

THE EUROPEAN COLLEGE OF VETERINARY CLINICAL PATHOLOGY INFORMATION BROCHURE

(Updated November, 2013)

Contents

Objectives.....	3
Definition.....	3
Membership and Significance of Certification	3
Veterinary Clinical Pathology Training Programme for Diplomate Status	5
Definition	5
Supervision.....	5
Objectives of a Veterinary Clinical Pathology Training Programme	5
General Programme Outline	6
Content of Training.....	6
Learning Environment	6
Reference Material.....	7
Documentation	7
Standard Training Programme in Veterinary Clinical Pathology	8
Alternative Training Programme in Veterinary Clinical Pathology.....	8
Continuing Education	9
Submission of a Training Programme.....	9
Application for a residency	9
Transfer of Residents from one Program to another.....	9
Temporary interruption of programmes	9
The Examination.....	10
Application for Examination	10
General Requirements for Admission to Board Examination	10
Organisation of the Examination	12
Withdrawal/Illness	12
Results of Examination	12

The European College of Veterinary Clinical Pathology (ECVCP) was established in 2001 and obtained official recognition from the European Board of Veterinary Specialisation (EBVS) in 2009. The mandate of the ECVCP is to advance veterinary clinical pathology and promote high standards within the speciality in Europe. This includes facilitating progress in the science and practice of veterinary clinical pathology and of establishing standards of training and experience which merit recognition of qualified specialists in that field. Those who meet the standards of training and competence established by the College will be awarded a suitable certificate.

A list of approved training laboratories and programs is maintained for guidance of institutions and the public.

All official communication should be directed to the secretariat@ECVCP.org which will coordinate distribution and processing.

1. Objectives

The objectives of the ECVCP include:

- Promotion of recognition of Clinical Pathology as an independent veterinary speciality
- Establishment of standards of training, experience, and examination for qualification as a specialist in veterinary clinical pathology in Europe
- Recognition of European veterinary clinical pathology specialists by suitable certification.
- Provision of continuing education programmes in veterinary clinical pathology in Europe
- Establishment of standards for analytical methods, performance and interpretation of laboratory procedures and laboratory management in Europe.
- Promotion of research and scientific progress in veterinary clinical pathology in Europe

2. Definition

Veterinary clinical pathology focuses on the development, application, generation and interpretation of diagnostic laboratory testing for diagnosis, prognosis, treatment and monitoring of spontaneous animal disease, animal models of disease and preclinical safety studies.

Veterinary clinical pathologists are employed to practice, research and teach this speciality in a wide variety of professional environments, including (i) veterinary schools, (ii) private, commercial, and government diagnostic laboratories, (iii) pharmaceutical discovery and safety evaluation and (iv) other research institutes and industry.

There are four primary areas of veterinary clinical pathology: a) clinical biochemistry, including endocrinology and immunology testing and molecular diagnostics, b) haematology, c) cytology, and d) general clinical pathology, including laboratory management.

General clinical pathology is the foundation of the three other areas. It is based on the understanding of pathophysiologic disease mechanisms which result in changes in laboratory data and their medical interpretation. It also includes laboratory management with special attention to the development of new analytical methods and their validation, quality assurance and quality control. This requires a thorough understanding of laboratory methodology and its performance capabilities.

Effective acquisition and interpretation of veterinary clinical pathology data requires a comprehensive knowledge of the theory, application and administration of laboratory methods from which the data are generated and a broad veterinary medical background. Development and introduction of new assays into veterinary diagnostics, their application, validation and evaluation of their diagnostic significance for each species require particular in depth knowledge, experience and training in veterinary clinical pathology that are not found to a sufficient extent within the other European veterinary specialities.

3. Membership and Significance of Certification

A board certified person is designated as a **Diplomate of the European College of Veterinary Clinical Pathology** and recognized as a European Veterinary Specialist in Veterinary Clinical Pathology by the European Board of Veterinary Specialisation (EBVS).

There are different types of membership within the ECVCP:

Diplomate: A veterinarian who has satisfied the requirements as to character, training and experience and competence in veterinary clinical pathology. Diplomates may include founding diplomates, those that have achieved diplomate status by fulfilment of other criteria (de facto or reciprocity with ACVP – see below) and those who satisfactorily complete the certifying examination. A diplomate is required to pay membership fees to the ECVCP and to be a member of the European Society of Veterinary Clinical Pathology (ESVCP).

