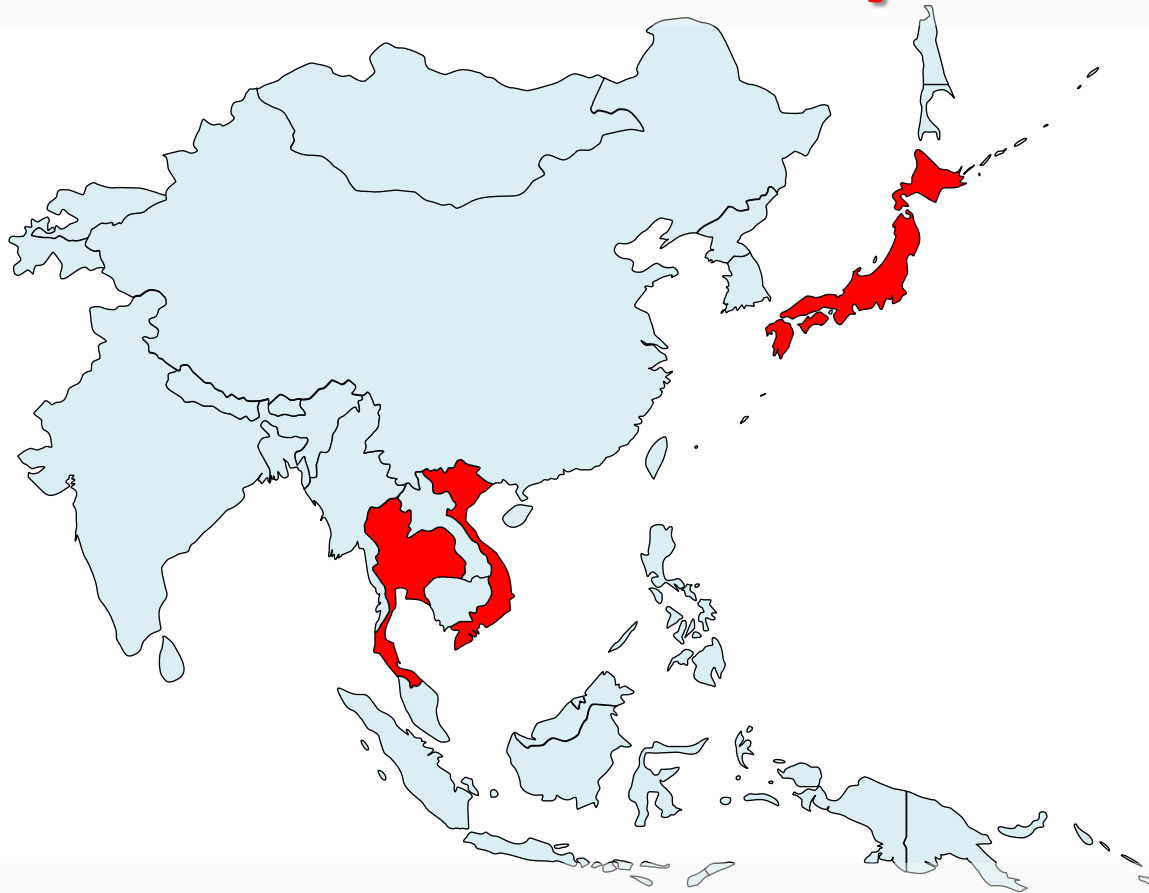


SIV surveillance in Vietnam, Thailand and Japan



Takehiko Saito

National Institute of Animal Health, Japan

SIV surveillance in Vietnam



Nasal swab collection and Virus isolation in 2012



Province	July or September	December	Total
Bac Ninh	30/200	11/200	41/400
Nam Dinh	0/200	0/200	0/400
Tien Giang	21/99	1/99	22/198
Ho Chi Minh	0/86	0/86	0/172
BR-VT	0/99	0/99	0/198
Dong Nai	4/116	6/116	10/232
Total	55/800	18/800	73/1600

(Number of viruses/Nasal swabs)

