

GENETICS COMMITTEE MEETING – 30 JANUARY 2020
MEETING RECORD AND ACTION NOTES

At 11.16am.

Present: Steve Crow (chairing the meeting)
Rosemary Fisher, Dr Karen Kempsell, Claire Lewis, Anthony Nichols, Dr Ray Wigley and Dr Sue Moreland (GCCF VO)
Jen Lacey (GCCF Committee Secretary)

1. **Apologies for absence:** Dr Gavin Eyres.
Dr Wigley arrived at 12.20pm due to venue confusion.
Permission was given by all for the meeting to be recorded.

INFO

2. **Election of Chair and appointment of note taker**

a) Chairman

Item 3 was taken prior to this as it was expected Dr Wigley would arrive.

Dr Kempsell had been proposed as Chair to the committee by Dr Eyres via email the previous evening. KK responded that she was honoured to have been considered, but most definitely did not have the time for the commitment, and believed SC had done an excellent job.

RF proposed Mr Crow. She believed that with the committee now including new people he had the experience to provide stability and the administrative capability. This was approved unanimously.

KK said she might be interested in the role in the future (when retired). SC proposed that she should take the role of Vice-Chair and stand in for him if he couldn't attend a meeting. She consented and this was agreed.

Action: the post of Vice-Chair to be written in to the terms of reference

JL

b) Secretary - note-taker

SC proposed JL as this provided continuity, and as the GCCF Committee Secretary there was an overlap with other roles that meant she could be a useful link between the Board and Office and provision of factual knowledge. It was acknowledged that it was a role that required a huge amount of work, and there were no other names put forward. Therefore the appointment was agreed unanimously.

INFO

3. **Action notes from last meeting and any matters arising**

a) Meeting notes

These had been circulated following the meeting in March 2019 and it was presumed that any corrections or amendments would have been dealt with at that time. No queries were raised and they were approved by all who had been present (5).

b) Matters arising

(5) Abyssinian Breeding Policy:

The ABAC had produced a revised breeding policy that had included discussion on outcrossing. SC noted that this had been a requirement prior to the promotion to championship status of the Red Series Abys, and KK commented that she had tried to provide reassurance that its inclusion would not make an outcross either mandatory or frequent. It was considered that use of the Somali would not necessarily add much in the way of diversity and that a ticked tabby domestics would be difficult to find. There would be ticked progeny regardless of the tabby pattern, or use of a self.. It was noted that the Abyssinian was a long established breed that had used outcrossing in the past to introduce new colours.

(7) Ano-genital tract abnormalities:

SM had produced a guidance sheet for use at vetting-in. She had stated that cats affected should not be shown, but this would not apply to those in the Household Pet section as long as welfare was not compromised. There was some discussion on this, with the rationale accepted that HHPs were allowed to be shown with various minor faults that weren't allowed in the pedigree section for either entires or neuters.

SM was liaising with the BSH BAC and RF reported that the DNA from the affected chinchilla kitten had been sent to Edinburgh. It was noted that the problem had occurred in tipped BSH, so there was further indication of a familial trait.

Actions: information on the GCCF website for breeders and vets

SM/RF

circulation to the Board of the information required for vetting-in packs

JL

on the next VAC agenda to see if there was further information from the vets

SM

(8) Manx - white cats & deafness:

KK reported that she had recently lost a two year old Manx female from the one pedigree line currently available. There had been a failure to thrive with possible diagnoses given. The PM had shown kidney failure with enlarged kidneys, with analysis of the brain still awaited. There was evidence of the same problem in two other cats from the same line. KK did not believe it was associated with Manx mutation, and it was not PKD, but almost certainly congenital with the potential for related cats to be similarly affected.

The breeders had cats from the IoM to work with, but one healthy male that was white had proven to be unilaterally deaf.

KK was asking the BAC to support a request for dispensation to breed from him because of the other problems as outlined. Committee members expressed support for this with the condition that all progeny were tested (rather than white only) with cats for breeding selected appropriately.

