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3rd Workshop of the International Partnership for Dogs (IPFD): Working together to improve the health of pedigree dogs

The 3rd Congress of the International Partnership For Dogs (IPFD) was organised by the French canine organisation (Société Centrale Canine) in Paris, on 22-23 April. The wide variety of backgrounds of the participants resulted in some lively debates in the 6 working groups. Royal Canin and Agria (an animal insurance company founded in Sweden) were the privileged partners for this event.

The 135 delegates (from 24 different countries) came from a variety of backgrounds: vets, researchers, breeders, judges, animal well-being and behaviour experts, genetic counsellors, representatives of the domestic pet industry, etc. In total, 18 national canine organisations were represented.

Presentation of the IPFD

The IPFD is a relatively new non-profit association, founded in Sweden in 2014, establishing a dialogue between dog breeders and scientists to bring about a better understanding of the health and well-being of dogs in the dog world.

"What is the main challenge facing a breed of dog?" To all the breed clubs asking themselves this legitimate question, the President of the IPFD replies: "You are not alone in trying to find solutions to the problems that arise, we are here to help you." That is how Dr Brenda Bonnet, a Canadian veterinarian (as well as a breeder and a judge) explained the association's main task. "From information and collaboration, action is born"; these are the three key words of the IPFD project, which were emphasised by Brenda Bonnett at the beginning of the congress.

The IPFD has set itself the objective of encouraging collaboration between all the players in a position to work for the health and well-being of dogs.

The prevention of hereditary diseases and the effort to control the breeding of hypertypes were among the priority subjects at the Paris congress, although the workshops were also given the opportunity to work on the communication of best breeding practices (with regard to

antibiotherapy, for example), the conditions required for well-balanced puppies, the harmonisation of genetic tests, and optimising the use of available data in breeding. Some examples of the discussions initiated during the congress are set out below for each of the subjects addressed.

1 - Detecting hereditary diseases

The distribution and use of screening tests for hereditary diseases in dogs differ considerably from one country to the next, depending on the policies chosen by the canine federations and breed clubs. The incentive to detect hereditary disease is generally stronger in Northern Europe than elsewhere.

To encourage the selection of pedigree dogs that are free of the main hereditary diseases, the international canine organisations must work together to distribute the results of the surveys conducted on the health of the different breeds and share those tools that "work". According to Dr Grégoire Leroy (a member of the Scientific Commission of the FCI), there are three main challenges to be addressed:

- carefully assessing the situation (setting the priorities)
- establishing problem-solving strategies appropriate for the breed and specific national circumstances
- closely monitoring the effects of the policies implemented

Breed club officers have a choice between the "carrot" (enhancing the value of dogs whose pedigree attests to the fact that the appropriate genetic tests have been carried out) and the "stick" ("suspect" dogs prevented from reproducing).

To illustrate the importance of publicising the causes of canine mortality, the case of the Cavalier King Charles Spaniel (CKCS) was quoted by Sofia Malm, a geneticist and member of the Swedish Kennel Club: in this breed, heart diseases (particularly mitral valve endocardiosis) are still the most worrying medical problems. In the United Kingdom, it is estimated that 31 % of CKCS attending veterinary clinics are suffering from a heart murmur and around 22 % of euthanasia cases are the result of heart problems¹.

2 - Preventing the breeding of hypertypes

Numerous recent publications place the emphasis on the potential health problems and suffering among dogs selected on the basis of extreme morphological characteristics. The brachycephalic (flat-faced) breeds are clearly the breeds most frequently singled out by a large number of animal protection organisations, although the remarkable popularity of these breeds works against them. Numerous breeders and owners do not realise the gravity of the clinical signs displayed by these dogs, such signs being considered as "normal for the breed", or even quasi "desirable". A Danish study published in 2017 illustrates the paradox well: the health problems suffered by these dogs tend to strengthen the emotional bond between owners and their dogs².

