

**An Interview with Dr. George Keller
Chief of Veterinary Services
Orthopedic Foundation for Animals**

Interview Conducted by FBDCA board member Allen Weinberg who breeds French Bulldogs under the Hollywood prefix. This interview took place over a period of months and was completed in January, 2009.

Introduction

I contacted Dr. George Keller, D.V.M., Chief of Veterinary Services at the Orthopedic Foundation for Animals (www.offa.org) and he agreed to answer questions to be shared with our members on the status of the OFA's research as it relates to our French Bulldogs. My motivation for conducting this interview was primarily my ongoing concerns as a breeder about the "anecdotal spinal database." Here in Los Angeles the cost of taking and submitting these x-rays to OFA continues to soar. I am interested in finding out what has been learned and what we might expect to learn going forward.

It is suggested that prior to reading this interview, the reader re-familiarize themselves with the terminology and issues associate with our dogs' spines. An excellent article written by FBDCA President Dr. Jan Grebe, "Back talk – intervertebral disc disease" in 1984 is located here:

<http://www.bulldogfrances.com/discdiseasenglish.html>

Dr. Keller's presentation at the 2004 FBDCA national can be purchased on DVD here:

<http://www.frenchbulldogclub.org/ht/d/sp/i/1249/pid/1249>

An article on the OFA Spinal Database as of 2004 is located here:

<http://www.frenchbulldogclub.org/ht/a/GetDocumentAction/i/1970>

Below, in question and answer format, is our conversation, which we conducted via e-mail. I hope you will find it useful and that it will be a starting point for discussions on how we as breeders should proceed and what, if any, financial support the FBDCA or the FBDCA Charitable Fund should provide.

If any member has more detailed questions about the topics in this interview, I would suggest contacting a member of the FBDC's health and genetics committee.

On to the interview

Q: Dr. Keller, thank you for agreeing to answer questions for the French Bull Dog Club of America membership.

Dr. Keller's response: Gladly, it has been some time since your membership has had an update on health issues.

Q: Please tell us a bit about yourself and the OFA for those unfamiliar.

Dr. Keller's response: My position with OFA is that of Chief of Veterinary Services. I am a board certified veterinary radiologist and have been with OFA since 1987.

Q: First, a general question. Can you give us a bit of history of the OFA's tracking of data for our breed?

Dr. Keller's response:

French Bulldog stats:

HIPS – 360; 33% Dysplastic – An analysis by birth year indicates no significant change over time.

ELBOWS – 204; 2.0% Dysplastic

CARDIAC – 531; All normal

THYROID – 95; 1.1% autoimmune thyroiditis

PATELLA – 628; 3.7% luxation

BAER hearing – 43; All Normal

Q: Specifically with respect to our dog's spines, has the data revealed any trends?

Dr. Keller's response: The hip dysplasia and spine databases have the largest numbers and there does not appear to be a decline in the prevalences but the numbers are relatively small and the time interval on data collection has not been that long.

Q: Are there any health tests / x-rays / screenings that could be performed on our breed that are presently not tracked by OFA which you feel would be beneficial to breeders? If so, which test(s) and why?

Dr. Keller's response: The required and optional health screening tests recommended by the FBDCA are sufficient and since the spine database is a pilot study it should not be considered for a CHIC number.

Q: Turning to the issue of Frenchie spines and the "anecdotal database," can you give our membership a bit of the history and current status of your research in this area? What does the term "anecdotal" database mean?

Dr. Keller's response: Anecdotal refers to unpublished observations. I prefer the term pilot study for the spine database since vertebral anomalies have been published on and our initial endeavor was to establish the prevalence of these anomalies in the French Bulldogs and possibly the heritability index.

Q: The report on your work in 2004 indicates a follow-up survey is to be sent in 2008 to the owners of the dogs in your database. Is this still the plan? Is this something OFA does on its own or does it need assistance from the FBDCA? If there is to be a follow-up will the findings be made available and in what form?