The other Manx issue for the BAC to deal with asap was the recognition of the Cymric, as the name had been approved in principle. It needed to be in the registration policy so that LH cats could be properly registered, as there was one foundation cat that was LH that it was planned would be bred from.

Action: continued BSH BAC liaison

KK

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(10) Breeder education/training

Before the last meeting AN had circulated a paper that gave information on cat genetics followed by some quizzes on the content. It had been thought they would be useful, but there had been no action taken. It was agreed it would be ideal if there could be provision for online interaction starting at a very basic level. If those planning to breed, at the time of obtaining a prefix, registering their first litter and/or applying for the Breeder Scheme could do some open book self testing they would be gaining knowledge regardless of their score level.

AN thought the first level genetic information was there, but other aspects should be added: an understanding of GCCF processes, plus knowledge of breeding practices and veterinary basics. He had a contact who put together online training programs and testing, and GC members thought this could be worth exploring, even though it would have a price tag, as it could be useful in other areas such as judge training.

Action: circulate the existing paper to all

work on other areas

discuss the possibility of suitable self learning & testing with the program provider

AN

All

AN

(12) Negative registers

CL requested clarification on the purpose of these. It was explained they were now largely historic records as breeders used DNA testing and could record results via registration if required. When results had been obtained by ultrasound scanning (particularly PKD) it was important to use a respected independent website, such as FAB, to indicate that their lines were clear. When FAB had become ICC they no longer wished to host them and GCCF had agreed to preserve them, so that breeders could refer to them, and add data to them if they so wished.

INFO

4. **Review of Terms of Reference & meeting procedures**

It was noted that the TOR SC had circulated prior to the meeting were not the most up to date. JL confirmed that she would refresh the 2019 version with any amendments for circulation to all.

It was agreed there should be:

- reference to a Vice-Chair (as agreed at 2)
- mention of electronic communication between meetings
- seek to work to a consensus while allowing for diverging views
- the independent and advisory role of GC with outcomes based on existing rules
- it was likely that more than one genetic specialist would be consulted
- some enhancement of links to other authorities - AN was liaising with Heather Lorimer of TICA, SC with the KC, and KK with other specialists on the white deafness project
- the names of the current committee

There was a discussion on the need for improved communication with BACs to prevent misunderstanding and to inform about the nature of GC's work. It was suggested that there was contact with all BACs after the meeting and that there should be a review of information on the website to be sure it was up to date accessible. This was particularly in connection with the recognition of new breeds.

Action: revision of terms of reference

this to be circulated to GC and to go to BACs when approved

review of information on the website with suggestions of additions and/or extra links

circulation of the summary for the recognition of new breeds

look at the requirements for name recognition - possible simplification

JL

JL

ALL

J L

ALL

5. **Project to review breed trees/registration policies on Phoenix**

The intention of the project was to assess that the registration policies for each breed on Phoenix were in the most up to date version, were accurate and could be operated via binary choices. There would need to be liaison with the IT and the BACs would be consulted where there were difficulties. Also, for an assessment to be made of what needs a breed could have in the future and ensure that appropriate advice could be offered.

It had been hoped that volunteers with staff would have been able to make a start, but it had not been possible without someone to give direction. SC reported that Caroline Turner-Russell had been employed and this would be one of two projects it was hoped she would pick up on.

