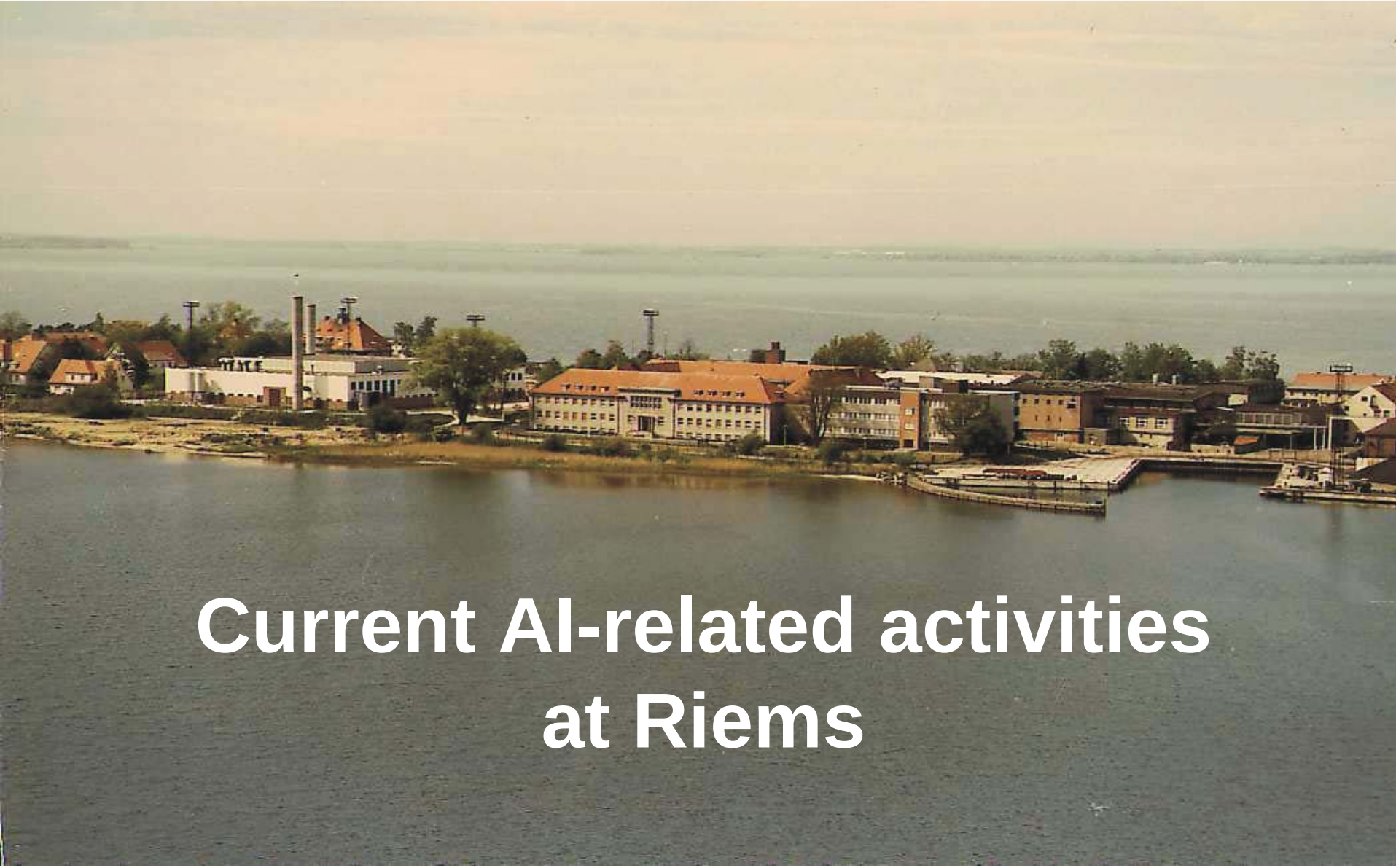
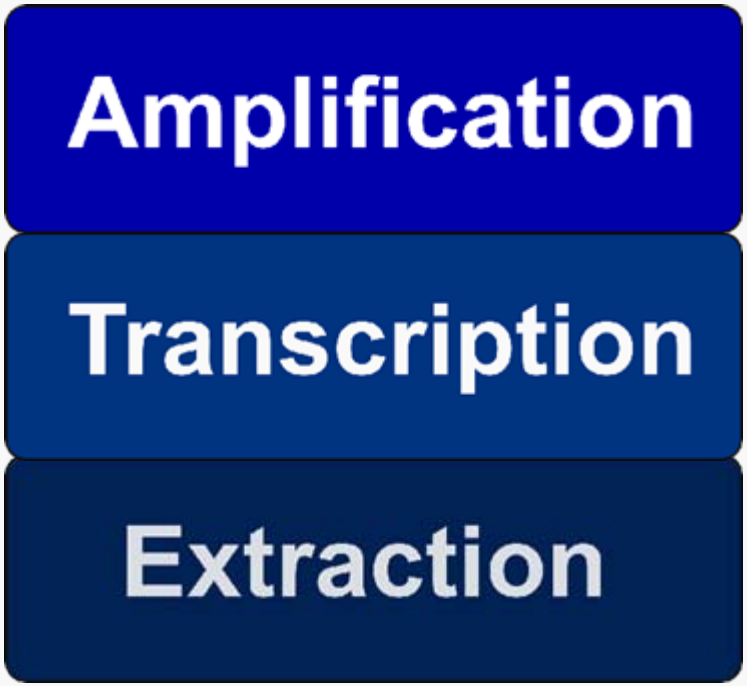


