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## Review

## Rules, regulations, strategies and activities within the Fédération Cynologique Internationale (FCI) to promote canine genetic health

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## ABSTRACT

The structure and aims of the Fédération Cynologique Internationale (FCI) are outlined, with a focus on the rules and regulations that are relevant to breeding and genetic health of dogs. Recently adopted strategies to enhance canine genetic health and activities to counteract exaggerated anatomical features are highlighted. Actions by the FCI regarding recognition of breeds and doping rules, under direct control by cynological organisations, are included, based on their relevance to canine health.

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## Introduction

The Fédération Cynologique Internationale (FCI) was established in 1911 as an international federation of national kennel clubs. In total, there are more than 2 million individual members in participating countries and over 2.2 million puppies are registered each year by national kennel clubs within the FCI. Agreements are made with the Kennel Club (UK), the American Kennel Club and the Canadian Kennel Club about mutual recognition of stud books and also on collaborations regarding health issues connected with breed standards. In the statement of values, the FCI considers health, temperament and behaviour as the most important matters in dogs and their breed standards.

The following extracts are taken from the statutes of the FCI<sup>1</sup>: *'The aims of the FCI are to encourage and promote breeding and use of purebred dogs whose functional health and physical features meet the standard set for each respective breed and which are capable of working and accomplishing functions in accordance with the specific characteristics of their breed; to protect the use, keeping and breeding of dogs in the member countries; to support free exchange of dogs and cynological information between member countries and initiate the organization of exhibitions and tests; to promote and support dogdom and dog welfare worldwide.'*

By issuing special regulations, the FCI shall in particular ensure: *'c) the promotion of ethics and scientific research, which is of funda-*

*mental importance in cynology, and the free exchange of scientific information between the members and contract partners.'*

In addition, activities of the FCI include: *'f) supporting certain members and contract partners, if necessary, in conjunction with other international organizations, by providing professional information and necessary cynological experts'*. In addition: *'The standard of a new breed or any change in an existing standard will only be internationally acknowledged by following the specific rules of the Standing Orders. Under any circumstances, the welfare of the dogs must be of the utmost priority'*.

## Structure of the Fédération Cynologique Internationale

The FCI is now a worldwide organisation, consisting of 86 member countries and contract partners. The full members currently include 36 countries from Europe, 18 from America and the Caribbean, six from Asia and one from Africa, as well as multiple associated members and contract partners including Australia, New Zealand and China. The French Kennel Club is the member country with most individual members (550,000 in 2010) and the Japanese Kennel Club has the highest yearly number of registered dogs (438,000 in 2010).

The General Assembly is the supreme and legislative body of the FCI, the General Committee is the executive body of the FCI and the Secretariat General is in charge of carrying out the daily administrative work. The General Assembly sets up Mandatory and Non-mandatory Commissions. These Commissions, the consultative bodies of the FCI, are responsible to the General Committee and must submit reports on their activities.

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The competences of the General Committee include implementing the decisions of the General Assembly, appointing an Executive director to manage the day-to-day business, approving the work of the Commissions and assigning tasks to them, approving new breeds on a provisional basis and their respective standards and approving amendments to the standards. The General Committee determines the tasks of the three Mandatory Commissions, members of which are elected by the General Assembly.

The Scientific Commission is the consultative body for genetics and other health aspects of dog breeding. The Standard Commission is the consultative body for recognition of dog breeds and breed standards. The Breeding Commission is a Non-mandatory Commission to which each member country can elect their own representative and is the consultative body regarding rules, regulations and strategies for healthy dog breeding. Academics in veterinary medicine and animal genetics from various countries serve on the FCI Scientific Commission and Standard Commission, as well as its Breeding Commission, most commonly employed or serving as consultants also in their national kennel clubs.

### Breeding healthy dogs

Strategies to enhance canine genetic health have been on the agenda both for the FCI and the Federation of European Companion Animal Veterinary Associations (FECAVA) for many years (Hedhammar, 1997, 1999). Health and welfare in dog breeding, the value of breeding programmes and the activities of the FCI and WSAVA to promote canine genetic health were discussed at FECAVA symposia held at the World Small Animal Veterinary Association (WSAVA) Congresses in Rhodes, Greece, in 2004 and in Prague, Czechia, in 2006 (Hedhammar, 2005; Indrebø, 2005a,b, 2007).

