Vectors and Sequences

Adeno-associated viral vectors were pseudotyped with either extant or ancestral viral capsids. Extant capsids include AAV1 (Genbank [GB] AAD27757.1), AAV2 (GB AAC03780.1), AAV5 (GB AAD13756.1), AAV6.2 (GB EU368910), Rh.10 (gb AAO88201.1), AAV8 (GB AAN03857.1), AAV9 (GB AAS99264.1), and Rh32.33 (GB EU368926). Ancestral AAV capsids include Anc80L65, Anc81, Anc82, Anc83, Anc84, Anc110, Anc113, Anc126, and Anc127 (KT235804-KT235812). Vector transgene cassettes included CMV.eGFP.T2A.ffLuciferase.SVPA, CMV.ffLucifase.SVPA.(in vitro studies), TBG.LacZ.RBG (liver), TBG.eGFP.WPRE.bGH (liver and muscle immunization study), CAS1.hA1AT.FF2A.eGFP.RBG (liver, muscle), and CMV.eGFP.WPRE (retina).

Sequence-structure analysis

A pseudoatomic model of Anc80L65 VP3 was generated with the SWISS-MODEL structure homology modeling server (Biasini et al., 2014), using AAV8 crystal structure (PDB 2QA0) as a template. AAV2 (PDB 1LP3), AAV8 (PDB 2QA0) and Anc80 VP3 structures were further superimposed and color-coded according to residue conservation, using the UCSF Chimera package (Pettersen et al., 2004). A structural alignment of Anc80, AAV2 and AAV8 VP3 was then generated and completed by a non-structural alignment of the VP1/2 domains of these three serotypes, generated with the T-coffee alignment package (Notredame et al., 2000). The spatial distribution of the mutations separating Anc80L65 and AAV8 was also visualized at the inner and outer surface of AAV8 trimer structure, where the variable residues in the structural alignment of Anc80L65 and AAV8 VP3 were represented in blue, and polymorphic residues in red.

Transmission electron microscopy of AAV vectors
Anc80L65 particle morphology was assessed by transmission electron microscopy loading 5 µL of a purified preparation of Anc80L65 vector onto formvar coated 400-mesh copper grids and staining with uranyl acetate. Electron micrographs were obtained under 160,000x magnification at a voltage of 120 kV.

**Analytical ultracentrifugation of AAV vectors**

Empty/Full particle ratios were determined through analytical ultracentrifugation. Briefly, 500 µL samples of high-titer, purified Anc80L65 pseudotyped vector were analyzed using the Beckman Coulter ProteomeLab XL-I analytical ultracentrifuge available at the MIT Biophysical Instrumentation Facility. The samples were spun at 15000rpm in an eight-hole (50 Ti) rotor at 20°C. Refractive index optical measurements were obtained at regular time points throughout the spin to assess the relative sedimentation rates of all molecular species present in the sample. To interpret and analyze the data obtained, the Lamm equation was solved using SEDFIT (Schuck et al., 2002), and a sedimentation coefficient distribution analysis was run to identify the different species contained in our AAV sample.

**Thermal stability assessment**

The thermal stability of Anc80L0065 was studied by SDS-Page using the NuPAGE® Bis-Tris Mini Gels kit (1.0 mm, 4-12% polyacrylamide, NP0335BOX, Life Technologies). A 45µL master mix containing 3.0 x 10¹⁰ GC of AAV, supplemented with 1X NuPAGE® Lithium Dodecyl Sulfate (LDS) Sample Buffer, was prepared. This mix was then split into three 15 µL aliquots, which were incubated for 10 min at room temperature (RT), 70°C and 99°C, respectively. 10 µL of each sample were further loaded into the gel, which was run in NuPAGE® 1X 3-(N-morpholino)propanesulfonic acid (MOPS) SDS Running Buffer for 2h under constant voltage (90V). The gel was subsequently stained using the SYPRO® Ruby Protein Gel Stain (S-12000, Life Technologies), according to the manufacturer instructions. Briefly, the gel was fixed by
incubation in 100mL 50% methanol-7% acetic acid (2x15 min), stained in 60 mL protein gel
stain (microwave 30s-agitation 30s-microwave 30s-agitation 5min-microwave 30s-agitation
23min) and washed in 100mL 10% methanol-7% acetic acid (30 min). Finally, the gel was
imaged using the ChemiDoc™ MP imaging system (BIORAD) available in the lab.

For differential scanning fluorescence (Rayaprolu et al., 2013), 25 μL aliquots of each AAV were mixed with 5X SYPRO® Orange (S6651, Life Technologies) prior to loading into a 96-well PCR plate (C18480-96, DENVILLE SCIENTIFIC INC.). Samples were subsequently heated from 30°C to 99°C (at a rate of 0.1°C/6s) while measuring the fluorescence of the SYPRO® Orange dye, using a Realplex 2S MasterCycler Real-Time PCR machine (Eppendorf) (excitation: 450 nm; emission: 550 nm). In each experiment, 25 μL of DPBS (21-031, CORNING) and 25 μL of a 0.25 mg/mL lysozyme solution (L6876, SIGMA-ALDRICH) were used as negative and positive controls, respectively. The fluorescence of 25 μL AAV vectors was also monitored in the absence of the dye for fluorescence background subtraction. Fluorescence intensity was further normalized between 0 and 100% and plotted as a function of the temperature.

**Tissue Histology**

Liver tissue with LacZ was 4% PFA fixed, sectioned at 10 μm, was washed with PBS to remove
residual fixative, and was stained at 37°C using commercial staining solutions (400 mM
Potassium ferricyanide, 400 mM Potassium ferrocyanide, 200 mM magnesium chloride, X-gal
95-bromo-4-chloro-3-indolyl-β-D-galactopyranoside) for 0.5-2 h. Tissues were then mounted
onto slides and visualized via light microscopy. To visualize eGFP expression in liver, tissues
were fixed overnight in 4% Para-formaldehyde (PFA), washed in phosphate-buffered saline
(PBS) for 30 min, sequentially incubated in 10%, 20% and 30% sucrose gradients before
freezing in O.C.T compound (Sakura Finetek USA, Torrance, CA). To visualize eGFP
expression in muscle, tissues were mounted on cork disks holding 10% Gum Tragacanth
(Sigma-Aldrich Cat. No. G1128) and flash frozen using liquid nitrogen cooled Isopentane.
(Sigma-Aldrich 27,034-2). Muscle cryosections were prepared at 10 µm. Enucleated eyes were fixed in 4% PFA for 1 hour on ice and then embedded in OCT and frozen prior to cryosectioning. Retinal sections were stained with DAPI (1 µg/ml) for 10 minutes. Sections were imaged on a Leica TCS SP5 confocal microscope.

