

## SAMPLE SUBMISSION PROCEDURE FOR RESEARCH PURPOSE

1.	<p>Samples shall be submitted together with a Specimen Submission &amp; Test Request Form (UPM/FPV/VLSU/BRO14/SSR).</p> <p><b>**Note:</b> Please include your email address as the test results will be sent via email. Please include your phone number as well in case further clarification is required.</p>
2.	<p>The SSR form shall be endorsed (Signature &amp; official stamp) by the submitter or responsible person. e.g.: Principal Investigator</p>
3.	<p>Use Only one (1) SSR form per submission (per sampling) regardless of the number of samples submitted. e.g.: One SSR form for 4 samples on 23rd March 2023.</p>
4.	<p>Please contact us for an arrangement or appointment before submitting your samples (03-9769 3491/3481) or <a href="mailto:vet_hematologylab@upm.edu.my">vet_hematologylab@upm.edu.my</a></p>
5.	<p>Fill out the Declaration of Acceptance of Test Results form before coming in for an appointment (the form will be provided).</p> <p><b>**Note:</b> Send the completed form via email back to the laboratory or print it and bring it along to your scheduled appointment.</p>
6.	<p>Kindly submit your samples within these stipulated times:</p> <p>*Monday to Friday: 8.00 am -12.00 pm &amp; 2.00 pm - 4.00 pm *Submission times are subject to change without notice.</p> <p><b>**Note:</b> Submitter/s who submit their samples outside those times without prior notice will not be entertained.</p>
7.	<p>For sample handling, please follows the following guideline to ensure reliable test results.</p> <ol style="list-style-type: none"> <li>a. Label the samples clearly using numeric (e.g.: 1, 2, 3, ... n). Alphabet label <u>is not</u> accepted.</li> <li>b. Label the samples clearly with specimen type (e.g.: serum, EDTA plasma, heparinized plasma etc.).</li> <li>c. For Complete Haemogram (PCV, Plasma Protein, Icterus Index, WBC, RBC, HGB, PLT, WBC differential count, with blood smear):             <ol style="list-style-type: none"> <li>i) Fill the EDTA tube and gently invert the mixture 8-10 times.</li> <li>ii) Fresh samples should be submitted (&lt;6 hours after withdrawal from the blood vessel).</li> <li>iii) For delayed submission (&lt;24 hours), keep the specimens cool (4°C - 8°C).</li> <li>iv) Do not freeze the specimens OR direct contact with ice upon delivery using an ice box. <b>** Note:</b> EDTA whole blood (without separation) should be kept refrigerated until submission or mailing and should be mailed on a cold pack (insert paper towels between the blood and the icepack). Direct contact may cause freezing of red cells, with subsequent hemolysis.</li> </ol> </li> </ol>

- u) Please submit a maximum of 20 samples per submission.  
\*\* Note: Maximum of 10 samples for avian/reptile/fish per submission.
- vi) The blood samples will be discarded 2 days after processed.

d. For Biochemistry (Refer to SSR form):

- i) Separate the serum from the blood (allow the blood to clot at room temperature for at least 30 minutes or 2 - 4 hours refrigerated before centrifuging at 5000rpm for 5 - 10 minutes).
- ii) If the serum has not been separated upon submission, do not FREEZE the specimens (do not keep it in the freezer OR direct contact with ice upon delivery using icebox).  
\*\* Note: Unseparated serum should be kept refrigerated until submission or mailing and should be mailed on a cold pack (insert paper towels between the blood and the icepack). Direct contact may cause freezing of red cells, with subsequent hemolysis.
- iii) Keep the serum (after separation) in the FREEZER.  
Note: Plasma from EDTA tube is unsuitable for K and Ca analysis.
- iv) Sample volume: One biochemistry test > 50uL serum.  
e.g. a: 1-3 tests (Na, K, Cl) : > 150uL serum  
e.g. b: 5 tests (ALT, AST, ALP, Crea, and Urea) : > 250uL serum
- v) Other samples (milk, urine, etc.), please refer to their specific storage conditions. Improper sampling handling upon submission which incur unreliable results are not our responsibility.
- vi) No limit number of samples per submission.
- vii) The serum samples will only be preserved within 30 days starting from the date of reporting test results.

Additional information:

1. To avoid hemolysis, do not freeze whole blood, unseparated serum or unseparated plasma. Fill tube to the appropriate level and avoid vigorous mixing.
2. Submit EDTA whole blood for complete hemogram and serum or heparinized plasma for biochemistry tests.
3. Please consult lab staff for enquiries on other tests.