Current AI-related activities at Riems

FRIEDRICH-LOEFFLER-INSTITUT
FLI
Bundesforschungsinstitut für Tiergesundheit
Federal Research Institute for Animal Health

O.I.E. and National Reference Laboratory for Avian Influenza

Controlling RT PCR



Armored RNA

(modified recombinant MS2 phage particles)

Armored RNA for avian influenza virus

Universal IC

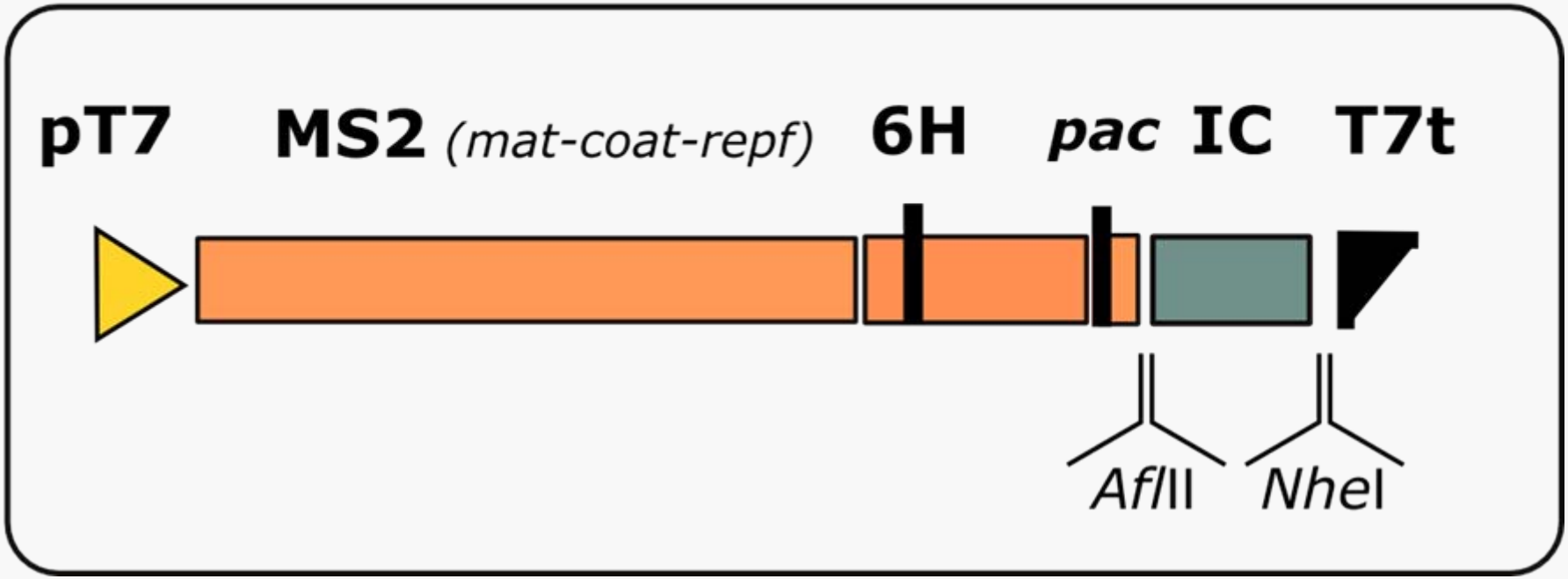
Eurasian control

American control