**Tissue DNA Biodistribution and RNA quantitation**

Snap frozen tissue was proteinase K digested and genomic DNA (gDNA) was extracted using Blood & Cell Culture DNA Mini kit (Qiagen, Cat. No. 69506) as indicated. Isolated gDNA was quantified using the BioTek plate reading spectrophotometer (Biotek Instruments, Inc. Winooski, VT). Viral genome (vg) distribution in diploid cells were detected and quantified by QPCR using Applied Biosystems® 7500 Real-Time PCR Systems with TaqMan®PCR master mix reagents (Applied Biosystems®) and transgene-specific primer/probes as previously described (Wang et al., 2010).

Total RNA was isolated from harvested liver using Qiagen RNeasy mini kit (Qiagen, Cat. No. 74106). Total RNA (1µg) was Dnase treated and reverse-transcribed into cDNA using Qiagen QuantiTect Reverse Transcription Kit (Qiagen, Cat. No. 205311). mRNA was detected and quantified using an Applied Biosystems® 7500 Real-Time PCR System with TaqMan®PCR master mix reagents with specific primer/probe reaction mixtures: GAPDH (Rh02621745_g1), Rhesus Chorionic Gonadotropin (Rh02821983_g1). TaqMan custom primer/probe suggested reaction conditions were used. In addition, viral genomes within liver tissue were quantified as in murine experiments above.

**Quantification of human alpha1-antitrypsin (hA1AT)**

The expression level of hA1AT in the serum samples was quantified using the Sandwich Enzyme-linked Immunosorbent Assay (ELISA). High-binding 96-well plates (Thermo Cat. No.
Scientific-Fisher 15051) were coated with primary coating rabbit anti-alpha1-antitrypsin antibody (Sigma Cat. No. A0409) and incubated at 4°C overnight. The coating antibody was diluted in 1X coating buffer to a final concentration of 1000 ng/well. On the next day, plates were washed with PBS + 0.05% Tween 20 (Fisher Cat. No. BP337), and blocked for 2h at room temperature using 10% BSA Blocking Solution (VWR Cat. No. 50-61-01). Alpha1-antitrypsin standards were prepared from a 10mg/ml stock and diluted in 1X blocking solution to form a dilution series. Serum samples were diluted in 1X blocking solution and incubated at 4°C overnight. Following extensive washing, HRP-conjugated goat anti-human alpha1-antitrypsin antibody (Abcam Cat. No. 7635) was added at 500ng/well and incubated for 2h at room temperature. Plates were washed eight times before adding 100 μL of ABTS peroxidase substrate (VWR Cat. No. 50-66-18) to the wells. OD$_{405}$ values were measured using a Biotek plate-reader.

Neutralizing antibody assay

NABs were assessed in vitro as previously described (Calcedo et al., 2009) with the following modifications. Serum from rabbits pre-immunized with AAV1, AAV2, AAV5, AAV6, AAV8, AAV9, rh.10 and rh32.33 was obtained from James M. Wilson, University of Pennsylvania. (Gao et al., 2004). Mouse, rabbit, or rhesus sermu was serially diluted 1:40 to 1:20,971,520 and incubated with $10^9$ GC particles of AAV.CMV.\textit{luciferase}2.SVPA transgene for 1 h at 37°C. The mixture was then added to HEK-293 cells on a 96-well plate pre-infected with human adenovirus 5 (hAd5) 24 h prior at a multiplicity of infection of 20 particles/cell. The cells were incubated for 48 h after which D-luciferin containing buffer was added and luminescence was measured using Synergy H1 microplate reader (BioTek; Winooski, VT). Luminescence was normalized against control cells infected with AAV incubated without serum. A neutralizing titer was determined at the dilution at which luminescence was <50% compared with control wells.


**Supplemental Figure Legends**

**Figure S1** eGFP Expression after Viral Vector Intramuscular Injection, related to Figure 4. For muscle-targeted eGFP experiments, mice received a single injection in the gastrocnemius muscle. eGFP expression is observed in transversal and longitudinal muscle sections (first and second columns). Blue staining marks nuclei (DAPI). The morphology of muscle is unchanged as seen in haematoxylin and eosin (H&E) stained sections (third column).

**Figure S2** Multiple Sequence Alignment of AAV Isolates used in Ancestral Sequence Reconstruction, related to Figure 1 and 6.

**Figure S3** Full Phylogeny and Reconstructed Nodes of AAV Evolutionary Lineage, related to Figure 1. Maximum-likelihood phylogeny relating 75 isolates of AAV (see materials and methods for details regarding generation and validation). Red circles represent evolutionary intermediates reconstructed through ASR. Blue circle represents library of probabilistic space built around Anc80.
Figure S1
Figure S3
Table S1: Vector Genome Distribution in Mouse Liver, Heart, Spleen, Kidney and Lung, related to Figure 4. Tissue was obtained 7 and 28 days after viral vector injection. Titers were measured using qPCR from isolated mRNA.