According to Dr Rowena Packer (of the Royal Veterinary College of London), informing buyers and owners, educating the judges, and warning the media and societies against the messages conveyed by the use of these dogs in communication and advertising are priority tasks. On this last point, the British association CRUFFA (Campaign for the Responsible Use of Flat-Faced Animals) is conducting a number of projects. In just a few months, it has managed to convince more than 40 societies to stop misusing images of hypertype dogs.

A number of proposals have been made with regard to the dogs themselves, which are currently being discussed within the IPFD:

- **Incorporating health checks and exercise tolerance tests in those competitions and examinations in which these dogs are involved.** A recent article has highlighted that the simple act of covering a distance of 1,000 m (or making the dogs walk for 6 minutes) makes it possible to identify dogs suffering from airway obstruction syndrome³.
- **Developing genetic tests to bring to light predispositions that are harmful to the health of flat-faced dogs.** For example, thoracic vertebrae anomalies are present in approximately 5 % of pugs and are often accompanied by neurological problems⁴.
- **Encouraging the development of new, "less extreme" lines and eventually considering them to be varieties of existing breeds.** Plans could also be made to use outcrossing (crossing with other breeds). A study conducted on the English Bulldog shows that in this breed, although there is still an element of phenotypic and genotypic diversity, it is far from certain that this is enough to eliminate those characteristics introduced to the breed that are harmful to the health of these dogs⁵.

In a poster displayed during the IPFD congress ("*How extreme is too extreme?*"), Dr Packer emphasised the need to accumulate figures on the anatomical measurements of flat-faced dogs. The aim is to be in a position to give recommendations on the craniofacial ratio, i.e. the relationship between the length of the muzzle and that of the cranium.

Recording and sharing the progress made in each country will help to increase awareness and improve the situation of these dogs.

3 - Limiting the use of antibiotics in breeding

"Apathy leads to calamity". These are the words of Jason Stull, Professor in the Department of Preventive Medicine at the University of Ohio. In the USA, at least 30 % of prescriptions for antibiotics are useless or inappropriate⁶ and the resistance to antibiotics of some dangerous bacteria is becoming a serious concern in both human and veterinary medicine.

Although France is thought of as something of a model student with regard to the control of antibiotic prescriptions in veterinary medicine, there are some trends in breeding that need to be controlled. Antibiotics should only be administered to dogs when there is a genuine need and according to a well-defined protocol, adapting the molecule to the medical context. In other words, a veterinary prescription must be issued on each occasion and there must be a dialogue between the breeder and the vet.

4 - Promoting a good behavioural balance in puppies

Genetic selection does not only concern physical characteristics. It must also take account of behavioural traits. Breeding dogs must be selected from within known lines to pass on positive character traits and avoid the transmission of diseases that can affect behaviour, such as epilepsy.

According to Nathalie Marlois, a behavioural veterinarian and President of Zoopsy, the mother has a significant influence on the development and coping skills of puppies. A stressed bitch produces insecure and nervous puppies unable to control their emotions. A number of behavioural problems can subsequently stem from this, including aggression or hyperactivity. Health and behavioural stability are also developed *in utero*: the stress experienced by a bitch during pregnancy affects the development of her puppies.

During the workshops held on the subject, a number of ideas were put forward to encourage the production of well-balanced puppies.

- Dog breeding sites that pay close attention to the environmental conditions of puppies and produce well socialised animals should be showcased by clear messages to give potential buyers confidence. Promoting a responsible image would help people to understand the danger of buying puppies of dubious origin⁷. Puppies that are illegally imported or that are from puppy farms do not come with the same guarantees as those that have been bred and raised in good conditions.
- The matching of a puppy's character with the host family is essential. The "right family" must be found for the "right puppy". This point is particularly important with regard to novice dog owners.
- The socialisation period from the 3rd to the 12th week obviously plays a fundamental role, and it is important that the owners are advised to ensure that their puppy has positive experiences during this period.

Dr Alexandre Balzer (a vet, breeder and member of the SCC Committee) jointly led the workshops on dog behaviour and well-being with Dr Nathalie Marlois. He focused on the benefit of puppy schools to teach owners how to behave with their dogs⁸. There are more than 1,000 of these in France, and the aim is to have one in each 'education and use' club, with at least one trained instructor in each club.

