

# Pecked because of plumage colour

## Behavioural differences between two PMEL17 genotypes



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### Introduction

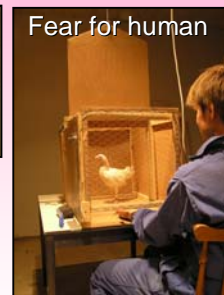
A mutation in the PMEL17 gene have shown to protects against damage caused by feather pecking.

**Black birds** with functional PMEL17 genes had worse plumage condition than **white birds** with non-functional.

This study tries: 1) to confirm this relationship; 2) to investigate the mechanism behind it.

### Behavioural tests

A series of behavioural test were conducted to investigate differences between two PMEL17 genotypes.



### Conclusion

Observations confirm that PMEL17 protects against feather pecking.

First evidence that a behavioural mechanism is causing this .

Much speaks for a genetic origin.

### Box observation

20 groups, 3 birds in each, divided by:  
 • Gender  
 • Genotype composition

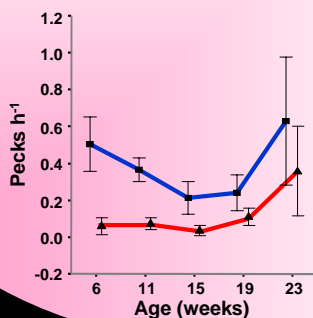
Peck behaviours were measured

### No preference

Immobile black feathers did not attract more pecking than white.  
 Suggests that mobility is important.

### Black is victimized

**Black birds** with functional PMEL17 genes were more severely pecked than **white birds** with non-functional PMEL17 genes.



### Behaviours differed

**Black birds** vocalized more in an Open-field arena.  
**White birds** were more active at puberty in a Fear for human test.

