

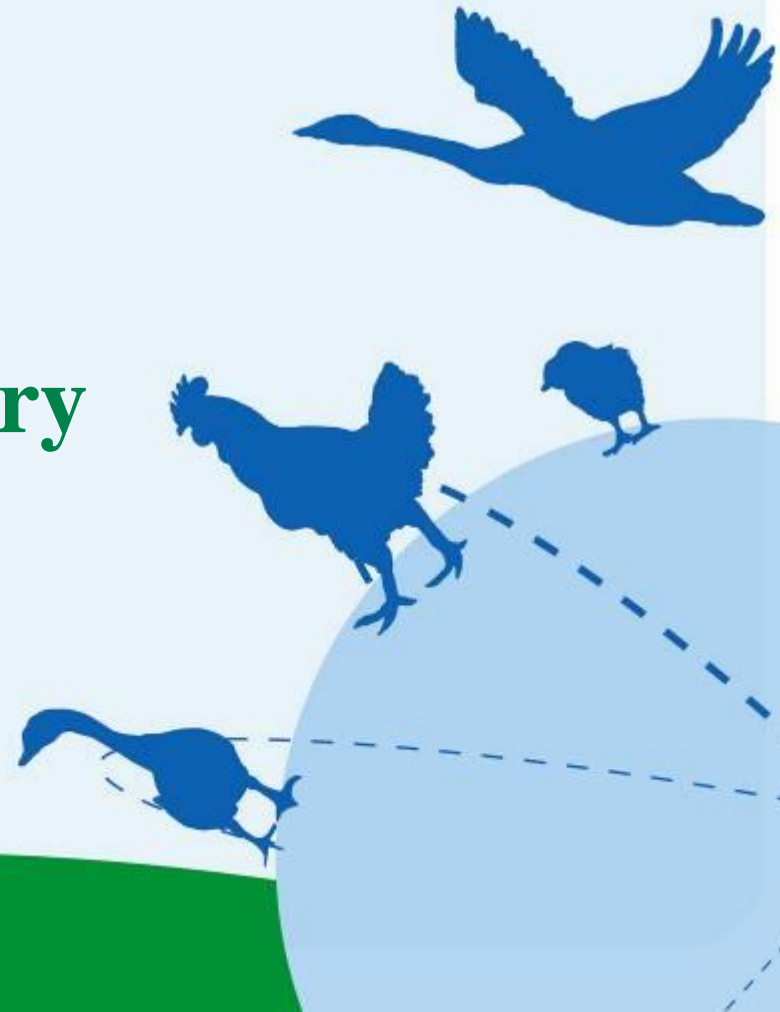


OFFLU meeting
18 April 2018
Brighton, UK

Caryll Waugh

CSIRO AAHL

OFFLU PT 2017 summary



OFFLU Proficiency Testing 2017

MATRIX ASSAY

Results	Reverse primer	Probe	Reference
13 / 13	proprietary		VetMAX-Gold AIV Kit
13 / 13	proprietary		VetMAX-Gold AIV Kit
13 / 13	TGCAAA A ACATCYTCAAGTCTCTG		Modified Spackman et al 2002
	TGCAAA C ACATCYTCAAGTCTCTG		
	TGCAAA G ACATCYTCAAGTCTCTG		
	TGCAAA T ACATCYTCAAGTCTCTG		
13 / 13	TGCAAA A ACATCTTCAAGTYTCTG		Modified Spackman et al 2002
	TGCAAA G ACACTTTCCAGTCTCTG		
	TGCAAA (Inosine) ACATCYTCAAGTYTCTG		
9 ^S / 13	TGCAAA R ACAYTTTCMAGTCTCTG		Modified Spackman et al 2002
13 / 13 BKG	TGACAGRATYGGTCTTGTCTTTAGCCAYTCCA		Ichimiya et al 2014
12 ^S / 13	GGACTGCARCGTAGACG	GTGCCCAG	Nagy et al 2010
11 / 13	CGTCTACGYTGCAGTCC	CTGGGCAC	Nagy et al 2010

S = one of these reported as suspect/IDT; R = puRine (G or A); Inosine (I-C > I-A > I-T~I-G)

OFFLU Proficiency Testing 2017

H5 ASSAY

H5 clade 2.3.4.4 (6 samples)

- A/chicken/Nepal/S-105-TS/2017 (H5N8) Group B;
- A/environment/Myanmar/29/2016 (H5N6);
- A/duck/Laos/XBY004/2014 (H5N6) (Ct ~38)