Action: liaison with the IT Group

SC

6. **Breeding policies**

KK summarised the rationale for GC's insistence on Breeding Policies for the benefit of the new committee members. Their purpose was so that GCCF could demonstrate it was considering the genetic health and general well being of each of its breeds at a time when outside investigators/charities/the BVA were becoming increasingly suspicious of hobby breeding practices and hostile to breeders. It was preferable to ensure we had responsibility rather than were told what to do. SC added that there was increasing pressure on politicians to regulate on animal welfare concerns. Legislation had been drafted on mandatory microchipping and there was discussion on the banning of certain breeds - such as Scottish Folds, and the use of species cats. The policies should be seen as protection from outside interference rather than restriction on breeder/BAC choices. Also, they were intended as useful documents in their own right, giving guidance on best breeding practices (from the breed's BAC) and illustrating coat colour and patterns.

a) **Siberian Breeding Policy**

SC reported that the Siberian BAC was one that had not submitted a breeding policy at all. Other BACs had policies that were not entirely satisfactory and/or still needed to be completed, but there had been nothing from the SibBAC, though AN had made an offer of help.

Action: introduce AN as the point of contact for support

JL

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b) Burmese Breeding Policy

CL reported that this was nearing completion and would contain a discussion on the use of outcrossing. It was thought probable that although the BAC was reluctant to consider the import of foundation cats directly from the far east they would be willing to consider imports that evidenced foundation lines as approved by another registry. It was observed that GCCF was now the only major registry that did not make allowance for Burmese foundation cats.

Action: feedback to the BurBAC

CL

c) Egyptian Mau BAC

The second club was now involved with the BAC, but there had been no submission of the policy, and it was unclear whether there were copyright issues or any other reason for it not being completed.

Action: Contact with the BAC to ascertain when it could be produced

JL

d) Abyssinian Breeding Policy

This had been discussed (3b)). It needed to be circulated as not all had seen it to contribute.

Action: policy circulation

JL

e) Oriental Breeding Policy

It was considered that there were no major issues with this policy, but it could do with a final polish.

- It could be improved by photographs, but was to be commended on the section on deep set eyes
- The test for deafness mentioned was not an option, but a requirement.
- The genetic notation for white spotting was now WS
- There was confusion between physical and genetic defects (and disposition was neither)
- It needed to be proof read for minor typos

It was noted that they stated the need for genetic diversity without discussing an outcross, although it was understood SIA and BAL were used. It was suggested it should be queried if the OJBAC was satisfied with this. Also, it would be ideal if the SIA allowed foundation cats with Thai origins as this would benefit the other Section 6 breeds.

Action: correspondence with OJBAC and SCJAC to make these points

JL

f) Revised Maine Coon policy

SM commented that Langford were no longer scanning for HCM. She thought the section should be revised to include a link to cardio-vascular specialists. The FAB site should no longer be referenced.

It was necessary to have the clarification on whether the testing of males for PKdef and SMA was intended to be mandatory. If it was then a registration policy change would be necessary.

Action: policy circulation prior to BAC contact

JL

g) Lykoi

It was expected the breed would progress to Preliminary Status in February. A note of support would be sent to the breeder at that point to offer support for the development of a breeding policy. AN was already assisting. One point to address would be the unusual appearance, to make it clear the breed was not based upon physical defects or hairlessness. The coat was an unusual feature but not known to have any detrimental impact.

Action: a letter to be sent after February Council

JL

h) Chartreux

The breed seemed to be making quiet progress, and was based upon some quality imports.

INFO

i) Turkish

It was confirmed that the Turkish Angora had received name recognition in February 2015, but none were registered or shown with GCCF. They were different cats from the Van and Van Kidisi and would not be interbred.

It was suggested that the TurBAC be contacted to see if there was to be any review of their breeding policy. The breed's genetic diversity was queried as so few were now bred, but it was noted that they were a popular breed in Europe.

Action: contact with the BAC

JL

j) Ragdoll

It was noted that the breed no longer had an outcross and queried whether their Breeding Policy discussed the possibility. It was thought some consideration should be given to British Longhairs.

Action: contact with the BAC to open the conversation

JL

k) Bengal

It was reported that TICA was withdrawing new outcrosses to the ALC, although there was considerable opposition to the change in policy. It was decided that the situation should be monitored for the final outcome. Then it would be known whether the GCCF breeders still had opportunity for new bloodlines from TICA imports.

