

**Applied Genetics of Companion Animals**

**Time:** Monday, 26 July 2010

Co-chairs: Cindy Harper - University of Pretoria; Leslie Lyons – UC Davis

**13: 30 Welcome and Agenda – Lyons**

- Names and emails collected, approximately 50 in attendance

**Cat CT Duty Lab Report – Lyons (for T. Niini)**

- Detailed report attached
- Variation in DNA on a buccal swab may cause different success rates between laboratories, but buccal swabs are the most likely source of DNA from a cat. Swabs should be included in the CT but scoring efficiencies may need to be “qualified” as to the source of the DNA. Secondary swabs need to be available if poor testing results are obtained.
- A majority of the errors in the cat testing occurred within the buccal swab samples.
- Different preparation techniques were used, including the Promega Wizzard Kits or NaOH/Tris isolation. No one used chelex preparations.

**Dog CT Duty Report – Harper (for G. Perotta)**

\*\*\*ISAG codes have changed several times and reporting is becoming confusing. A conversion chart for laboratory codes is required!!

- INRA21 - 3 alleles noted with one markers, quite a lot of errors

Suggestion for next reports:

- Report strength of alleles
- Wilton (Univ. Sydney) has offered to sequence some alleles for dog, cat are done.
- Put notes on performance of markers on the ISAG website

**UC Davis Tetranucleotide Microsatellite Panel – Wictum**

- Panel has been developed and used in forensic cases for two years
- Allelic ladder is under development, primer aliquots for primers available
- Includes SRY marker
- Sequencing of alleles underway
- Development of Canine “CODIS” for dog fighting rings in USA
- For more information, please contact Beth Wictum at the UC Davis Veterinary Genetics Laboratory
- Dog markers also from MMI for forensic applications

## **BREAK**

### **Cat CT Disease Test - HCM**

Maine Coon HCM test in cats is for an autosomal dominant disease. Ultrasound is used for definitive diagnosis. Mutation suggests a relative risk and does not have 100% correlation. Homozygotes have higher risk than heterozygotes.

- Should “risk factors” be offered as genetic tests?
  - o UC Davis VGL has stopped offering test
  - o Univ. of Milan performs test for free
  - o VHL informs client of “risk factor” status before offering test
- Concern that breeders may not understand a “risk factor” and therefore not make the best possible breeding decisions
- Must prepare the public / breeders for better understanding of results
- Control samples would be helpful for laboratories – offered by Lyons lab at UC Davis
- Many dog tests are patented and controls not available

### **Other Business**

- CT results will be scored using the suggested ISAG system and distributed
- Lab results are confidential and not shared to other labs

### **Motions and Votes**

- Continue cat and dog CT test as currently established. Additional markers always welcome for analysis for development of consistent back-up panels.

### Selection of 2010/2012 Standing Committee:

Chairs: Lyons and Harper

Cat 2012 CT Duty Laboratory – Corinne Cherbonnel, GENINDEXE

Cat 2012 CT Analysis Laboratory – Leslie Lyons, UC Davis

Dog 2012 CT Duty Laboratory – Lina Muselet, Antagene

Dog 2012 CT Analysis Laboratory – Cindy Harper, University of Pretoria

Additional: Kathryn Graves – University of Kentucky

**Meeting adjourned: 17:00**