 Provinces under survey

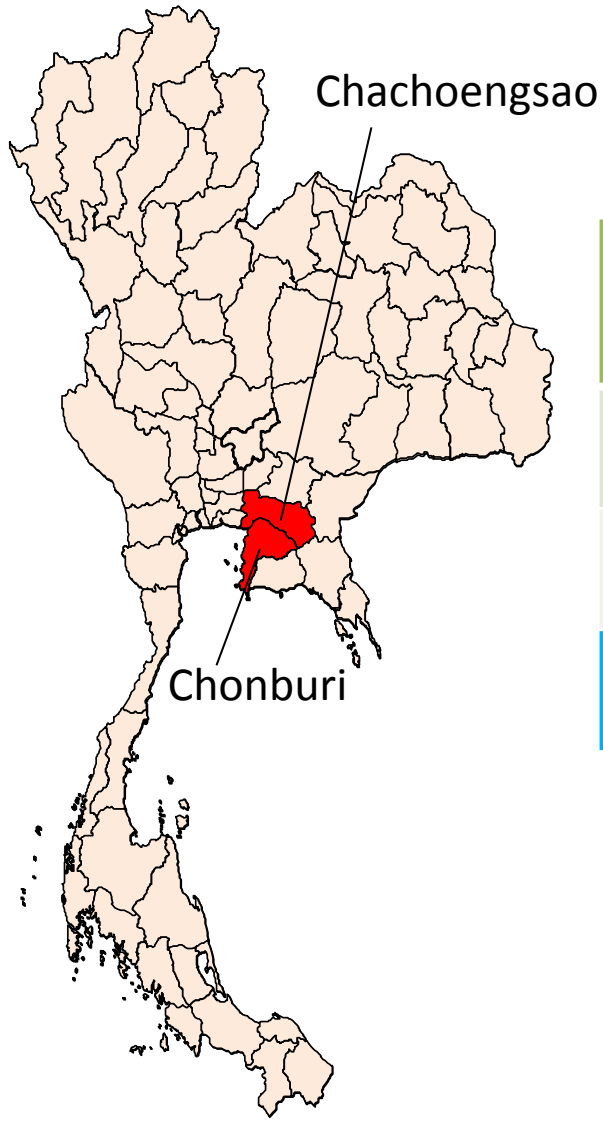
Farms and viruses isolated in 2012

Farm ID	Province	Number of viruses	Subtype (Lineages of HA and NA genes)	Sampling date in 2012
A	Bac Ninh	3	H3N2 (Triple reassortant)	24 th Jul.
B	Bac Ninh	3	H3N2 (Triple reassortant)	24 th Jul.
C	Bac Ninh	24	H3N2 (Triple reassortant)	24 th Jul.
D	Bac Ninh	9	H1N2 (Human-like H1 × Triple reassortant N2)	4 th Dec.
E	Bac Ninh	2	H3N2 (Triple reassortant)	4 th Dec.
F	Tien Giang	13	H1N2 (Triple reassortant)	18 th Sep.
G	Tien Giang	4	H1N1 (A(H1N1)pdm09)	18 th Sep.
		4	H1N2 (A(H1N1)pdm09 × human-like H3N2)	
		1	H1N2 (A(H1N1)pdm09 × human-like H3N2)	18 th Dec.
H	Dong Nai	4	H3N2 (Human-like H3N2)	20 th Sep.
		6	H3N2 (Human-like H3N2)	18 th Dec.