INFO

7. **Registration policies for discussion**

a) Oriental Shorthair (to include dominant white) and Foreign White

It was the intention of the Oriental Joint BAC to have the dominant white OSH alongside the Foreign White (also dominant white, but Siamese based) therefore the updated registration policies detailed the genetic testing required.

There were two concerns:

- That there was still reference to screening for PKD in the introductory paragraphs of the Oriental policy, including the FAB programme. These no longer existed, so this needed to be deleted.
- The Foreign White (SIA 67) policy implied that two non-white cats could be parents of dominant white offspring. It was thought it was a matter of rephrasing rather than misunderstanding.

Action: these to be referred to OJBAC for correction prior to the Council supplementary agenda.

JL

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b) Suffolk

The Suffolk BAC had applied to the Board for black and blue to become new colours of an existing breed. However, it was understood that the application had been withdrawn. It was acknowledged the Suffolk breeders were in dispute over the type of cat they wished to breed and they had now lost their BAC Chairman. There had been a recent letter from the Board advising revisions to the SOP so that it was clear a SUF was not a poor Oriental in type, but distinct. It was agreed there was nothing to add at the present time.

INFO

c) Ocicat and Aztec

JL reported that the Ocicat and Aztec BAC had moved slightly in that they were proposing to make testing for hypokalaemia, gangliosidosis and the Burmese craniofacial defect voluntary rather than mandatory. However, they still proposed that untested cats should be transferred to the genetic register. GC agreed that this was unnecessary when there was no evidence of these diseases in the GCCF Ocicat/Aztec population. This could be revised if a homo/heterozygous cat was found. Until such time only outcrosses and imports required testing to prevent introduction of anything unwanted.

Action: policy circulation prior to BAC contact

JL

d) The Tonkinese

The Tonkinese revised registration policy also read as though frequent testing was required (to clear disease rather than confirm pattern) without making use of the register to record results and clear lines. This had been put to the BAC after the November Board meeting, but there had been no response to date. If unwanted genes existed in the population then a planned testing programme that included a record of cleared line was required and GC would advise on this. Otherwise, only outcrosses and imports required testing to prevent introduction of anything unwanted.

Action: policy circulation prior to BAC contact

JL

8. **Breed promotion - the Sokoke**

SC reported that the breeder group had taken the previous GC advice not to use Bengal as an outcross but Egyptian Maus, Aztecs and classic tabby domestics. However, it was noted that the registration policy had not been updated to include that. The chief concern the Board had was that four imports were not sufficient as a foundation for a breed. More information had been requested and offered, but had not yet been received. (This arrived by email before the end of the meeting, but not in time to be discussed).

It was agreed that the offer to be made to the Breeder Group was to work with them to establish how diverse the Sokoke gene pool was, or would be, based on existing cats and new lines to be imported. If this could not be considered sufficient then they would have to evidence use of their proposed outcrosses to establish greater diversity.

It was stressed that GC had to be consistent. The same criteria had to be used when other new breeds were at the same stage of progression.

Action: circulation to GC of new information from the Sokoke Breeder Group

JL

9. **Mapping the deafness gene in white cats**

KK reported that a proposal had been drafted and submitted to the CWT. There had been verbal approval, but confirmation was required in writing for Nottingham-Trent and AHT, and RF would ensure this was done. Costs would have risen at 1 January so there would need to be a revision.

With the aid of a computer diagram KK gave a brief explanation of the gene mapping. It had been established to date that the gene responsible for epistatic whiteness in cats (KIT) was different from that for dogs (MITR), and also that if KIT was responsible for deafness all white (and white spotted) cats would be deaf. They weren't, and it was known that cats did not have to be white to be deaf (cream boy from white parents) so it was likely to be a gene closely associated with KIT (therefore probable co-inheritance). ATOH1 was selected as a candidate as it was associated with inner ear cochlear development. It had close association to KIT and also to the gene responsible for Longhair, which was interesting as a recent study had shown that LH white cats were more prone to deafness than white SHs.