Animal welfare is of utmost importance in modern dog breeding. It is a major challenge for the FCI to develop and implement rational rules, regulations and strategies for healthy dog breeding. This is a difficult task, mainly due to the large number of member countries in different parts of the world, which might be far apart concerning culture, means to control animal health, screening programmes, education of breeders, open databases with pedigree and health results.

National and international control is of great importance, but rules and regulations that are too strict might not necessarily have the desired beneficial outcomes. Heavy restrictions might promote too intense selection, thereby leading to matador breeding (extensive use of an individual animal), inbreeding and decreased gene pools, and could result in an increased number of unregistered dogs governed by no health policy at all. Strict rules against certain diseases may also lead to an increase in other serious diseases that cannot be detected through screening tests or DNA tests, consequently not being subjected to eradication programmes (Indrebø, 2008).

The following is a compilation of the FCI rules and regulations with relevance to breeding and health.

#### Code of Breeding Ethics

The Code of Breeding Ethics (FCI Standing Orders, Article 12<sup>2</sup>) states that *'breeding and the development of dog breeds must be based on long-term objectives and sound principles so that the breeding does not result in diseases, bad temperament or lack of working skills. Breeding must serve the objective of preserving and preferably extending the genetic diversity (polygenicity) of the breed. The breeder must ensure that the animals he intends to use for breeding have a stable temperament and are in good physical condition. As long as a puppy is in the*

*breeder's custody, he must ensure a physically and mentally beneficial environment for the puppy to guarantee proper socialisation'*.

#### Fédération Cynologique Internationale Breeding Strategies

In February 2010, the FCI General Committee approved Breeding Strategies as proposed by the Breeding Commission in cooperation with the Scientific Commission (Table 1). The background for the proposal was to focus on the opportunities that the FCI as a worldwide organisation has to improve or maintain the health of purebred dogs in a large number of countries in most parts of the world. This document gives an overall strategy; the more specific details are given in the above mentioned Standing Orders and in the International Breeding Rules.

#### Fédération Cynologique Internationale Breeding Rules

The first issue of the FCI Breeding Rules was approved by the FCI in 1934. Since then, the rules have been revised multiple times, especially during the last decade; the latest amendments were approved by the FCI General Committee in October 2010 (Table 2). The FCI states clearly that the breeding regulations of the member countries and contract partners can go beyond those of the FCI in their requirements, but may not be in conflict with the FCI International Breeding Regulations. Parts of the major articles to improve canine genetic health are cited in Table 2.<sup>3</sup>

### Breed standards

To describe breeds of dogs, so called breed standards have been produced by the FCI, as a reference for their ideal appearance, for more than 100 years. An increasing number of breeds and breed standards have been added during the 20th century.

More than 300 breeds of dogs are now internationally recognised by the FCI (339 breeds as of 2010). Each breed and their standard is the 'property' of a specific country. The 'owner' countries of the breeds write the standard of these breeds, which is a description of the ideal type of dog within the breed. Breed standards for recognition of new breeds and changes in breed standards have to be produced in collaboration with the Standard and Scientific Commissions. Translations into German, English, French and Spanish, as well as updating, are carried out by the FCI. These standards are the reference on which the judges base their judging in shows held in the FCI member countries; they are the reference assisting the breeders in their attempt to produce top-quality, healthy dogs.

During the last decades, there have been major improvements in most FCI breed standards concerning health and sound confirmation. The European Convention for Protection of Pet Animals, concluded in Strasbourg in 1987 and registered by the Secretary-General of the Council of Europe in 1994, has had a significant influence on the progress of this work. In addition to altering specific breed standards towards the description of a healthier and more functional anatomy, the following sentence has been included in all FCI breed standards since 2003: *'Any dog clearly showing physical or behavioural abnormalities shall be disqualified'*.

