



**INSTITUTE FOR ANIMAL HEALTH**

Acting Director: Professor David Paton MA, VetMB, PhD, MRCVS

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Ash Road,

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Surrey,

GU24 0NF

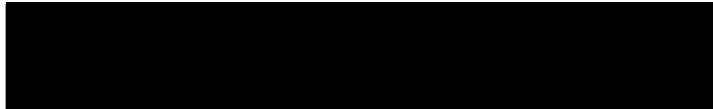
Intn Tel: 00 44 1483 232441

Tel: 01483 232441 Fax: 01483 232621

## FMD Sequencing Report

Lab Reference WRL Batch Number: WRLFMD/2011/00009

Sender Details:



Date Received: 16<sup>th</sup> February 2011

Country of Origin: Bulgaria

Date Reported: 25<sup>th</sup> February 2011

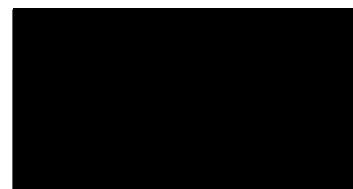
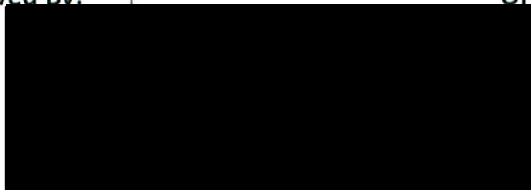
Dear Dr. Jordan Voynov,

Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at:

<http://www.wrlfmd.org/>

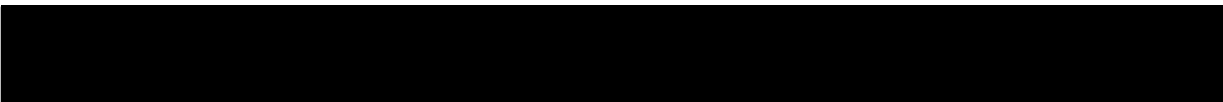
Results Approved By:

Official Stamp:



Date:

25 / 2 / 11



To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: [elizabeth.wilson@bbsrc.ac.uk](mailto:elizabeth.wilson@bbsrc.ac.uk))

# FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

## Genotyping Report

Report Date for this Batch: 25 February 2011

FMDV type O

Country: Bulgaria

Period: 2011

No. of samples: 5

BATCH: WRLFMD/2011/00009



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# FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

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Serotype: O	Report date: 25/02/2011
WRLFMD Ref No: BUL/3/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00009	Checked by: V. Mioulet
Sender Ref: 20	
Location: Rezovo, Bulgaria	Topotype: ME-SA
Date collected: 01/02/2011	Genotype/strain: PanAsia-2 <sup>ANT-10</sup>
Date received by WRLFMD: 16/02/2011	Sequence filename: BUL11-03.SEQ
Date received for sequencing: 23/02/2011	Date sequence last updated: 25/02/2011
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 2670
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 9 days
	Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/BUL/4/2011	BUL11-04	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/BUL/1/2010	BUL10-01	639	636	0	99.53	0.47	ME-SA	PanAsia-2 <sup>ANT-10</sup>
3	O/BUL/5/2011	BUL11-05	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
4	O/BUL/6/2011	BUL11-06	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
5	O/BUL/7/2011	BUL11-07	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
6	O/TUR/1003/2010* (FMDI)	TUR10-BG	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
7	O/TUR/1086/2010* (FMDI)	TUR10-BI	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
8	O/TUR/18/2010	TUR10-18	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
9	O/TUR/840/2010* (FMDI)	TUR10-AZ	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
10	O/TUR/868/2010* (FMDI)	TUR10-BA	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/IRN/88/2009	IRN09-88	639	626	0	97.97	2.03	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/IRN/31/2009	IRN09-31	639	601	0	94.05	5.95	ME-SA	PanAsia-2 <sup>FAR-09</sup>
3	O/IRN/8/2005	IRN05-08	639	601	0	94.05	5.95	ME-SA	PanAsia-2
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	597	0	93.43	6.57	ME-SA	PanAsia-2 <sup>TER-08</sup>
5	O/PAK/16/2010	PAK10-16	639	593	0	92.80	7.20	ME-SA	PanAsia-2 <sup>PUN-10</sup>
6	O/IRN/18/2010	IRN10-18	639	592	0	92.64	7.36	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/TUR/264/2009* (FMDI)	TUR09-AK	639	592	0	92.64	7.36	ME-SA	PanAsia-2 <sup>SAN-09</sup>
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	584	0	91.39	8.61	ME-SA	PanAsia
9	O/PAK/16/2003 (DQ165068)	PAK03-16	639	568	0	88.89	11.11	ME-SA	Pak-98
10	O/IRN/61/2001 (DQ164896)	IRN01-61	638	566	1	88.71	11.29	ME-SA	Irn-2001

