



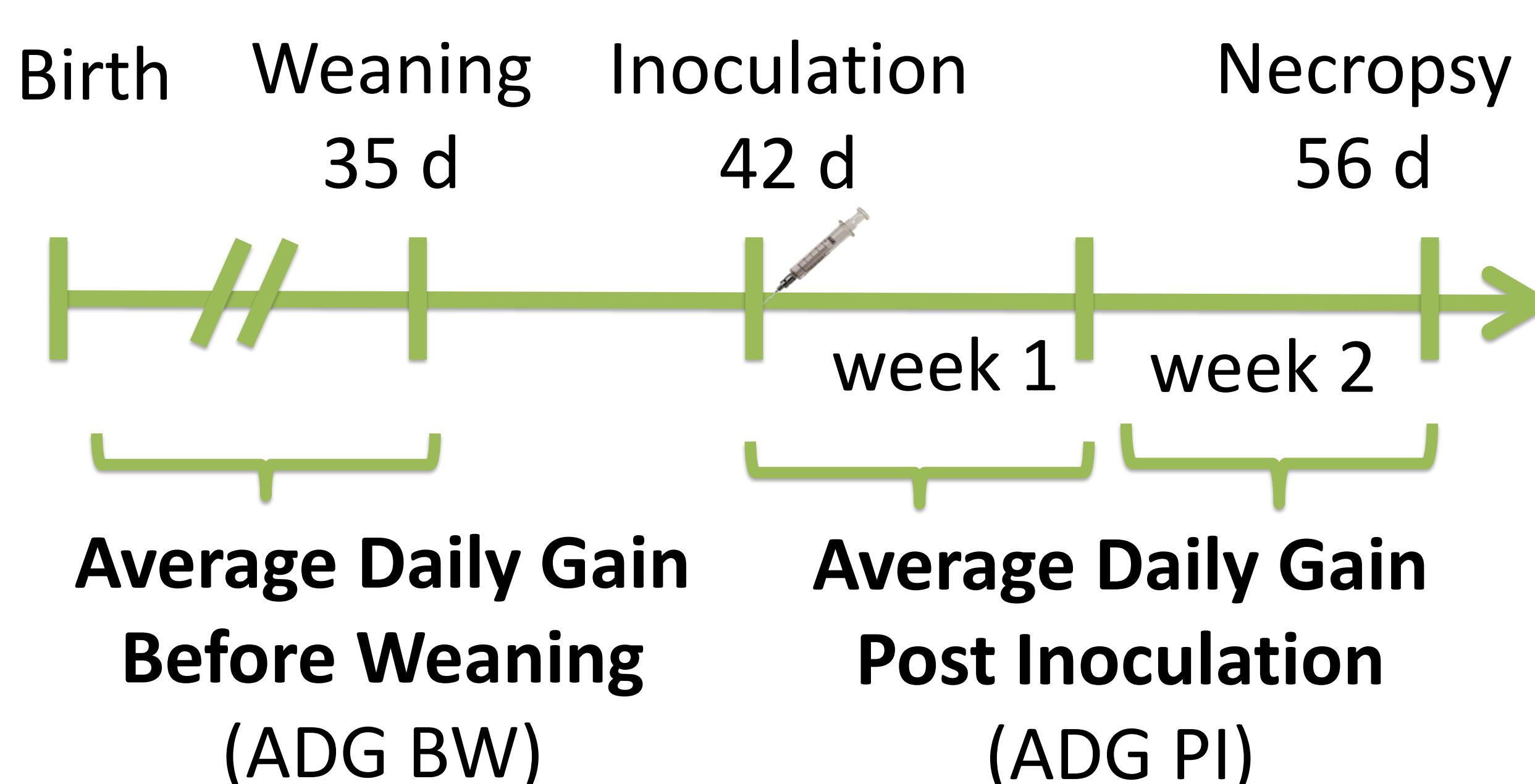
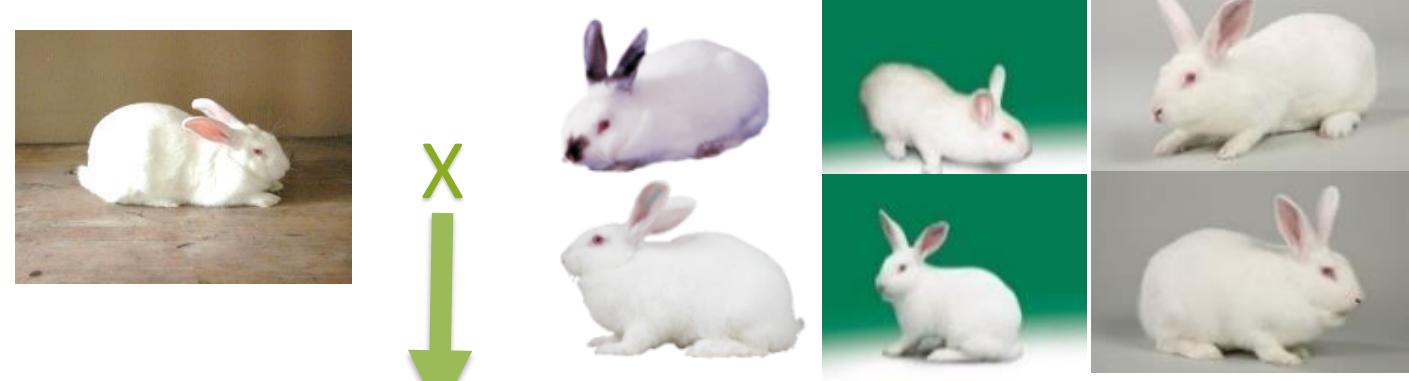
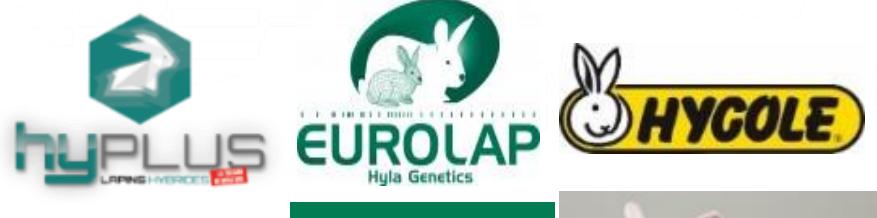
# GENETICS OF PASTEURELLOYSIS RESISTANCE IN RABBITS

