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## **Anal sac apocrine gland carcinoma in Cocker Spaniels and other spaniel breeds**

Form for your vet:

Cocker spaniels suffer anal sac gland carcinoma with very high frequency (relative risk of  $\pm 7$ ) when compared with the whole dog population (Polton et al., 2006). Other spaniel breeds also show a predisposition to this tumour, although at a less elevated level. We have performed immunochemical studies on anal sac gland carcinomas with E-cadherin to develop methods for prognostic assessment, showing an association of E-cadherin staining of the tumour with enhanced survival (Polton et al., 2005). The high level of breed specificity of this tumour implies a genetic element in predisposition to it. We are now collecting samples for a study using high density genetic mapping techniques to compare anal sac carcinoma affected and normal animals. This will allow us to recognise chromosome regions, and eventually genes, associated with the predisposition to this tumour. We hope to throw light on the biology of this adenocarcinoma and may also be able to develop DNA profiling tests that will allow vets to provide breeding advice leading to reduction of the frequency of this tumour in cocker spaniels.

We are looking to collect blood samples from anal sac gland carcinoma affected cocker spaniels and affected dogs of other spaniel breeds. We would welcome participation from you and your clients in this research. Note that we operate under the constraints of the Animals Scientific Procedures Act, and can only accept blood samples if they are excess from samples drawn for normal clinical purposes. A sample submission form for blood samples is available overleaf. For more information please contact David Sargan, email: [drs20@cam.ac.uk](mailto:drs20@cam.ac.uk).

**David Sargan, Gerry Polton and Timothy Scase** (University of Cambridge and Davies Veterinary Specialists).

Ref:

Polton GA, V. Adams V, L. M. Green LM, M. J. Brearley MJ, T. J. Scase TJ (2005)

**Expression of Ecadherin in Canine Anal Sac Apocrine Gland Adenocarcinoma and its Association with Survival.** *Veterinary and Comparative Oncology* **3**: 53-54

Polton GA, Mowat V, Lee, HC, Mckee KA, Scase TJ (2006) **Breed, gender and neutering status of British dogs with anal sac gland carcinoma** *Veterinary and Comparative Oncology* **4**: 125-31