The aim was to produce a small pilot that could produce an evidence base for funding a research grant if anything was found from the sequencing. It was a GCCF project so official 'ownership' was necessary. There could also be the stipulation of a report to each Council meeting. Additional cats were not required as AHT had sufficient bio-samples, but could be in future if new data was required to validate any testing developed.

Actions: formal notification of funding

RF

continued work on the project and liaison with other experts, plus reports

KK

10. **Advice for Office staff on the dilute modifier**

This had been discussed on other occasions by GC, but there was a new Office team keen to give correct information and judges were still seeing cats that were wrong coloured and advising change. However, there were cases when the pedigree was such that it seemed impossible that the cat could be caramel or apricot.

It was agreed that for cats seen at shows that were wrong coloured the advice would be that if it was the opinion of two judges (as noted via a written or published show report) that the colour was influenced by dm then there should also be testing to establish that the cat was genetically dilute (dd) and the cat's registration could then be changed.

In a general discussion on incorrect registrations it was noted that the register depended on the accuracy of the information supplied by the breeder. In the case of queries where the impossible seemed to have occurred (tabby from self) the advice had to be to make checks rather than encourage registration in line with parentage. Advice could be taken from GC and the IT team.

**Action: consultation with the Asian BAC on the procedure for change
liaison with Office staff and IT team**

**JL
SC**

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11. **Issues re whiskers**

It was known there was concern about breeds that had damaged or lacked whiskers, as cats that had whiskers removed could be disorientated and stressed. There were no reports of a variance in normal feline behaviour for those differently whiskered from birth. It was agreed there should be continued monitoring of research papers and breeder reports on this.

ALL

12. **FIP - potential cure**

SM reported that Prof Niels Pedersen had successfully treated FIP field cases with the anti-viral GS-441524. This had been discovered in human research for SARS, MERS and Ebola and was proven to be effective against the replication of the viral RNA (defined as an RNA terminator).

It required daily injections for 12 weeks (possibly also available in tablet form with the amount determined by weight) which made it very expensive - £2000 plus tablets and over £10,000 for injections. It wasn't known yet whether insurance companies would pay, but it was available via a reputable company (Mutian) that sold it as a food supplement, so it could be obtained unlicensed. Edinburgh (D Gunn-Moore) was prepared to treat.

SM reported concerns about availability via the black market and prophylactic use for the prevention/shedding of FeCoV. There was a high risk of loss of effectiveness through viral mutation.

Action: information for the website on the possibility of treatment with a warning against unregulated use **SM**

13. **GEMS future proofing**

AN reiterated the importance of keeping the codes updated and keeping notes on new definite and possible requirements, such as tabby with karpati. The process for adding new coding and additional lettering (apart from breed nomenclature were mentioned. KK suggested Greek lettering as this had scientific usage.

Action: discussion of possibilities with IM and the IT Group

SC

(3.05pm CL & RW left to catch trains)

14. **International cat gene nomenclature committee**

This group was led by Leslie Lyons and included other geneticists and those with specialist interest. AN participated on behalf of GCCF. The intention was to have a single name and symbols for feline genes. It would be based on first usage and follow EMS where possible, but there would be some written differently. The work would be published in the Genetics Journal.

INF

The genes responsible for Lykoi, glitter, grizzled, orange, plus the extension gene in the Kurilian Bobtail, had been located.

15. **Feedback on welfare issues**

SC gave a brief update on the work of the Canine & Feline Sector Group.

- The Kitten Checklist was published
- The Code of Practice for Cat Breeders (written by SC with ICC & CP) was with DEFRA
- A report on conformation in dogs had been completed and one was planned on conformation in cats. SC had been invited to contribute.

INF

16. **Future meeting dates**

Possible date for the next meeting - 17 September 2020 (if sufficient items for discussion)

The meeting closed at 3.20pm.