SIV surveillance in Thailand



Nasal swab collection and Virus isolation in 2012 and 2013



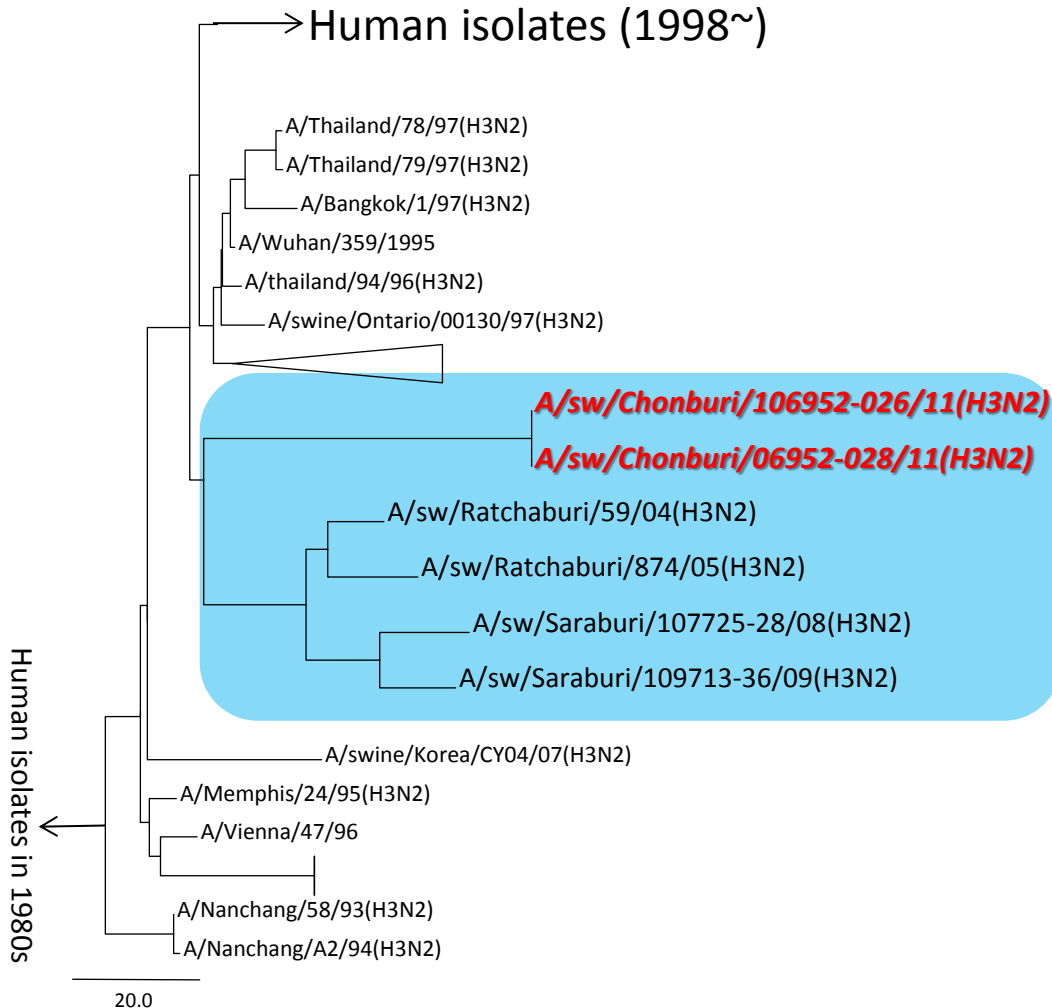
Province	February (2012)	June-July (2012)	February-April (2013)	Total
Chachoengsao	12/120	200 (in progress)	200 (in progress)	12/520
Chonburi	-	2/200	120 (in progress)	2/320
Total	12/120 (H1, H3)	2/400 (pdm09)	320 (in progress)	14/840







(Number of viruses/Nasal swabs)

 Provinces under survey

Isolation of the Pandemic (H1N1) 2009 virus and its reassortant with an H3N2 swine influenza virus from healthy weaning pigs in Thailand in 2011