- **Practising Diplomate:** A practising diplomate is one who spends 60% or more of the normal working week (40 hour week) in the practice of clinical pathology and who fulfils criteria for continued certification (continued education, ECVCP AGM attendance, ESVCP Conference attendance and 5-yearly recertification). He or she is recognized as a European specialist in veterinary clinical pathology and listed in the EBVS register.

Equivalency for ACVP diplomats or other non-European diplomats is accepted in accordance with the latest version of the EBVS policies and procedures (April 2011), point I stating that “Colleges should ordinarily restrict membership to those who have a connection to Europe”. Hence, non-European diplomats will be de facto recognized as ECVCP diplomats if they can demonstrate that during the 5 years before the application they fulfilled the following criteria:

- to be licensed or be eligible to be licensed to practice in a European country
 - to have participated in continuing professional activities (teaching, research, diagnostic, administrative) in Europe, at least on an annual basis
 - to have provided a significant contribution to education in veterinary clinical pathology in Europe
 - to be a member of the ESVCP
 - to have attended at least one ESVCP meeting every three years
- **Non-Practising Diplomate:** A diplomate who has not practised the speciality for two continuous years or the equivalent of two years during a period of 5 years, or has not attended an annual general meeting of the ECVCP for three years without previous dispensation from the ECVCP will be designated as a non-practising diplomate in the register and removed from the EBVS list of specialists. Diplomates who do not complete the recertification requirements every 5 years to the satisfaction of the credentials committee and executive board of the college will be designated as non-practising diplomates. They will not be allowed to vote or hold office in the college or direct training programmes or laboratories. Such diplomates can request restoration of full diplomate status after fulfilling the requirements noted above. A retired diplomate can file a request to the Executive Board to be a non-practising diplomate. Non-practising diplomates pay reduced fees.

Honorary member: A veterinarian who is not a Diplomate of the ECVCP but who has contributed in an extraordinary manner to the advancement of veterinary clinical pathology may be elected by majority vote as an honorary member. Nomination for honorary member status shall be made through the sponsorship of

two Diplomates. The sponsors shall furnish the Executive Secretary with relevant information concerning the nominee, e.g. curriculum vitae. Election of an honorary member shall be accomplished by a two-thirds vote of the Executive Board and by a two-thirds vote of the Annual General Meeting of the ECVCP. Honorary member status does not confer the right to act as a specialist in veterinary clinical pathology or include specialist status in a diagnostic document. Honorary members shall have all the privileges of membership except the right to vote or hold office and shall pay no dues.

Associate member: An internationally recognized scientist who has contributed significantly to research in the area of clinical pathology can be nominated to become an associate member of the ECVCP. Election of an associate member shall be accomplished by a two-thirds vote of the Executive Board and by a two-thirds vote of the Annual General Meeting of the ECVCP. They shall have fulfilled the same requirements and have the same privileges as an honorary member but need not be a veterinarian.

4. Veterinary Clinical Pathology Training Programme for Diplomate Status

4.1. Definition

A veterinary clinical pathology Training Programme allows graduate veterinarians, who have either completed a 1 year rotating internship program, or 2 years in veterinary practice, or equivalent clinical practice acceptable by the Credentials Committee, to acquire in-depth knowledge of veterinary clinical pathology and its supporting disciplines under the supervision and guidance of a Diplomate of the ECVCP, in an ECVCP approved Standard or Alternative Training Programme taking place in an ECVCP approved laboratory.

See **Appendix 1:** Minimum requirements for training programmes

4.2. Supervision

Diplomate supervision: A Diplomate of the ECVCP must supervise the training. Although many diplomats might be involved in a training program, one single Diplomate takes overall responsibility for the residents' progress towards sitting the ECVCP board examination, which includes the administration and continuity of the programme and the evaluation of performance and progress of the trainee at regular intervals (at least each 6 months).

Co-supervision: In some circumstances it may be appropriate to have a co-supervisor who holds a non-european title equivalent to the ECVCP board certification, or is an internationally recognized expert in the field of veterinary clinical pathology. If co-supervisors are included in a training programme they should show a certain commitment for the further development of veterinary clinical pathology as a specialty in their particular veterinary medicine environment.

