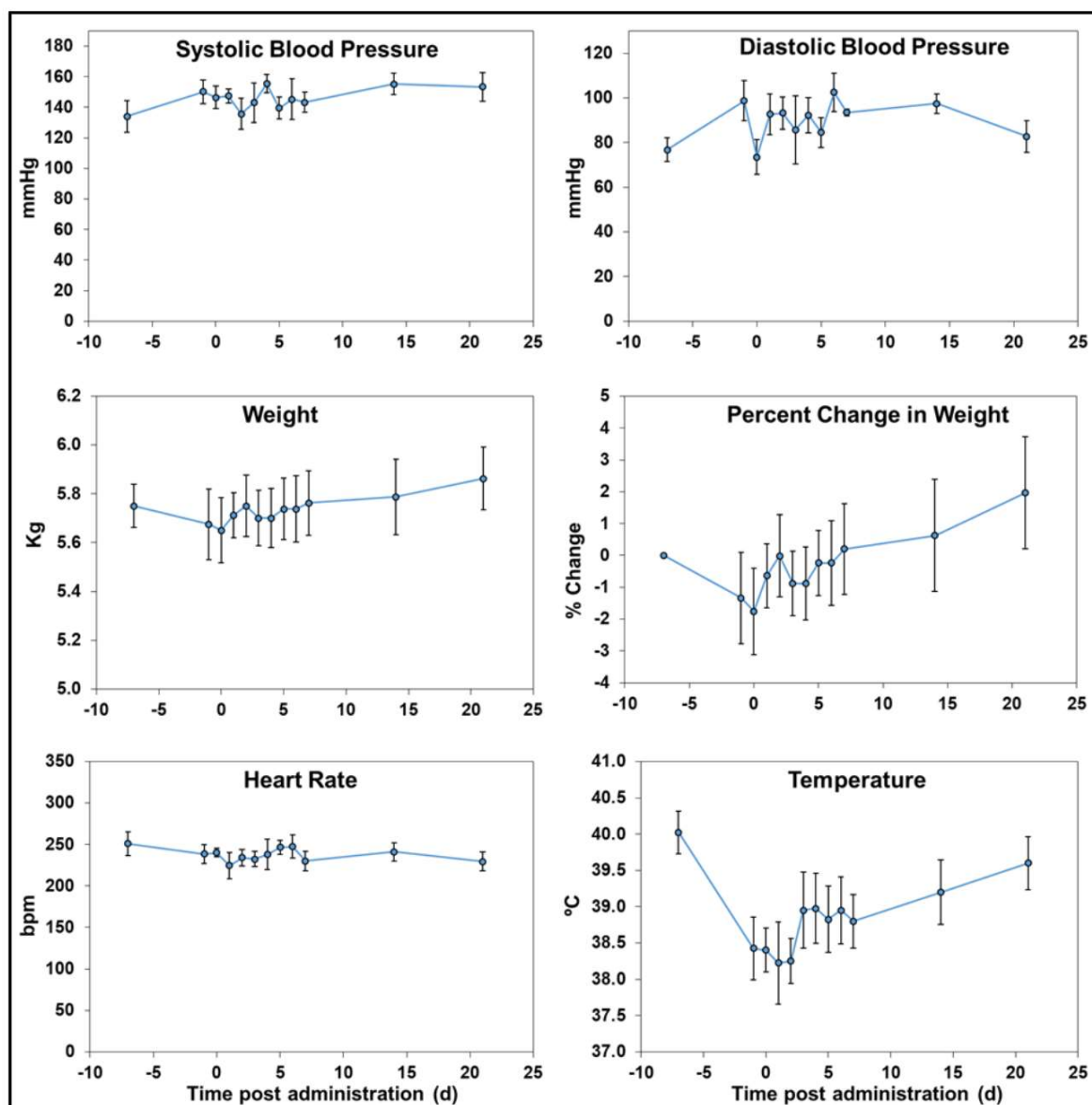


**Figure S1.** Complete blood count (CBC) following BIO300 *im* administration in NHPs at different time points post drug administration. Four NHPs were administered BIO 300 (50 mg/kg) *im*. Blood was collected at various time points and cells were counted using a Bayer Advia-120 cell counter. The data for each time point is presented as the mean  $\pm$  standard error of all NHPs.