<table>
<thead>
<tr>
<th></th>
<th>7dpi</th>
<th>28dpi</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AAV8</td>
<td>Anc80L65</td>
<td>AAV8</td>
<td>Anc80L65</td>
</tr>
<tr>
<td>Liver</td>
<td>31.04±7.04</td>
<td>24.19±0.51</td>
<td>8.59±3.1</td>
<td>8.47±1.35</td>
</tr>
<tr>
<td>Lung</td>
<td>0.77±0.07</td>
<td>2.2±0.46</td>
<td>0.16±0.04</td>
<td>1.32±0.78</td>
</tr>
<tr>
<td>Kidney</td>
<td>0.63±0.06</td>
<td>1.2±0.16</td>
<td>0.22±0.06</td>
<td>0.86±0.26</td>
</tr>
<tr>
<td>Heart</td>
<td>0.17±0.06</td>
<td>0.53±0.04</td>
<td>0.1±0.04</td>
<td>0.7±0.32</td>
</tr>
<tr>
<td>Spleen</td>
<td>0.02±0</td>
<td>0.19±0.12</td>
<td>0.02±0.01</td>
<td>0.21±0.15</td>
</tr>
</tbody>
</table>
Table S2 Characteristic and Previous Clinical History of Rhesus Macaques Treated with Viral Vectors Injected Via Saphenous Vein, related to figure 4.

<table>
<thead>
<tr>
<th>Animal ID</th>
<th>Age</th>
<th>Sex</th>
<th>Weight (kg)</th>
<th>Experiment (days)</th>
<th>Previous History</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP19</td>
<td>13.5</td>
<td>Female</td>
<td>7.8</td>
<td>71</td>
<td>Inoculated with MVA-HIV vaccine</td>
<td>IV Anc80</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In 2011 diagnosed with early endometriosis</td>
<td></td>
</tr>
<tr>
<td>AP18</td>
<td>9.5</td>
<td>Female</td>
<td>7.2</td>
<td>71</td>
<td>Inoculated with CMV. Received anti-CD4 antibody</td>
<td>IV Anc80</td>
</tr>
<tr>
<td>AP17</td>
<td>18.5</td>
<td>Female</td>
<td>8.3</td>
<td>71</td>
<td>Inoculated with MVA-HIV vaccine</td>
<td>IV Anc80</td>
</tr>
<tr>
<td>AP16</td>
<td>15.5</td>
<td>Female</td>
<td>6.3</td>
<td>70</td>
<td>Inoculated with MVA-HIV vaccine</td>
<td>IV AAV8</td>
</tr>
<tr>
<td>AP15</td>
<td>5</td>
<td>Female</td>
<td>5</td>
<td>70</td>
<td>Inoculated with CMV. Received anti-CD4 antibody</td>
<td>IV AAV8</td>
</tr>
<tr>
<td>AP14</td>
<td>5.5</td>
<td>Female</td>
<td>5.2</td>
<td>70</td>
<td>Inoculated with CMV. Recent weight loss</td>
<td>IV AAV8</td>
</tr>
</tbody>
</table>
Table S3 Complete Blood Count Values for Mice Injected with AAV8 and Anc80L65, related to figure 4. The values outside the references range were highlighted in red (above) and yellow (below).

