

# EUROPEAN COLLEGE OF VETERINARY CLINICAL PATHOLOGY INFORMATION BROCHURE

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## Contents

1	Objectives .....	2
2	Definition .....	2
3	Membership and Significance of Certification .....	3
3.1	Recertification .....	5
4	Veterinary Clinical Pathology Training Programme for Diplomate Status .....	5
4.1	Definition .....	5
4.2	Supervision.....	5
4.3	Objectives of a Veterinary Clinical Pathology Training Programme .....	6
4.4	General Programme Outline .....	6
4.5	Content of Training .....	7
4.6	Learning Environment.....	7
4.7	Reference Material .....	8
4.8	Documentation .....	8
4.9	Standard Training Programme in Veterinary Clinical Pathology .....	9
4.10	Alternative Training Programme in Veterinary Clinical Pathology .....	9
4.11	Continuing Education .....	10
4.12	Submission of a Training Programme .....	10
4.13	Application for a residency .....	10
4.14	Transfer of Residents from one Programme to another .....	11
4.15	Temporary interruption of programmes .....	11
5	The Examination .....	11
5.1	Application for Examination .....	11
5.2	General Requirements for Admission to Board Examination .....	12
5.3	The format of the examination.....	13
5.4	Organisation of the Examination .....	14
5.5	Withdrawal/Illness .....	14
5.6	Results of Examination .....	14

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 programmes** is maintained for guidance of institutions and the public.

All official communications should be directed to the [secretariat@ECVCP.org](mailto:secretariat@ECVCP.org) who 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.

Guaranteeing and maintaining the highest level of specialisation in Veterinary Clinical Pathology, according to the European Qualifications Framework (EQF) level 8".

## 2 Definition

Veterinary Clinical Pathology focuses on the development, application, generation and interpretation of laboratory test results 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 specialty in a wide variety of professional environments, including (i) veterinary schools, (ii) private, commercial, and government diagnostic laboratories, (iii) pharmaceutical discovery and safety evaluation organisations 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 characteristics.

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 requires particular in depth knowledge, experience and training in veterinary clinical pathology that is not found to a sufficient extent within the other European veterinary specialties.

### **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 diplomate is a veterinarian who satisfies the ECVCP requirements as to training, experience, and competence in veterinary clinical pathology hereafter described, shall be eligible to achieve Diplomate status by examination. Alternatively, veterinarians who satisfy these ECVCP requirements, but have passed board examinations by comparable colleges outside Europe established prior to the establishment of ECVCP, may be eligible. Election of such candidates shall be accomplished by majority vote of the Board after review of their application.

In accordance with the latest version of EBVS policies and procedures (<http://ebvs.eu/publications/public/ebvs-2016-policies-and-procedures>), in some non-European countries or areas, the training and examination of specialists is equivalent to that provided by the ECVCP. However membership should be restricted to those who have a connection to Europe. The credentials of the applicant and their activity in making a major contribution to the ECVCP are more important than the place of residence or nationality. The College may, if it so wishes, temporarily grant ECVCP Diplomate status, provided that the applicant can meet the following minimum conditions:

1. has credentials, in relation to training, publications and contributions to the subject, equal to those required to sit for the ECVCP Diploma examination;
2. has passed an examination of equal rigor, and covering the same material as that of an ECVCP Diplomate;
3. passes the College's re-certification process;
4. is practising in a European country, and intends to remain so for the foreseeable future. Applicants may be relieved of this requirement in exceptional cases.

#### **Non-Practising Diplomate:**

A Diplomate who (i) has not practised the specialty for two continuous years or the equivalent of two years during the previous five years or (ii) has not fulfilled the requirements for the re-certification procedure or

(iii) has not attended an Annual General Meeting for three years without previous dispensation from the College.

A non-practising Diplomate is not allowed to use the title “European Veterinary Specialist” nor “DipECVCP” but may use the title “DipECVCP (non-practising)”.

A non-practising Diplomate seeking to revert to a full Diplomate status needs to satisfy the requirements of the ECVCP Credentials Committee.

A non-practising Diplomate is removed from the EBVS specialist register.

A non-practising Diplomate cannot be a supervisor in a training programme which is ECVCP approved or seeking ECVCP approval.

**Retired Diplomate:** A Diplomate who voluntarily stops practising permanently and irrevocably is entitled to Retired Diplomate status. Retired Diplomates maintain all privileges of Diplomates including advisory tasks, except the right to vote or hold office. A Retired Diplomate is not allowed to use the title European Veterinary Specialist nor Diplomate but may use the title Diplomate (Retired). The Retired Diplomate is removed from the EBVS specialist register.