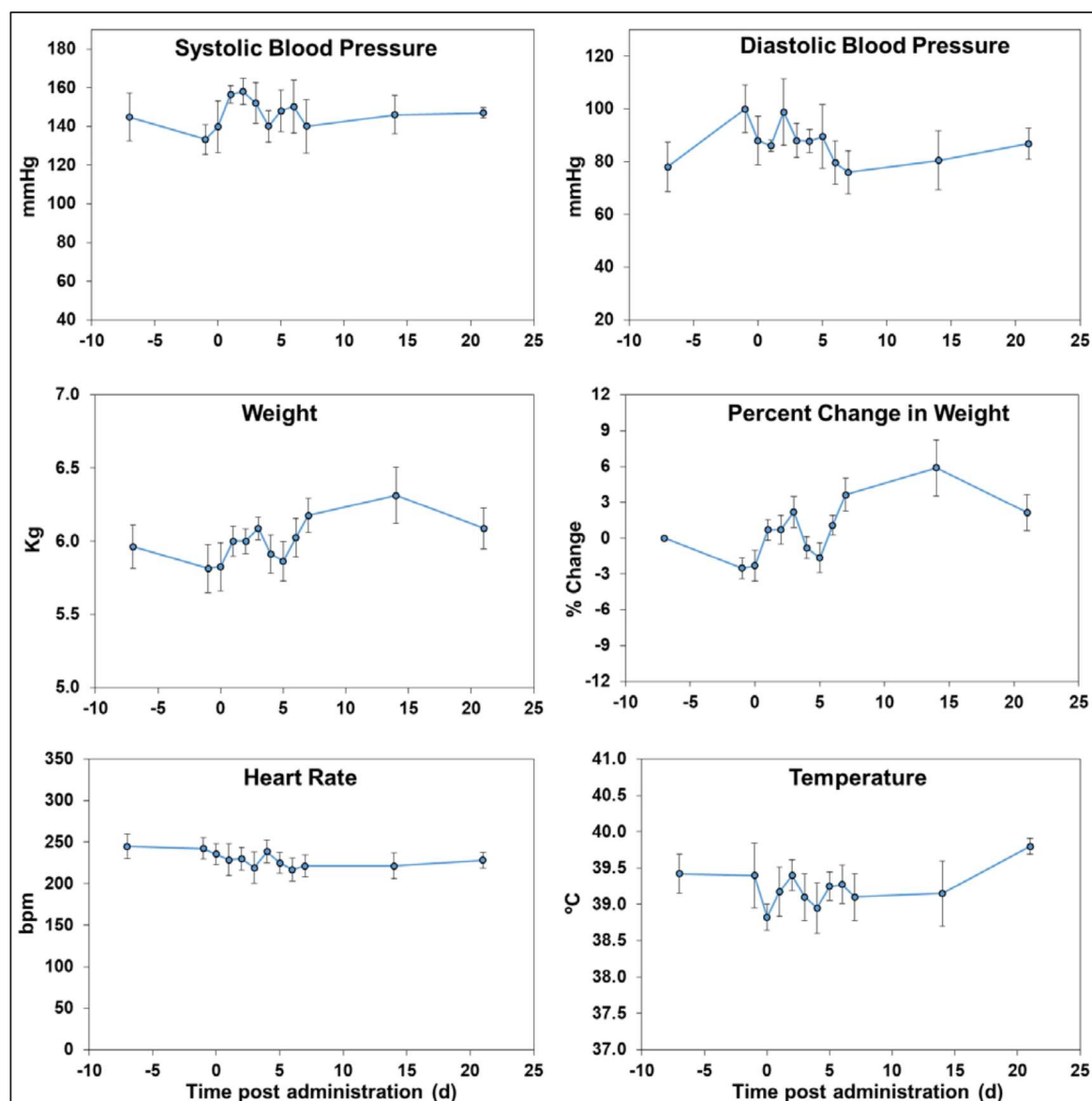




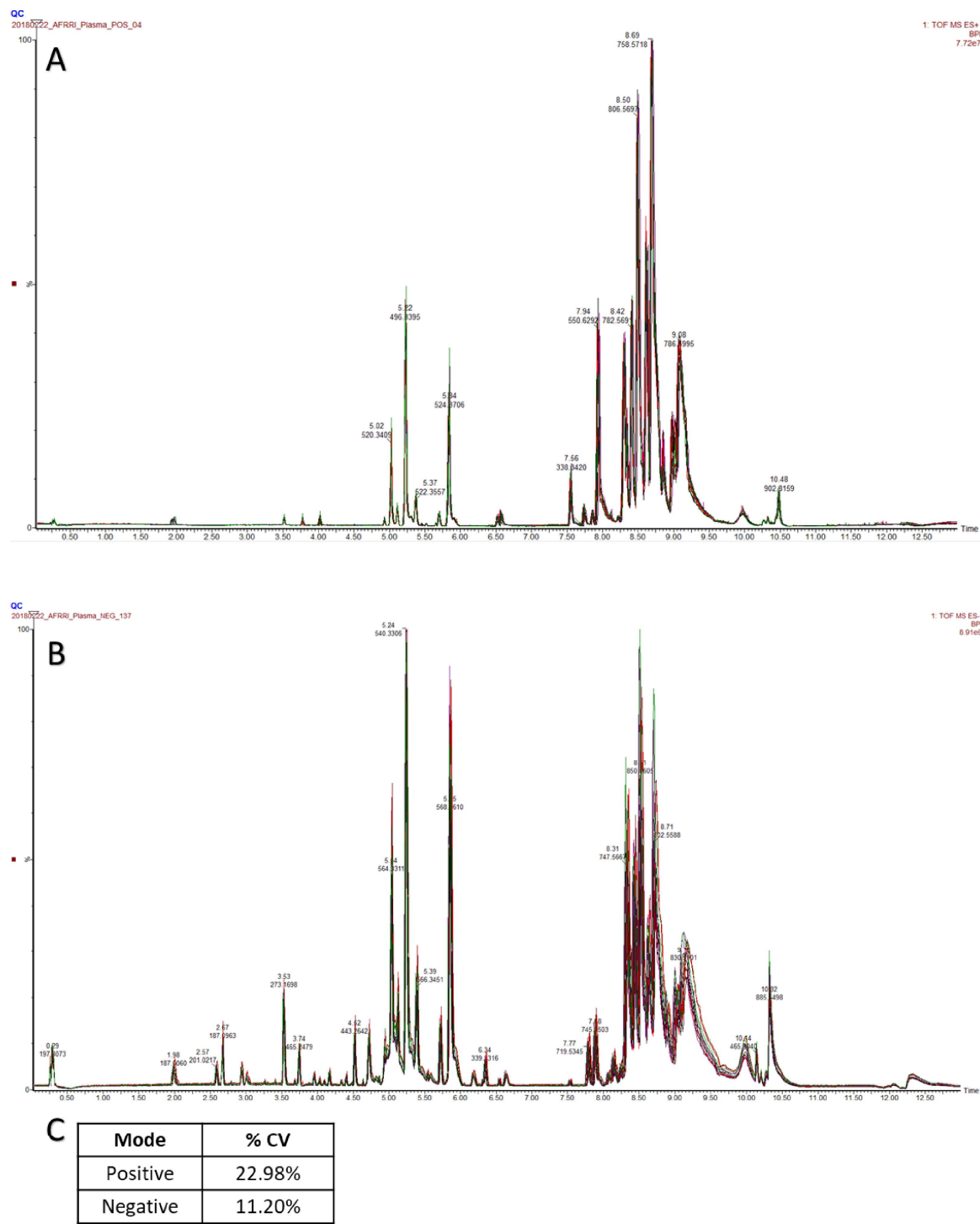
**Figure S2.** Complete blood count (CBC) following BIO300 *po* administration in NHPs at different time points post drug administration. Four NHPs were administered BIO 300 (100 mg/kg) *po*. Blood was collected at various time points and cells were counted using a Bayer Advia-120 cell counter. The data for each time point is presented as the mean  $\pm$  standard error of all NHPs.