Improvement in the breed standards and increasing the awareness of judges to recognise their responsibility and possible contribution to efforts concerning health issues, will have considerable impact on the value of breeding programmes, as the breed standard and the judges' interpretation of the standard always will be a major guideline in the breeding of purebred dogs. Since publication in 1969 of the Report of the WSAVA committee appointed to consider breed standards in relation to the health and welfare of

<sup>2</sup> See: [www.fci.be/uploaded\\_files/97-2009-annex2-en.pdf](http://www.fci.be/uploaded_files/97-2009-annex2-en.pdf).

<sup>3</sup> See: [www.fci.be/circulaires/102-2010-annex-en.pdf](http://www.fci.be/circulaires/102-2010-annex-en.pdf).

**Table 1**  
Fédération Cynologique Internationale breeding strategies.<sup>a</sup>

1. Introduction
The goal in dog breeding is functionally healthy dogs with a construction and mentality typical to the breed, dogs that can live a long and happy life for the benefit and pleasure of the owner and the society as well as the dog itself. Breeding should be carried out in such a manner that it promotes the health and well-being of the progeny, as well as the welfare of the bitch. Knowledge, honesty and cooperation, both on national and international level, is basic in healthy dog breeding. Breeders should be encouraged to emphasize the importance of the combination of dogs as well as selection of the individual dog to be used for breeding
The FCI members and contract partners should conduct education programmes for breeders, preferably on an annual basis. Education of breeders is to be recommended rather than strict breeding regulations and stringent demands in breeding programmes, which can easily result in reduced genetic diversity in the breed as well as exclusion of excellent breed representatives and reduced cooperation with conscientious breeders. Breeders and breed clubs should be encouraged to cooperate with scientists in genetic health issues, to prevent combination of dogs from lines that will result in unhealthy offspring
Any dog used for breeding or screened for inherited diseases, must have identification (chip or tattoo)
The breeders should keep the breed standard as the guideline for the breed specific features; any exaggerations should be avoided
2. Only functionally and clinically healthy dogs, with breed typical conformation, should be used for breeding; i.e. to only use dogs that do not suffer from any serious disease or functional disabilities
2.1 If close relatives of a dog suffering from an inherited disease or functional disability are used for breeding, they should only be mated to dogs from bloodlines with low or no occurrence of the same disease or disabilities. If a DNA-test for the disease/functional disability is available, the breeding stock should be tested in order to avoid mating of two carriers (see point 5)
2.2 Mating combinations which from available information increase the risk of serious diseases or functional disabilities or impairment in the progeny, should be avoided
2.3 Only dogs having a sound temperament, typical for the breed, should be used for breeding. That is to only use dogs that do not show signs of behavioural disturbance in the form of excessive fear reactions or aggressive behaviour in unprovoked situations or situations that can be considered as everyday situations for the dog
3. To preserve, or preferably extend, the genetic diversity of the breed, matador breeding and heavy inbreeding should be avoided. Mating between siblings, mother to son or father to daughter should never be performed. As a general recommendation no dog should have more offspring than equivalent to 5% of the number of puppies registered in the breed population during a five-year period. The size of the breed population should be looked upon not only on national but also on international level, especially in breeds with few individuals
4. Screening results (positive or negative) for phenotypic appearance of polygenetic diseases should be available in open registries. The results should be used to aid the selection and combination of breeding dogs
4.1 Breeding values based on screening results should when possible be computerised to facilitate selection of the breeding stock not only on the phenotypic appearance but also by indicated genotype. As a general rule the estimated breeding value for a combination should be better than the average for the breed
4.2 Screening should only be recommended for diseases and breeds where the disease has major impact on the dogs' functional health
5. Results from DNA tests for inherited diseases should be used to avoid breeding diseased dogs, not necessarily to eradicate the disease. Dogs shown to be carriers (heterozygote) for a recessive inherited disease should only be bred to a dog that is proven not to carry the allele for the same disease
6. Any dog should be able to mate naturally. Artificial insemination should not be used to overcome physical inabilities of the dog. A bitch should be excluded from further breeding if she is unable to give natural birth, due to anatomy or inherited inertia, or if she is unable to take care of the newborn puppies, due to mentality or inherited to agalactia (no milk production)
7. Health issues that cannot be diagnosed by DNA-tests or screening programmes should have equal impact in the breed specific breeding programmes
8. As a general rule, a breeding programme should not exclude more than 50% of the breed; the breeding stock should be selected from the best half of the breed population
9. The raising of puppies, with correct feeding, environmental exposure, stimulation by their mother, breeder and others to develop social sense and response, must be basic in every breeding