Phylogenetic tree of H3 genes



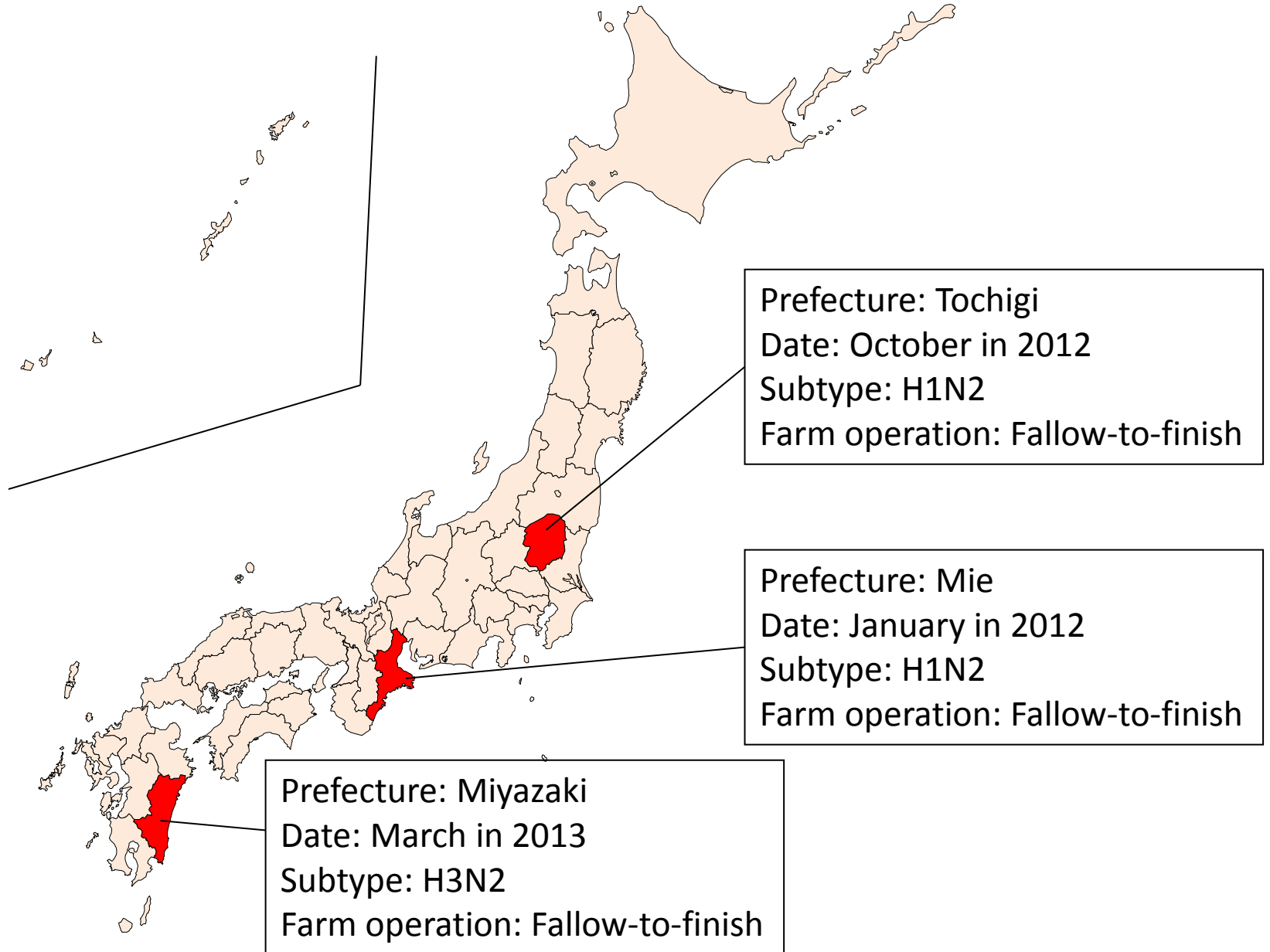
Subtype	Genes origin from		
	HA	NA	Internal genes
H3N2	Human-like 	Human-like 	
H1N1			pdm09 