**Figure S3.** Vital signs collected in NHPs at various time points following BIO 300 *im* administration. Four NHPs were administered BIO 300 (50 mg/kg) *im*. Temperature was taken using a rectal probe SD-7, -4 and SD-1; for the remainder of the time point, temperature was taken using the DAS-7006/7r scanner with implanted chip. Heart rate and blood pressure were taken at various time points using a SurgiVet Advisor vital signs monitor. Weight was taken at various time points using a platform scale. The data for each time point is presented as the mean  $\pm$  standard error of all NHPs.



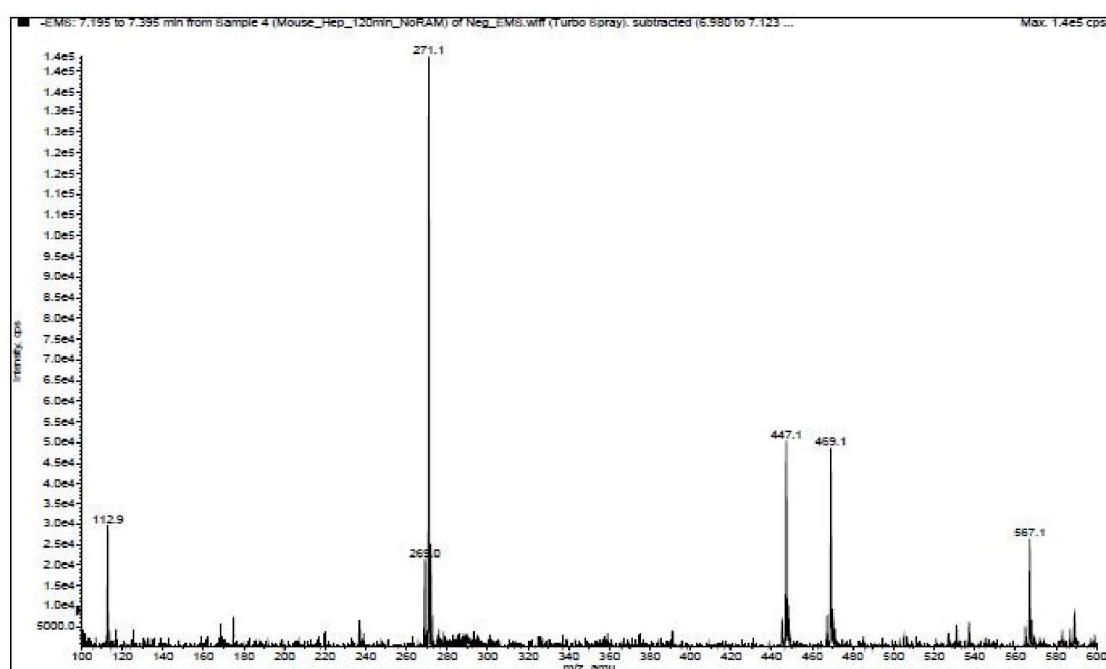
