

漁農自然護理署

獸醫化驗科

香港新界上水粉錦公路

蓮塘尾大龍實驗農場



AGRICULTURE, FISHERIES

& CONSERVATION

DEPARTMENT

Tai Lung Veterinary Lab.

Lin Tong Mei, Sheung Shui

N.T. Hong Kong

TEL No.: (852) 2455 2156

FAX No.: (852) 2461 8421

Email: ellis_trevor@afcd.gov.hk

Your Ref: CB2/SC2

19 April 2004

Miss Flora TAI

Clerk to Select Committee

Legislative Council

8 Jackson Road, Hong Kong

(Fax: 2248 2011)

Dear Miss TAI,

**Select committee to enquire into the handling of
the Severe Acute Respiratory Syndrome outbreak by
the Government and the Hospital Authority**

Thank you for your letter of 8 April 2004.

My written response to your request for a detailed account of the meeting held on 5 April 2003, to specified sections of statements from Dr NG and Dr YEOH and to the questions set out in Appendix IV of your letter, as well as details of my professional qualifications and experience, is attached for reference of the select committee

Yours sincerely,

(Dr Trevor M. ELLIS)

Senior Veterinary Officer (Veterinary Laboratory)

Att. (1)

c.c.

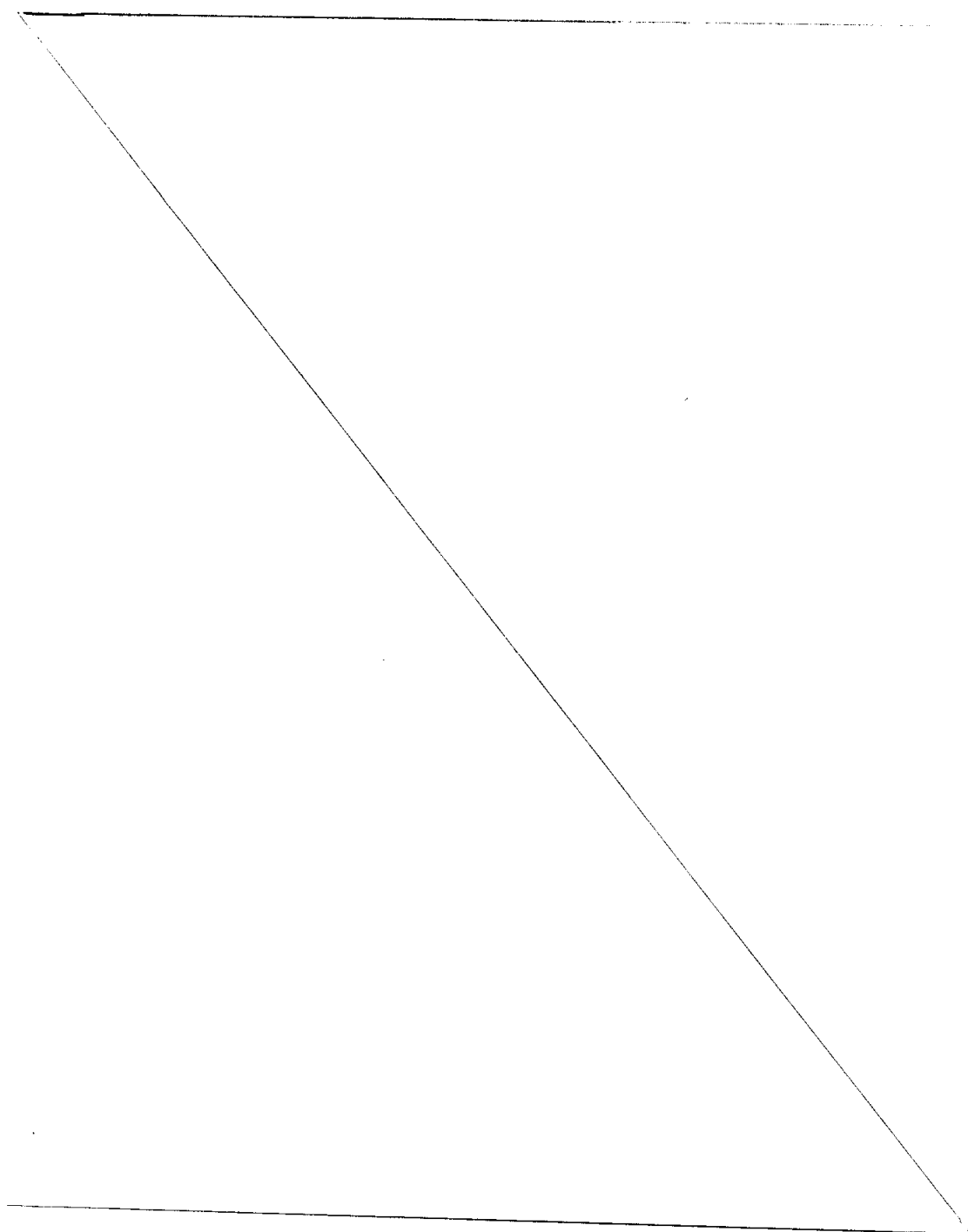
HWFB (Attn: Mr Patrick NIP)

D of J (Attn: Ms Ada CHUNG)

**Statement to the Legislative Council Select Committee to enquire into the handling
of the Severe Acute Respiratory Syndrome outbreak by the Government and the
Hospital Authority**

Submitted by Dr Trevor Maxwell Ellis BVSc, MSc, PhD, MASM, MACVSc.