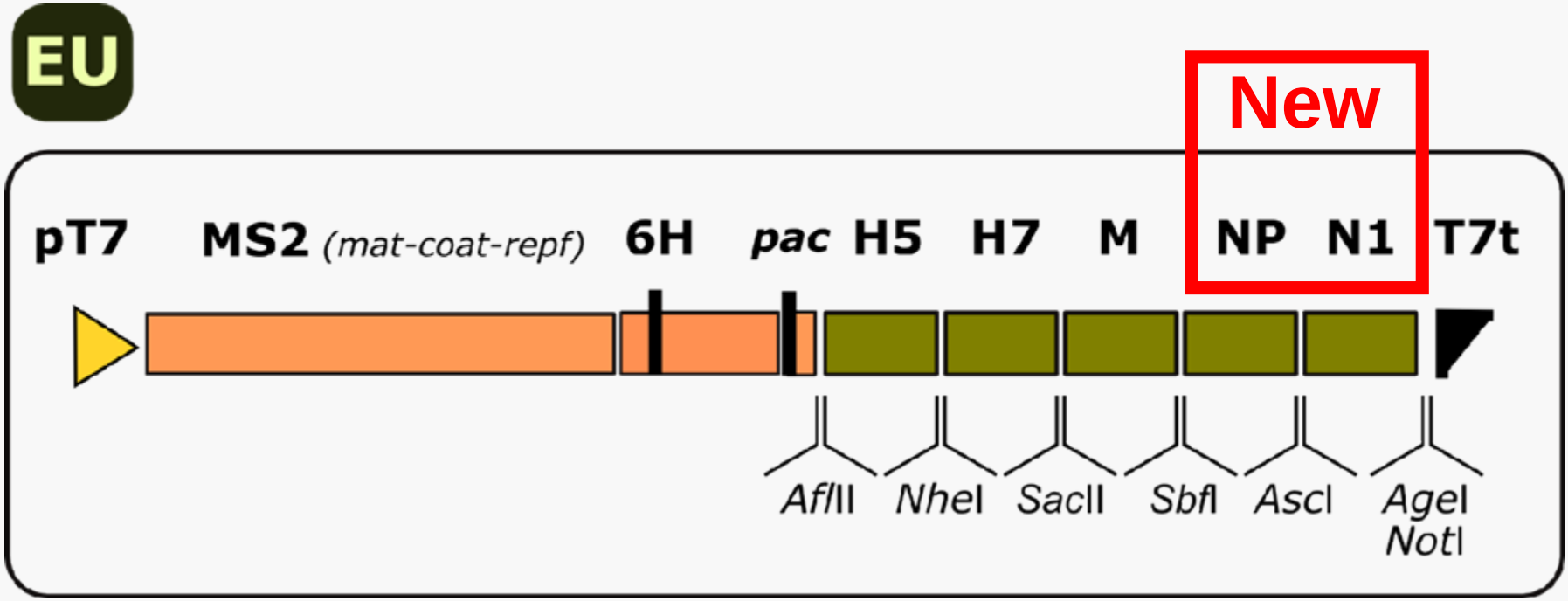
Universal IC

IC

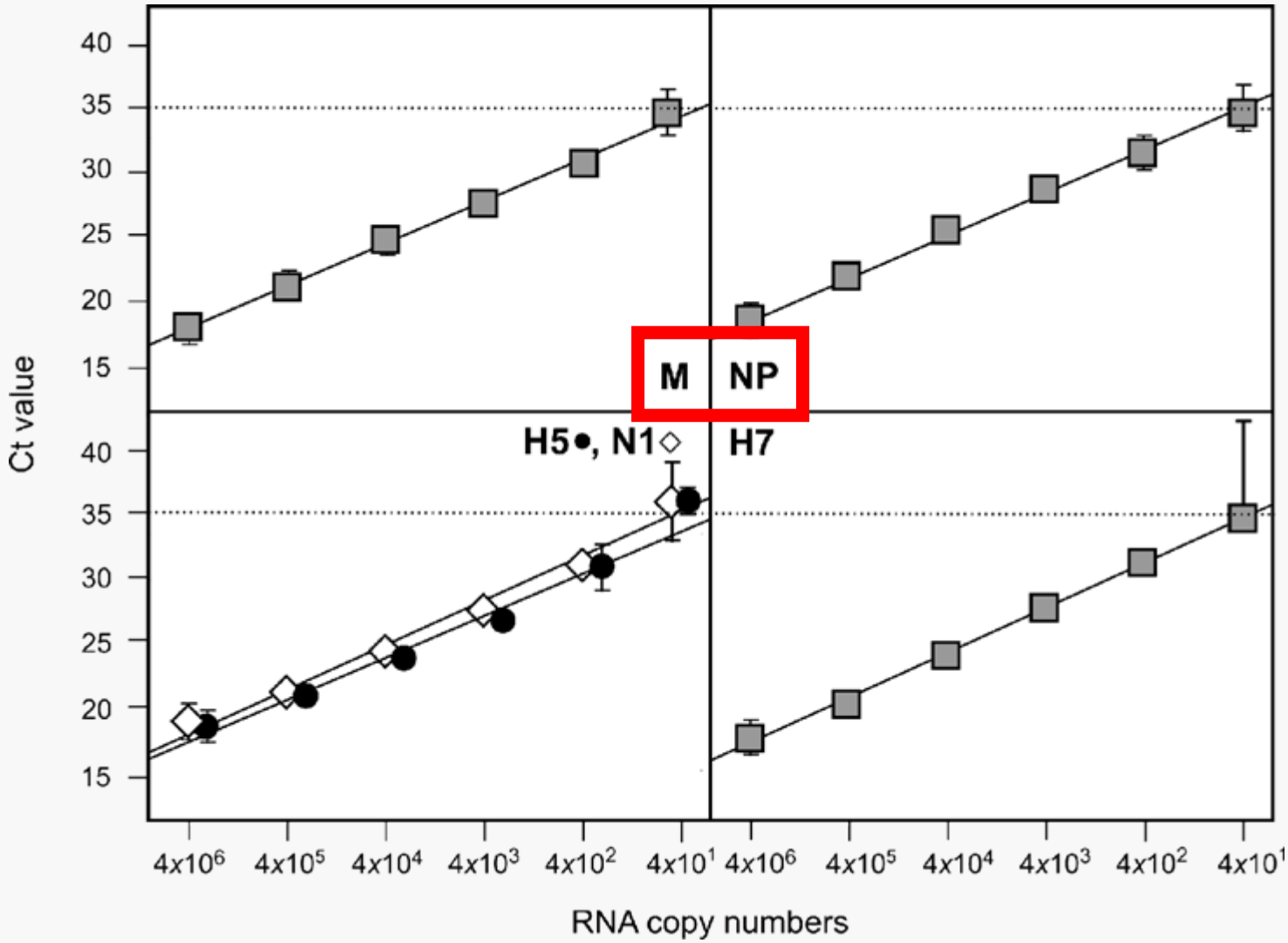
EGFP gene fragment



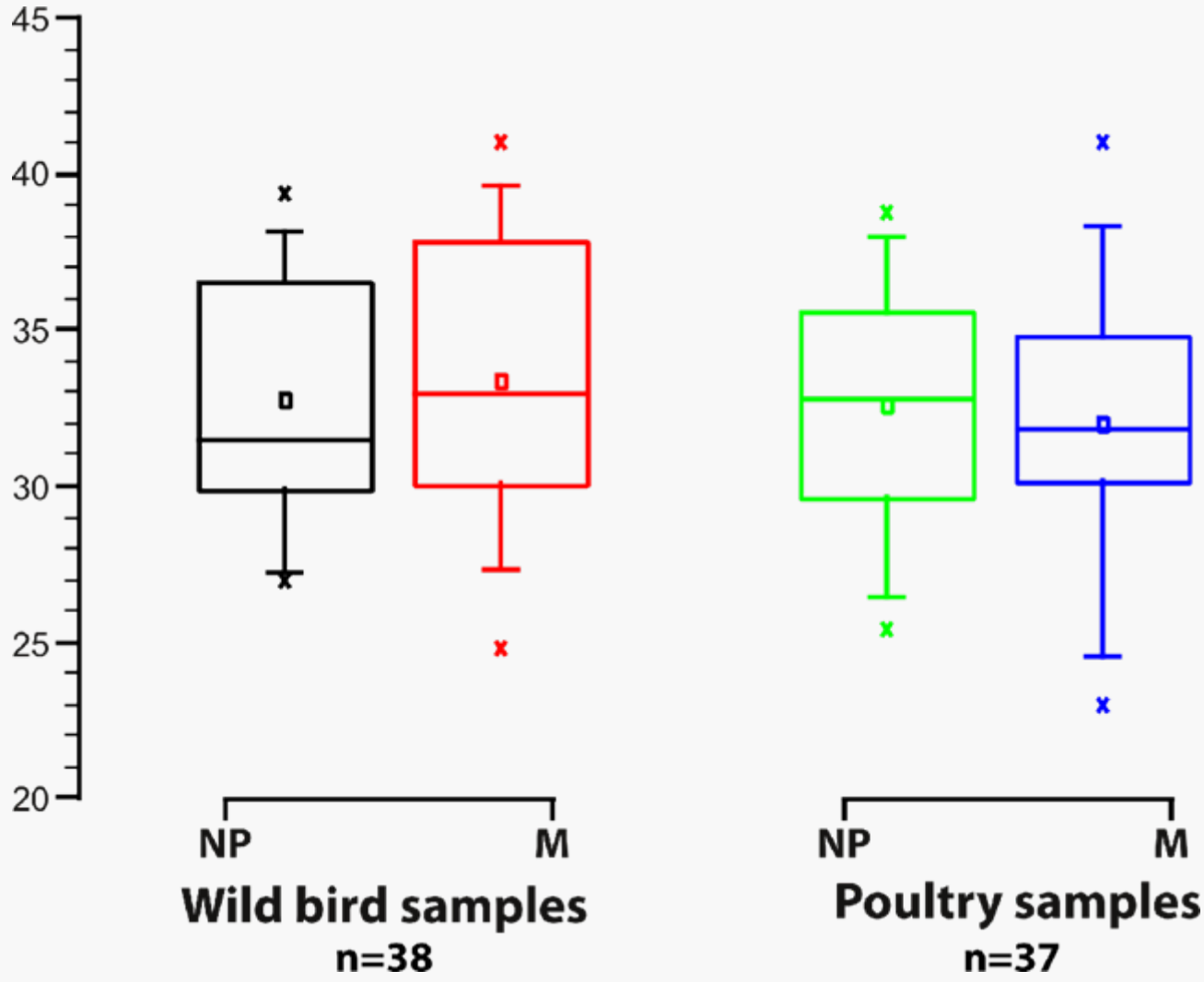
Eurasian control



Eurasian control – run-off RNA



Features of the new „universal“ NP rRT-PCR



Features of the new „universal“ NP rRT-PCR

	Kappa	Range	Weighted	Criterion
WB	0,91	0,818-1,009	0,89	very good
P	0,87	0,777-0,972	0,87	very good
All	0,91	0,84-0,969	0,89	very good