nt, nucleotides

\*, not a WRLFMD reference number

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# FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

Page 1 of 1

Serotype: O	Report date: 25/02/2011
WRLFMD Ref No: BUL/4/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00009	Checked by: V. Mioulet
Sender Ref: 21	
Location: Rezovo, Bulgaria	Topotype: ME-SA
Date collected: 01/02/2011	Genotype/strain: PanAsia-2 <sup>ANT-10</sup>
Date received by WRLFMD: 16/02/2011	Sequence filename: BUL11-04.SEQ
Date received for sequencing: 23/02/2011	Date sequence last updated: 25/02/2011
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 2670
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 9 days
	Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/BUL/3/2011	BUL11-03	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/BUL/1/2010	BUL10-01	639	636	0	99.53	0.47	ME-SA	PanAsia-2 <sup>ANT-10</sup>
3	O/BUL/5/2011	BUL11-05	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
4	O/BUL/6/2011	BUL11-06	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
5	O/BUL/7/2011	BUL11-07	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
6	O/TUR/1003/2010* (FMDI)	TUR10-BG	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
7	O/TUR/1086/2010* (FMDI)	TUR10-BI	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
8	O/TUR/18/2010	TUR10-18	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
9	O/TUR/840/2010* (FMDI)	TUR10-AZ	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
10	O/TUR/868/2010* (FMDI)	TUR10-BA	639	635	0	99.37	0.63	ME-SA	PanAsia-2 <sup>ANT-10</sup>
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/IRN/88/2009	IRN09-88	639	626	0	97.97	2.03	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/IRN/31/2009	IRN09-31	639	601	0	94.05	5.95	ME-SA	PanAsia-2 <sup>FAR-09</sup>
3	O/IRN/8/2005	IRN05-08	639	601	0	94.05	5.95	ME-SA	PanAsia-2
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	597	0	93.43	6.57	ME-SA	PanAsia-2 <sup>TER-08</sup>
5	O/PAK/16/2010	PAK10-16	639	593	0	92.80	7.20	ME-SA	PanAsia-2 <sup>PUN-10</sup>
6	O/IRN/18/2010	IRN10-18	639	592	0	92.64	7.36	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/TUR/264/2009* (FMDI)	TUR09-AK	639	592	0	92.64	7.36	ME-SA	PanAsia-2 <sup>SAN-09</sup>
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	584	0	91.39	8.61	ME-SA	PanAsia
9	O/PAK/16/2003 (DQ165068)	PAK03-16	639	568	0	88.89	11.11	ME-SA	Pak-98
10	O/IRN/61/2001 (DQ164896)	IRN01-61	638	566	1	88.71	11.29	ME-SA	Irn-2001

