

Elevated expression of ageing and immunity genes in queens of the black garden ant.

Eric R. Lucas^{1,2}; Laurent Keller¹

¹ Department of Ecology and Evolution, University of Lausanne, Biophore, 1015 Lausanne, Switzerland. eric.lucas@unil.ch

² Department of Vector Biology, Liverpool School of Tropical Medicine, Pembroke Place, Liverpool, L3 5QA, UK.

Electronic Supplementary Material

Supplementary figures

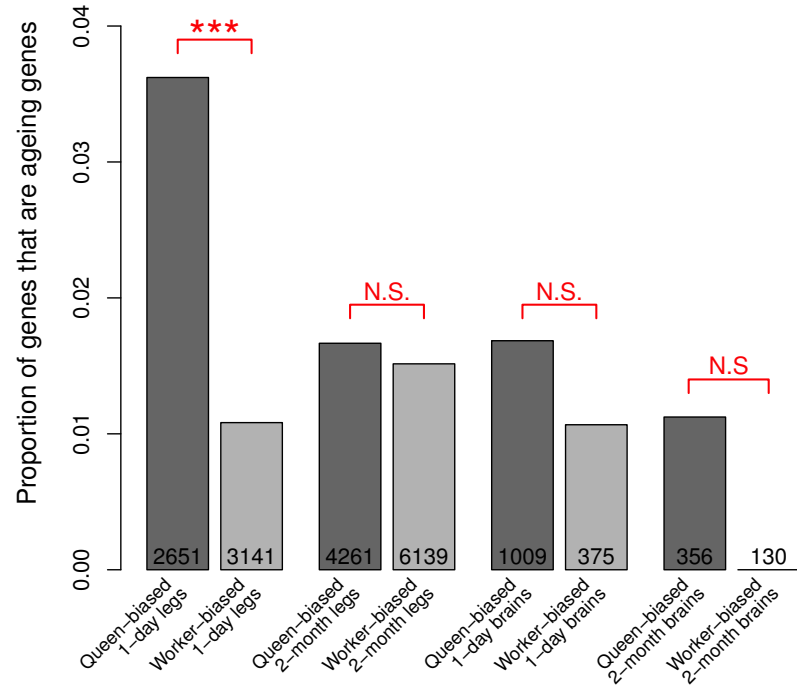


Fig. S1: Proportions of queen-biased (dark grey) and worker-biased (light grey) genes that were ageing genes. Numbers inside the bars represent the sample size for that category (ie: the total number of genes of which this is a proportion). *** : $P < 0.001$; N.S.: $P > 0.05$

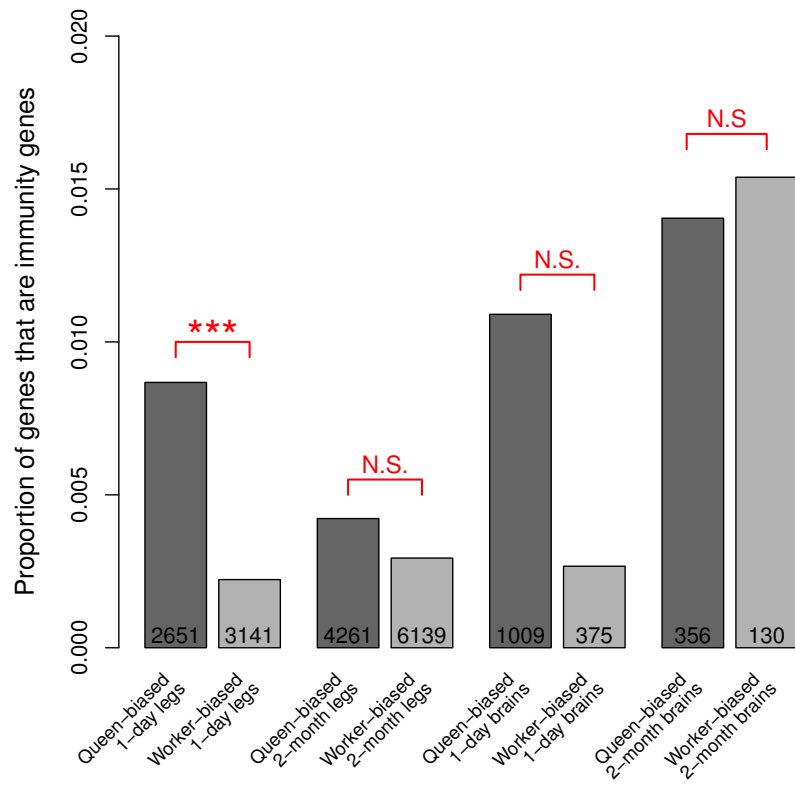


Fig. S2: Proportions of queen-biased (dark grey) and worker-biased (light grey) genes that were immunity genes. Numbers inside the bars represent the sample size for that category (ie: the total number of genes of which this is a proportion). *** : $P < 0.001$; N.S.: $P > 0.05$

