

Peaks and valleys of prolactin during parental care

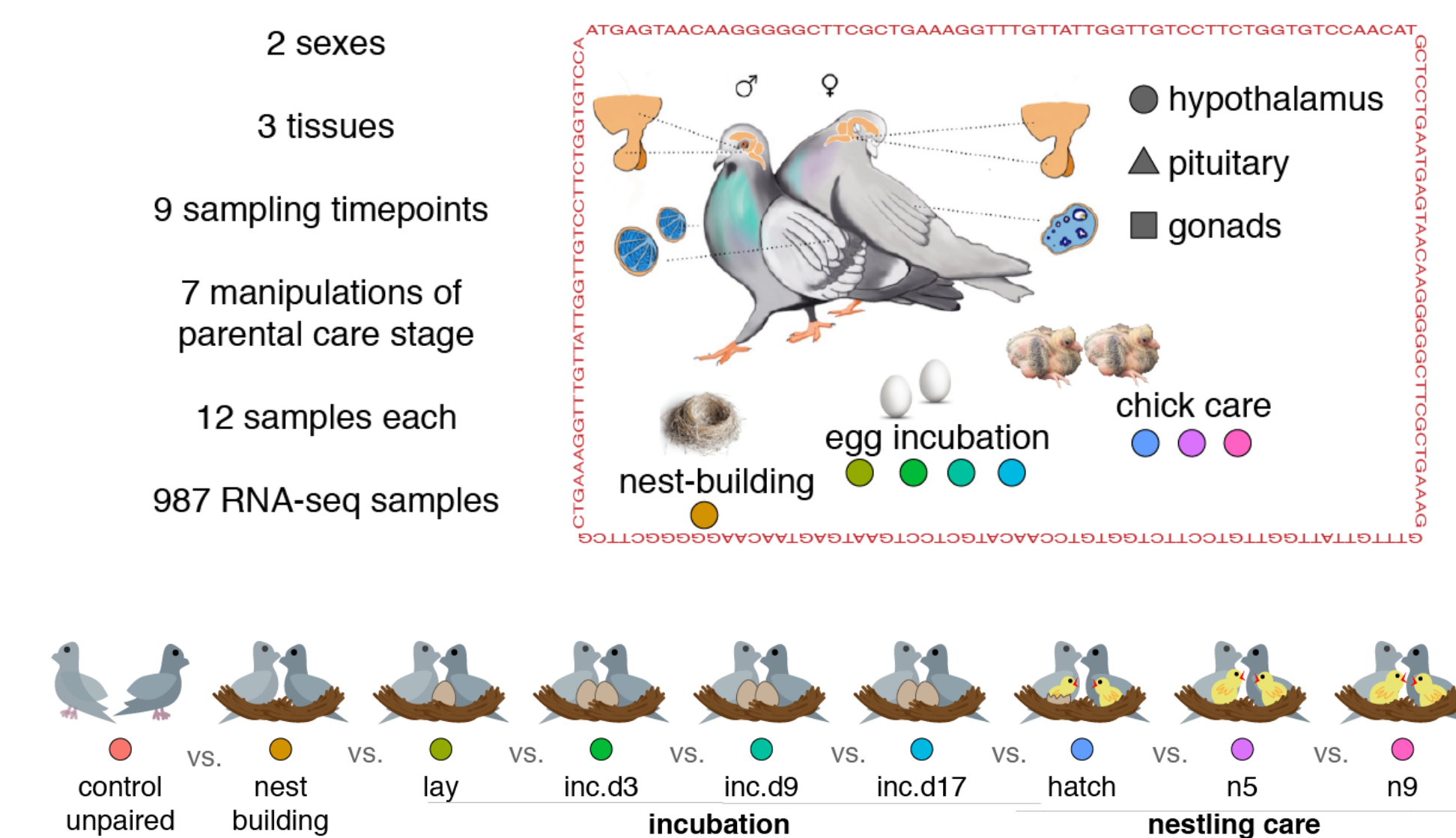
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Research background

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Using a bi-parental pigeon to explore how systems change over the course of parental care