Background of Qualifications and Experience



The meeting on 5 April 2003

4. On the morning of 5 April 2003 I received a telephone call at my home from the Deputy Director (DD) of AFCD (at the time Dr KK Liu) advising that Dr EK Yeoh, SHWF had requested that I attend a meeting at his Offices to discuss some results that had been received concerning SARS coronavirus testing in rats at Amoy Gardens. I believe the starting time of the meeting was 10.00am. At the time of the call I indicated I would have trouble getting to the location by 10.00 am but DD advised me to try to get there as soon as possible. I arrived at the meeting shortly after 10.00 am.
5. Present at the meeting during the time I attended were Dr Paul Saw, Dr Thomas Tsang, Dr Stephen Ng, Dr SV Lo, Dr EK Yeoh and Mr MC Yuen. Dr Yeoh was not there when I arrived. The meeting formally commenced when Dr Yeoh joined the meeting. Mr Yuen arrived part way through the meeting.
6. During the meeting I can recall being briefed on the current situation with human cases at Amoy Gardens Block E and on the results of some PCR testing that had been conducted on some rats that were trapped at Amoy Gardens. Then Dr Ng explained his hypothesis that the epidemic curve in humans at Amoy Gardens could have resulted from infection and transmission of this virus in rats, with a hypothesized disease course in rats of about one week and with infection concurrently transmitted to humans. I can also recall Dr Ng hypothesizing about the possible pathologies of such a virus in rats.
7. After Mr Yuen arrived at the meeting he was asked to provide information about the inspections for rat activity and the rat trapping being conducted at Amoy Gardens. He provided some information about the biology of roof rats and sewer rats and their territorial nature and indicated that there did not appear to be a bad rat infestation at Amoy Gardens. I do not recall him estimating the number of rats likely to be present at this location. He indicated that his staff had trapped another four rats from Amoy Gardens that were currently available for detailed investigation.
8. After some further discussion on the rat infection hypothesis and the rat infestation at Amoy Gardens it was resolved that detailed autopsy of the 4 recently collected rats would be useful to help investigate the role rats may be playing. Dr Yeoh then requested that I conduct the detailed autopsies on the rats that day. I confirmed the actual current location of the trapped rats via Mr Yuen who contacted his staff and I left the meeting at that time to collect the rats from the Government Virus Unit at the Public Health Laboratory Service (PHLS), Shek Kip Mei.
9. At the PHLS, Shek Kip Mei, I was escorted to collect the rats from the high security laboratories where FEHD staff were collecting throat swabs, blood samples by trans-thoracic cardiac puncture, and attempting collection of specimens of urine and faeces by laparotomy under general anaesthetic. I subsequently collected the four

euthanased rats in biosecure containers and took them to AFCD's Tai Lung Veterinary Laboratory to conduct autopsies for detailed pathological examination.

10. I conducted autopsies of the four rats on the afternoon of 5 April 2003 and collected formalin fixed specimens from 13 different organs for histopathological examination and fresh specimens of lung, intestines, salivary glands, kidneys from all 4 rats and thymus tissue from 3 rats that had detectable thymuses. The 19 fresh specimens were taken that evening to the Virology Section, PHLS at Shek Kip Mei for SARS coronavirus PCR and culture testing. I advised Dr SV Lo, HWFB by telephone that evening that the gross pathology showed no evidence of severe respiratory disease or gross pathology consistent with the known coronavirus of rats, the sialodacryadenitis virus.

11. On 6 April 2003 I cut in the formalin fixed tissues for processing and the histopathology sections were prepared and stained ready for examination on the 8 April 2003. I examined the histopathology changes of the tissues from the rats on 8 April 2003 by which time I had also received by telephone from Dr Lim the results of the SARS coronavirus PCR tests conducted on the fresh specimens I submitted from these rats. The SARS coronavirus PCR tests on all the specimens I submitted from these rats were negative.

12. I prepared a final report on the autopsy examinations conducted on the 4 rats on 8 April 2003 and faxed this to Dr SV Lo, HWFB that day. At the time of reporting, the virus culture results and the serological testing for antibody to SARS coronavirus by PHLS were not available. Subsequently the serological testing on all four rats has shown no evidence of antibody to SARS coronavirus and SARS coronavirus was not isolated from any of the specimens from these rats.

