



# INSTITUTE FOR ANIMAL HEALTH

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## FAX TRANSMISSION

Please reply to Fax No: + 44 (0) 1483 232621

**TO:** [REDACTED]                      **FROM:** [REDACTED]  
**DATE:** 25.06.03                      **FAX NO:** [REDACTED]  
**PAGES:** 3                              **RE:** Sequencing results

Dear [REDACTED]

Further to our earlier fax of 18<sup>th</sup> June 2003, we have now completed the sequencing of the SAT2 sample received on 11<sup>th</sup> June 2003.

Please find attached a phylogenetic tree showing the relationship of SAT2/LIB/1/2003 to other SAT2's. As you can see the Libyan outbreak is most closely related to viruses from the Cameroon, Saudi Arabia and Eritrea, although none is closely related enough to suggest a direct link.

Although not shown on the attached tree the sequences from the 2002 Zimbabwe SAT2 outbreaks are >25% different from the Libyan virus. Therefore, there is no suggestion of a link with Zimbabwean FMD viruses.

Yours sincerely

[REDACTED]

c.c. [REDACTED]

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**Report from the Molecular Epidemiology Section of the Experimental Epidemiology Group to the Head of the World Reference Laboratory for FMD (Non-QAU Form)**

Serotype: <b>SAT 2</b>	Date: 23/06/2003						
Virus isolate: <b>LIB/1/2003</b>	Reported by: N.J. Knowles						
Material used: 10% epi. susp.	Signed (file copy only):						
Region sequenced: VP1	Seq. filename: LIB03-01						
RT-PCR primer set: SAT-1D209F/2B208R							
Topotype: none currently defined	No. of ambiguities: 0						
Genotype/strain: not defined	Date seq. last updated: 22/06/2003						
No. of nt determined / no. in gene: 418 / 648	Total no. of comparisons made: 225						
Comments:							
<b>Ten Most Closely Related Viruses</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	CRC/11/2000	CRC00-11	398	370	20	92.96	7.04
2	CRC/5/2000	CRC00-05	418	388	0	92.82	7.18
3	CAR/11/2000	CAR00-11	411	381	7	92.70	7.30
4	CRC/18/2000	CRC00-18	407	377	10	92.63	7.37
5	CRC/3/2000	CRC00-03	397	367	0	92.44	7.56
6	CRC/4/2000	CRC00-04	396	365	1	92.17	7.83
7	CRC/12/2000	CRC00-12	418	385	0	92.11	7.89
8	CRC/14/2000	CRC00-14	417	384	1	92.09	7.91
9	CRC/17/2000	CRC00-17	417	384	1	92.09	7.91
10	CRC/6/2000	CRC00-06	417	384	1	92.09	7.91
Note: CRC = Cameroon carrier cattle							
<b>Relationships to Reference Virus Strains</b>							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	RHO/1/48	ZAM48A01	418	310	0	74.16	25.84
2	KEN/3/57	KEN57-03	418	305	0	72.97	27.03
3	ZIM/7/83*	ZIM83A07	418	304	0	72.73	27.27
4	ZIM/9/89	ZIM89-09	218	154	1	70.64	29.36
5	ZAM/3/81	ZAM81V03	198	137	6	69.19	30.81
nt, nucleotides							
*, not a WRLFMD reference number							

cc. Head of Experimental Epidemiology Group  
cc. Head of Vesicular Diseases Group