The Executive Board, based on the recommendations of the Education committee, **MUST** approve the CV of the non-EBVS recognised specialist who is Co-supervising part of the programme.

4.3. Objectives of a Veterinary Clinical Pathology Training Programme

ECVCP training programmes are intended to help trainees to acquire knowledge, ability and skills in all areas of veterinary clinical pathology. They are meant to promote young specialists in clinical pathology, who are dedicated to further and develop the speciality and be valued members of the professional community. This includes also aspects which can not be tested in the certifying examination, but represent integral qualities of a Diplomate of the ECVCP:

To promote aptitude and proficiency in veterinary clinical pathology

- To instruct graduate veterinarians in the science and practice of veterinary clinical pathology and its supporting disciplines
- To provide graduate veterinarians with the opportunity to pursue a career in teaching, research, diagnostic, industrial or regulatory/governmental practice of veterinary clinical pathology
- To advance veterinary clinical pathology through promotion of research and publications

4.4. General Programme Outline

Specific topics to be covered in the training include the 4 core disciplines general clinical pathology, haematology, cytology and clinical biochemistry, primarily for companion animals, large animals, and laboratory animals, but also for exotic animals, birds, and fish.

Prerequisites for all Training Programmes

Prior to starting a Training Programme all trainees need to register with the ECVCP and pay a 250 Euro administration fee (non-refundable).

The training laboratory must obtain approval by both the education committee and the lab standards committee as an established approved site prior to recruiting/admitting a resident/trainee.

The application for a training programme must be approved prior to the start of a programme.

4.5. Content of Training

All training programmes shall provide adequate training in each of the following 4 areas: general clinical pathology (pathophysiology, including immunology and laboratory management, quality planning, quality assurance and quality control), clinical biochemistry (including endocrinology and molecular diagnostics), haematology, and cytology. If the primary institution cannot provide training in all areas, additional training at other institutions is required. Ideally, **direct contact with other diplomates or similarly qualified persons** in other areas pertinent to clinical pathology (mainly clinical medicine, e.g. internal medicine, surgery, equine and large animal medicine, laboratory, exotic and wildlife animal medicine, pathology) *should* be included.

The following species shall be included in all training programmes: companion animals (primarily dog, cat and rabbit), farm animals (primarily cattle, with some sheep, pigs and poultry), horses, laboratory animals (primarily dog, rat, mouse and monkey), and to a lesser extent non-traditional pet species (birds, fish, reptiles), zoo animals and wildlife.

All trainees are required to spend at least one month (20 days) per year for each of the 3 years in externships. These externships may include attending approved interactive live or on-line-courses or approved site visits at other institutions for training in areas of veterinary clinical pathology not available at the training institution, or attending scientific congresses. A preliminary outline of the external training periods has to be provided within the regular application for training programme approval. A detailed schedule for the first year has to be provided with the registration for the new resident. Schedules for the following years must be attached to the annual training progress report, accompanied by a formal agreement signed by the person/s responsible for the trainee at the external training site.

4.6. Learning Environment

The programme should emphasize basic understanding of pathophysiologic mechanisms of clinical pathology changes at a molecular, cellular, organ and whole animal level in a veterinary medical context.

The environment should provide the intellectual and physical facilities for the advancement of the science of veterinary clinical pathology through structured discussion, review of current literature, practice of veterinary clinical pathology, research, scientific communication (lectures, scientific courses) and scientific publication.

Mandatory Clinical Pathology Laboratory standards include adequate facilities, compliance with health and safety standards, written operational procedures and policies, current methodologies and technologies, a programme for quality management including quality control and proficiency testing, a laboratory information management system, documentation of personnel training and development, and a diplomate ECVCP, who is responsible for all aspects of laboratory management.

Each laboratory involved in training programmes must be approved by the Lab Standard Committee. A 250 Euro administration fee (non-refundable) must be paid prior to apply for lab standard approval.

The laboratory standards application requires information about quality control used for testing in the core areas of clinical pathology and confirmation of the association of a diplomate (or a co-supervisor) with the laboratory.