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Name</th>
<th>control 2h</th>
<th>AAV2/8 2h</th>
<th>AAV2/Anc80L65 2h</th>
<th>control 72h</th>
<th>AAV2/8 72h</th>
<th>AAV2/Anc80L65 72h</th>
<th>control 7 days</th>
<th>AAV2/8 7 days</th>
<th>AAV2/Anc80L65 7 days</th>
<th>control 14 days</th>
<th>AAV2/8 14 days</th>
<th>AAV2/Anc80L65 14 days</th>
<th>control 28 days</th>
<th>AAV2/8 28 days</th>
<th>AAV2/Anc80L65 28 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mouse</td>
<td>WBC</td>
<td>4.2 ± 0.8</td>
<td>5.2 ± 0.8</td>
<td>5.1 ± 0.8</td>
<td>5.9 ± 0.8</td>
<td>3.9 ± 0.8</td>
<td>5 ± 0.8</td>
<td>8.4 ± 0.8</td>
<td>5.5 ± 0.8</td>
<td>5.8 ± 0.8</td>
<td>7 ± 0.8</td>
<td>8.2 ± 0.8</td>
<td>7.3 ± 0.8</td>
<td>6.5 ± 0.8</td>
<td>5.5 ± 0.8</td>
<td>8.1 ± 0.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>LYM %</td>
<td>79.1 ± 2.1</td>
<td>74.3 ± 2.1</td>
<td>77.6 ± 2.1</td>
<td>87 ± 6.9</td>
<td>86 ± 6.9</td>
<td>86 ± 6.9</td>
<td>87.4 ± 6.9</td>
<td>89.5 ± 6.9</td>
<td>87.5 ± 6.9</td>
<td>88.2 ± 6.9</td>
<td>86.2 ± 6.9</td>
<td>88.9 ± 6.9</td>
<td>89.4 ± 6.9</td>
<td>81.8 ± 6.9</td>
<td>90.6 ± 6.9</td>
</tr>
<tr>
<td></td>
<td>MONO %</td>
<td>4.1 ± 0.1</td>
<td>4.4 ± 0.1</td>
<td>3.3 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.0 ± 0.1</td>
<td>3.0 ± 0.1</td>
<td>3.3 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
<td>3.1 ± 0.1</td>
</tr>
<tr>
<td></td>
<td>GRAN %</td>
<td>16.9 ± 2.2</td>
<td>22.2 ± 2.2</td>
<td>18.9 ± 2.2</td>
<td>9.7 ± 9.8</td>
<td>9.8 ± 9.8</td>
<td>10.9 ± 10.9</td>
<td>7.2 ± 7.4</td>
<td>7.6 ± 7.4</td>
<td>8.3 ± 7.4</td>
<td>8.3 ± 7.4</td>
<td>13.2 ± 7.4</td>
<td>7.7 ± 7.4</td>
<td>7.7 ± 7.4</td>
<td>13.4 ± 7.4</td>
<td>7 ± 7.4</td>
</tr>
<tr>
<td></td>
<td>HCT</td>
<td>49.5 ± 7.7</td>
<td>47.7 ± 7.7</td>
<td>50.3 ± 7.7</td>
<td>46.9 ± 45.2</td>
<td>47.7 ± 45.2</td>
<td>42.5 ± 47.7</td>
<td>44.7 ± 45.7</td>
<td>45.7 ± 44.6</td>
<td>46.1 ± 45.2</td>
<td>47.2 ± 47.3</td>
<td>47.3 ± 47.3</td>
<td>46.9 ± 47.9</td>
<td>44.9 ± 45.7</td>
<td>45.7 ± 45.3</td>
<td>45.1 ± 45.3</td>
</tr>
<tr>
<td></td>
<td>MCV</td>
<td>44.6 ± 4.4</td>
<td>44.9 ± 4.4</td>
<td>44.2 ± 4.2</td>
<td>44.7 ± 45.3</td>
<td>44.9 ± 4.4</td>
<td>44.7 ± 44.3</td>
<td>45.1 ± 46.1</td>
<td>45.3 ± 44.3</td>
<td>45.1 ± 46.3</td>
<td>44.9 ± 45.7</td>
<td>45.7 ± 45.3</td>
<td>45.1 ± 45.3</td>
<td>44.9 ± 45.7</td>
<td>45.7 ± 45.3</td>
<td>45.1 ± 45.3</td>
</tr>
<tr>
<td></td>
<td>RDWs</td>
<td>30.7 ± 3.1</td>
<td>32 ± 3.1</td>
<td>30.8 ± 3.1</td>
<td>31.2 ± 33.5</td>
<td>30.9 ± 3.1</td>
<td>31.1 ± 32.5</td>
<td>31.6 ± 32.4</td>
<td>31.7 ± 31.7</td>
<td>30.9 ± 32.1</td>
<td>30.9 ± 32.1</td>
<td>30.8 ± 32.1</td>
<td>30.9 ± 32.1</td>
<td>30.9 ± 32.1</td>
<td>30.8 ± 32.1</td>
<td>30.9 ± 32.1</td>
</tr>
<tr>
<td></td>
<td>RDW %</td>
<td>16.8 ± 1.7</td>
<td>17.8 ± 1.7</td>
<td>17 ± 1.7</td>
<td>17.2 ± 17.2</td>
<td>17.1 ± 17.1</td>
<td>17 ± 17.2</td>
<td>17.3 ± 17.1</td>
<td>17.2 ± 17.1</td>
<td>17.3 ± 17.1</td>
<td>17.3 ± 17.1</td>
<td>17 ± 17.1</td>
<td>17 ± 17.1</td>
<td>17 ± 17.1</td>
<td>17 ± 17.1</td>
<td>17 ± 17.1</td>
</tr>
<tr>
<td></td>
<td>HGB</td>
<td>16.4 ± 1.6</td>
<td>16 ± 1.6</td>
<td>16.1 ± 1.6</td>
<td>14.8 ± 1.5</td>
<td>14.5 ± 1.5</td>
<td>15 ± 15.3</td>
<td>15.6 ± 1.5</td>
<td>15.7 ± 1.5</td>
<td>15.6 ± 1.6</td>
<td>15.6 ± 1.6</td>
<td>15.7 ± 1.5</td>
<td>15.8 ± 1.6</td>
<td>g/dl 10.1 ± 16.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCHC</td>
<td>33.8 ± 3.6</td>
<td>33.5 ± 3.6</td>
<td>34.3 ± 3.6</td>
<td>34.5 ± 3.4</td>
<td>34.3 ± 3.4</td>
<td>33.6 ± 33.5</td>
<td>33.8 ± 33.5</td>
<td>33.8 ± 33.5</td>
<td>33.8 ± 33.8</td>
<td>33.8 ± 33.8</td>
<td>33.8 ± 33.8</td>
<td>33.8 ± 33.8</td>
<td>g/dl 29 ± 35</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCH</td>
<td>15.1 ± 1.5</td>
<td>15 ± 1.5</td>
<td>15.2 ± 1.5</td>
<td>15.4 ± 1.5</td>
<td>15.8 ± 1.5</td>
<td>15 ± 15.2</td>
<td>15.2 ± 15.2</td>
<td>15.4 ± 15.2</td>
<td>15.2 ± 15.4</td>
<td>14.9 ± 15.4</td>
<td>15 ± 16.2</td>
<td>14 ± 16.2</td>
<td>pg 14 ± 18.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MCV</td>
<td>15.4 ± 1.6</td>
<td>15.2 ± 1.6</td>
<td>15.4 ± 1.6</td>
<td>15.0 ± 15.0</td>
<td>15.2 ± 15.2</td>
<td>15.4 ± 15.0</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.4 ± 15.2</td>
<td>15.4 ± 15.2</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
</tr>
<tr>
<td></td>
<td>MCV</td>
<td>15.4 ± 1.6</td>
<td>15.2 ± 1.6</td>
<td>15.4 ± 1.6</td>
<td>15.0 ± 15.0</td>
<td>15.2 ± 15.2</td>
<td>15.4 ± 15.0</td>
<td>15.2 ± 15.4</td>
<td>15.4 ± 15.2</td>
<td>15.2 ± 15.4</td>
<td>15.4 ± 15.2</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
<td>15.2 ± 15.4</td>
</tr>
<tr>
<td></td>
<td>PLT</td>
<td>216 ± 423</td>
<td>364 ± 423</td>
<td>410 ± 423</td>
<td>498 ± 205</td>
<td>334 ± 407</td>
<td>407 ± 175</td>
<td>333 ± 342</td>
<td>288 ± 367</td>
<td>367 ± 476</td>
<td>620 ± 10^3</td>
<td>800 ± 1500</td>
<td>10^4 ± 2500</td>
<td>fl 0 ± 99.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>MPV</td>
<td>6 ± 5.6</td>
<td>5.6 ± 5.6</td>
<td>5.4 ± 5.6</td>
<td>5.6 ± 5.6</td>
<td>5.6 ± 5.6</td>
<td>5.6 ± 5.6</td>
<td>5.9 ± 5.5</td>
<td>5.7 ± 5.4</td>
<td>5.7 ± 5.3</td>
<td>fl 0 ± 99.9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table S4 Serum Biochemistry Values for Mice Injected with AAV8 and Anc80L65, related to Figure 4. The values outside the references range were highlighted in red (above) and yellow (below).