nt, nucleotides

\*, not a WRLFMD reference number

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Serotype: O	Report date: 25/02/2011
WRLFMD Ref No: BUL/5/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00009	Checked by: V. Mioulet
Sender Ref: 22	
Location: Kosti, Bulgaria	Topotype: ME-SA
Date collected: 01/02/2011	Genotype/strain: PanAsia-2 <sup>ANT-10</sup>
Date received by WRLFMD: 16/02/2011	Sequence filename: BUL11-05.SEQ
Date received for sequencing: 23/02/2011	Date sequence last updated: 25/02/2011
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 2670
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 9 days
	Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/BUL/6/2011	BUL11-06	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/BUL/7/2011	BUL11-07	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
3	O/BUL/1/2010	BUL10-01	639	638	0	99.84	0.16	ME-SA	PanAsia-2 <sup>ANT-10</sup>
4	O/TUR/1003/2010* (FMDI)	TUR10-BG	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
5	O/TUR/1086/2010* (FMDI)	TUR10-BI	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
6	O/TUR/18/2010	TUR10-18	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
7	O/TUR/840/2010* (FMDI)	TUR10-AZ	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
8	O/TUR/868/2010* (FMDI)	TUR10-BA	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
9	O/TUR/883/2010* (FMDI)	TUR10-BB	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
10	O/TUR/926/2010* (FMDI)	TUR10-BE	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/IRN/88/2009	IRN09-88	639	628	0	98.28	1.72	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/IRN/31/2009	IRN09-31	639	601	0	94.05	5.95	ME-SA	PanAsia-2 <sup>FAR-09</sup>
3	O/IRN/8/2005	IRN05-08	639	601	0	94.05	5.95	ME-SA	PanAsia-2
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	599	0	93.74	6.26	ME-SA	PanAsia-2 <sup>TER-08</sup>
5	O/PAK/16/2010	PAK10-16	639	595	0	93.11	6.89	ME-SA	PanAsia-2 <sup>PUN-10</sup>
6	O/IRN/18/2010	IRN10-18	639	594	0	92.96	7.04	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/TUR/264/2009* (FMDI)	TUR09-AK	639	594	0	92.96	7.04	ME-SA	PanAsia-2 <sup>SAN-09</sup>
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	584	0	91.39	8.61	ME-SA	PanAsia
9	O/PAK/16/2003 (DQ165068)	PAK03-16	639	570	0	89.20	10.80	ME-SA	Pak-98
10	O/IRN/61/2001 (DQ164896)	IRN01-61	638	568	1	89.03	10.97	ME-SA	Irn-2001

nt, nucleotides

\*, not a WRLFMD reference number

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# FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: O	Report date: 25/02/2011
WRLFMD Ref No: BUL/6/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00009	Checked by: V. Mioulet
Sender Ref: 23	
Location: Kosti, Bulgaria	Topotype: ME-SA
Date collected: 01/02/2011	Genotype/strain: PanAsia-2 <sup>ANT-10</sup>
Date received by WRLFMD: 16/02/2011	Sequence filename: BUL11-06.SEQ
Date received for sequencing: 23/02/2011	Date sequence last updated: 25/02/2011
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 2670
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 9 days
	Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/BUL/5/2011	BUL11-05	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/BUL/7/2011	BUL11-07	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
3	O/BUL/1/2010	BUL10-01	639	638	0	99.84	0.16	ME-SA	PanAsia-2 <sup>ANT-10</sup>
4	O/TUR/1003/2010* (FMDI)	TUR10-BG	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
5	O/TUR/1086/2010* (FMDI)	TUR10-BI	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
6	O/TUR/18/2010	TUR10-18	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
7	O/TUR/840/2010* (FMDI)	TUR10-AZ	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
8	O/TUR/868/2010* (FMDI)	TUR10-BA	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
9	O/TUR/883/2010* (FMDI)	TUR10-BB	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
10	O/TUR/926/2010* (FMDI)	TUR10-BE	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/IRN/88/2009	IRN09-88	639	628	0	98.28	1.72	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/IRN/31/2009	IRN09-31	639	601	0	94.05	5.95	ME-SA	PanAsia-2 <sup>FAR-09</sup>
3	O/IRN/8/2005	IRN05-08	639	601	0	94.05	5.95	ME-SA	PanAsia-2
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	599	0	93.74	6.26	ME-SA	PanAsia-2 <sup>TER-08</sup>
5	O/PAK/16/2010	PAK10-16	639	595	0	93.11	6.89	ME-SA	PanAsia-2 <sup>PUN-10</sup>
6	O/IRN/18/2010	IRN10-18	639	594	0	92.96	7.04	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/TUR/264/2009* (FMDI)	TUR09-AK	639	594	0	92.96	7.04	ME-SA	PanAsia-2 <sup>SAN-09</sup>
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	584	0	91.39	8.61	ME-SA	PanAsia
9	O/PAK/16/2003 (DQ165068)	PAK03-16	639	570	0	89.20	10.80	ME-SA	Pak-98
10	O/IRN/61/2001 (DQ164896)	IRN01-61	638	568	1	89.03	10.97	ME-SA	Irn-2001