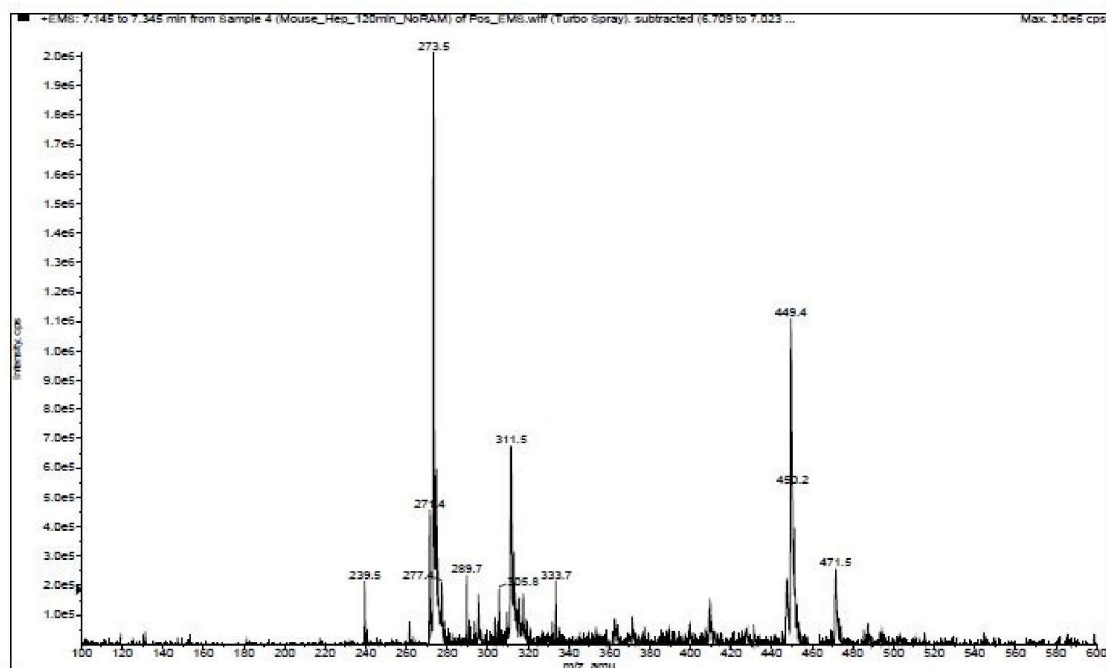
**Figure S4.** Vital signs collected in NHPs at various time points following BIO 300 *po* administration. Four NHPs were administered BIO 300 (100 mg/kg) *po*. Temperature was taken using a rectal probe SD-7, -4 and SD-1; for the remainder of the time point, temperature was taken using the DAS-7006/7r scanner with implanted chip. Heart rate and blood pressure were taken at various time points using a SurgiVet Advisor vital signs monitor. Weight was taken at various time points using a platform scale. The data for each time point is presented as the mean  $\pm$  standard error of all NHPs