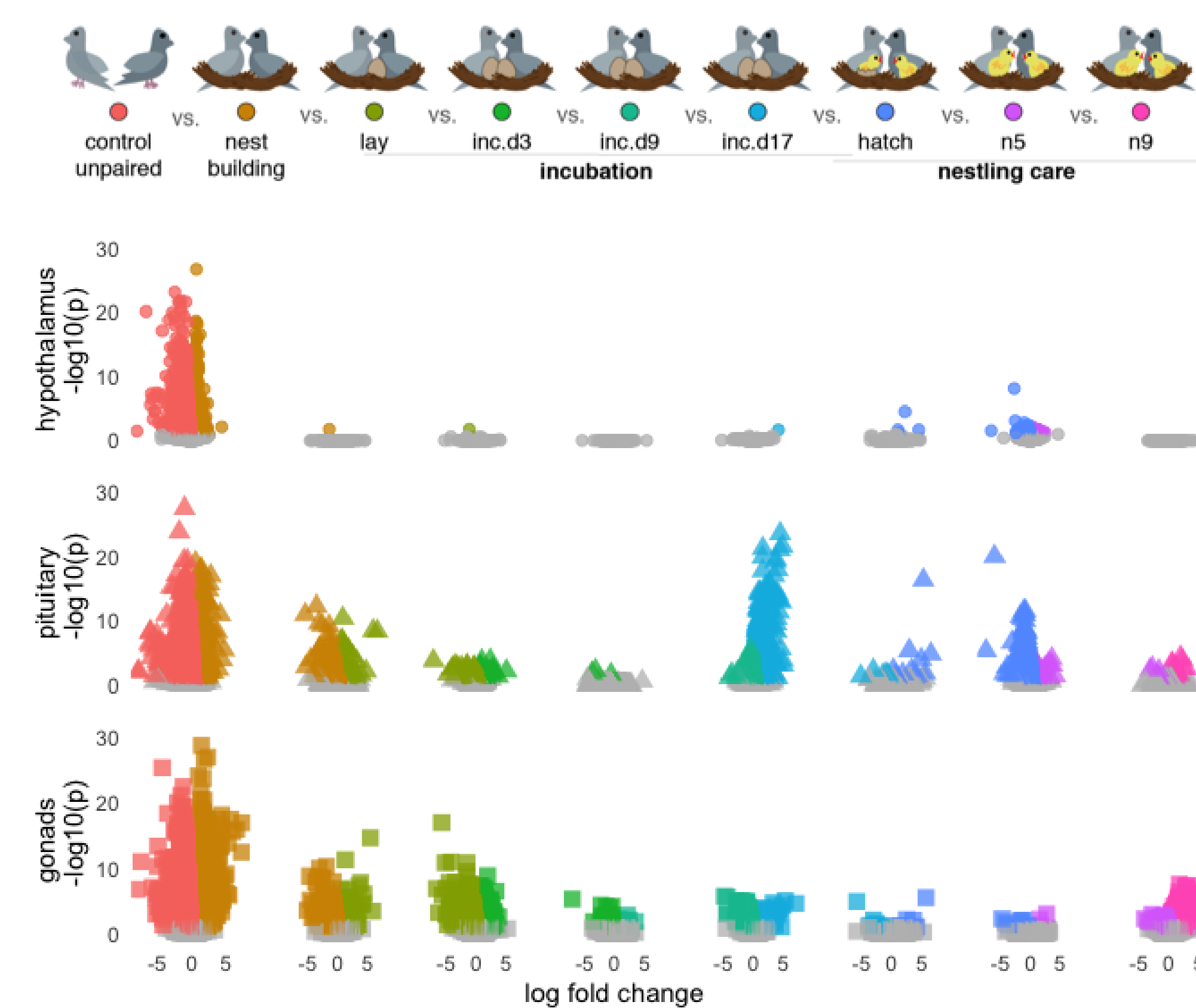
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For more information visit <http://calisilab.ucdavis.edu/>. All the data and analyses are available on GitHub at <https://github.com/macmanes-lab/DoveParentsRNAseq>.



