

Course Title	Advanced Animal Hygiene		
Instructor	Koji UETSUKA, Yasuki OGAWA		
Code	MA051300	Semester	1st (April-)
Credit(s)	1	Day/Period	Thu, 5
Description Code	A-AAH-512		
Outline	The former classes (the 1st - 4th) of this lecture are concerned about the immune system against infectious microbes in animals, in which lymphocyte maturation and immune responses are mainly expressed. The later classes (the 5th - 8th) are concerned about the applied immunological clinical tests for infection-suspected animals.		
Keywords	immune cells, Immune response, microbes, infection		
Goals	1) You can understand the principal mechanisms of immunity in animals. 2) You can understand applied immunological clinical tests for infection-suspected animals. [Diploma Policy] 1. Academic and research skills in the specialized field.		
Course Plan	1: Guidance, Functions of immunity, Innate and acquired immunity (OGAWA) 2: Properties of the immune system, Immune response, Immunologic tolerance (OGAWA) 3: Antibody and its use (OGAWA) 4: Antigen receptor (OGAWA) 5: A latex agglutination test for the qualitative detection of bacterial toxin (UETSUKA) 6: Detection of microbial toxin by enzyme-linked immunosorbent assay (ELISA) (UETSUKA) 7: Comparison of Western immunoblot and gene detection assay for identification of toxin-productive microbial isolates (UETSUKA) 8: Animal test in the skin for identification of microbial toxin types (UETSUKA)		
Advice for Preview and Review	Homework: Please look into technical terms described below before taking the classes. 1: Immune system, Innate immunity, Acquired immunity 2: Immune response, Effector cells, Antigen presentation, Immunologic tolerance 3: Antigen-antibody reaction, Western		
Prerequisite	1) A related subject is Advanced Animal Management. 2) Being late and early leaving: Total 3 cases of being late and early leaving are corresponded to 1 absence case. 3) Office hour: Please see the guideline text.		
Grading Criteria	Two reports (100%): One for the former classes (50%) and another for the later (50%) (Diploma Policy 1)		
Texts/References	Text: none specified. Reference: 1)"Janeway's Immunobiology", Kenneth Murphy, Garland Science, 7,455 yen. 2)"Cellular and Molecular Immunology", Abul K. Abbas, Saunders, 6,897 yen.		