4.7. Reference Material

In addition to developing practical knowledge, skills and abilities in the laboratory, trainees are expected to be familiar with information covered in standard textbooks and the current (up to 5 years old) peer reviewed literature on veterinary clinical pathology. The Education Committee will maintain and provide a recommended reading list of standard textbooks and journals on the ESVCP/ECVCP website (www.esvcp.org). Supplemental information on the pathophysiologic basis of clinical pathology changes can be found in relevant sections of standard textbooks of internal medicine, pathophysiology and general pathology. Current information on standard laboratory management can be found in relevant sections of textbooks in veterinary and human clinical pathology.

See www.esvcp.org Reading list

4.8. Documentation

The trainee must maintain an activity log that records the nature and chronology of their training activities and that is reviewed and signed by the supervisor every 6 months. This activity log should include:

- Relevant courses or tutorials taken
- A list giving a qualitative and quantitative overview of diagnostic service activities in each of the three areas of biochemistry, haematology, and cytology
- Rotations or externships in other relevant disciplines or to other training sites
- Relevant seminars, workshops or conferences attended
- Any relevant presentations or publications
- After the 2nd year a case-book of in depth case summaries describing one case each in haematology, biochemistry and cytology where clinical pathology was a major contribution to diagnosis) and an

essay on problem solving addressing topics relevant to general clinical pathology (e.g. QC assessment method development or validation) should be prepared.

See: Guidelines case summaries

See: Template Activity log

Activity logs must be available for review at any time throughout the training period, at the request of the ECVCP Education Committee.

See: www.esvcp.org Guidelines case summaries

Template Activity log

4.9. Standard Training Programme in Veterinary Clinical Pathology

Definition: A standard training programme in veterinary clinical pathology must take place in a training site approved by the College.

Duration of Training: The standard training programme shall be a minimum of 36 months duration accomplished within 5 consecutive years. **Candidates must spend 20 working days (1 month) per year in externships. These 20 days must include a minimum of 10 consecutive working days (2 weeks) at any individual externship site.**

If the approved Training site is not a University, externships must take place in a University.

If the approved training site is outside Europe, a non-ECVCP diplomate may act as a co-supervisor as defined by EBVS policy and procedures and as outlined in section 4-2. The co-supervisor and the non European training site must be approved by the College before the training starts. In such cases all externships must take place in Europe under the direct supervision of the ECVCP diplomate acting as a supervisor.

The training programme must be completed by the date of the exam (September of each year).

4.10. Alternative Training Programme in Veterinary Clinical Pathology

Definition: This training programme is designed to allow veterinary graduates, who are unable or unwilling to enrol in standard training programmes, to design a training programme to become eligible to take the certifying examination.

A candidate whose circumstances do not permit enrolment in a standard residency programme may submit an alternative program to the College, in conjunction with his/her supervisor, outlining the resources available to them, for advanced study and experience. The alternative programme must be approved by the College before the candidate embarks, otherwise completed training time may not be acknowledged.

The application for alternative training programs must be accompanied by a curriculum vitae and a letter of intent by the candidate resident, and must be submitted to the secretariat. These programs are approved by the Executive Board based on a recommendation by the Education Committee. **Duration of Training:** The alternative training programmes shall be a minimum of 48 months duration accomplished within 5 consecutive years.

The training programme must be completed by the date of the exam (September of each year)

Arrangements regarding the external training periods / externships have to be included in the training application as well as a statement of agreement with the persons supervising those training periods.

4.11. Continuing Education

National and international continuing education programmes, meetings and courses are essential additional sources of new information in clinical pathology or related disciplines. Suitable continuing education may include, for example, those programmes, meetings and courses organised by or under the auspices of the ESVCP, the American Society of Veterinary Clinical Pathology (ASVCP) or the American College of Veterinary Pathology (ACVP) and the EBVS. Attendance at such meetings can be credited towards externships.

4.12. Submission of a Training Programme

Training program applications shall be submitted to the secretariat at any time. Review by the Education committee can take up to 3 months. It is recommended to only submit complete applications (i.e. including Laboratory Standard application or approval), as the request for additional documentation can delay the process. An administration fee of 250 Euros will be charged.

See www.esvcp.com to download lab standard and training program application forms

4.13. Application for a residency

See www.esvcp.com Residency Application Form

4.14. Transfer of Residents from one Program to another

In general, the transfer of a resident from one training program to another is not encouraged. Importantly, the Education Committee has to be informed in advance. Below there is a list of accompanying documents required for the approval of a residents transfer by the education committee. Specifically, a statement each of the past and the future supervisor are required with an explanation for the reasons for the transfer:

- The resident should briefly explain the reasons for the transfer.
- Both the past and the future supervisor should briefly acknowledge their supervisor responsibility (eg with an annual report and an evaluation of the resident, a signed agreement for future supervision).