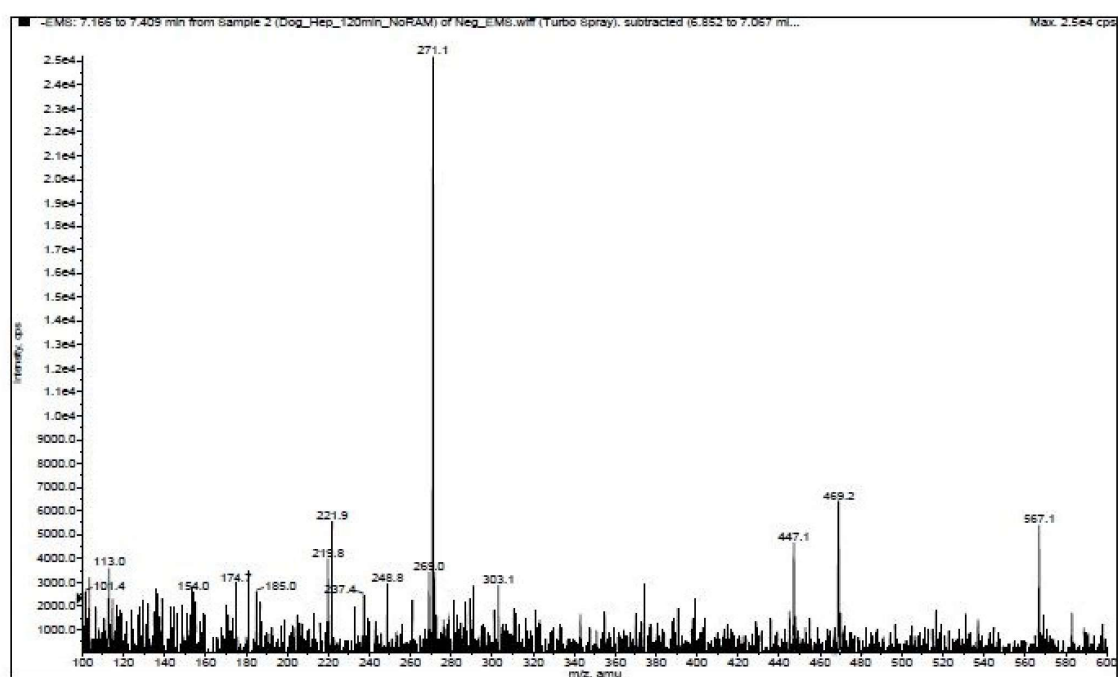
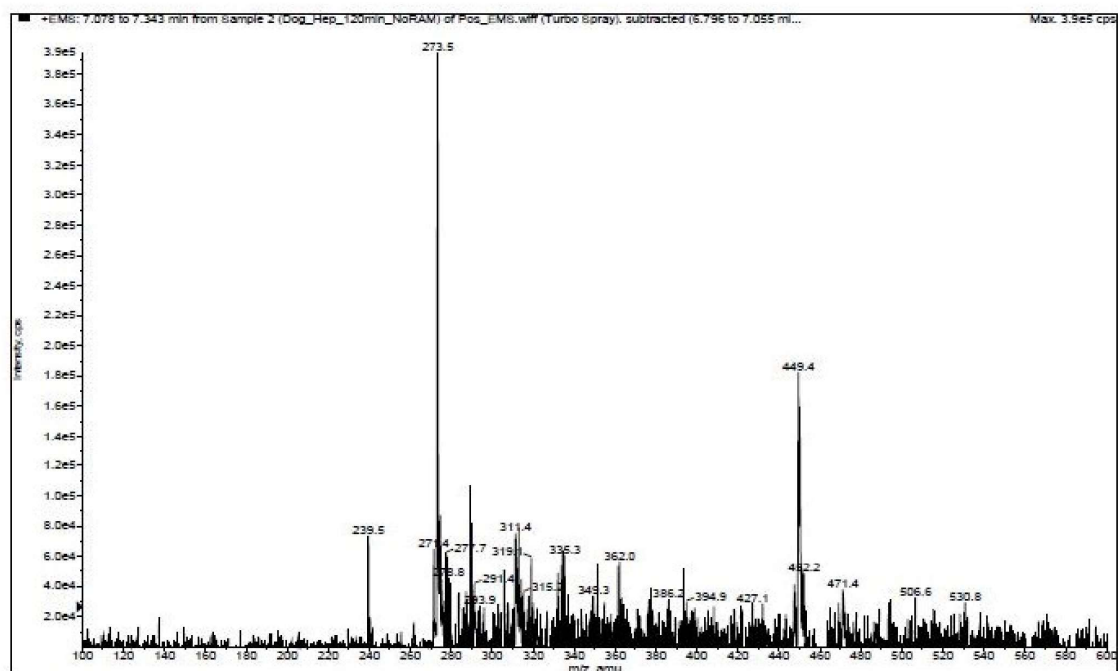