<sup>a</sup> See: [www.fci.be/uploaded\\_files/29-2010-annex-en.pdf](http://www.fci.be/uploaded_files/29-2010-annex-en.pdf).

dogs (Anonymous, 1969), various activities by the FCI and their national kennel clubs have focussed on changes in breed standards and training of judges with reference to health, especially related to exaggerated anatomical features. Several kennel clubs within the FCI have implemented strict guidelines for judges on how to interpret breed standards with reference to health.

Based on extensive material produced by the Swedish Kennel Club (Swedish Kennel Club, 2010), an ad hoc committee from the FCI Scientific and Standard Commissions is currently working on how to implement the training of judges in their tasks in accordance with general, as well as breed-specific, guidelines within all FCI member countries. In addition to the breed-specific advice for several breeds, the following general statements apply to dogs of all breeds:

- All dogs should be able to breathe normally, also when moving.
- All dogs should have clear eyes, without any sign of discomfort.
- All dogs should have healthy skin, without any sign of discomfort.
- The coat should not be so extensive as to impede movement.
- All dogs should be able to move naturally without visible effort or pain.
- All dogs should have good temperament suitable for life in present society. Breed-specific behaviour must be noted and allowed, but excessive shyness or sharpness of temperament is not desirable. Aggressive dogs and dogs showing signs of panic and/or fear should always be disqualified.

## Recognition of new breeds

The procedures for recognition of new breeds are of utmost importance for their future health. 'New breeds' most commonly arise from national/regional populations of dogs that already have been selected for common features, mostly by physical appearance. 'New breeds' unfortunately are also sometimes created out of variants in colour, coat and utilities. Under both circumstances, there is a danger that the populations are too small and already inbred to such an extent that it is not possible to maintain sound health in future generations. Even if less than 10% of the global canine population is estimated to be 'purebred', it is feasible to believe that the fraction of purebred dogs will increase, not only by spread of already existing breeds, but also by adding new ones from regions worldwide. It is a prime responsibility and challenge for cynological organisations to handle this in a manner that promotes canine genetic health.

Recognition of new breeds within the FCI and their breed standards are regulated in Articles 6 and 7 of its Standing Orders<sup>4</sup>: 'The members must provide the General Committee with a list of their national breeds and their respective breed standards in at least one of the FCI official working languages. The breed standards must be written according to the model adopted by the FCI. The Standards Commission

<sup>4</sup> See: [www.fci.be/uploaded\\_files/97-2009-annex2-en.pdf](http://www.fci.be/uploaded_files/97-2009-annex2-en.pdf).

**Table 2**  
Fédération Cynologique Internationale breeding rules.<sup>a</sup>

Art. 1. The International Breeding Regulations of the FCI are binding on all member countries and contract partners

- These FCI breeding regulations apply directly to all FCI member countries as well as the contract partners. This means that breeding may only be carried out with pedigree dogs which have a sound temperament, are healthy in functional and hereditary terms and are registered with a studbook or register (appendix) recognised by the FCI. In addition, they have to fulfil the requirements specified by the relevant FCI member or contract partners
- The only dogs which are considered to be healthy in hereditary terms are those transferring breed standard features, breed type and temperament typical of that breed without displaying any substantial hereditary defects which could impair the functional health of its descendants. The members and contract partners of the FCI are required in this regard to prevent any exaggeration of breed features in the standards which could result in impairment of the dogs' functional health
- Dogs with eliminating faults such as e.g. unsound temperament, congenital deafness or blindness, hare-lip, cleft palate, substantial dental defects or jaw anomalies, PRA, epilepsy, cryptorchidism, monorchidism, albinism, improper coat colours or diagnosed severe hip dysplasia may not be bred
- With regard to surfacing hereditary defects, e.g. HD or PRA, the FCI member countries and contract partners are obliged to record affected animals, combat these defects in a methodical manner, continuously record their development and report to the FCI on this matter when requested. If a DNA test is performed, the identification (chip or tattoo) of the dog must be checked and certified by the veterinarian who collects the sample as is the case with any health protocol; the test result certificate from the laboratory must include the dog's identification
- The FCI, its member countries and contract partners are supported by the Scientific Commission in relation to evaluation, assistance and advice in combating hereditary defects. In case the Scientific Commission would issue a catalogue of measures, the same shall be binding on being adopted by the FCI General Committee
- Competence and responsibility for breeding rests with the member countries and contract partners of the FCI and includes breeding guidance, breeding advice and monitoring breeding as well as the keeping of the studbook
- The FCI member countries and contract partners are under the obligation to draw up their own breeding regulations based on the FCI Breeding Regulations, in which the breeding objectives are laid down. Such regulations must take appropriate and reasonable account of the specific working characteristics of the respective breeds