nt, nucleotides

\*, not a WRLFMD reference number

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# FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: O	Report date: 25/02/2011
WRLFMD Ref No: BUL/7/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00009	Checked by: V. Mioulet
Sender Ref: 24	
Location: Kosti, Bulgaria	Topotype: ME-SA
Date collected: 01/02/2011	Genotype/strain: PanAsia-2 <sup>ANT-10</sup>
Date received by WRLFMD: 16/02/2011	Sequence filename: BUL11-07.SEQ
Date received for sequencing: 23/02/2011	Date sequence last updated: 25/02/2011
Species: Cattle	No. of Nt determined: 639
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 639
RT-PCR primers: O-1C244F/EUR-2B52R	Total no. of comparisons: 2670
O-1C272F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 9 days
	Sequencing time: 2 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/BUL/5/2011	BUL11-05	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/BUL/6/2011	BUL11-06	639	639	0	100.00	0.00	ME-SA	PanAsia-2 <sup>ANT-10</sup>
3	O/BUL/1/2010	BUL10-01	639	638	0	99.84	0.16	ME-SA	PanAsia-2 <sup>ANT-10</sup>
4	O/TUR/1003/2010* (FMDI)	TUR10-BG	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
5	O/TUR/1086/2010* (FMDI)	TUR10-BI	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
6	O/TUR/18/2010	TUR10-18	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
7	O/TUR/840/2010* (FMDI)	TUR10-AZ	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
8	O/TUR/868/2010* (FMDI)	TUR10-BA	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
9	O/TUR/883/2010* (FMDI)	TUR10-BB	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
10	O/TUR/926/2010* (FMDI)	TUR10-BE	639	637	0	99.69	0.31	ME-SA	PanAsia-2 <sup>ANT-10</sup>
Most Closely Related Reference Viruses									
(see <a href="http://www.wrlfmd.org/fmd_genotyping/prototypes.htm">http://www.wrlfmd.org/fmd_genotyping/prototypes.htm</a> )									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	O/IRN/88/2009	IRN09-88	639	628	0	98.28	1.72	ME-SA	PanAsia-2 <sup>ANT-10</sup>
2	O/IRN/31/2009	IRN09-31	639	601	0	94.05	5.95	ME-SA	PanAsia-2 <sup>FAR-09</sup>
3	O/IRN/8/2005	IRN05-08	639	601	0	94.05	5.95	ME-SA	PanAsia-2
4	O/TUR/257/2008* (FMDI)	TUR08-AD	639	599	0	93.74	6.26	ME-SA	PanAsia-2 <sup>TER-08</sup>
5	O/PAK/16/2010	PAK10-16	639	595	0	93.11	6.89	ME-SA	PanAsia-2 <sup>PUN-10</sup>
6	O/IRN/18/2010	IRN10-18	639	594	0	92.96	7.04	ME-SA	PanAsia-2 <sup>BAL-09</sup>
7	O/TUR/264/2009* (FMDI)	TUR09-AK	639	594	0	92.96	7.04	ME-SA	PanAsia-2 <sup>SAN-09</sup>
8	O/UKG/35/2001 (AJ539141)	UKG01-35	639	584	0	91.39	8.61	ME-SA	PanAsia
9	O/PAK/16/2003 (DQ165068)	PAK03-16	639	570	0	89.20	10.80	ME-SA	Pak-98
10	O/IRN/61/2001 (DQ164896)	IRN01-61	638	568	1	89.03	10.97	ME-SA	Irn-2001

nt, nucleotides

\*, not a WRLFMD reference number

Assembled with Report Generator v3.11

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# Report on FMDV O in Bulgaria in 2011

