Below, the reader is provided with the SPSS code used to calculate the models reported in the published manuscript. Readers are invited to contact the corresponding author for code options in SAS or R. We note that, for purposes of demonstration, very simple models were presented. For most designed studies, more complex models with important optional features will be needed. Researchers are advised to always seek statistical consultation, particularly for the analysis of models with more than two main effects, and/or more than one random effect.

*Prepare data with SORT.*

    SORT CASES by litter id.
    LIST litter id sexr grpr sacwgt.

*Regression model with only fixed effects.*

    MIXED SACWGT by GRPR SEXR
    /fixed grpr sexr grpr*sexr | sstype(3)
    /print = SOLUTION testcov.

*Regression with fixed and random effect (litter), est marginal means.*

    MIXED SACWGT by GRPR SEXR
    /fixed grpr sexr grpr*sexr | sstype(3)
    /random intercept | subject(LITTER)
    /PRINT = solution testcov
    /emmeans = tables (grpr)
    /emmeans = tables (sexr)
    /emmeans = tables (grpr*sexr).

*Regression model with litter only to calculate IntraClass Correlation (ICC) and Design Effect (DE).*

    MIXED SACWGT
    /random intercept | subject (LITTER).