Dog traders and puppy farmers are considered to be people who focus on buying and selling dogs in order to get economic profit without taking appropriate care of the dog's individual welfare. Dog traders and puppy farmers are not permitted to undertake breeding under the patronage (responsibility) of a member or contract partner of the FCI

Art. 13. Dogs should be able to reproduce naturally. Artificial insemination should not be used on animals which have not reproduced naturally before. Exceptions can be made by the national canine organisations to improve the health of the breed, for the welfare of the bitch or to preserve or increase the genetic pool within the breed

Art. 18. Each dog bred in and registered with a FCI member country or contract partner is to be provided with permanent and falsification-proof identification; this identification is to appear on its pedigree. If parenthood testing is performed, international standard markers should be used and the results should be available in the national canine organization registry. The identification of the dog (chip or tattoo) must be certified if DNA is collected

<sup>a</sup> See: [www.fci.be/circulaires/102-2010-annex-en.pdf](http://www.fci.be/circulaires/102-2010-annex-en.pdf).

must be consulted before a new or amended breed standard is approved and if there is any doubt, particularly in case of an application for recognition of a new breed, the advice of the Scientific Commission must be sought. The recognition comprises two phases: provisional and definitive recognition and must be approved by the General Assembly'.

The FCI has strict procedures for the recognition of new breeds. For example, national kennel clubs must provide proof of a sufficiently large population of unrelated dogs by verification of the existence of a minimum of eight independent lines, show an appreciation of the health status of the breed and also ensure that breed standards do not interfere with health. However, there are many more aspects of the breed concept to consider. A working memorandum for future processing of applications for recognition of new breeds produced by the Scientific Commission states: 'The only way to avoid an inflation of the number of breeds is to enhance the concept of "variety" and to recognise, as varieties, as many new populations as possible. Each applicant population should be the object of a national recognition procedure, complying with requirements which are left to the appreciation of the national kennel club concerned. The latter maintains the stud book and authorizes the presentation of dogs at shows under the name of, for example, "regional type"'.<sup>5</sup>

### Regulations for Fédération Cynologique Internationale dog shows

Special emphasis is given to the evaluation of dogs at shows organised by the FCI or its member countries. The following are extracts of the stipulations: 'The dogs' welfare must be of utmost priority at all dog shows. Sick (temporarily ill or suffering from a contagious illness) or lame dogs or those males which show atrophy of the testicles and bitches which are lactating or which are accompanied by their puppies must be excluded from any dog show. It is forbidden to treat the coat, skin or nose with anything that alters the structure, colour or

form. It is forbidden to prepare the dog in the show ground with any substances or equipment. Only combing and brushing are allowed. Micro-chips (ISO-standard) and tattoos are accepted equally. If in the relevant country there are no scanners for reading, the exhibitor has to bring his own scanner.

'Disqualified must be awarded to a dog which does not correspond to the type required by the breed standard; which shows a behavior clearly not in line with its standard or which behaves aggressively; which has testicular abnormalities; which has dental flaw or a jaw anomaly; which shows a colour and/or coat imperfection or clearly shows signs of albinism. This qualification shall also be awarded to dogs that correspond so little to a single feature of the breed that their health is threatened. It should furthermore be awarded to dogs that show eliminating faults in regard to the breed standard'.

