

Marine Institute
Foras na Mara

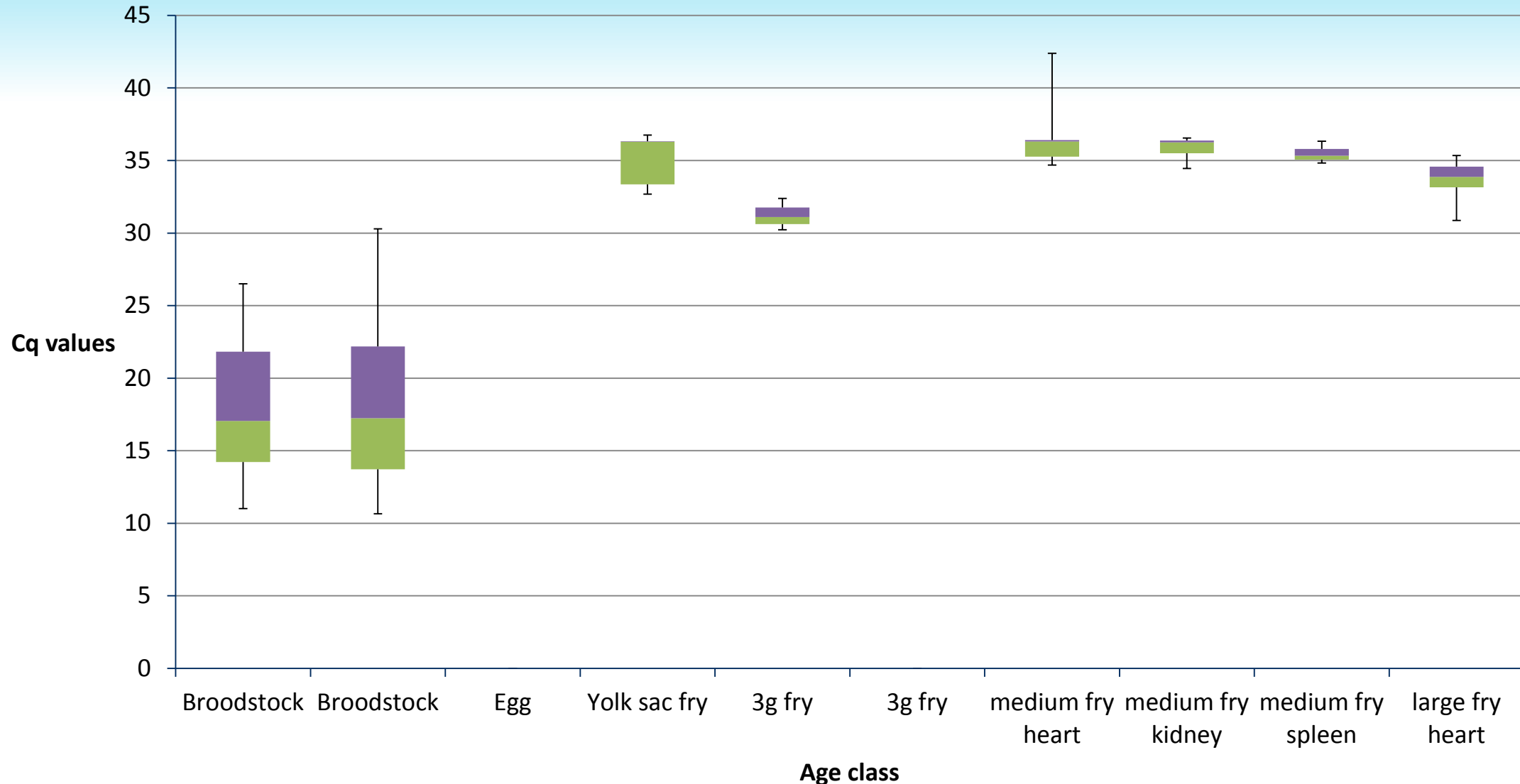


University College Dublin
Ireland's Global University

Investigating the prevalence of piscine myocarditis virus in farmed and wild Atlantic salmon in Ireland.

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Vertical transmission evidence.



All progeny from the same site.
Data generated by Teresa Morrissey, Marine Institute Ireland.

Vertical transmission evidence.

Sample	Age class	Organ	Positives	Cq values	Positives if Cq cut off at 35
F/204/16	broodstock	heart	75/75	11.01-26.51	75/75
F/205/16	broodstock	heart	67/75	10.66-30.29	67/75
F/52/17	eggs	egg	0/30	negative	0/30
F/52/17	yolk sac fry	whole fish	5/15	32.68-36.75	2/15
F/52/17	3g fry	whole fish	10/10	30.23-32.39	10/10
F/52/17	3g fry different batch	whole fish	0/10	negative	0/10
F/94/17	medium/large fry	heart	9/16	34.81-42.39	2/16
F/94/17	medium/large fry	kidney	6/16	34.45-36.55	1/16
F/94/17	medium/large fry	spleen	7/16	34.82-36.33	1/16
F/142/17	large fry	heart	18/20	30.87-35.35	15/20

Data generated by Teresa Morrissey, Marine Institute Ireland.