**Honorary Diplomate:** 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:** The College may confer Associate Member status on scientists who have contributed significantly to research in veterinary medicine. Admission criteria for Associate Members are defined by the Executive Committee of the College. These criteria have to ascertain that only scientists of international repute who are active in the field of Veterinary Clinical Pathology are admitted as Associate Members. Moreover:

- a) Associate Members are not conferred any diplomas and are not entitled to use the designation of Diplomate.
- b) Associate Members are encouraged to participate in the training of residents together with ECVCP Diplomates. Associate Members are not entitled to act as resident supervisors without an ECVCP Diplomate responsible for the training programme.
- c) Associate Members are not allowed to hold office within the College or to vote at the Annual General Meeting. They can be co-opted to College committees as advisors.
- d) Associate Members are encouraged to participate in scientific meetings and workshops organised by the College.
- e) Associate Members are not allowed to advertise their title.

### 3.1 Recertification

Diplomates wishing to retain the title of “European Veterinary Specialist in Veterinary Clinical Pathology” will be required to follow a recertification process every 5 years.

Diplomates (except for non-practicing Diplomates and Honorary Diplomates) are required to submit every 5 years a summary of their professional activities in which evidence of fulfilling these requirements and evidence of continuous education must be included. The format of this recertification summary is approved by the European Board of Veterinary Specialisation (EBVS Policies section II, part A.14) and will be evaluated by members of the ECVCP Credentials Committee. This standard procedure will be performed according to a credit point system. In this credit point system the following items can be included:

- Publications
- Presentations at national congresses or continuing education
- Presentations at international congresses
- Attendance at national or international congresses
- Online/distance learning
- Preparing examination questions
- Supervision of residents
- Membership of Board or College committees
- Two letters of support (see relevant model letter at <http://www.esvcp.org/index.php/publications/credential-committee-docs.html>)

For each item, a maximum number of points can be given. A total minimum amount of points has to be collected during a 5 year period.

If a Diplomat does not meet the required number of points, one extra year may be allowed in which to achieve this. If they do not succeed, or if any Diplomat does not submit re-certification documents, they will be given non-practising Diplomat status by the College, removed from the EBVS specialist register, and only allowed to use the title of “Diplomat (**non-practising**)”, and therefore not European recognized specialist. A non-practising Diplomat seeking to revert to a full Diplomat status will need to satisfy the requirements of the ECVCP Credentials Committee.

## 4 Training Programme for achieving a specialist qualification in Veterinary Clinical Pathology (DipECVCP)

### 4.1 Definition

A Training Programme (Residency) allows veterinarians, who have either completed a 1 year rotating internship programme, or at least 2 years in veterinary practice, or equivalent clinical practice acceptable by the Credentials Committee, to acquire in-depth knowledge of veterinary clinical pathology. The trainee (resident) is under the supervision and guidance of an ECVCP diplomate and follows an ECVCP approved Standard or Alternative Training Programme which takes place in an ECVCP approved laboratory.

### 4.2 Supervision

#### Diplomat supervision:

An ECVCP diplomate must supervise the training. Although more than one diplomate may be involved in a training programme, one diplomate should take overall responsibility for the resident's progress towards the ECVCP board examination. This responsibility includes the administration and continuity of the programme and the evaluation of performance and progress of the trainee at regular intervals (at least

every 6 months).

#### **Co-supervision:**

In some circumstances it may be appropriate to have a co-supervisor who is not an EBVS recognised specialist but holds a title equivalent to the DipECVCP, 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 a co-supervisor.

### **4.3 Objectives**

ECVCP approved training programmes are intended to help trainees to acquire knowledge, ability and skills in all areas of veterinary clinical pathology and to develop young specialists who are dedicated to advancing the specialty and be valued members of the professional community. The main aims of the training programme are:

- To instruct veterinarians in the science and practice of veterinary clinical pathology and its supporting disciplines
- To provide 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
- To promote aptitude and proficiency in veterinary clinical pathology.

### **4.4 Outline**

Training should be delivered in the disciplines of 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**

1. The training laboratory must obtain approval by the ECVCP Laboratory Standards Committee before the training programme is to be considered for approval by the ECVCP Education Committee. A 250 Euro administration fee (non-refundable) must be paid prior to applying for approval by the ECVCP Laboratory Standards Committee.

**2. The training programme must obtain approval by the ECVCP Education Committee before the trainee commences.**

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

4. All trainees in ECVCP approved Training Programmes should be members of the European Society of Veterinary Clinical Pathology (ESVCP).