<table>
<thead>
<tr>
<th>Test Name</th>
<th>control 2h</th>
<th>AAV2/8 2h</th>
<th>AAV2/8 24h</th>
<th>AAV2/ANC80L6 2h</th>
<th>control 2h</th>
<th>AAV2/8 2h</th>
<th>AAV2/ANC80L6 2h</th>
<th>control 7 days</th>
<th>AAV2/8 14 days</th>
<th>AAV2/ANC80L6 7 days</th>
<th>control 28 days</th>
<th>AAV2/8 28 days</th>
<th>AAV2/ANC80L6 28 days</th>
<th>Test Units</th>
<th>Ref Range Low</th>
<th>Ref Range High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphorus</td>
<td>10.1</td>
<td>8.9</td>
<td>9.9</td>
<td>7.1</td>
<td>7.3</td>
<td>8.5</td>
<td>8.7</td>
<td>7.2</td>
<td>7.2</td>
<td>7.4</td>
<td>6.6</td>
<td>6.1</td>
<td>7.1</td>
<td>mg/dl</td>
<td>5.6</td>
<td>9.2</td>
</tr>
<tr>
<td>ALT (GPT)</td>
<td>24</td>
<td>28</td>
<td>20</td>
<td>21</td>
<td>21</td>
<td>20</td>
<td>24</td>
<td>17</td>
<td>62</td>
<td>18</td>
<td>26</td>
<td>12</td>
<td>17</td>
<td>U/l</td>
<td>10</td>
<td>190</td>
</tr>
<tr>
<td>Total Bilirubin</td>
<td>0.8</td>
<td>0.5</td>
<td>0.4</td>
<td>0.4</td>
<td>0.6</td>
<td>0.3</td>
<td>0.3</td>
<td>0.5</td>
<td>0.8</td>
<td>0.6</td>
<td>0.4</td>
<td>0.4</td>
<td>0.4</td>
<td>mg/dl</td>
<td>0.2</td>
<td>0.8</td>
</tr>
<tr>
<td>ALP</td>
<td>130</td>
<td>114</td>
<td>137</td>
<td>114</td>
<td>102</td>
<td>127</td>
<td>105</td>
<td>94</td>
<td>85</td>
<td>104</td>
<td>95</td>
<td>90</td>
<td>69</td>
<td>U/l</td>
<td>75</td>
<td>93</td>
</tr>
<tr>
<td>ALT (GPT)</td>
<td>2.6</td>
<td>2.6</td>
<td>2.5</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>2.6</td>
<td>2.7</td>
<td>2.7</td>
<td>2.2</td>
<td>2.3</td>
<td>2.4</td>
<td>g/dl</td>
<td>1.7</td>
<td>2.2</td>
</tr>
<tr>
<td>Albumin</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>&lt;10</td>
<td>U/l</td>
<td>0</td>
<td>2.6</td>
</tr>
<tr>
<td>Creatinine</td>
<td>0.2</td>
<td>0.4</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>mg/dl</td>
<td>0.5</td>
<td>1.6</td>
</tr>
<tr>
<td>BUN</td>
<td>24.5</td>
<td>21.4</td>
<td>23.7</td>
<td>21.8</td>
<td>23</td>
<td>25</td>
<td>23</td>
<td>24.4</td>
<td>26.2</td>
<td>26.4</td>
<td>29.6</td>
<td>27.7</td>
<td>25.6</td>
<td>mg/dl</td>
<td>29.6</td>
<td>30.6</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>116</td>
<td>119</td>
<td>119</td>
<td>113</td>
<td>124</td>
<td>104</td>
<td>111</td>
<td>110</td>
<td>76</td>
<td>116</td>
<td>81</td>
<td>84</td>
<td>97</td>
<td>mg/dl</td>
<td>81</td>
<td>141</td>
</tr>
<tr>
<td>Total Protein *</td>
<td>5.4</td>
<td>6.0</td>
<td>5.5</td>
<td>5.5</td>
<td>5.7</td>
<td>4.7</td>
<td>5.7</td>
<td>4.8</td>
<td>5.7</td>
<td>5.9</td>
<td>5.3</td>
<td>5.3</td>
<td>5.4</td>
<td>g/dl</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Glucose</td>
<td>212</td>
<td>228</td>
<td>171</td>
<td>221</td>
<td>184</td>
<td>183</td>
<td>150</td>
<td>180</td>
<td>143</td>
<td>171</td>
<td>167</td>
<td>167</td>
<td>162</td>
<td>mg/dl</td>
<td>159</td>
<td>180</td>
</tr>
<tr>
<td>Calcium *</td>
<td>10.4</td>
<td>10.8</td>
<td>8.3</td>
<td>9.9</td>
<td>10.7</td>
<td>10</td>
<td>9.3</td>
<td>9.2</td>
<td>9.6</td>
<td>8.5</td>
<td>8.4</td>
<td>10</td>
<td>8.3</td>
<td>mg/dl</td>
<td>9.8</td>
<td>9.3</td>
</tr>
<tr>
<td>Hemolysis</td>
<td>Mod</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>Mod</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
<td>slight</td>
</tr>
</tbody>
</table>

Hemolysis may cause interference with the following results: false increase in Tbil, TP; false decrease in ALP.

* not enough serum to do test
blank: below detection limit
Table S5 Levels of Serum Cytokines Measured at Different Timepoints in Mice Injected with Saline, AAV8 and Anc80L65, related to Figure 4. The values within the saline reference range were highlighted in green.

