

Differential expressed genes for aggressive pecking behaviour in laying hens

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Aggressive pecking behaviour



Aggressive pecking \neq Feather pecking



Pecking aimed at the head



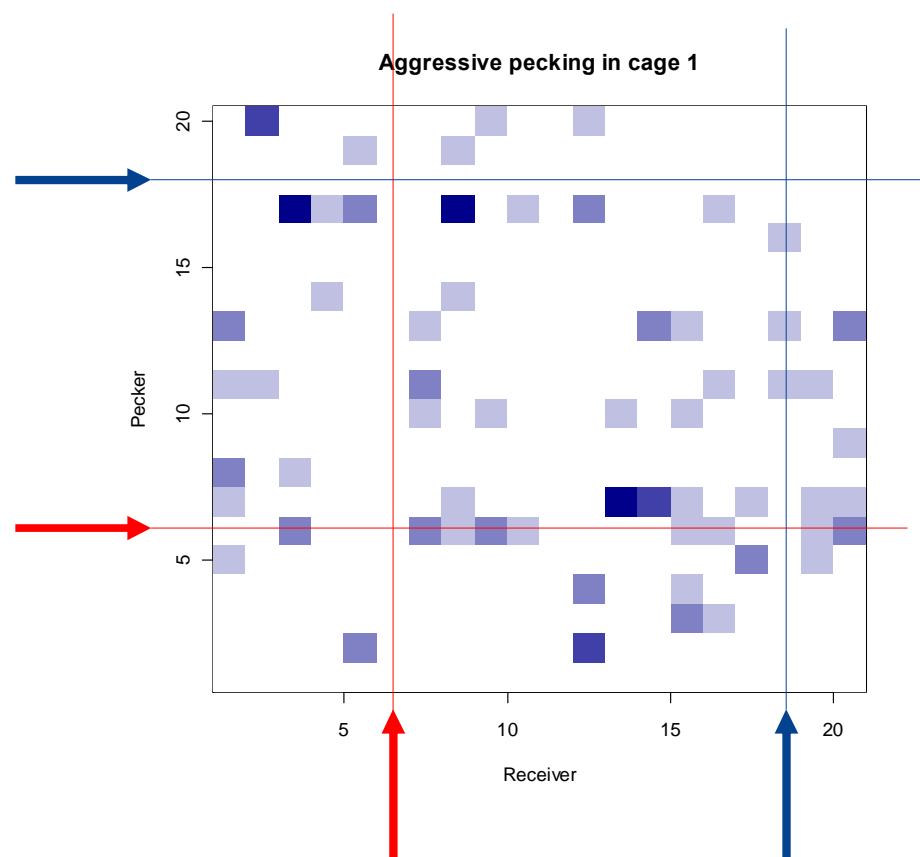
Used to establish/maintain
the social hierarchy in a
group



Are there genes differentially expressed in the brain, influencing aggressive pecking behaviour?

Observed 3 groups of 20 chicken of the HFP selection line for 3h

14:00-17:00 h

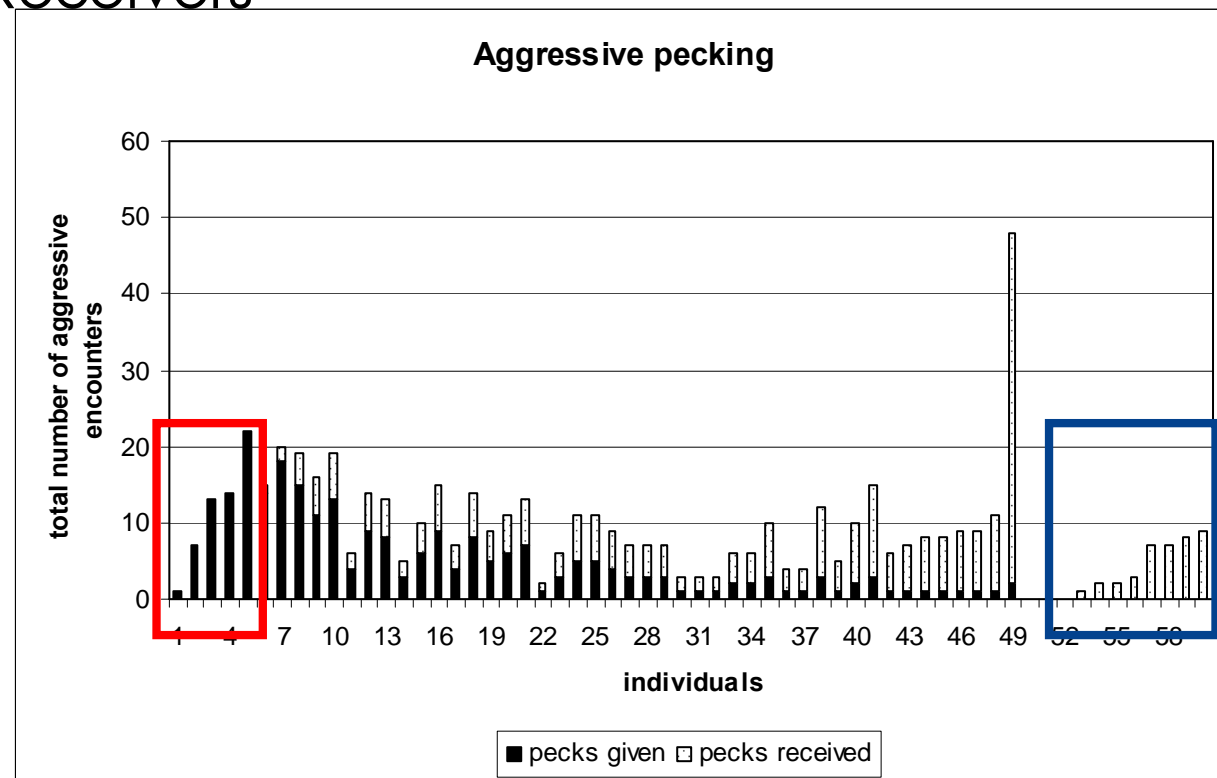


3 types of animals:

A) **Peckers**

B) Peckers and Receivers

C) **Receivers**



Collected the brain of the 60 animals



20K chicken Oligo array (ARK genomics)

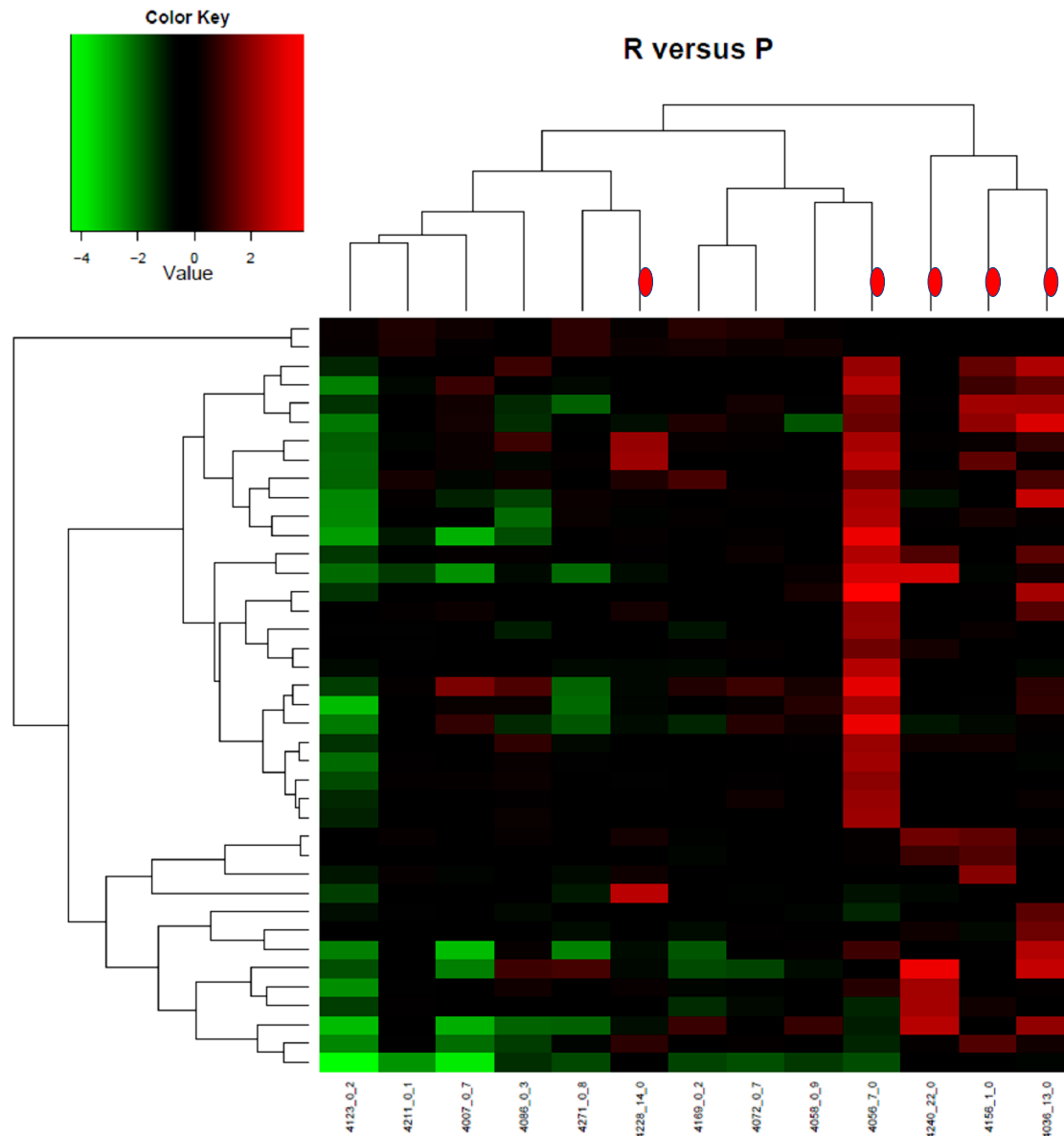


Limma version 2.10.0



$\text{FDR} < 0.10$

Peckers vs. Receivers



40 differential
expressed genes



3 peckers cluster
together



These 40 genes do not
fully classify for
aggressive pecking
behaviour



Potential interest

Conclusion:

- 1) Yes, there are differential expressed genes influencing aggressive pecking behaviour
- 2) These genes can be of interest to understand the genetics underlying aggression/social hierarchy in laying hens
- 3) But... A better annotation is needed for a good biological interpretation of these genes

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