## 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 training laboratory cannot provide training in all areas, additional training at other laboratories 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.** If the training programme is not based in a University/Veterinary School, 50% of the total time required for fulfilling all externships should be spent in a University/Veterinary School.

These externships must be **approved in advance by the ECVCP Education Committee** and may include:

- Visits to other institutions for training in areas of veterinary clinical pathology not available at the training institution. It is advised that if the externship is taking place at an institution on a different continent in a different time zone the stay should last at least 10 consecutive working days (2 weeks).
- Attendance of interactive live and/or on-line workshops/seminars/courses approved by the ECVCP relevant to the training, including the ECVCP Summer School.
- Attendance of scientific congresses in all areas of Veterinary Clinical Pathology

A list of the externships should be included in the application for training programme approval.

A detailed schedule of the externships planned for the first year of the training programme should be included in the resident's registration form.

Schedules of externships for the following years should be included within the annual training progress report; a proof of agreement for the resident's participation should be provided by the person responsible for the delivery of the externship.

## 4.6 Learning Environment

The programme should emphasize basic understanding of pathophysiological mechanisms responsible for clinico-pathological 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.

The training laboratory should have adequate facilities, compliance with health and safety standards, have 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 an ECVCP diplomate who is responsible for all aspects of laboratory management.

#### 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](http://www.esvcp.org)). Supplemental information on the pathophysiology of clinicopathological 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](http://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, tutorials, seminars, or workshops attended or delivered
- A list presenting 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 presentations or publications. Two first-author publications, are required for eligibility to sit the Board examination for DipECVCP. The publications should demonstrate application of scientific methods on subjects that are relevant to veterinary clinical pathology. 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. (see section 5.2 “General requirements for admission to examination”).
- After the 2nd year, the following should be also prepared:
  - A case-book of in depth case summaries describing one case each in haematology, biochemistry and cytology where clinical pathology played a major contribution to diagnosis.
  - One 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 ([http://www.esvcp.org/index.php/publications/doc\\_download/295-case-reports-and-essay-guidelines-10-2010.html](http://www.esvcp.org/index.php/publications/doc_download/295-case-reports-and-essay-guidelines-10-2010.html))

See: Template Activity log ([http://www.esvcp.org/index.php/publications/doc\\_download/323-resident-sample-activity-log-2013.html](http://www.esvcp.org/index.php/publications/doc_download/323-resident-sample-activity-log-2013.html))



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

#### **4.9 Standard Training Programme (Residency) in Veterinary Clinical Pathology**

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

**Duration of Training:** The standard training programme shall be a minimum of 36 months duration, which can be 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 training site requires extensive travelling to another continent or time zone.**

If the approved Training site is not a University, at least 50% of the externship time (over 3 years) must take place at 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 examination (September of each year).**

#### **4.10 Alternative Training Programme in Veterinary Clinical Pathology**

**Definition:** A veterinarian whose circumstances do not permit enrolment in a standard residency programme may submit an alternative training programme (ATP) to the College, in conjunction with his/her supervisor, outlining the resources available to them, for advanced study and experience. The ATP is not approved for anyone other than the resident in question. The ATP must be approved by the College before the resident embarks on it, and the total length of this programme cannot be shorter than the standard residency programme. The precise form of each individual programme is at the discretion of the Education Committee. The total time of an ATP must not exceed six years. A resident on an ATP must spend the equivalent of at least 60% of 3 years working in the practice of his/her speciality, under direct supervision of a Diplomate of the College.

**Duration of Training:** The ATP shall be a minimum of 48 months duration accomplished within 6 consecutive years and must be completed by the date of the examination (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 (see also section 4.5).

**Examination:** The requirements are the same as for a Standard Training Programme (see Section 5).

**Definitions:** Primary training laboratory (PTL): An ECVCP-approved training laboratory with an active ECVCP diplomate.

Secondary training laboratory (STL): A laboratory which is not an ECVCP-approved training facility with or without an active ECVCP diplomate.

Supervisor: The ECVCP diplomate at the PTL or STL.

Co-supervisor: The other clinical pathologist at the STL or PTL who is not the Supervisor.