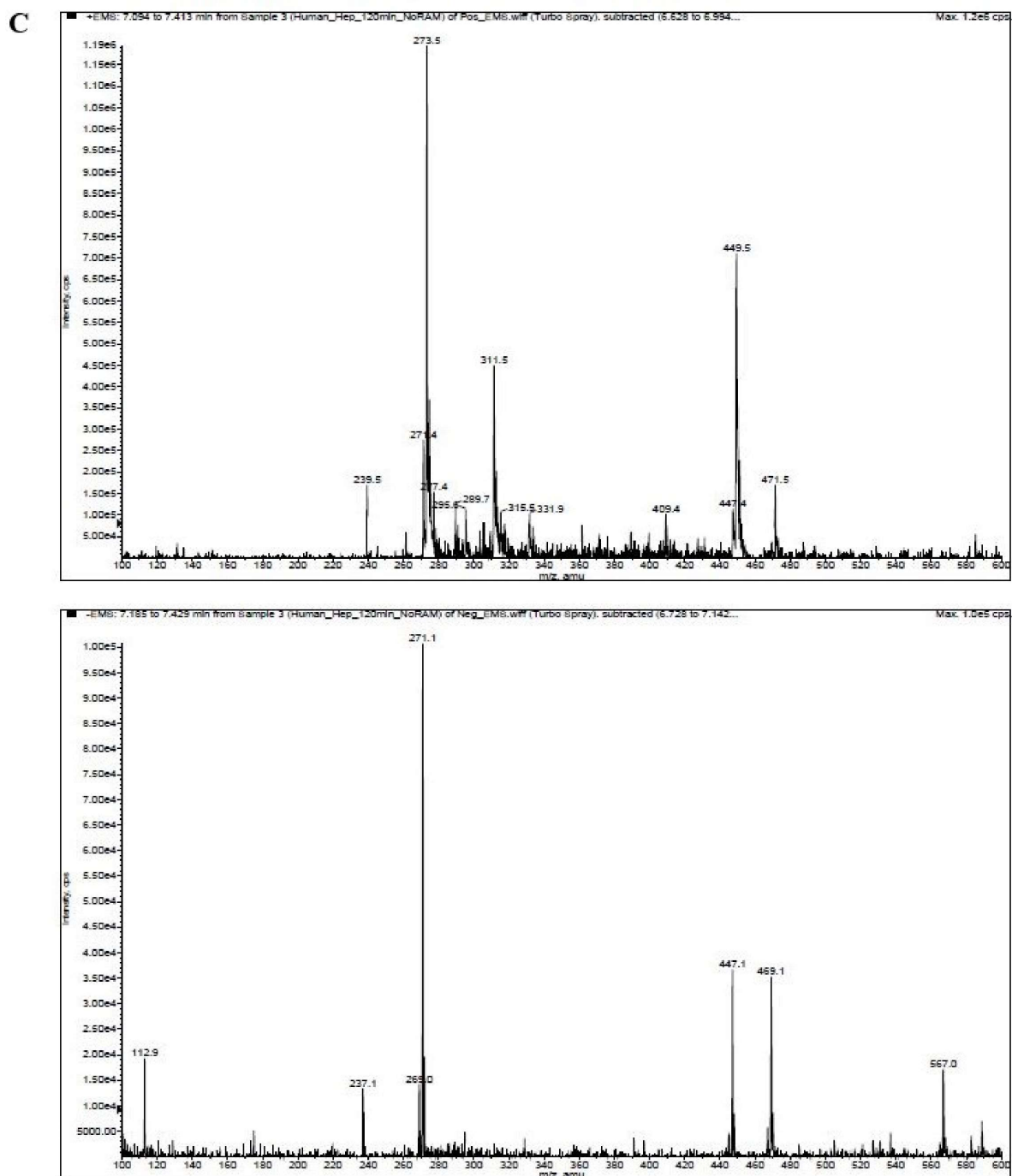
**Figure S5.** QC base peak intensity chromatogram overlays in the (A) positive mode and (B) negative mode, and (C) %CV values of the internal standard in QC.



