

<b>REF. NO</b>	<b>C-ONC.2</b>
<b>TITLE</b>	<b>Cancer Biology and Medical Therapy for cancer</b>
<b>CATEGORY AND VALUE</b>	<b>C – 10 CREDITS</b>
<b>NOTIONAL STUDY HOURS</b>	<b>100</b>

Completion of this module, together with C-Onc.1 and C-Onc.3, and the compulsory A and B modules are necessary for candidates who are aiming to achieve the Oncology designated Certificate in Advanced Veterinary Practice.

### **Aim**

The candidate will be able to demonstrate an understanding of the relevance and application of the basic science and biology of oncology and how this underpins medical therapy. This module is intended to cover the basic science of cancer biology with application to clinical veterinary oncology and with comparative aspects to human medicine. The module then explores how this biology underpins therapeutics. Developing on this knowledge, candidates will learn the basis and application of cancer therapeutics. Finally, candidates will learn about treatment of haematopoietic tumours

This module is compulsory for candidates wishing to achieve the Certificate in Advanced Veterinary Practice (Veterinary Oncology) qualification.

### **Learning Outcomes:**

A candidate should be able to:

- discuss the mechanisms by which cancer arises and spreads
- discuss the genetic basis for cancer and be able to give examples of breed susceptibility
- describe the biological basis of chemotherapy
- discuss the major cancer drugs and their mechanisms of action, toxicity and safe handling
- diagnose, manage and treat cancers of haemopoietic system

### **Module Content:**

On successfully completing this module, candidates would be expected to be able to have knowledge of, and be able to apply this knowledge to clinical cases:

#### Cancer Biology

- Basis of oncogenesis and the hallmarks of cancer
- Tumour microenvironment
- Cancer genetics and susceptibility
- The causes of cancer
- Cancer immunology

#### Medical therapies for cancer

- The biological basis of chemotherapy and small molecule inhibitors
- Basic chemotherapy pharmacology
- Chemotherapy drug classes and modes of action
- Side effects and their management
- Safe handling of drugs and methods of administration
- Environmental contamination
- Setting up a safe chemotherapy environment

#### Diagnosis and management of haematopoietic tumours

- Management of canine and feline lymphoma
- Medical management of mast cell tumour and histiocytic diseases

#### **Assessment:**

Module providers are responsible for deciding on assessment strategies and methods, subject to accreditation by RCVS. The following general guidance applies to assessment of this module:

- Assessment will be in accordance with the general requirement for the CertAVP qualification to be benchmarked against the Quality Assurance Agency's (QAA) "M" level in the national qualifications framework.
- Assessment will support the RCVS requirements for the module to be accessible to candidates from a wide variety of veterinary backgrounds and to focus on the veterinary aims of small animal oncology practice.
- Assessment will be aimed at encouraging learning and at measuring progress towards the intended learning outcomes of the module.