H5 other (3 samples)

- A/duck/Vietnam/2064/2013 (H5N1, clade 2.3.2.1a);
- A/Myanmar/301/2012 (H5N1, clade 2.3.4.2);
- A/mallard/South Korea/12A/2006 (H5N2) (Ct ~38)

Result	Comment	Reference
9 / 9	duplex assay	Heine et al 2015
8 / 9	missed Ct>38	Spackman et al. 2002 Spackman et al. 2008 Pedersen et al. 2014
6 / 9	missed Ct>30	Spackman et al. 2002 Spackman et al 2008 Pedersen et al 2014
8 / 9	missed Ct>38t	Modified Spackman et al 2002, EU-RL, Hoffmann et al 2016
6 / 9	missed Ct>38 and H5N1 2.3.2.1a	modified Spackman et al 2002
6 / 9	missed Ct>38 and H5N1 2.3.2.1a	modified Spackman et al 2002
9 ^S / 9	reported Ct> 38 as IDT and NEC as IDT	Slomka et al 2007
7 / 9	missed Ct>38t	Slomka et al 2007 Hoffmann et al 2016

OFFLU Proficiency Testing 2017

icA H5 clade 2.3.4.4 ASSAY

- No icGroup A H5 isolates in the OFFLU panel

6 samples H5 clade 2.3.4.4

- A/chicken/Nepal/S-105-TS/2017 (H5N8) Group B
- A/environment/Myanmar/29/2016 (H5N6)
- A/duck/Laos/XBY004/2014 (H6N6)

Sample	Sample ID	Type	Clade or lineage	1-H5	2 H5 & icH5
1	A/chicken/Myanmar/14/2016	H9N2	Y280-like	IDT	0
2	A/chicken/Nepal/S-105-TS/2017	H5N8	2.3.4.4	34.3	29.3
3	A/mallard/South Korea/12A/2006	H5N2	Eurasian	39.0	38.3
4	A/chicken/Nepal/S-105-TS/2017	H5N8	2.3.4.4	32.2	26.7
5	Negative allantoic fluid	-	-	IDT	NT
6	A/chicken/North Korea/7916/2005	H7N7	Eurasian	IDT	0
7	A/chicken/Nepal/S-105-TS/2017	H5N8	2.3.4.4	33.0	29.6
8	A/environment/Myanmar/29/2016	H5N6	2.3.4.4	IDT	34.3
9	A/Anhui/1/2013	H7N9	China	IDT	0
10	A/duck/Vietnam/2064/2013	H5N1	2.3.2.1a	35.6	31.5
11	A/chicken/NSW/2/2013	H7N2	Australian	IDT	0
12	A/Myanmar/301/2012	H5N1	2.3.4.2	37.4	35
13	A/duck/Laos/XBY004/2014	H5N6	2.3.4.4	IDT	0
14	A/environment/Myanmar/29/2016	H5N6	2.3.4.4	IDT	35.0
15	P/duck/WA/AS-16-0962-0018/2016	APMV-1	-	IDT	NT

OFFLU Proficiency Testing 2017

H7 ASSAY

H7 positive isolates (3 samples)

- A/chicken/North Korea/7916/2005 (H7N7) Eurasian
- A/Anhui/1/2013 (H7N9) China
- A/chicken/NSW/2/2013 (H7N2) Australian

Results	Reference
3 / 3	Hoffmann et al 2006
3 / 3	VanBorm et al 2010
	Modified Hoffmann et al 2006
2 / 3	Hoffmann et al 2006
3 / 3	VanBorm et al 2010; Spackman et al 2002
	Modified Hoffmann 2006
3 / 3	Hoffmann et al. 2010
2 / 3	Hoffmann et al. 2010
3 / 3	Spackman et al 2002; Slomka et al 2007
	Hoffmann et al 2016
2 / 3	Slomka et al 2009

OFFLU Proficiency Testing 2018

- AAHL PT must apply to the Australian Defence Export Control Office for permits to export HPAI
- Gamma-irradiated HPAI is considered to contain 'recoverable genetic elements' and is thus a controlled export
- We may require 'end-user-statements' from laboratories participating in OFFLU 2018 for receipt of the PT panel and any repeat samples
- We shall of course expedite this as much as we can

OFFLU Proficiency Testing 2017

- AAHL PT and reference material supply
- Gemma Carlile (Team Leader)
- Caryll Waugh
- Mai Hlaing Loh
- Chantal Denham
- Frank Wong