WB=68

		M +	M -	M Inhib
NP	+	38	0	1
	-	0	27	1
	Inhib	0	1	0

P=98

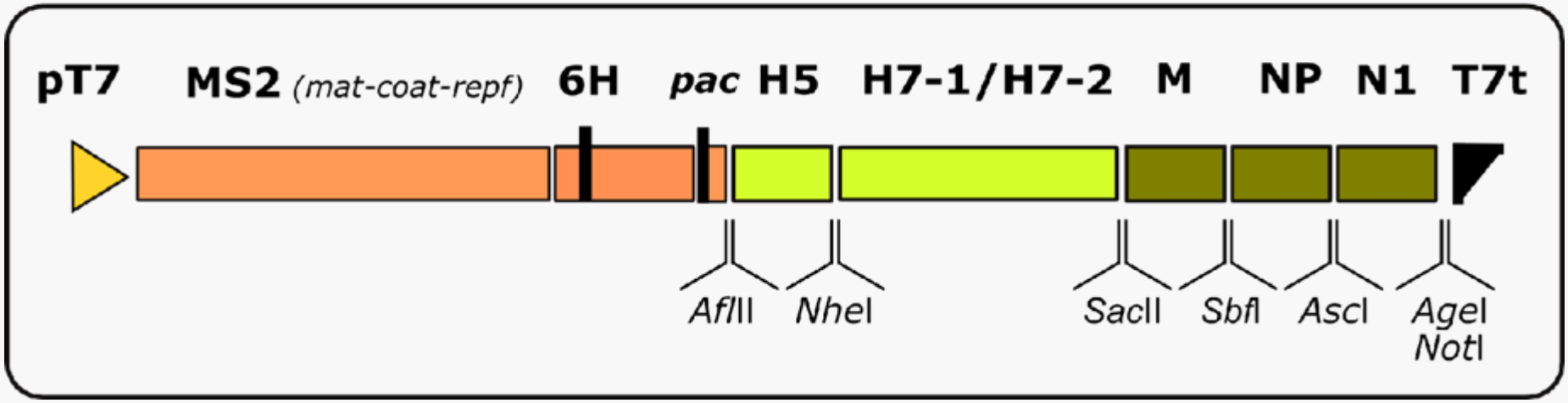
		M +	M -	M Inhib
NP	+	37	3	0
	-	2	55	1
	Inhib	0	0	0

All=166

		M +	M -	M Inhib
NP	+	75	3	1
	-	2	82	1
	Inhib	0	1	0

American control

US



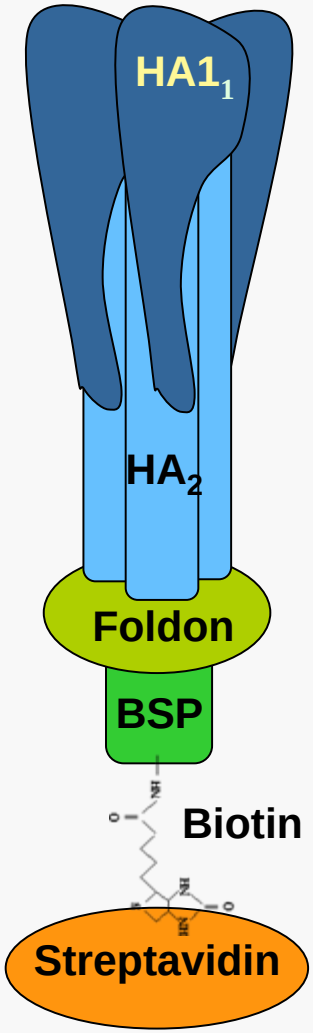
Outlook

“Production” of recombinant MS2 phages failed so far

In vitro transcribed RNA ready for distribution to OFFLU reference labs (ring trial)

Open for continuing curation and adaptation to changing primer/probe/target recommendations

On-site, subtype-specific serology



- Recombinant, baculovirus-
- expressed, in vivo biotinylated antigen (H5, H7, H9, NP)
- Macrochip reaction system
- Competition ELISA format
- DAS ELISA format

Further activities at FLI

Reverse genetics group (Juergen Stech)

Recombinant vaccines group (Jutta Veits)

Pathogenicity group (Martin Beer)

Surveillance/epidemiology/data base group (Christoph Staubach, Timm Harder)

Genome sequencing group (Elke Starick, Dirk Hoeper)

Thanks,

and best regards from the island!

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Bundesforschungsinstitut für Tiergesundheit
Federal Research Institute for Animal Health