Characterization of parental care gene expression

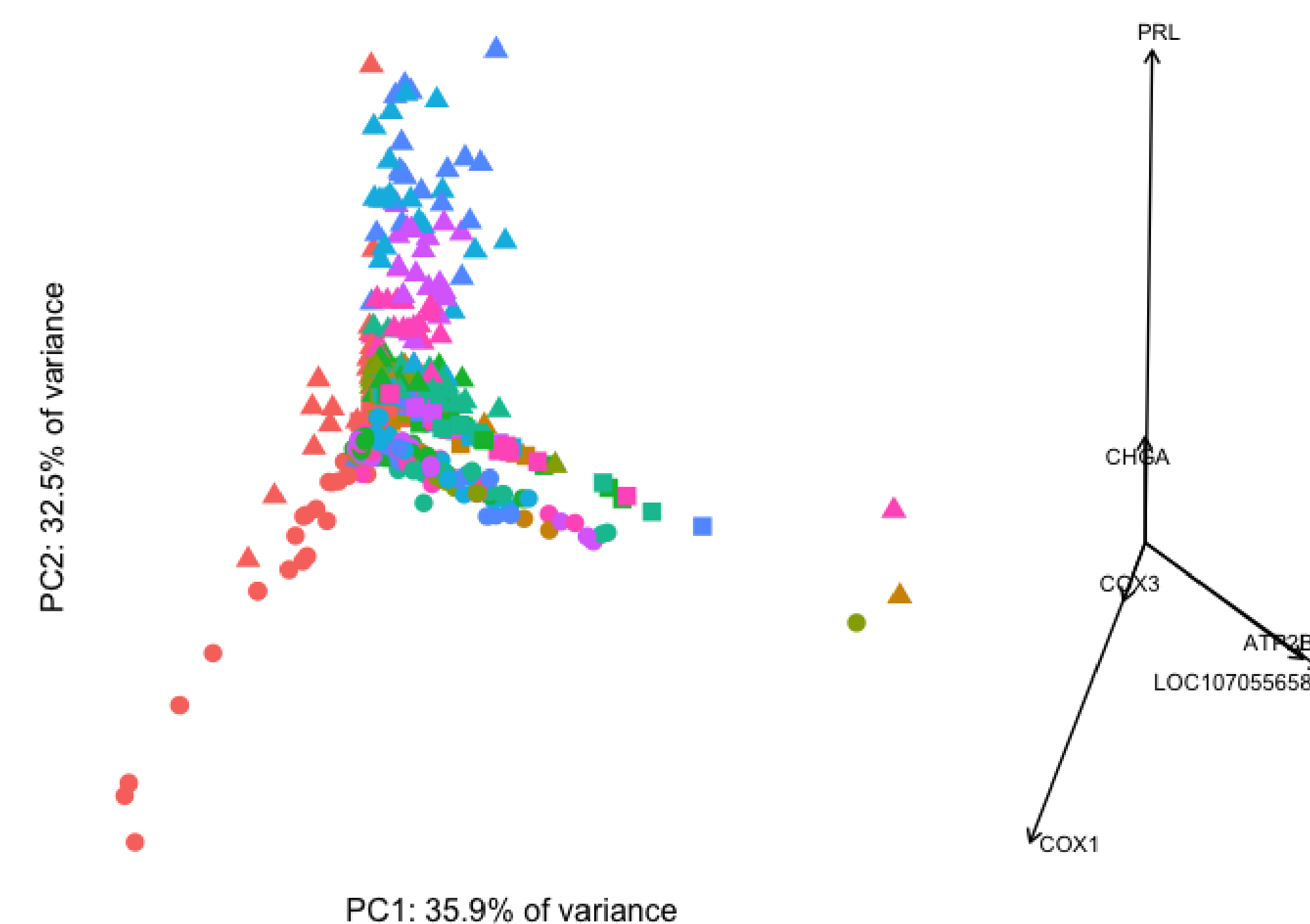
Pair-wise differential gene expression



Noticable large changes in gene expression include:

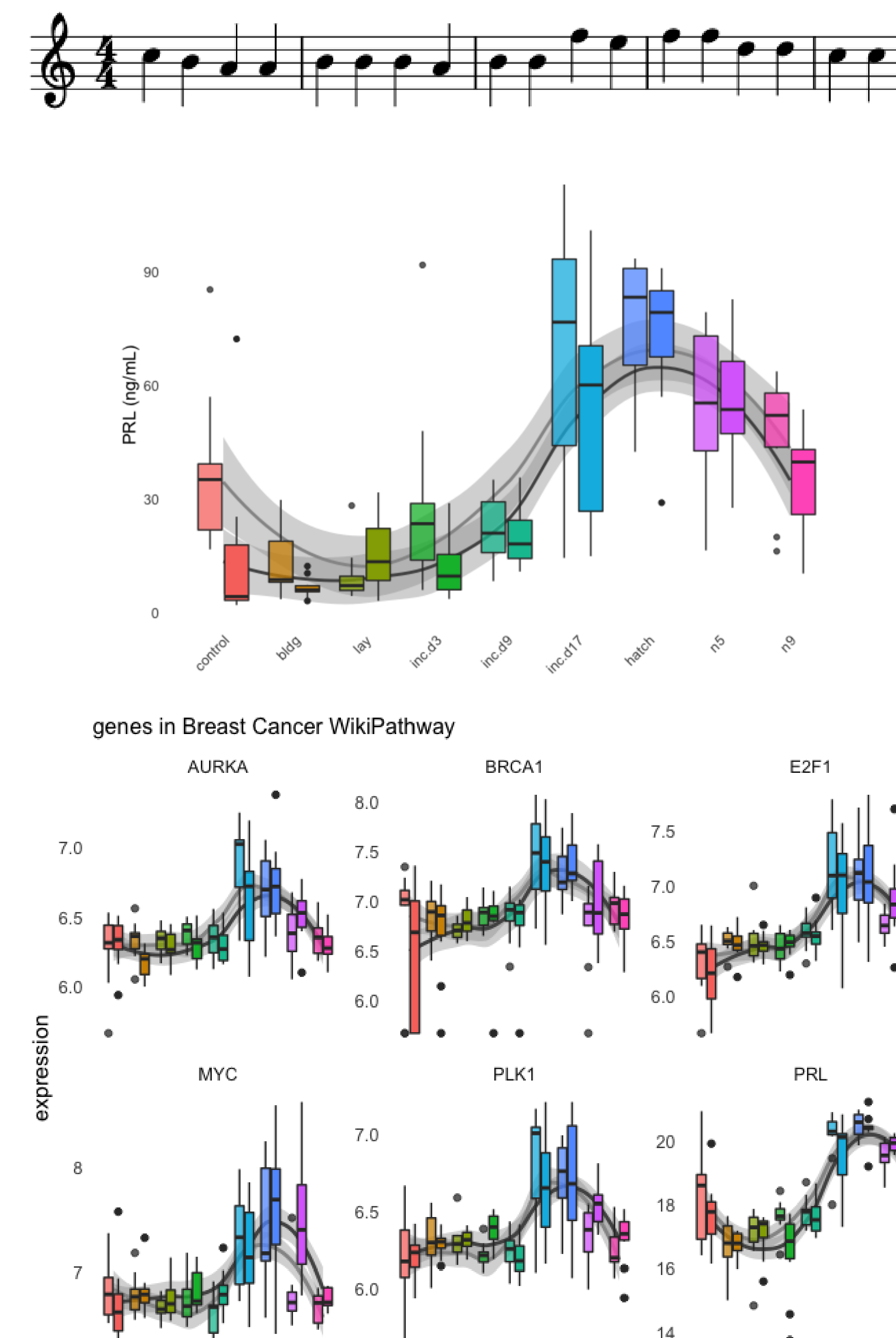
- control to nest-building transition alters expression of 1000s of genes
- incubation day 9 to 17 transition alters expression of 1000s of genes