5 - Harmonising the genetic tests

Screening tests for genetic diseases are multiplying, which makes it possible to help breeders choose "healthy" breeding dogs from their lines; however, a number of questions arise:

- How to select and prioritise the screening tests to be carried out for a particular breed?
- How to guarantee the value of these tests and the significance of their results?
- How to use the tests wisely? Excessive focusing on the use of breeding dogs that are free of one disease or another can effectively become a handicap in the long run, due to the reduction in genetic diversity it causes.

The lack of international standards and a quality control system for genetic tests in veterinary medicine also helps to confuse users. *Which breed and type of dog is this test intended for? Should I use it? Which laboratory should I buy it from? Will the result give me useful information? Why is there a difference of opinion among the experts? Where can I get relevant information?* etc. To these questions, the countries and breed clubs often give different answers, which adds to the confusion!

Harmonising the use of genetic tests is necessary, and all the actors in this field must work together: vets, breeders, genetics laboratories, researchers, dog-lover associations, etc. The IPFD has clearly stated its wish to make progress on this subject. The short-term objective is to make a catalogue of the tests available, setting out the laboratory marketing the test, instructions for use, proof of efficacy, and certification. The website *dogwellnet.com* will compile all this information.

6 - Optimising the use of available data in breeding

Whatever the health problems encountered in some breeds, it is impossible to develop policies for action without clearly establishing any genetic predispositions. To obtain this evidence, a large quantity of data must be compiled. This emphasises once again the need to conduct major surveys, to assess the reliability of the results by means of suitable statistical processes, and to share the resulting information at international level.

As Ian Seath (Chairman of the Dachshund Breed Council) humorously put it during a presentation, "*weighing a piglet every day won't make it put on weight*". When we have enough data, we must act! Improving the health of dog breeds is a long-term endeavour, which requires a sustained effort over time.

A poster was displayed during the IFPD congress: "*Benefits from integration of international data*" (by Wang et al). This poster illustrates the work carried out jointly by the SCC, the Svenska Kennelklubben (Sweden) and the Kennel Club (UK). This relates to a study intended to provide a better appraisal of the mating practices in four breeds of dog: the bullmastiff, the English setter, the Bernese Mountain Dog and the Labrador retriever. Over the period in question, the number of matings between closely related individuals fell or remained stable, with the exception of the Labrador retriever in France. Due to the internationalisation of the exchange of pedigrees, it has been shown that it is possible to reduce the sometimes excessive consanguinity in some breeds⁹.

Conclusion

To encourage the sharing of knowledge and experience and establish concrete action plans for dog health, the IPFD has a well-supplied international platform. All information that could be useful to members of the association can be found at <https://dogwellnet.com>

The progress of the work started by each working group during the Paris congress will be gradually integrated into the content of the website.

The next IPFD Congress will be held in the UK in 2019.

Standards, Health and Genetics in dogs

During the 3rd IPFD Congress, the SCC presented a completely new work on canine genetics: "Standards, Health and Genetics in Dogs". This is a jointly written bilingual book (in French and English), coordinated by Claude Guintard (ENVN, Oniris) and Grégoire Leroy (INRA/AgroParisTech, Paris), who are members of the Standards Commission and the Scientific Commission of the Fédération Cynologique Internationale (FCI) respectively. This book brings together the contributions of scientists and veterinarians specialising in canine standards and genetics.

The work is also an homage to Raymond Triquet and Renée Sporre-Willes, both former presidents of FCI commissions (from 1999 to 2007 and 2007 to 2015 respectively). R. Triquet and R. Sporre-Willes were present for the first presentation of this book, during the last congress of the International Partnership for Dogs (IPFD) in Paris, on 22 April last.

(Price: € 39 + post and packaging - Order from the SCC: 155, Avenue Jean Jaurès - 93535 AUBERVILLIERS Cedex - 01 49 37 54 00 - contact@scc.asso.fr)

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