The Education Committee will make any possible effort to keep the turnaround time at 1 month or less. Recognition of externship training time will be decided on an individual basis. In case of repeat resident transfer incidence in a particular training program the Education Committee will evaluate whether additional measures are required.

4.15. Temporary interruption of programmes

A residency programme may be temporarily interrupted for personal / family reason pending that the College approves. To this aim a letter from the Supervisor must be sent to the Board through the secretariat (secretariat@ECVCP.org), stating that the training must be interrupted and why, and the provisional duration of this interruption.

5. The Examination

5.1. Application for Examination

Application forms are available from the secretariat (secretariat@ECVCP.org) or from the website (www.esvcp.org). The application requires the signature of a Diplomate of the College. The undersigning certifies that he/she supervises the candidate and that an ECVCP approved programme in an ECVCP approved training laboratory has been followed to permit sitting for the examination.

An application is valid for only **one year** except for repeat candidates. (See "5.6 Results of the Examination")

Completed application forms accompanied by the examination fee of 500 EURO must be received by the secretariat postmarked no later than March 1st of the year of examination.

The deadline of March 1st is valid also for candidates enrolled in training programmes that end later than March 1st. In this case, candidates must submit their application by March 1st, including:

- **all relevant documentation (activity log, case log, case summaries, 2 first author publications).**
- **documentation regarding the externship that must have been completed before March 1st of the year of the exam**
- **a provisional schedule of the activities to be completed in the remaining period of the residency**

In the event of acceptance, candidates/supervisors will be requested to submit an updated activity and case log by August 31st prior to the examination.

Eligibility to sit the examination is determined by the Credentials Committee and Executive Board in early April. Applicants are promptly notified of the decision. If the applicant's credentials are not accepted, or if candidates withdraw from the examination prior to June 1st, fees are refunded, except for a 10 percent processing charge. No refunds are made after this date, and no fees may be carried over to be applied toward an examination in a subsequent year.

An individual who has received an unfavourable ruling regarding qualifications to sit the examination may appeal against this decision. Such an appeal must be received in writing by the secretary of the college within 30 days of the date of the letter informing the individual of the unfavourable decision.

5.2. General Requirements for Admission to Board Examination

The following prerequisites must be met to the satisfaction of the Executive Board before any candidate is eligible to undertake any Board Examination in veterinary clinical pathology. An eligible candidate must:

- Have a satisfactory moral and ethical standing in relation to the practice of veterinary medicine
- Be qualified to practice veterinary medicine in Europe, unless relieved from this requirement in exceptional cases by the Executive Board in conjunction with the Credentials Committee; this decision has to be sought prior to entering the programme
- Have completed at least 3 years of full time post-graduate training and experience in veterinary clinical pathology that is acceptable to the Executive Board

Acceptable means:

The training programme has to be **directed and supervised by a diplomate of ECVCP**.

The training laboratory has to be approved as an ECVCP training site by the Laboratory Standards Committee **prior** to approval of an actual training programme.

The training programme has to be approved by the ECVCP Education Committee **prior** to recruitment/appointment of a resident (starting January 1st 2011).

The documentation of the individual trainees' programme has to be approved by the ECVCP Credentials Committee after completion of the training period for admission to the Board Examination.

- Have been the first author of at least two original articles which demonstrate application of scientific methods on subjects that are relevant to veterinary clinical pathology. The articles must have been published or accepted for publication in a peer-reviewed international journal before March 1 of the application year. One article may be a case report with literature review, an evaluation or validation of diagnostic methodology or technology in clinical pathology, a retrospective or prospective study of clinical pathology changes in a disease or toxic state, or a pathophysiological study of clinical pathology changes.

➤ **5.3 The Format of the Examination**

The examination is designed to test candidates'

- (i) understanding of the broad principles of clinical pathology,
- (ii) ability to practice competently veterinary clinical pathology and
- (iii) ability to synthesise data and observations in problem solving.

