# The Program: Common Nordic Education Program on Diagnostics of Hereditary Diseases of the Eye in Dogs and Cats relating to Denmark, Finland, Norway and Sweden 

Revised by the NEEC, September 2017

## Terminology

"Eye Scheme Examiner" in the following text relates to a Nordic person, approved by the ECVO, who has participated in the education programme, and passed the examination on diagnostics of hereditary diseases of the eye in dogs and cats, or has equivalent training. "Eye-panel" in the following text means all eye-examiners within one country.
"DK, F, N, S" in the following text refers to Denmark, Finland, Norway and Sweden respectively.
ECVO is the European College of Veterinary Ophthalmologists
ACVO is the American College of Veterinary Ophthalmologists
NEEC is the Nordic Eye Examination Committee
"The Program" refers to the requirements and content of the education program, described in this document.
"The Guidelines for NEEC" refers to a separate document describing the organisation and regulations for the NEEC.
"The NEEC exam procedure" refers to a separate document describing the exam and appeals procedures.
"Head organisations" refer to the organisation in each country responsible for the approval and administration of this educational programme. They are as follows:
Denmark - Den Danske Dyrlægeforening, Rosenlunds Allé 8, DK-2720 Vanløse Finland -Fennovet - Aleksis Kiven katu 52-54, 00510 Helsinki
Norway - Den Norske Veterinærforening, P.O.Box 6781 St.Olavs Pl., 0130 Oslo Sweden - Svenska Sällskapet för Veterinär Oftalmologi (SSVO)

## Requirements to be accepted as a trainee within the education programme.

The applicant should be a licensed veterinarian in one or more of the four countries DK, F, N or S.
Before training commences, the candidate must confirm normal stereoscopic, colour vision (binocular, with a minimum visual acuity of 0,7 corrected for refractive errors).
The trainee should have access to the basic ophthalmic instruments; direct and indirect ophthalmoscopes, a slit-lamp biomicroscope and a gonioscopy lens.

## The contents of the education program in ophthalmic diagnostics

Education and examination on diagnostics of hereditary eye diseases in dogs and cats should include the following:

A: Courses and consultation meetings
B: Practical training in the performance of ophthalmic examinations.

## A1. Basic continuing education in general ophthalmology.

NEEC will specify the extent of the basic education (a total of 5-7 days of courses are suggested). The head organisation will control that trainee has fulfilled the requirements before examination. ESAVS and ACVO basic science courses are approved. Other relevant courses can also be accepted as Basic continuing education by the NEEC, after evaluation of the course contents.

The trainee should have basic and updated knowledge on

- Ocular embryology and anatomy
- Ocular physiology
- Basic examination techniques, Breed-related diseases and genetic testing
- Neuroophthalmology


## A2. Special courses and consultation meetings:

The trainee should attend at least three $11 / 2-2$ day courses in ophthalmology on specified topics. The special courses should be on the topics of knowledge of instruments, on the anterior and posterior segments, and basic genetic principles The ESAVS and ACVO Basic Science courses can be a part of these special courses.

## B. Practical training in the performance of ophthalmic examinations:

a) At least 1000 dogs must be examined under direct supervision of an approved supervisor (see below).
b) At least 600 out of the 1000 must be examined under the supervision of a Nordic eyeexaminer approved by ECVO (= all present Nordic eye-panellists).
c) At least 100 out of the 1000 must be examined under the supervision of an ECVO- or ACVO diplomate.
d) Up to 200 cases examined under the supervision of a non-Nordic ECVO Eye Scheme Examiner who is not an ECVO or an ACVO-diplomate may be included.
e) Up to 400 cases examined under supervision of a non-Nordic ECVO-diplomate or ACVO may be included.
f) At least 100 cats must be examined, of these, 10 must be examined together with an eye examiner. The remaining 90 can be examined without the direct supervision of an approved supervisor . All examined cases must be recorded.
g) Gonioscopy is part of the training. The trainee must perform and record gonioscopy on 20 canine cases under supervision.

In addition the trainee should examine a specified minimum number of cases showing certain normal variations and/or diseases. The trainee should also examine a specified minimum number of animals of certain breeds and certain age-groups. These "qualitative" requirements will be specified by NEEC.

All cases examined must be listed by the trainee according to instructions from NEEC.

## 4. Publications

At least one article on ophthalmology that is accepted for publication in a peer reviewed veterinary journal (national/nordic/international) .