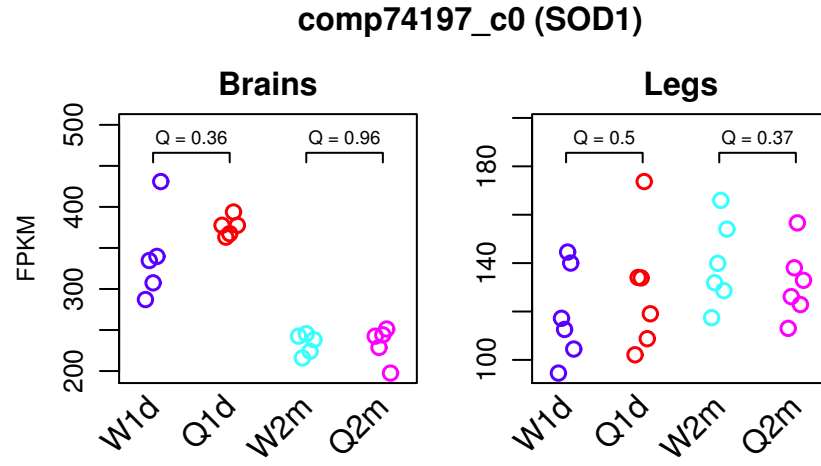


Fig. S3: Expression (Fragments Per Kilo-base per Million reads) of SOD1 was not differentially expressed between queens and workers in any of the four age / tissue combinations. Points are jittered on the x axis to show overlapping data. W1d: 1-day-old workers; Q1d: 1-day-old queens, W2m: 2-month-old workers; Q2m: 2-month-old queens.

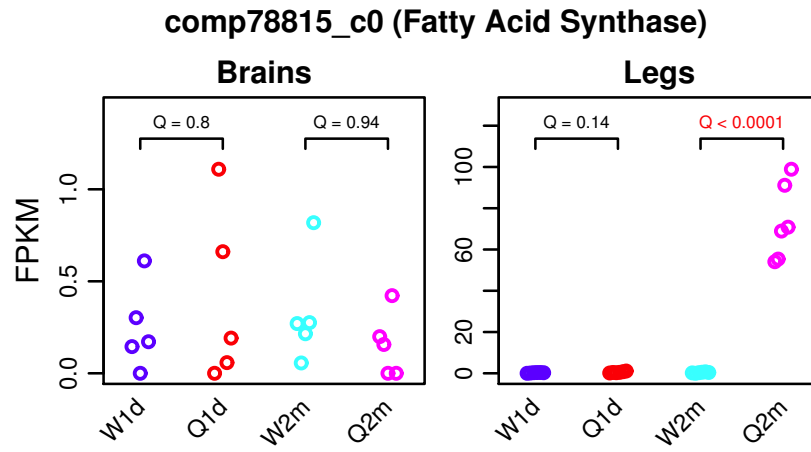


Fig. S4: Expression level (Fragments Per Kilo-base per Million reads) of *L. niger* component comp78815_c0 (Fatty acid synthase). Points are jittered on the x axis to show overlapping data. W1d: 1-day-old workers; Q1d: 1-day-old queens, W2m: 2-month-old workers; Q2m: 2-month-old queens.

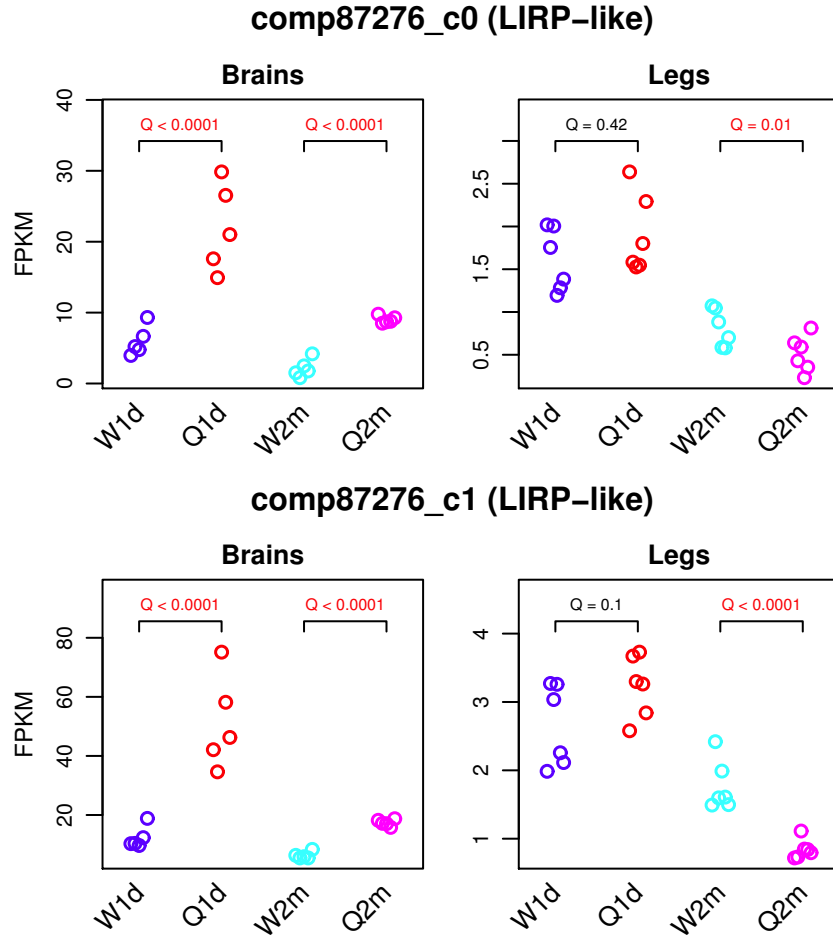


Fig. S5: Expression profiles of two *L. niger* components with similarity to the sequence of “*Pogonomyrmex barbatus* LIRP-like (LOC105432563)” are highly similar to each-other. Points are jittered on the x axis to show overlapping data. W1d: 1-day-old workers; Q1d: 1-day-old queens, W2m: 2-month-old workers; Q2m: 2-month-old queens.