<table>
<thead>
<tr>
<th>Cytokines (control)</th>
<th>2 hr</th>
<th>24 hr</th>
<th>3 day</th>
<th>7 day</th>
<th>Cytokines (AAV8)</th>
<th>2 hr</th>
<th>24 hr</th>
<th>3 day</th>
<th>7 day</th>
<th>Cytokines (Anc80L65)</th>
<th>2 hr</th>
<th>24 hr</th>
<th>3 day</th>
<th>7 day</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-1alpha</td>
<td>215.5</td>
<td>226</td>
<td>135</td>
<td>176.5</td>
<td>IL-1alpha</td>
<td>255</td>
<td>227</td>
<td>248</td>
<td>188</td>
<td>IL-1alpha</td>
<td>206</td>
<td>172</td>
<td>271</td>
<td>214</td>
</tr>
<tr>
<td>IL-1beta</td>
<td>244</td>
<td>213</td>
<td>227.5</td>
<td>222</td>
<td>IL-1beta</td>
<td>252</td>
<td>220</td>
<td>256</td>
<td>227</td>
<td>IL-1beta</td>
<td>247</td>
<td>200.5</td>
<td>253</td>
<td>204</td>
</tr>
<tr>
<td>IL-2</td>
<td>152</td>
<td>73</td>
<td>143</td>
<td>100</td>
<td>IL-2</td>
<td>265</td>
<td>106</td>
<td>216.5</td>
<td>149</td>
<td>IL-2</td>
<td>280</td>
<td>218</td>
<td>212</td>
<td>143</td>
</tr>
<tr>
<td>IL-3</td>
<td>119</td>
<td>142</td>
<td>115</td>
<td>124</td>
<td>IL-3</td>
<td>161</td>
<td>120</td>
<td>132</td>
<td>127</td>
<td>IL-3</td>
<td>149</td>
<td>158.5</td>
<td>133</td>
<td>111</td>
</tr>
<tr>
<td>IL-4</td>
<td>198</td>
<td>218</td>
<td>189</td>
<td>200.5</td>
<td>IL-4</td>
<td>257</td>
<td>198</td>
<td>217.5</td>
<td>204</td>
<td>IL-4</td>
<td>232</td>
<td>216</td>
<td>218.5</td>
<td>190</td>
</tr>
<tr>
<td>IL-5</td>
<td>94</td>
<td>126</td>
<td>99.5</td>
<td>107</td>
<td>IL-5</td>
<td>153.5</td>
<td>108</td>
<td>122.5</td>
<td>121</td>
<td>IL-5</td>
<td>130</td>
<td>130</td>
<td>129</td>
<td>105</td>
</tr>
<tr>
<td>IL-6</td>
<td>228.5</td>
<td>146</td>
<td>124.5</td>
<td>130.5</td>
<td>IL-6</td>
<td>198</td>
<td>144</td>
<td>141</td>
<td>161</td>
<td>IL-6</td>
<td>204</td>
<td>134</td>
<td>154</td>
<td>112</td>
</tr>
<tr>
<td>IL-9</td>
<td>239</td>
<td>264.5</td>
<td>277</td>
<td>225</td>
<td>IL-9</td>
<td>278</td>
<td>200.5</td>
<td>275.5</td>
<td>239</td>
<td>IL-9</td>
<td>287</td>
<td>259</td>
<td>283</td>
<td>236</td>
</tr>
<tr>
<td>IL-10</td>
<td>175</td>
<td>234.5</td>
<td>135</td>
<td>156</td>
<td>IL-10</td>
<td>226</td>
<td>203</td>
<td>182</td>
<td>210</td>
<td>IL-10</td>
<td>231</td>
<td>206</td>
<td>196</td>
<td>174</td>
</tr>
<tr>
<td>IL-12p40</td>
<td>764</td>
<td>707</td>
<td>671</td>
<td>641</td>
<td>IL-12p40</td>
<td>772</td>
<td>794</td>
<td>726</td>
<td>708</td>
<td>IL-12p40</td>
<td>716</td>
<td>765</td>
<td>685.5</td>
<td>697</td>
</tr>
<tr>
<td>IL-12p70</td>
<td>280</td>
<td>311.5</td>
<td>284</td>
<td>271.5</td>
<td>IL-12p70</td>
<td>380</td>
<td>286</td>
<td>280</td>
<td>289</td>
<td>IL-12p70</td>
<td>364.5</td>
<td>320</td>
<td>316.5</td>
<td>255</td>
</tr>
<tr>
<td>IL-13</td>
<td>97.5</td>
<td>117</td>
<td>109</td>
<td>102.5</td>
<td>IL-13</td>
<td>144.5</td>
<td>117</td>
<td>126</td>
<td>121</td>
<td>IL-13</td>
<td>127</td>
<td>125</td>
<td>125</td>
<td>91.5</td>
</tr>
<tr>
<td>IL-17A</td>
<td>813</td>
<td>729</td>
<td>605.5</td>
<td>660</td>
<td>IL-17A</td>
<td>1033</td>
<td>703</td>
<td>678</td>
<td>761</td>
<td>IL-17A</td>
<td>962</td>
<td>653</td>
<td>814</td>
<td>650</td>
</tr>
<tr>
<td>Eotaxin</td>
<td>171.5</td>
<td>193</td>
<td>177</td>
<td>178</td>
<td>Eotaxin</td>
<td>210</td>
<td>185</td>
<td>173</td>
<td>178</td>
<td>Eotaxin</td>
<td>189</td>
<td>188.5</td>
<td>193</td>
<td>167.5</td>
</tr>
<tr>
<td>G-CSF</td>
<td>339</td>
<td>186</td>
<td>171</td>
<td>303</td>
<td>G-CSF</td>
<td>331</td>
<td>184.5</td>
<td>191</td>
<td>177</td>
<td>G-CSF</td>
<td>205</td>
<td>212.5</td>
<td>219</td>
<td>153</td>
</tr>
<tr>
<td>GM-CSF</td>
<td>263</td>
<td>244</td>
<td>272</td>
<td>236</td>
<td>GM-CSF</td>
<td>284.5</td>
<td>234.5</td>
<td>207</td>
<td>258</td>
<td>GM-CSF</td>
<td>223</td>
<td>250</td>
<td>257</td>
<td>223</td>
</tr>
<tr>
<td>IFN-gamma</td>
<td>271</td>
<td>278</td>
<td>220</td>
<td>248</td>
<td>IFN-gamma</td>
<td>334</td>
<td>240</td>
<td>258</td>
<td>260</td>
<td>IFN-gamma</td>
<td>310</td>
<td>252</td>
<td>284</td>
<td>234.5</td>
</tr>
<tr>
<td>KC</td>
<td>594</td>
<td>293</td>
<td>288</td>
<td>243.5</td>
<td>KC</td>
<td>339</td>
<td>394</td>
<td>309</td>
<td>324.5</td>
<td>KC</td>
<td>321</td>
<td>290</td>
<td>337.5</td>
<td>280</td>
</tr>
<tr>
<td>MCP-1</td>
<td>123</td>
<td>148</td>
<td>120.5</td>
<td>115</td>
<td>MCP-1</td>
<td>175</td>
<td>131</td>
<td>137.5</td>
<td>141.5</td>
<td>MCP-1</td>
<td>143.5</td>
<td>136</td>
<td>154</td>
<td>109</td>
</tr>
<tr>
<td>MP-1alpha</td>
<td>511.5</td>
<td>531.5</td>
<td>527</td>
<td>504</td>
<td>MP-1alpha</td>
<td>555</td>
<td>504.5</td>
<td>505</td>
<td>511</td>
<td>MP-1alpha</td>
<td>533.5</td>
<td>529</td>
<td>543</td>
<td>453.5</td>
</tr>
<tr>
<td>MP-1beta</td>
<td>121</td>
<td>144.5</td>
<td>129.5</td>
<td>126</td>
<td>MP-1beta</td>
<td>196</td>
<td>123</td>
<td>133.5</td>
<td>127</td>
<td>MP-1beta</td>
<td>173.5</td>
<td>160</td>
<td>134.5</td>
<td>115</td>
</tr>
<tr>
<td>RANTES</td>
<td>576.5</td>
<td>653</td>
<td>505.5</td>
<td>531</td>
<td>RANTES</td>
<td>602</td>
<td>690</td>
<td>571.5</td>
<td>638</td>
<td>RANTES</td>
<td>643</td>
<td>804</td>
<td>562</td>
<td>673</td>
</tr>
<tr>
<td>TNF-alpha</td>
<td>193</td>
<td>211</td>
<td>189</td>
<td>188</td>
<td>TNF-alpha</td>
<td>304</td>
<td>194</td>
<td>207</td>
<td>205</td>
<td>TNF-alpha</td>
<td>260.5</td>
<td>220</td>
<td>215</td>
<td>187</td>
</tr>
</tbody>
</table>
**Table S6 Complete Blood Count Values for Non-Human Primates Injected with AAV8 and Anc80L65, related to Figure 4.** The values outside the references range were highlighted in red (above) and yellow (below).