Code of commitment of Fédération Cynologique Internationale show judges to the welfare of purebred dogs

At shows, FCI show judges are responsible for choosing and placing the best dogs in each breed and thus for allowing these dogs to be the base of the individual breed gene pool, as well as the tools for selective breeding for all responsible dog breeders. Considering the major importance of this contribution to the health, welfare and development of all purebred dogs, a code of commitment and code of ethics adopted in 2010 are to be followed by all FCI judges. The following is an extract from what is stipulated:

- Article 1: (a) This code applies to all show judges nominated by their FCI national canine organization. (b) The show judge shall at all times comply with the FCI Regulations for Show Judges, the FCI Show Regulations, the FCI circulars regarding health, behaviour and judging of dogs as well as the specific health related rules contained in the FCI Breeding Regulations

<sup>5</sup> See: [www.fci.be/commissions.aspx](http://www.fci.be/commissions.aspx).

- *Article 2:* The show judge shall carry out his judging of breeds in a positive manner. He must be a good representative for dog breeding and for the world of purebred dogs
- *Article 3:* (a) The show judge will be expected to make a proactive and valuable contribution to dog health and welfare as well to responsible dog breeding. (b) From this perspective the show judge will comply as far as possible with invitations or calls to attend dog technical activities, such as information, education and training meetings, the supervision and the holding of breed examinations and seminars<sup>6</sup>.
- *Article 4:* (a) For the preservation and the further development of the breeds he judges, the show judge must, in addition to the conformation and movement qualities, consider as well the health aspects of the breed or the dog and its fitness for functionality. This assessment should be clearly reflected in his critique of the dog. (b) Under no circumstances shall aggressiveness and anxious behaviour during the judging of a dog be tolerated. They will result in the disqualification of the dog(s) concerned

### Screening programmes

Within several member countries of the FCI, extensive health programmes with reference to hip and elbow conformity have proven the value of phenotypic selection (Swenson et al., 1997a,b), as well selection based on computerised breeding indexes (Malm et al., 2010) for screening results. However, exchange of results from screening for hip conformity is hampered by differences in procedures. The Scientific Commission of the FCI has therefore actively sought to harmonise national certificates and to implement international certificates for exchange of results from screening of hip, elbow and eye examinations. There is now in existence an international certificate for hips and elbows that has been approved and promoted by the FCI.<sup>6</sup>

Based on the notes, material presented and agreements at the workshop on hip dysplasia arranged by the Danish Kennel Club on behalf of the FCI in March 2006, attended by more than 20 panelists serving on national hip dysplasia programmes, an ad hoc Expert Committee prepared and suggested a revision of the FCI Hip Dysplasia Protocol and the Radiographic procedures for hip dysplasia evaluation and also prepared an extensive review on how to make use of measurement of the Norberg angle in the evaluation and scoring of hip dysplasia. The protocol and the advice on radiographic procedures were approved by the General Committee and are now available as Circular 46/2009.<sup>7</sup>

#### *Fédération Cynologique Internationale requirements for official hip dysplasia screening*

A summary of the more important aspects of these requirements is presented below<sup>8</sup>:

- The minimum age for official hip radiographs is one (1) year for most dog breeds and 18 months for large and giant breeds.
- The dog is identified by a recognised, permanent system, using microchip. Legible tattooing is accepted in countries where tattooing is allowed for dog identification.
- The owner must confirm in writing and sign that the dog being radiographed is the one stated on the pedigree and to the best of his/her knowledge, the dog has not been exposed to any surgical procedure aimed to improve the development of the hip joint.

- All dogs should be sufficiently sedated or anaesthetized to ensure full relaxation of the muscles during the radiographic procedure. FCI recommends the weight of dog, type of medication (active substance) and dosage be recorded on the form.
- As minimal identification on the radiographs, it must include the dog's identification number (microchip or tattoo or registration number), the date of birth, the date when the radiographs are made, the identification details for the veterinarian and/or the clinic and marks for the right or left side.
- Radiographs should be interpreted and scored by a specialised veterinarian approved by the national kennel club and/or the breed club in which the dog is registered.
- At national level, each FCI member or contract partner should provide an appeal procedure. Appeal can be filed by the owner of a dog. The appeal cannot be processed by the scrutiner/panel scoring the dog initially.
- FCI recommends all its members, contract partners and screening program organizing bodies to facilitate the participation of their members of scoring panels in an official FCI program of equilibration of HD scorings.