ORF1 Phylogeny

- ▶ Rooted with *Giardia lamblia* virus.
- ▶ 2 clusters.
- ▶ Norwegian isolate clusters within Irish samples.
- ▶ F42-17 from CMS outbreak.



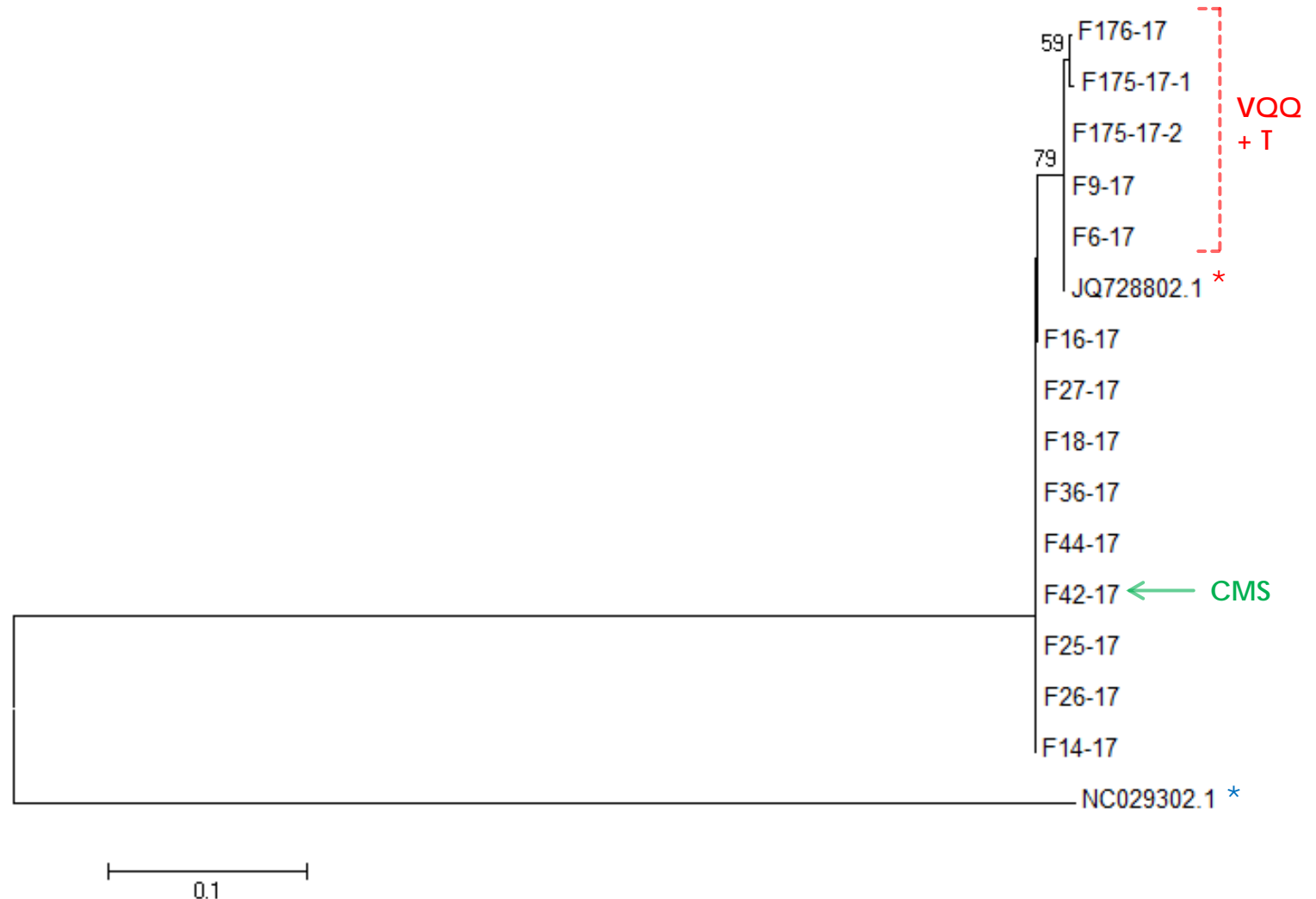
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* Norwegian isolate

* *Giardia lamblia* virus

ORF3 Phylogeny

- ▶ Rooted with *Piscine Myocarditis-like virus*.
- ▶ Norwegian isolate clusters within Irish samples.
- ▶ Samples with VQQ amino acid motif contain unique substitution of threonine in the place of isoleucine at position 222 in Irish samples.
- ▶ Other Irish samples have IKR motif.





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Dr Neil Ruane, Teresa Morrissey, Dr Jens Carlsson, Marine Harvest and Fish Vet Group.

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