<table>
<thead>
<tr>
<th></th>
<th>WBC</th>
<th>Neutrophils</th>
<th>Monocytes</th>
<th>Lymphocytes</th>
<th>RBC</th>
<th>HCT</th>
<th>MCV</th>
<th>MPV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>baseline</td>
<td>1 day</td>
<td>3 day</td>
<td>7 day</td>
<td>15 day</td>
<td>30 day</td>
<td>60 Day</td>
<td>baseline</td>
</tr>
<tr>
<td>AP19</td>
<td>5.44</td>
<td>7.78</td>
<td>5.02</td>
<td>5.52</td>
<td>10.9</td>
<td>5.14</td>
<td>5.72</td>
<td>5.86</td>
</tr>
<tr>
<td>AP18</td>
<td>5.92</td>
<td>7.22</td>
<td>5.2</td>
<td>4.02</td>
<td>7.06</td>
<td>6.8</td>
<td>7.86</td>
<td>7.14</td>
</tr>
<tr>
<td>AP17</td>
<td>8.04</td>
<td>8.04</td>
<td>6.76</td>
<td>6.36</td>
<td>8.32</td>
<td>7.66</td>
<td>8.86</td>
<td>9.38</td>
</tr>
<tr>
<td>AP16</td>
<td>6.36</td>
<td>5.64</td>
<td>5.1</td>
<td>8.3</td>
<td>4.96</td>
<td>4.9</td>
<td>4.92</td>
<td>6.26</td>
</tr>
<tr>
<td>AP15</td>
<td>5.52</td>
<td>6.78</td>
<td>6.6</td>
<td>5.94</td>
<td>6.62</td>
<td>7.32</td>
<td>9.2</td>
<td>7.42</td>
</tr>
<tr>
<td>AP14</td>
<td>7.86</td>
<td>10.94</td>
<td>8.32</td>
<td>8.76</td>
<td>7.82</td>
<td>9.06</td>
<td>14.62</td>
<td>8.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>reference values 3.4-11.2 K/ul</th>
<th>reference values 4.98-6.42 M/ul</th>
<th>reference values 37.2-47.1 %</th>
<th>reference values 190-536 K/ul</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>baseline 1 day 3 day 7 day 15 day 30 day 60 Day</td>
<td>baseline 1 day 3 day 7 day 15 day 30 day 60 Day</td>
<td>baseline 1 day 3 day 7 day 15 day 30 day 60 Day</td>
<td>baseline 1 day 3 day 7 day 15 day 30 day 60 Day</td>
</tr>
<tr>
<td>AP19</td>
<td>48.3 49.3 47.2 48.7 49.4 49.2 51.7 53.2</td>
<td>45.5 47.7 45.8 47.4 49.3 48.9 51.4 53.2</td>
<td>74.3 74.9 74.9 74.2 73.9 75.2 75.1 75</td>
<td>14.1 12.9 12.8 13.6 13.3 12.2 12.2</td>
</tr>
<tr>
<td>AP18</td>
<td>44.4 47.8 45.1 43.9 47.4 46.1 49.1 47.4</td>
<td>41.2 42.4 38 36.6 35.1 38.3 40.3 42.1</td>
<td>74.7 74.9 74.9 74.2 73.9 75.2 75.1 75</td>
<td>9.6 10.9 8.4 9.7 8.1 9 8.7 10.2</td>
</tr>
<tr>
<td>AP17</td>
<td>42.1 39.9 38.9 35.8 35.3 42.8 40.4 36.5</td>
<td>35.8 36.6 35.8 34.8 34.5 34.3 34.1 33.6</td>
<td>68.8 68.6 68.6 68.6 69.6 69.7 70 70.8</td>
<td></td>
</tr>
<tr>
<td>AP16</td>
<td>37.2 37.3 37.8 36.6 35.1 38.3 40.3 42.1</td>
<td>35.8 36.6 35.8 34.8 34.5 34.3 34.1 33.6</td>
<td>71.4 71.8 70.7 70.7 71 70.2 71.1 71.3</td>
<td></td>
</tr>
<tr>
<td>AP15</td>
<td>35.1 38.5 32.6 613 665 454 505 456</td>
<td>34.8 36.6 35.8 34.8 34.5 34.3 34.1 33.6</td>
<td>71.8 72.3 72.7 73.2 72.7 73.6 73.9 72.4</td>
<td></td>
</tr>
<tr>
<td>AP14</td>
<td>34.9 35.9 36.1 875 797 586 725 713</td>
<td>34.8 36.6 35.8 34.8 34.5 34.3 34.1 33.6</td>
<td>67.3 67.5 67.5 67.5 67.5 67.5 67.5 67.5</td>
<td></td>
</tr>
<tr>
<td>Table S7 Serum Biochemistry Values for Non-Human Primates Injected with AAV8 and Anc80L65, related to Figure 4. The values outside the references range were highlighted in red (above) and yellow (below).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>ALT</strong> reference values - 0.59 U/l</td>
<td><strong>AST</strong> reference values -0.46 U/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>49</td>
<td>33</td>
<td>45</td>
<td>42</td>
</tr>
<tr>
<td>AP16</td>
<td>47</td>
<td>34</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>AP17</td>
<td>39</td>
<td>38</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>AP15</td>
<td>31</td>
<td>38</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>AP14</td>
<td>37</td>