A

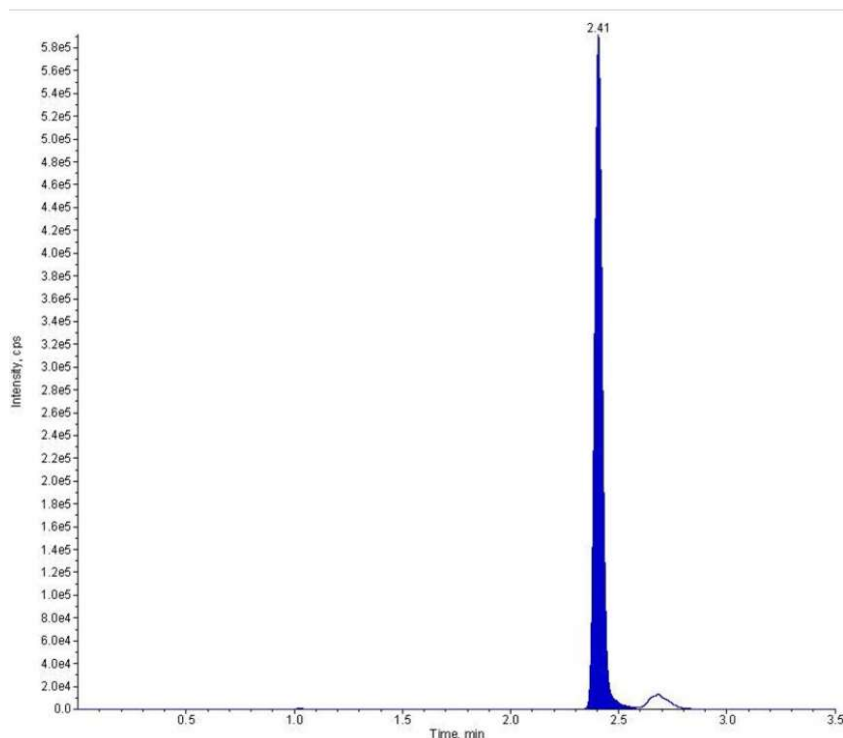


**B**

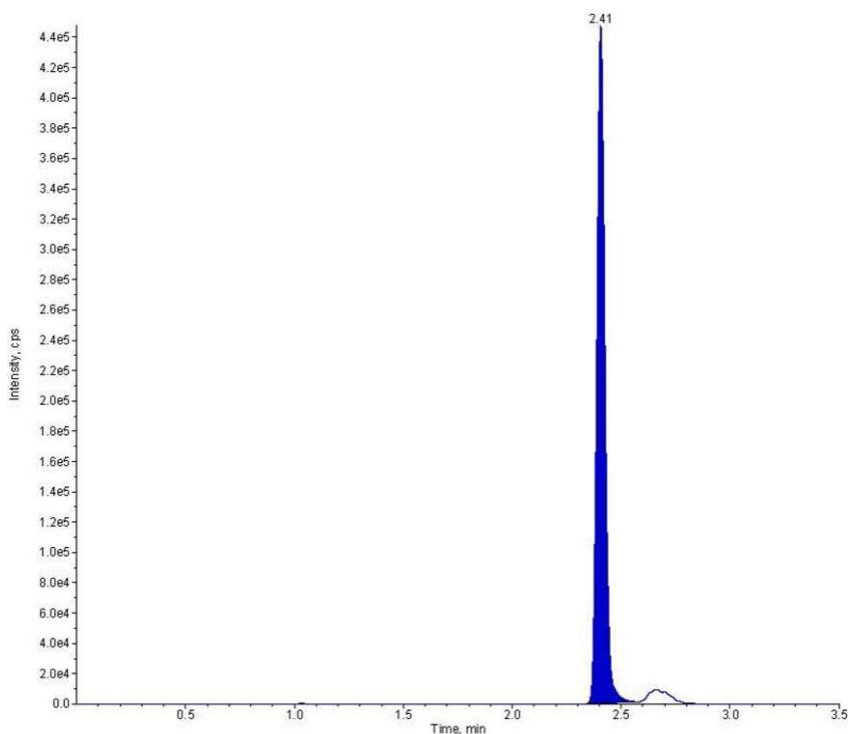


**Figure S6.** EMS Spectra of genistein 7-*O*-glucuronide in hepatocyte extract 2 h post addition of 10  $\mu$ M [ $^{14}$ C] genistein from (A) mouse, (B) dog, and (C) human; electrospray positive ion (top) and negative ion mode (bottom) for each molecular species. HPLC/RAD chromatograms generated from the hepatocyte samples showed the presence of up to 2 metabolites in addition to [ $^{14}$ C] genistein. Representative 2-h incubation samples from mouse, dog, and human hepatocytes were used for metabolite identification. Metabolites were identified by comparison of their mass spectral fragmentation patterns with those of [ $^{14}$ C] genistein. Mass spectra were obtained under positive ion and negative ion mode with an API3200 mass spectrometer in enhanced mass spectrum (EMS) mode to obtain molecular weight data.

## Free genistein



## Total genistein



**Figure S7.** The extracted ion chromatogram of genistein ( $m/z = 273$ ) at 1 ngm/mL. The data were acquired on a 3200 triple quadrupole mass spectrometer (Sciex). Technical replicates showed an excellent reproducibility with respect to compound purity and chromatographic elution time (RT).