

## **CLINICAL IMMUNOLOGY IN COMPANION ANIMALS**

**Study Programme: MIMV Curricular Year: 4<sup>th</sup> Semester: 8<sup>th</sup> Optional Credits: 2.5 ECTS**

**Lecturer(s):** Luís Tavares (CCP); Solange Gil (R); António Ferreira; José Henrique Duarte Correia; Luísa Mateus; Jorge Correia; Esmeralda Delgado; Ana Mafalda Lourenço; Frederico Aires da Silva, Gonçalo Vicente

### **1. Contact hours:**

**Lectures – 20, Practical's – 6, Other – 2, Total - 28**

### **2. Objectives:**

Students should recognize the clinical presentations and common physical signs of immune-mediated diseases and apply the acquired knowledge in conducting a detailed clinical examination. Draw a diagnostic plan, sort in order of priority the main differential diagnosis and select the tests to be performed. Formulate the prognosis and establish the most appropriate medical treatment. Plan the monitoring of the patient.

### **3. Programme:**

Lectures:

1. Basic Immunology, Immunopathological Mechanisms
2. Immune-Mediated Haematological Disease
3. Immune-Mediated Skin Disease
4. Immune-Mediated Musculoskeletal Disease
5. Immune-Mediated Respiratory and Cardiac Disease
6. Immune-Mediated Urinary and Reproductive Disease
7. Immune-Mediated Ocular Disease
8. Immune-Mediated Alimentary and Endocrine Disease
9. Immune System Neoplasia
10. Immunodeficiency Disease
11. Immunotherapy

Practical:

1. Clinical Cases

### **4. Bibliography:**

- Balch, A., Mackin, A., 2007. Canine immune-mediated hemolytic anemia: pathophysiology, clinical signs, and diagnosis. *Compend. Contin. Educ. Vet.* 29, 217–225.
- Boey, K., Shiokawa, K., Rajeev, S., 2019. *Leptospira* infection in rats: A literature review of global prevalence and distribution. *PLoS Negl. Trop. Dis.* 13, e0007499.  
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- Bonagura, J., Twedt, D., 2014. *Kirk's Current Veterinary Therapy XV*. Saunders.
- Day, M.J., 2011. *Clinical Immunology of the Dog and Cat*, 2nd ed. CRC Press.
- Day, M.J., Schultz, R.D., 2014. *Veterinary Immunology Principles and Practice*, 2nd ed. CRC Press.
- Ettinger, S.J., Feldman, E.C., Côte, E., 2017. *Textbook of Veterinary Internal Medicine: Diseases of the Dog and the Cat*, 8th ed. Elsevier Inc.
- Evans, J., Levesque, D., Shelton, G.D., 2004. Canine Inflammatory Myopathies: A Clinicopathologic Review of 200 Cases. *J. Vet. Intern. Med.* 18, 679.  
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- Male, D., Brostoff, J., Roth, D., Roitt, I., 2013. *Immunology: With STUDENT CONSULT Online Access*, 8th ed. Saunders.
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Piek, C.J., Junius, G., Dekker, A., Schrauwen, E., Slappendel, R.J., Teske, E., 2008. Idiopathic Immune-Mediated Hemolytic Anemia: Treatment Outcome and Prognostic Factors in 149 Dogs. *J. Vet. Intern. Med.* 22, 366–373. <https://doi.org/10.1111/j.1939-1676.2008.0060.x>

Reinero, C.R., Byerly, J.R., Berghaus, R.D., Berghaus, L.J., Schelegle, E.S., Hyde, D.M., Gershwin, L.J., 2006. Rush immunotherapy in an experimental model of feline allergic asthma. *Vet. Immunol. Immunopathol.* 110, 141–153. <https://doi.org/10.1016/j.vetimm.2005.09.013>

Stevenson, W., Chauhan, S.K., Reza, D., 2012. Dry Eye Disease. *Arch. Ophthalmol.* 130, 90. <https://doi.org/10.1001/archophthalmol.2011.364>

Tizard, I., 2017. *Veterinary Immunology*, 10th ed. Saunders.

### **5.Assessment:**

Final mark - weighted ranking of the written test (60 %) and the presentation and discussion of a clinical case (40 %) Average