## Duration of validity of the education

The different parts of the education programme (courses, practical training, etc.) are valid for ten calendar years.

## Registration of trainees and information to the trainees

The head organisation in each country will register trainees from their own country.

Lists of trainees should be circulated between the four head organisations and NEEC so that an up-to-date list of all trainees is maintained.

Information to the trainees usually from NEEC, or concerning courses or similar activities, should be sent to the four head organisations. These head organisations will then distribute the information to the trainees in each respective country.

Major changes (as defined by the NEEC, i.e. significant increase in numbers of animals to be examined/cases to be seen, additional courses etc), may apply only to trainees who have started after the change has been made. For trainees that have started before the changes have been made, there is a 5 year transition period, i.e. if they submit their credentials and apply to sit the exam within 5 years of the change, they do not have to fullfill these. If, on the other hand, it takes longer than 5 years to finish the program, these changes apply also to the trainee.
It is the trainees responsibility to make sure they fullfil all reqirements.

## Supervisors

All eye-panelists in all four Nordic countries are approved as supervisors for trainees in this common Nordic education programme.

All present Nordic panellists have been accepted by ECVO.

## APPENDICES

The following changes, made at January 2017, are considered major changes that will apply to all aspirants starting after the changes have been made:
Section 2: The special course on basic genetic principles
Section 3 g : 20 gonioscopy cases instead of previously 10
Section 4: Article on ophthalmology, previously the subject was open and not limited to ophthalmology, except for those following "the Norwegian list".

## "The Qualitative List"

## Updated NEEC 2017

The following list of diseases/variations should have been seen and recorded. The protocol must be signed by the supervisor(s)

|  | Disease | Number |
| :--- | :--- | :--- |
| Globe | Microphthalmia | 2 |
| Eyelids | Distichiasis | 5 |
|  | Atresia of lacrimal punctum | 3 |
| Iris | Persistent pupillary membrane (iris-cornea or iris-lens) | 3 |
|  | Persistent pupillary membrane (iris-iris, crossing pupil) | 2 |
|  | Iris hypoplasia | 2 |
|  | Iris atrophy | 2 |
| Lens | Perinuclear ring | 2 |
|  | Nuclear fibrillar or punctate opacities | 5 |
|  | Pigment on anterior lens capsule | 5 |
|  | Cataract, complete | 2 |
|  | Cataract, posterior cortical, including posterior polar | 10 |
|  | Cataract, anterior cortical / subcapsular | 5 |
|  | Cataract, anterior suture lines | 5 |
|  | Cataract, other (e.g. suture tips, equatorial) | 5 |
|  | Cataract, nuclear | 5 |
|  | Lens (sub)luxation (can be seen without supervision - cats can be <br> included) | 5 |
| Vitreous | Asteroid hyalosis | 2 |
|  | Vitreous in anterior chamber | 1 |
|  | PHTVL/PHPV grade 1 | 3 |
|  | PHTVL/PHPV grade 2-6 | 2 |
| Fundus | Complete retinal detachment (1 can be seen without supervision) | 2 |


|  | Partial retinal detachment (cats can be included). One can be seen <br> without supervision | 2 |
| :--- | :--- | :--- |
|  | RD focal/multifocal, retinal folds | 5 |
|  | RD geographic | 2 |
|  | CEA, CRD | 20 |
|  | CEA, coloboma | 5 |
|  | PRA early stage | 2 |
|  | PRA late stage | 3 |
|  | Non-inherited focal retinopathies | 5 |
|  | Micropapilla/optic nerve hypoplasia | 2 |
|  | Other presumed hereditary retinopathies* (type described) | 4 |
| Other | Iridocorneal angle abnormalities (ICAA) as defined in the ECVO <br> manual, Chapter 6, Guidelines, as "Affected | 5 |

*Examples of retinopathies, but not limited to: Canine Multifocal retinopathy (CMR), Chinese Crested (CC) pigmentary chorioretinopathy, Working Dog Retinopathy (WDR), Vestgöta spetz retinopathy (J175); (see ECVO manual Ch.6, Guidelines)

Of the 1000 dogs examined, at least 80 has to be puppies < 10 weeks of any breed known to be affected by CEA. Of those at least 40 has to be collie/sheltie puppies. At least 10 of the puppies has to be merle dogs. 5 of the 10 merle puppies can be of other breeds than collie/sheltie.

