

Veterinary Pathology ECVF Residency Program

General Program Description

Prerequisites

Prospective residents can be admitted to the Veterinary Pathology Residency Program of the Department of Pathology, Bacteriology and Poultry Diseases of the Ghent University without a preceding internship. They have to be graduated as veterinary surgeons. Basic command of the Dutch language at the start of the program is required, followed by a good understanding of the language within six months of the residency. The requirements for Diplomates and registered Specialists are defined by the organisation of specialists and can be obtained from these organisation (see Appendix 3).

Appointment and salary

The resident will be appointed as "ECVP resident" at the Department of Pathology, Bacteriology and Poultry Diseases and as "trainee" for the ECVF boards examination. The resident is expected to contribute to the primary tasks of the department (education, research, gross- and histopathology). The resident can be scheduled to replace staff members of the department in other areas than those indicated in the training program for a period of 8 weeks.

Residents should subscribe as students of the Faculty of Veterinary Medicine, Ghent University, Belgium. They receive a three-year scholarship with a monthly payment of 1100 euro each year (all tax-free). Detailed information concerning salary can be obtained from the office of the Dean of the faculty.

Graduate degree studies

Graduate degree studies are not included in the program.

Resident supervision

Residents are supervised by three ECVF-Diplomates (see appendix 2).

Specific Program Description

Gross pathology – Histopathology - Cytology

A total of 122 weeks is spent at the department under the direction of a Resident Advisor, with a regular review and discussion of necropsy and biopsy cases.

The resident is responsible for:

- necropsy of domestic animals,
- participation in the pathological training of graduate students,
- diagnostic histopathology and cytology
- providing optimal service and prompt professional communications.

Research and graduate degree studies

The resident devotes approximately 12 weeks to research or clinical investigation, case discussions, seminars, literature reviews and preparation of scientific manuscripts.

External rotations and education

A maximum of 6 weeks may be spent on external rotations, depending on the major and minor topics chosen for boards ECVF examination.

The residents have to attend the Summerschool of the ESVP/ECVP (2 weeks each year) and 3 courses of approximately 1 week each, such as Gross Morbid Anatomy of Diseases, Course in Laboratory Animal Science, CL Davies Symposia, etc.

Most of the expenses will be paid by the department.

Conferences

The resident is encouraged to attend the Belgian Week of Pathology, meetings of the Belgian Working group on animal pathology and ESVP congress.

Case log and resident activity log

An electronic database is available to maintain a surgical case log and a resident activity log that complies with the guidelines of the ECVF.

Research and publications

Residents are encouraged to perform a small research or to assist in larger research projects. To be eligible for the boards examination a minimum of two international peer-reviewed publications have to be accepted.

Clinical teaching

The resident participates in the clinical education of veterinary medical students and graduate veterinarians.

Facilities, services and equipment

Necropsy (spp.)

The department has a large central necropsy facility with specially designed necropsy tables for small animals, large animals and for birds & exotics. Annually, 3000 necropsies are performed by students under the continuous supervision of the staff.

Noah Archive database (up to 30,000 pictures) for gross pathology is available.

Histology

All slides are prepared according standard techniques at the Laboratory of Veterinary Pathology. Additional to H&E stainings, special stainings are performed such as Giemsa, PAS, Gram, Ziehl-Neelsen, Warthin-Starry, Luxol fast blue, Prussian blue, Uzman, Gomori silver, etc.

The laboratory of Veterinary Pathology is a member of the AFIP Wednesday slide conference, and possesses >500 well documented histological slides.

Molecular pathology (IHC, ISH etc)

Immunohistochemistry is routinely used for diagnostic purposes. Immunolabeling for several pathogens (canine distemper, canine parvovirus, feline panleukopenia virus, adenovirus, papillomavirus, feline infectious peritonitis, feline leukemia virus, feline herpes virus, bovine respiratory syncytial virus, bovine herpes virus, *Toxoplasma gondii*), cellular filaments (cytokeratin, desmin, vimentin, smooth muscle actin), extracellular components (collagen, laminin, fibronectin, cadherin, elastin), and other markers used in tumors (CD3, CD20, CD31, CD45, CD79, PTHrP, c-kit, P-glycoprotein, Ki-67, melanA, oestrogenreceptor, progesteronreceptor, osteocalcin, S100, thyroglobulin, ...) are available.

Other techniques such as ELISA, flow-cytometry, PCR, RT-PCR, sequencing, cloning, in situ hybridization and Western blot analysis are commonly performed at the department.

Electron Microscopy

Scanning EM is performed jointly with the department of morphology. Transmission EM is not performed at the department, however there is collaboration with other institutes (Department of Anatomy and Biophysics, Faculty of Medicine, UGent; Department of Human Anatomy and Embryology, UGent; Veterinary and Agrochemical Research Centre, Brussels).

Clinical pathology

On a regular basis, cytological specimens are obtained from the clinics at the Faculty of Veterinary Medicine and from practitioners.

Light microscopy

Several light microscopes are available including 5 discussion microscopes of which one has 7 binoculars. One microscope can be used for immunofluorescence. Two microscopes have digital cameras and imaging software is available. A confocal microscope is also present.

Retrievable pathology recording system (history, case materials (glass slides etc), photographs and reports).

Since 1995, all reports of necropsy and histopathology are filed on a computer and the original written data are archived. The corresponding glass slides and images are also stored and are readily available.

Library facilities (texts, journals – paper and/or electronic access)

In the Laboratory of Veterinary Pathology, a library is present containing books on general pathology, veterinary pathology, histopathology, ultrastructure pathology, anatomy, clinical pathology, tumors, etc. Several international journals are available (Veterinary Pathology, Science, etc.) or can be consulted via the digital library of Ghent University (electronic access on a large number of journals).

Research laboratories

The Department of Pathology, Bacteriology and Poultry Diseases has >20 PhD students. Research is focused on bacteria-host interactions with emphasis on Salmonella, Helicobacter and Clostridia. Research facilities are present in the Laboratory for Veterinary Pathology and in the Laboratory for Veterinary Bacteriology and Mycology (L2-lab).

Other specialist facilities

Animal facilities (A2) for in vivo studies with rodentia, fish, poultry, dogs, cats, ruminants, horses and pigs are available at the Faculty of Veterinary Medicine. The department has a license to perform studies with different animal species.

Appendix 1 - program per year

First year	weeks
Necropsy	32
Histopathology/cytology	12
Summerschool	2
External course	1
Research	2
Vacation	3

Second year	weeks
Necropsy	23
Histopathology/cytology	21
Summerschool	2
External course	1
Research	2
Vacation	3

Third year	weeks
Necropsy	18
Histopathology/cytology	14
Summerschool	2
External course	1
Research	2
Vacation	3
Boards preparation	12

Appendix 2 - supervising Diplomates

Prof. Dr. R. Ducatelle, diplom ECVP
Prof. Dr. K. Chiers, diplom ECVP, diplom ECPHM
Drs. G. Vercauteren, diplom ECVP

Appendix 3 - important organisations

Training institution

Laboratory of Veterinary Pathology
Department of Pathology, Bacteriology and Poultry Diseases
Ghent University
Salisburylaan 133
B-9820 Merelbeke
Tel. 0032 9 264 77 41
Fax 0032 9 264 77 89
Responsible for ECVP residency: Prof. K. Chiers (Koen.Chiers@UGent.be)

Registration of Diplomates in Europe

www.ecvpath.org