IS IT POSSIBLE TO SELECT FOR PASTEURELLOYSIS RESISTANCE?

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Respiratory disease - Bacteria: *Pasteurella multocida* - 1st reason of doe culling

## EXPERIMENTAL CHALLENGE AND MEASURED TRAITS



Traits under selection in purebred:

- Weaning weight (WW)
- Number of kits born alive (NBA)

13 000 purebred rabbits with WW

2 200 purebred rabbits with NBA

955 inoculated crossbred rabbits

### Scores:

- **Bacteria:** 0 no bacteria - 4 innumerable bacteria in liver, spleen, lung
  - **Abscess:** 0 no abscess - 4 severe abscesses
  - **Resistant:** 0 susceptible to 4 resistant
- Composite trait based on Bacteria, Abscess, Dead/alive

## HERITABILITY ESTIMATES AND STANDARD-ERRORS

Animal linear model  
Asreml v3



## GENETIC CORRELATIONS

	Bacteria	Resistant	ADG-Before Weaning	ADG-Post inoc. week1	ADG-Post inoc. week2	Weaning Weight	Nb kits born alive
Abscess	0.99	-0.99	-0.95	-0.99	-0.83	-0.75	0.47
Bacteria		-0.98	-0.62	-0.97	-0.76	-0.36	0.76
Resistant			0.79	0.98	0.70	0.25	-0.68
ADG-Before Weaning				0.49	0.45	0.46	-0.31
ADG-Post inoc. week1					0.46	0.34	-0.45
ADG-Post inoc. week2						0.39	-0.21
Weaning Weight							0.30

*In Italics : non significantly different from 0*

## CONCLUSION

- Pasteurellosis resistance traits are heritable
- Unfavorable genetic correlations between pasteurellosis resistance traits and the number of kits born alive
- Favorable genetic correlations between pasteurellosis resistance traits and weaning weight

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