Batch: WRLFMD/2011/00009

Software: MEGA 5.0

Analysis

Analysis ----- Phylogeny Reconstruction  
 Scope ----- All Selected Taxa  
 Statistical Method ----- Neighbor-joining

Phylogeny Test

Test of Phylogeny ----- Bootstrap method  
 No. of Bootstrap Replications ----- 1000

Substitution Model

Substitutions Type ----- Nucleotide  
 Model/Method ----- Kimura 2-parameter model  
 Substitutions to Include ----- d: Transitions + Transversions

Rates and Patterns

Rates among Sites ----- Uniform rates  
 Pattern among Lineages ----- Same (Homogeneous)

Data Subset to Use

Gaps/Missing Data Treatment ----- Pairwise deletion  
 Codons Included ----- 1st+2nd+3rd+Non-Coding

No. of Sites : 639

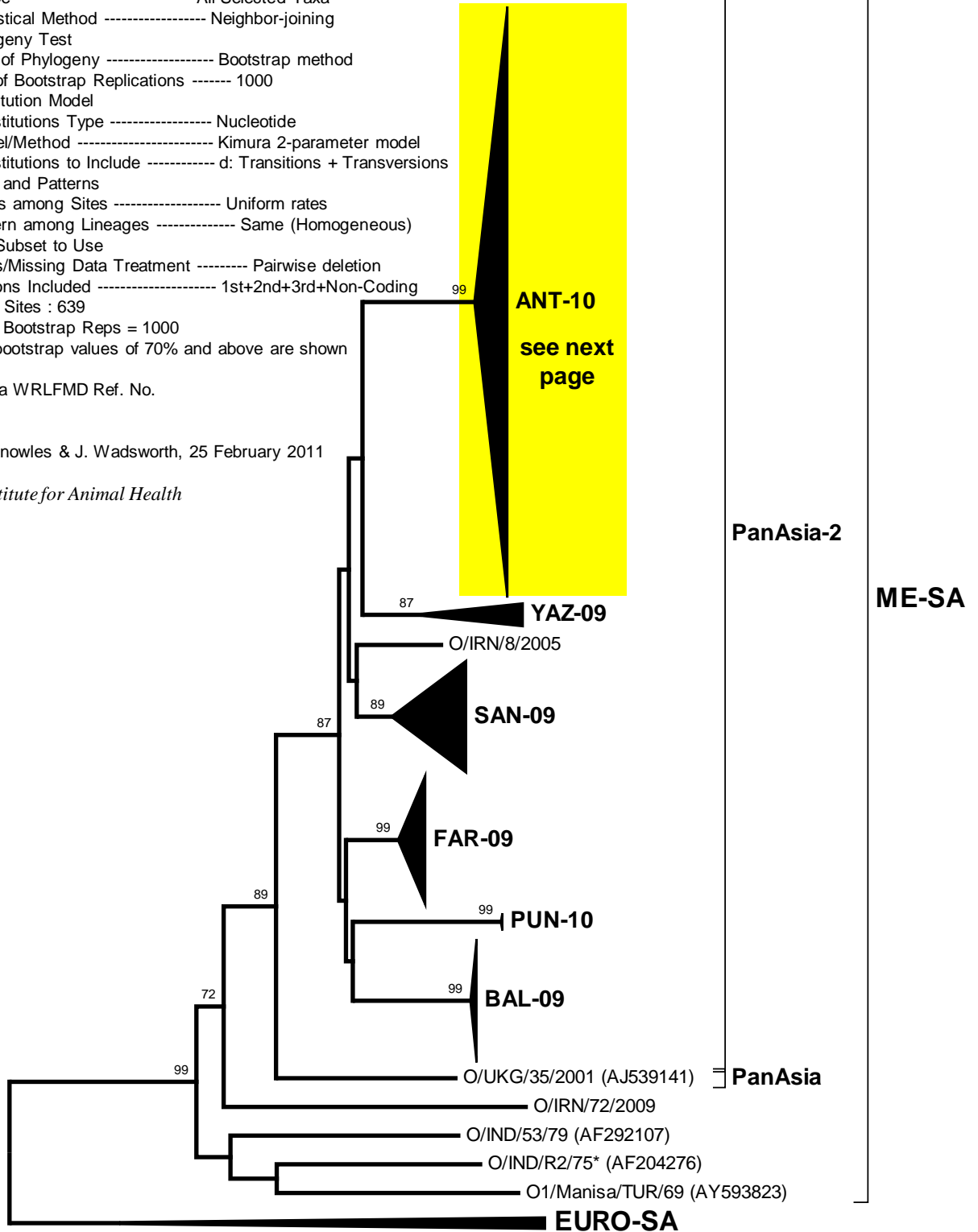
No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

