Key information for understanding and reuse of this data:

* Please contact the authors if you would like to reuse this data
* Description of the data for each variable is outlined below. Additional information can be found in the methods notes, and in the supplementary information of the manuscript.
* Cells contain “null” where a parameter (column) was not recorded for a given bird on a given date (row).

|  |  |
| --- | --- |
| variable | description |
| Date | Date of measurement dd/mm/yyyy |
| days | Number of days before (negative) or after (positive) metabolic measurements post implant |
| Group | ID for the cohort – measurement of BMR only possible for maximum of 8 birds each night, so one ‘group’ run each night |
| BirdID | Individual identifier (band number) for each bird |
| Mb | Body mass, in grams |
| lg10Mb | Log10 transformation of body mass |
| Hb | Haemoglobin concentration, measured using a HemoCue. Empty cells indicate this measurement was not collected |
| Inj | Immune treatment – injected with antigens (i) or sham (PBS/adjuvants only (c)) |
| Implant | Testosterone implant treatment – testosterone filled implant (T) or empty implant (C) |
| Sex | Male (M) or female (F), as defined by colouration |
| BMR | Basal metabolic rate (ml O2/min), calculated as the mean of the two lowest 5-minute periods of oxygen uptake recorded over the 12-hour measurement period – see methods statement for more details |
| lg10BMR | Log10 transformation of BMR |
| PMR | Peak metabolic rate (ml O2/min) – see methods statement for details on measurement |
| lg10MMR | Log10 transformation of PMR |
| AAS | Absolute aerobic scope – an individual’s PMR – BMR for any given measurement event |
| lg10AS | Log10 transformation of AAS |
| Stage | Experimental stage – two weeks after acclimation in aviaries but prior to all experimental treatments (Pre), two weeks after implant with T or C implant (Post implant), 12 days after first antigen injection (post Inj 1), 6 days after the second (post Inj 2) and third (post Inj 3) antigen injections. |
| StageNo | Integers for experimental stages, in order |
| SRBC\_l | Lysis score on the Sheep red blood cell lysis and agglutination assay |
| SRBC\_a | Agglutination score on the Sheep red blood cell lysis and agglutination assay |
| KLH | Plasma concentrations of anti-KLH antibodies |
| T\_conc | Plasma testosterone concentration, ng/ml. Missing values = plasma not tested |
| pMb | Proportion of “baseline” (i.e. post implant) body mass |
| pBMR | Proportion of “baseline” (i.e. post implant) BMR |
| pMMR | Proportion of “baseline” (i.e. post implant) PMR |
| pAAS | Proportion of “baseline” (i.e. post implant) AAS |
| chgLys | Change in Lysis score (this measurement – baseline) |
| chgAgg | Change in Agglutination score (this measurement – baseline) |
| chgKLH | Change in KLH concentration (this measurement – baseline) |