Prolactin explains much of the variation



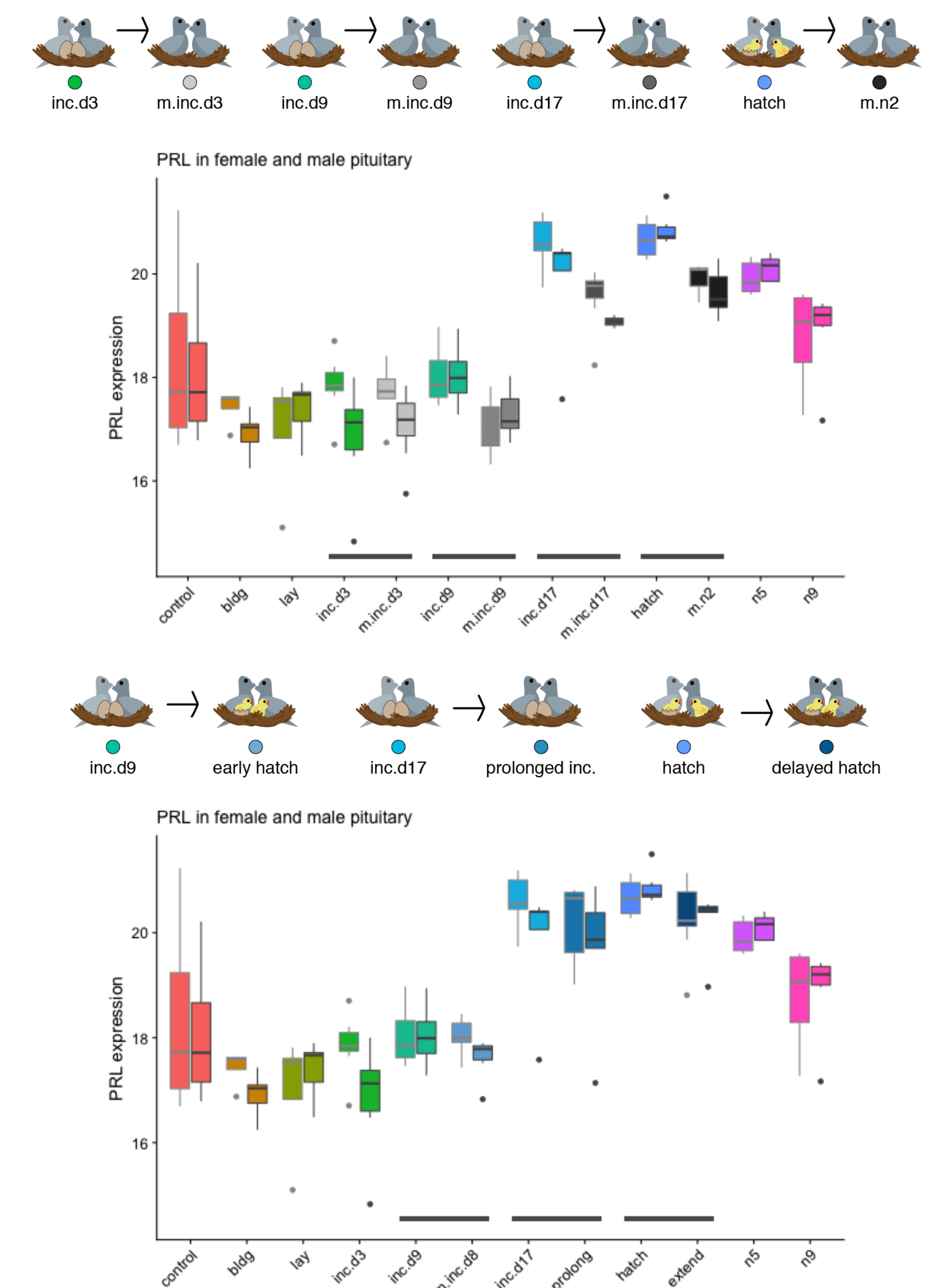
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Genes vary in concert with prolactin



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Manipulation



Next steps

- Create an open source R package.
- Share tutorials for how to use the function.

Acknowledgements

We are grateful to members of laboratories supervised by RMC, MM, C. Titus Brown, John Wingfield, Tom Hahn, and Marilyn Ramenofsky for comments and discussion. We thank over 20 undergraduate researchers who helped care for our bird colony. This work is funded by the National Science Foundation, IOS 1455957, to RMC and MM.

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