Response to Points 19 to 31 in statement from Dr Ng

13. My specific responses to points 19 to 31 in the statement of Dr Ng are as follows:

19 - to my knowledge the request for me to attend the meeting had come from SHWF;

20 - As I was not involved I have no comment;

21 - I had not been briefed in any detail about the rat findings before the meeting;

22 - the request for me to conduct detailed autopsies came from SHWF. While Dr Ng may have hypothesized on the possible pathology of this new coronavirus in the rats during the meeting, I considered his written statement to be quite presumptuous when he says "I described to Dr Ellis what the possible pathologies were". I did not leave immediately to do the autopsy. I heard Mr Yuen's contribution on the rat investigations at Amoy Gardens and rat biology and I needed to confirm with Mr Yuen the exact location of the rats for collection;

23 - The meeting commenced formally when Dr Yeoh joined the meeting. I do not recall discussions on broader ramifications such as effects on economy, Hong

Kong's image or riots in Hong Kong during my time at the meeting. The focus while I attended was on conducting suitable investigations to see if rats were likely to be actively infected and possibly involved in transmission;

24 - I did not hear Mr Yuen estimate that there were at least 400 rats around Amoy Gardens and the discussions I heard referred to trapping rats for investigation purposes not poisoning;

25 - I do not recall Dr Ng talking about keeping virus positive rats alive to observe for duration of infection while I was present at the meeting;

26 - I do not recall hearing these matters being discussed while I was present at the meeting;

27 - I was not present at the meeting at that time; No one contacted me about stopping the autopsies and I had my mobile phone with me and turned on at all times;

28 - I do not recall hearing these matters being discussed while I was present at the meeting;

29 - I do not recall hearing these matters being discussed while I was present at the meeting;

30 - I do not recall hearing these matters being discussed while I was present at the meeting;

31 - As I was not present at the meeting at this time I have no comment

Response to pages 29 to 30 of the statement from Dr Yeoh

14. My specific responses to pages 29 to 30 of the statement by Dr Yeoh that relate to the time I was present at the meeting are as follows:

- Page 29, 3rd paragraph - I was not present at the end of the meeting;
- Page 29, 4th paragraph - I was instructed to conduct the autopsies on the trapped rats by Dr Yeoh and the statements made in the paragraph are all accurate to my knowledge;
- Page 30, 1st paragraph - I do not specifically recall this while I was present at the meeting;
- Page 30, 2nd paragraph - this paragraph accurately summarizes Mr Yuen's report to the meeting from my recollection;
- Page 30, 3rd paragraph - these statements are accurate by my recollection;
- Page 30, 4th paragraph - I do not recall hearing these matters discussed while I was present at the meeting;

Response to issues set out in Appendix IV

15. My specific responses to points listed in Appendix IV are as follows:

When told of the test results and what was the reaction - We were briefed on the actual results at the meeting. I cannot comment on the reaction of the other attendees but my reaction was that this needed further investigation. Finding a PCR positive on faeces or in throat swabs from an animal trapped from a

contaminated environment and particularly an animal that continually licks its surrounding and its perineum needed to be investigated carefully to establish if true infection or only contamination was occurring;

Who sent me to perform autopsies – Dr EK Yeoh sent me to conduct the autopsies;

When did Dr Yeoh join the meeting – I was at the meeting when Dr Yeoh arrived and he was there when I went to conduct the autopsies on the rats;

When did Mr Yuen arrive and why – Mr Yuen arrived part way through the time I was at the meeting. He presented updated information on the rat situation at Amoy Gardens;

Was there discussion on the ramifications of spread of SARS by rats – my recollection is that discussion during my time at the meeting focused on the Dr Ng's hypothesis that rats may be involved in the spread of viruses within Amoy Gardens. I do not recall any extended discussions on the broader ramifications;

Was there discussion of the killing of rats – my recollection is that Mr Yuen mainly discussed the FEHD trapping programme for rats within Amoy Gardens and this was by use of physical trapping, not poisoning;

Did Dr Ng suggest keeping rats alive for observation of duration of infection - I do not recall hearing this matter discussed while I was present at the meeting;

Discussion about information to public; Did Dr Yeoh give instruction to stop investigation on rats? - I do not recall hearing these matters being discussed while I was present at the meeting;

Did Dr Yeoh request everyone to keep rat findings confidential? - I do not recall this being discussed while I was present at the meeting. Reports on autopsies from the AFCD Veterinary Laboratory are always treated as confidential between the laboratory and the client.

Did Dr Yeoh send someone to call me to stop performing the autopsies? – I certainly did not get a call or receive a message requesting that I stop performing the autopsies;

Discussion on evacuation of all residents at Amoy Gardens; statement to the effect that residence at Amoy Gardens would have to be sacrificed - I do not recall hearing these matters discussed while I was present at the meeting;

Did Dr Ng suggest warning people to keep their premises rat-safe - I do not recall this being discussed while I was present at the meeting;

Was Dr Ng involved in the investigation into outbreak at Amoy Garden and did he stay until the end of the meeting – my observation is that he had provided a hypothesis on rat involvement and made suggestions on investigating this to the meeting. I was not present at the end of the meeting. Dr Ng was still at the meeting when I left to do the autopsies;

Purpose of Dr Lo's call to Dr Ng on 8 April 2003 – As I was not involved I have no comment

Dr Trevor M Ellis
Senior Veterinary Officer (Veterinary Laboratory)
AFCD
19 April 2004