Hiromoto et. al., 2012. Virus Res. 169 (1) 175–181

SIVs in Japan

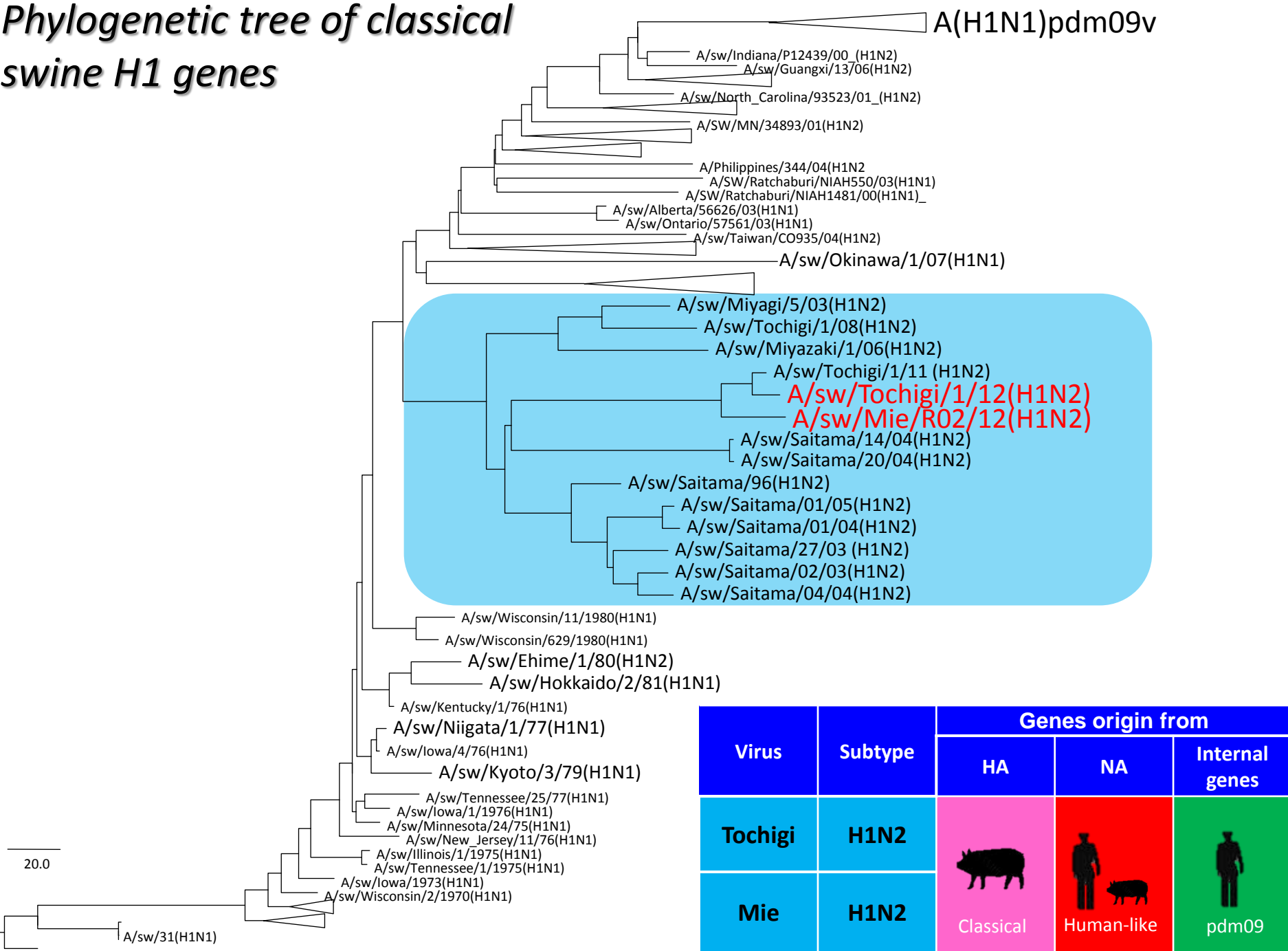


SIV occurrence in Japan

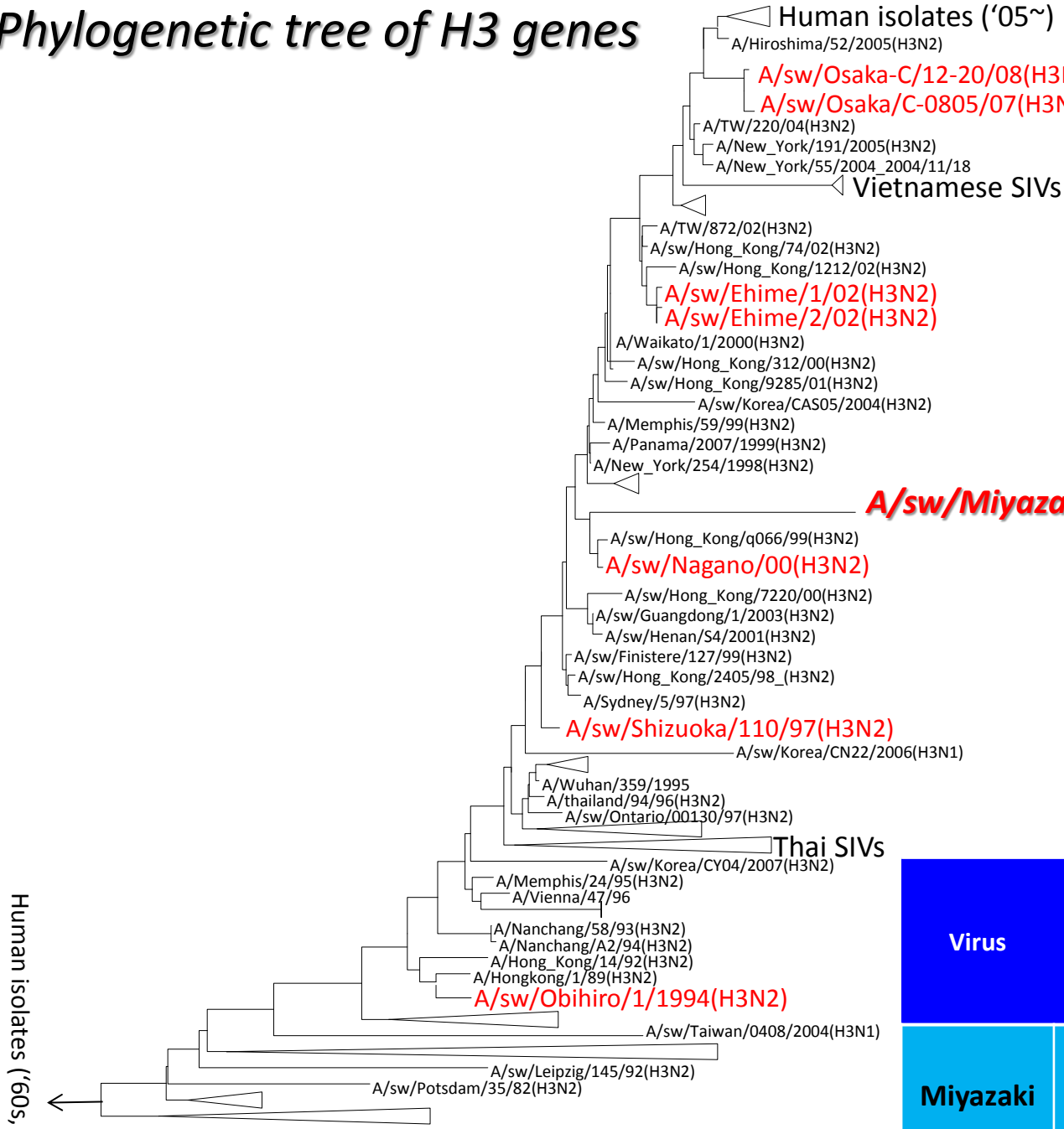


 Provinces where SIVs were isolated.

Phylogenetic tree of classical swine H1 genes



Phylogenetic tree of H3 genes



A/sw/Miyazaki/2/13

A/sw/Nagano/00(H3N2)

A/sw/Shizuoka/110/97(H3N2)

A/sw/Obihiro/1/1994(H3N2)

A/sw/Potsdam/35/82(H3N2)

		Genes origin from		
Virus	Subtype	HA	NA	Internal genes
		Miyazaki	H3n2	Human-like

Human isolates ('60s, '70s)

20.0

Acknowledgement

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Japan

*Central Animal Hygiene Service Center of Tochigi Prefecture
Central Animal Hygiene Service Center of Mie Prefecture
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