<td>18</td>
<td>38</td>
<td>23</td>
</tr>
<tr>
<td>AP13</td>
<td>69.9</td>
<td>69.9</td>
<td>69.9</td>
<td>69.9</td>
</tr>
<tr>
<td><strong>GOT</strong> reference values - 0.69 U/l</td>
<td><strong>Total bilirubin</strong> reference values - 0.39 mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>AP16</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td>AP17</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>AP15</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>AP14</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td><strong>Albumin</strong> reference values 3.3-4.7 g/dl</td>
<td><strong>BUN</strong> reference values 9.23 mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>4.1</td>
<td>4.2</td>
<td>4.0</td>
<td>3.9</td>
</tr>
<tr>
<td>AP16</td>
<td>7.3</td>
<td>7.4</td>
<td>7.0</td>
<td>6.8</td>
</tr>
<tr>
<td>AP15</td>
<td>6.8</td>
<td>7.0</td>
<td>6.9</td>
<td>6.7</td>
</tr>
<tr>
<td>AP14</td>
<td>6.7</td>
<td>7.1</td>
<td>6.7</td>
<td>6.9</td>
</tr>
<tr>
<td><strong>Total Protein</strong> reference values 6.7-8.7 g/dl</td>
<td><strong>Amylase</strong> reference values 18.612 U/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>5.0</td>
<td>5.1</td>
<td>5.0</td>
<td>4.9</td>
</tr>
<tr>
<td>AP16</td>
<td>4.1</td>
<td>4.2</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>AP15</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
<td>4.8</td>
</tr>
<tr>
<td>AP14</td>
<td>4.6</td>
<td>4.6</td>
<td>4.6</td>
<td>4.6</td>
</tr>
<tr>
<td><strong>LDH</strong> reference values 0.785 U/l</td>
<td><strong>ALP</strong> reference values 0.7-1.3 U/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>205</td>
<td>176</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>AP16</td>
<td>366</td>
<td>451</td>
<td>461</td>
<td>461</td>
</tr>
<tr>
<td>AP15</td>
<td>353</td>
<td>418</td>
<td>400</td>
<td>386</td>
</tr>
<tr>
<td>AP14</td>
<td>200</td>
<td>227</td>
<td>211</td>
<td>211</td>
</tr>
<tr>
<td><strong>CK</strong> reference values 0.1596 U/l</td>
<td><strong>ALP</strong> reference values 0.7-1.6 U/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>221</td>
<td>199</td>
<td>212</td>
<td>212</td>
</tr>
<tr>
<td>AP16</td>
<td>424</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>AP15</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
</tr>
<tr>
<td>AP14</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td><strong>Glucose</strong> reference values 33-95 mg/dl</td>
<td><strong>Creatinine</strong> reference values 0.7-1.3 mg/dl</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>60</td>
<td>37</td>
<td>78</td>
<td>49</td>
</tr>
<tr>
<td>AP16</td>
<td>48</td>
<td>32</td>
<td>57</td>
<td>43</td>
</tr>
<tr>
<td>AP15</td>
<td>60</td>
<td>55</td>
<td>60</td>
<td>58</td>
</tr>
<tr>
<td>AP14</td>
<td>49</td>
<td>40</td>
<td>50</td>
<td>45</td>
</tr>
<tr>
<td><strong>Cholesterol</strong> reference values 69-205 mg/dl</td>
<td><strong>Amylase</strong> reference values 18.612 U/l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td><strong>Day</strong></td>
<td><strong>Baseline</strong></td>
<td><strong>1 day</strong></td>
<td><strong>7 day</strong></td>
<td><strong>15 day</strong></td>
</tr>
<tr>
<td>AP19</td>
<td>111</td>
<td>114</td>
<td>119</td>
<td>133</td>
</tr>
<tr>
<td>AP16</td>
<td>169</td>
<td>151</td>
<td>164</td>
<td>164</td>
</tr>
<tr>
<td>AP15</td>
<td>335</td>
<td>248</td>
<td>200</td>
<td>194</td>
</tr>
<tr>
<td>AP14</td>
<td>305</td>
<td>135</td>
<td>110</td>
<td>114</td>
</tr>
</tbody>
</table>