A similar meeting for panelists serving on national elbow dysplasia programmes is planned in collaboration with the International Elbow Working Group to be arranged in autumn 2011.

#### *Terminology for exchange of results from screening for hereditary defects*

To facilitate exchange of results from screening programmes for hereditary conditions from various countries, the FCI Scientific Commission has prepared a list of terminology and abbreviations in all the official FCI languages (French, English, German, Portuguese) for hereditary diseases for which screening is undertaken.

### International guidelines relating to dog 'doping'

On request from the General Committee and based on the regulation by the Swedish Kennel Club, FCI International Guidelines have been prepared including rules against doping for appearance as well as performance and reactions, procedures when executing and handling doping cases. Stipulations on shows, trials and competitions include<sup>9</sup>:

- Participating dogs must not be injured or ill. Furthermore, they must not be affected in any forbidden way, e.g. they must not have received treatment that may illegally affect their appearance in a way that is not allowed, performance or reactions, or the way in which injuries or illnesses manifest themselves.
- Dogs whose coats, noses or skin have been treated with a substance that changes their colour or structure are prohibited from participating in shows.
- All dogs must be available for the examinations and tests that may be necessary in order to check for doping and other forbidden measures. The organiser is entitled to copy veterinarians' certificates.
- The person responsible for the dog is obliged to find out how treatment or other action taken may affect the dog's right to participate in a show, trial or competition.

<sup>6</sup> See: [www.fci.be/uploaded\\_files/77-2001.pdf](http://www.fci.be/uploaded_files/77-2001.pdf).

<sup>7</sup> See: [www.fci.be/circulaires2009.aspx](http://www.fci.be/circulaires2009.aspx).

<sup>8</sup> See: [www.fci.be/circulaires/46-2009-annex1-en.pdf](http://www.fci.be/circulaires/46-2009-annex1-en.pdf); [www.fci.be/circulaires/46-2009-annex2-en.pdf](http://www.fci.be/circulaires/46-2009-annex2-en.pdf).

<sup>9</sup> See: [www.fci.be/commissions.aspx](http://www.fci.be/commissions.aspx).

## International and collaborative strategies to enhance canine genetic health

Within an international organisation such as the FCI, there is a wide variation in how well implemented the breeding rules, as well as FCI breeding strategies, are at the level of national kennel clubs. With reference to ongoing activities within the FCI to enhance health and well-being in purebred dogs, a report has been prepared for further discussions on how to implement rules and regulations within the FCI, how to improve training of judges with reference to exaggerated anatomical features and how to advise and promote the use of screening programmes for inherited disorders (in collaboration with the WSAVA Committee on Hereditary Disorders). This work aims to support international collaborations on the enhancement of genetic health in purebred dogs. To exchange experiences and visions for the future and to serve as a cynological platform for international collaborations on these issues, representatives of the FCI Scientific and Breeding Commissions will meet equivalent representatives for the Kennel Club (UK) and the American Kennel Club during 2011.

On behalf of FCI, the Swedish Kennel Club will host in June 2012 the 1st International Workshop on Enhancement of Genetic health in Purebred Dogs<sup>10</sup> as a post event to the 6th international conference on Advances in Canine and Feline Genomics and Inherited Diseases.<sup>11</sup>

### Further actions

Further actions that cynological organisations such as the FCI could and should take to enhance genetic health in purebred dogs in collaboration with other stakeholders are discussed in the accompanying paper by Hedhammar et al. (2011).

### Conflict of interest statement

None of the authors of this paper has a financial or personal relationship with other people or organisations that could inappropriately influence or bias the content of the paper.

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<sup>10</sup> See: [www.doghealthworkshop.com](http://www.doghealthworkshop.com).

<sup>11</sup> See: [www.caninefelinegenomicsconference.org](http://www.caninefelinegenomicsconference.org).