The candidate resident must:

- Be eligible to practice veterinary medicine in a European country.
- Have completed either a 1 year internship program, or 2 years in veterinary clinical practice, or equivalent clinical practice acceptable to the Credentials Committee.
- Spend 100% of his/her working time in veterinary clinical pathology.
- Identify a Primary training laboratory (PTL) and a Secondary training laboratory (STL) (see definitions above).
- Identify a Supervisor and a Co-Supervisor (see definitions above).
- Spend a minimum of 22 months training at the PTL, a maximum of 23 months at the STL and 3 months (60 days in total) of externships in ECVCP-approved training laboratories.
- Submit to the College's secretariat the following documents:
  1. A curriculum vitae (CV).
  2. Supervisor's and Co-supervisor's CV.
  3. A letter outlining the reasons/circumstances for designing an ATP, commitment to the programme and career goals following completion of the ATP.
  4. Letters from the Supervisor and Co-Supervisor supporting the application.
  5. The completed "Application form for an ATP approval".

#### **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/ECVCP, the American Society of Veterinary Clinical Pathology (ASVCP) or the American College of Veterinary Pathology (ACVP) and other European Colleges or Societies. Attendance at such meetings can be credited towards externships (see section 4.5).

#### **4.12 Submission of a Training Programme (Residency)**

Training programme applications may be submitted to the secretariat at any time. Review by the ECVCP 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 to download lab standard (<http://www.esvcp.org/index.php/publications/lsc-documents-menu.html>) and training programme application (<http://www.esvcp.org/index.php/publications/training.html>) forms

#### **4.13 Application for a residency**

See <http://www.esvcp.org/index.php/publications/credential-committee-docs.html> **Residency Enrolment Form**

#### 4.14 Transfer of Residents from one Programme to another

In general, the transfer of a resident from one training programme 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 resident's transfer by the Education Committee. Specifically, a statement from both 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 supervisory responsibility (e.g. with an annual report and an evaluation of the resident, a signed agreement for future supervision).

The Education Committee will make every possible effort to keep the turnaround time to 1 month or less. Recognition of externship training time will be decided on an individual basis. In case of repeat resident transfer incidents in a particular training programme, 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 ECVCP Board approves. To this aim a letter from the supervisor must be sent to the Board through the secretariat ([secretariat@ECVCP.org](mailto:secretariat@ECVCP.org)), stating that the training must be interrupted and why, and the provisional duration of this interruption, if possible.

### 5 The Board Examination

#### 5.1 Application for Examination

**Application forms** are available from the secretariat ([secretariat@ECVCP.org](mailto:secretariat@ECVCP.org)) or from the website ([www.esvcp.org](http://www.esvcp.org)). The application requires the signature of an ECVCP diplomate. The signatory 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 of the examination.

An application is valid for only **one year** except for repeat candidates. (See section 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 1<sup>st</sup> of the year of examination.**

**The deadline of March 1<sup>st</sup> is valid also for candidates enrolled in training programmes that end later than March 1<sup>st</sup>. In this case, candidates must submit their application by March 1<sup>st</sup>, 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 1<sup>st</sup> of the year of the examination

- 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 31<sup>st</sup> 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 1<sup>st</sup>, 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 secretariat 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 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 practise 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 training 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:

1. The training programme has to be directed and supervised by an ECVCP diplomate.
2. 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.
3. The training programme has to be approved by the ECVCP Education Committee prior to recruitment/appointment of a resident.
4. The documentation of the individual trainee's programme has to be approved by the ECVCP Credentials Committee after completion of the training period for admission to the Board Examination.
5. 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 1st 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 pathophysiology responsible for clinico-pathological changes and general principles of laboratory management. It consists 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 consists of 50 multiple choice questions and 4 case evaluations. The case evaluation required answers 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 are 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 consists of three parts: 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 morphological and aetiological (if appropriate) diagnosis, or appropriate differential diagnoses with suggestions for additional diagnostic procedures. Questions are 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.

## **5.4 Organisation of the Examination**

The examination will be held every year during the last four (4) months of every year at a location in Europe and will be conducted in English.

## **5.5 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.

## **5.6 Results of Examination**

Candidates are required to pass all sections of the certification examination to become certified. A certified person is designated as a Diplomate of the European College of Veterinary Clinical Pathology (DipECVCP) 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 sections out of the total of four sections retains credit for the sections passed, provided a mark of more than 30% has been attained in the failed section(s). Three additional attempts within 8 years after completion of the training programme are permitted to pass the failed sections. Candidates who wish to retake the failed section(s) must announce their intentions in a letter received by the secretariat, postmarked no later than March 1<sup>st</sup> 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 sections as described above must reapply as a first time candidate and retake all sections (see section 5.1 "Application for Examination"; a new application form is required).

Candidates who attempt all sections of the examination and fail three or four sections must reapply as a first time candidate and retake all sections (see section 5.1 "Application for Examination"; a new application form is required).

A candidate who fails the examination may request that the marks of the sections 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 marks have been added correctly. 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.