The Examination is divided into the following four disciplines:

(a) General Clinical Pathology: This section of the examination tests the candidate's understanding of the pathophysiological bases of clinical pathology changes and general principles of laboratory management. It will consist of 60 multiple choice questions and 4 short answer/essay questions (designed to assess the ability of the candidate to describe pathophysiological mechanisms and to solve problems related to laboratory management). Multiple choice questions and short answer questions are focused on: (1) Pathophysiological mechanisms responsible for haematological, biochemical or cytological changes and (2) Laboratory management, including for example method and technology validation, good laboratory practice, quality control, laboratory statistics and reference intervals, basic epidemiology, evaluation of diagnostic efficacy and efficiency.

(b) Clinical Biochemistry : This section of the examination tests the candidate's understanding of the diagnostic significance of clinical biochemistry including endocrinology and immunology testing, molecular diagnostics and associated methodologies and technologies. It will consist of 50 multiple choice questions and 4 case evaluations. The case evaluations could include integrated interpretation of clinical biochemical, haematological, and urinalysis data including laboratory aspects of endocrinology and immunology testing. This section can include associated methodologies with related instrumentation and analytical test principles of instrumentation. Questions will be designed to achieve a balance between species, systems, and diseases.

(c) Haematology : This section of the examination tests the candidate's understanding of the diagnostic significance of haematology (including haemostasis) and associated methodologies and technologies. It will consist of three sections, 40 multiple choice questions, 20 projected image questions (images could include photomicrographs, instrument cytograms), and evaluation of 10 haematology glass slides (including blood and bone marrow smears). Glass slide evaluation required answers include a complete description, a morphologic and etiologic (if appropriate) diagnosis, or appropriate differential diagnoses with suggestions for additional diagnostic procedures. Questions will be designed to achieve a balance between species, systems, and diseases.

(d) Cytology : This section of the examination tests the candidate's understanding of the diagnostic significance of cytology and associated methodologies and technologies. It will consist of three sections, 25 multiple choice questions, 25 projected image questions (images include mainly photomicrographs), and evaluation of 15 cytology glass slides. Glass slide evaluation required answers include a complete description, a morphologic and an etiologic (if appropriate) diagnosis, or appropriate differential diagnoses with suggestions for additional diagnostic procedures. Questions will be designed to achieve a balance between species, systems, and diseases.

5.3. Organisation of the Examination

The examination will be held every year in September at a location in Europe and will be conducted in the English language.

5.4. Withdrawal/Illness

Withdrawal prior to the examination or failure to appear for the examination will not constitute an attempt to sit all or any part(s) of the exam, but will count as one of the years for which repeat candidates are eligible to pass any previously failed part(s). A candidate's illness during preparation for, or during the actual examination, will not be considered a valid reason to waive the rules of the College. In the event a candidate starts, but is unable to complete the examination, results will be determined for all sections for which the candidate is scheduled, regardless of the number of sections completed.

5.5. Results of Examination

Candidates are required to satisfactorily complete all parts of the certification examination to become certified. A certified person is designated as a Diplomat of the European College of Veterinary Clinical Pathology and recognized as a European Veterinary Specialist in Veterinary Clinical Pathology by the EBVS.

A candidate who takes the examination and passes two or three parts out of the total of four parts retains credit for the parts passed, provided a mark of more than 30% has been attained in the failed part(s). Three additional attempts within 8 years after completion of the training program are permitted to pass the failed parts. Candidates who wish to retake the failed part(s) must announce their intentions in a letter received by the Secretary, postmarked no later than March 1st of the year in which they wish to retake the examination accompanied by a fee of 50% of the current registration fee.

Candidates who do not pass the failed parts as described above must reapply as new candidates and retake all parts (see "Application for Certification" section for date, fee and instructions. A new application form is required).

Candidates who attempt all parts of the examination and who fail three or four parts must reapply as new candidates and must retake all parts of the examination. All such candidates must submit a new application form (for date, fee and instructions see "Application for Certification" section).

A candidate who fails a certifying examination may request that the marks of the parts failed be recalculated to verify the accuracy of the results reported. The verification process is not intended to re-evaluate the content or interpretation of the examination or candidate responses but to determine that the scores are correctly totalled. Such requests must be received in writing, accompanied by a fee of 100 EURO, within 30 days of the date of mailing of the results of the examination to the candidate.