Dr. Keller's response: I was contacted in October 2007 for a copy of the original questionnaire and thought at that time the Club was considering resending to participating owners but I did not hear back from the person or club.

Q: I have reviewed the report from 2004, in which it stated there were 245 dogs in the database, how many dogs are in the database now?

There are, through August 2008, 668 French Bulldogs in the spine database.

Q: Is the data you have collected from the dogs added since the 2004 report generally consistent with the data you had before?

In general, yes. In 2004 – 245 spines evaluated

Summary: Thoracic hemivertebrae most frequent

81% Usually 5 or less

70% Most between T5 and T9

76% usually 3 or less contiguous

These percentages are relatively unchanged.

Q: Are there other chondrodystrophic breeds that are doing a similar study? Can you tell us about your findings thus far in those breeds? Do you believe what you have learned in other breeds is transferrable to French Bulldogs?

Dr. Keller's response: Some Boston Bulldogs have had their spines evaluated and in general have much fewer anomalies than do the Frenchie's.

Q: Have you looked closely at littermates and offspring in order to give us some insight into inheritability of spinal abnormalities?

Dr. Keller's response: About a year or so ago I attempted this type of analysis and the numbers were insufficient to determine heritability.

Q: As you are likely aware, the costs of having x-rays taken at a veterinarian's office continue to escalate. What words of encouragement do you have for our members as to why they should continue submitting spine x-rays to OFA?

Dr. Keller's response: Since the spine data was reported in 2004 there have been an additional 423 spines submitted. Seemingly this indicates that vertebral anomalies are a health issue that fanciers are interested in.

Q: If the French Bulldog Club of America's charitable fund were considering a grant to cover costs of OFA fees or to subsidize x-rays, would the spine database be the best use of such a grant in your opinion, or is there another area of research such as hip dysplasia that you feel would be a better use of a single grant? What area of research do you feel should be given priority and why?

Dr. Keller's response: The pilot study and funding by the FBCA charitable fund was initiated to try to answer the following question: "Establish a correlation for future health problems and whether x-rays can be of assistance in planning breeding to produce "cleaner" spines."

Q: As a breeder, I want to know if the defects OFA are cataloguing such as hemivertebrae (a) correlate to future health problems and (b) whether x-rays can be of assistance in planning breeding to produce "cleaner" spines. If we are not working towards answers to these questions, I am not sure I see the value in this database. How close are we to having answers to these questions? What can we do to assist OFA in getting these answers?

Dr. Keller's response: These were the primary questions but data is still insufficient to make definitive breeding recommendations but the summary data can be used as a guideline.

Q: A few "rumors" about Frenchie spines... please clear the air for us: Fact, fiction, or a combination?

1) Due to the dwarfism in our breed, all of our dogs have a predilection for degenerative disc disease to some extent and this is not necessarily related to spinal defects. This is the primary cause of back injuries in our breed. There is no test to determine at what rate a dog or bitch has this or to determine how they might pass it on to offspring. **FACT**

2) The data thus far do not support a finding that spinal abnormalities such as hemivertebrae are a predictor of future health problems. **Jury is still out but most of vertebral anomalies are in the thoracic region which is relatively immobile and less prone to disc disease.**

3) Frenchies with longer spines tend to have cleaner x-rays. Shorter-backed Frenchies tend to have more defects.

Dr. Keller's response: [As of last questionnaire there was no correlation but Frenchie's with excessive thoracic vertebral anomalies do have a compressed thoracic cavity.](#)

4) The lack of a tail can be indicative of a more "defective" spine and future health problems.

Dr. Keller's response: [Unknown / insufficient data.](#)

5) The data collected to date seem to indicate that the extent of spinal defects that will result from a breeding is highly unpredictable, and that spines among littermates tend to vary to a very wide degree.

Dr. Keller's response: [Unknown – insufficient littermate data](#)

Thank you for much for your time Dr. Keller. I hope to check in with you again in the future, or perhaps you will be able to present to our membership at a national event again in the coming years.

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