\*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 25 February 2011

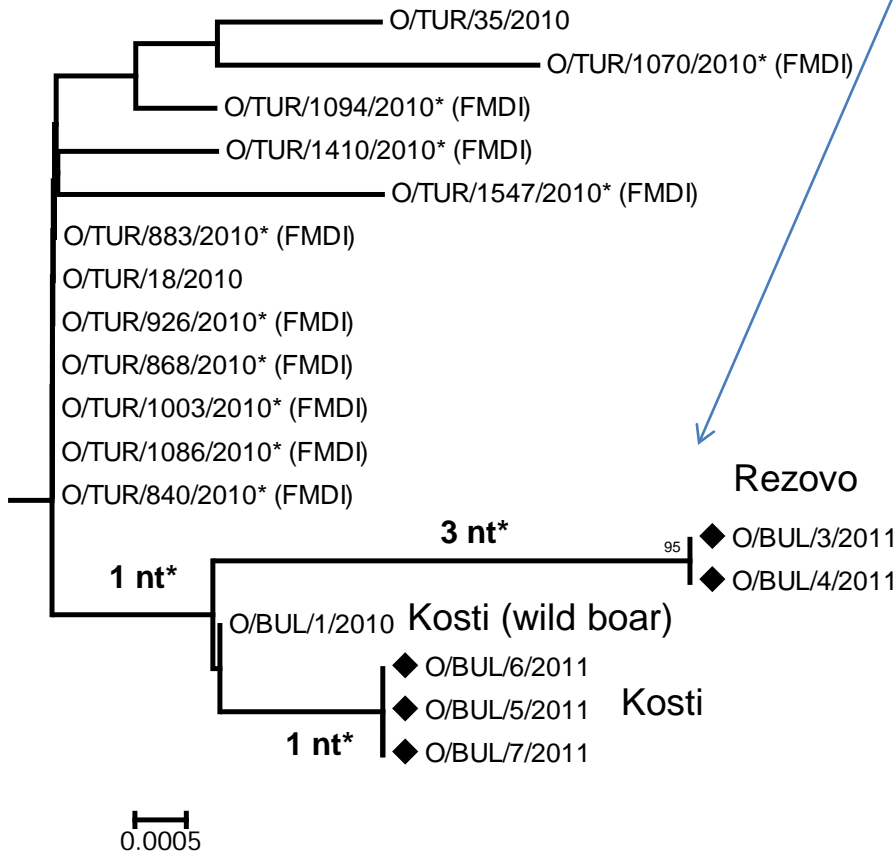
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# Report on FMDV O in Bulgaria in 2011

Batch: WRLFMD/2011/00009



\* , number of nucleotide changes

