### Females

#### GLM (hSyn-GFP S vs hSyn-CRE S)

| Effect                                | Full Day | Light | Dark |
|---------------------------------------|----------|-------|------|
| **Food Consumed** (kcal/hr)           |          |       |      |
| Mass                                  | 0.0036** | 0.0118* | 0.0117* |
| Group                                 | 0.0200*  | 0.0561 | 0.0501 |
| Interaction                           | 0.0314*  | 0.0556 | 0.0589 |
| **Water Consumed** (ml/hr)            |          |       |      |
| Mass                                  | 0.4387   | 0.2744 | 0.8835 |
| Group                                 | 0.5532   | 0.2986 | 0.1970 |
| Interaction                           | 0.2986   | 0.9581 | 0.9636 |
| **Energy Expenditure** (kcal/hr)      |          |       |      |
| Mass                                  | 0.0048** | 0.5865 | 0.0091** |
| Group                                 | 0.3172   | 0.0578 | 0.9581 |
| Interaction                           | 0.0578   | 0.9581 | 0.9636 |
| **Oxygen Consumption** (ml/hr)        |          |       |      |
| Mass                                  | 0.0072** | 0.6148 | 0.0085** |
| Group                                 | 0.3114   | 0.0620 | 0.9636 |
| Interaction                           | 0.0620   | 0.9636 | 0.9636 |
| **Carbon Dioxide Production** (ml/hr) |          |       |      |
| Mass                                  | 0.2968   | 0.6557 | 0.0255* |
| Group                                 | 0.7126   | 0.4038 | 0.0693 |
| Interaction                           | 0.0693   | 0.9356 | 0.9356 |

#### GLM (hSyn-CRE NS vs hSyn-CRE S)

| Effect                                | Full Day | Light | Dark |
|---------------------------------------|----------|-------|------|
| **Food Consumed** (kcal/hr)           |          |       |      |
| Mass                                  | 0.0036** | 0.1375 | 0.1506 |
| Group                                 | 0.0200*  | 0.0298* | 0.0328* |
| Interaction                           | 0.0314*  | 0.7727 | 0.7962 |
| **Water Consumed** (ml/hr)            |          |       |      |
| Mass                                  | 0.4387   | 0.6368 | 0.8835 |
| Group                                 | 0.5614   | 0.2986 | 0.7920 |
| Interaction                           | 0.2986   | 0.7920 | 0.7920 |
| **Energy Expenditure** (kcal/hr)      |          |       |      |
| Mass                                  | 0.0048** | 0.9644 | 0.0091** |
| Group                                 | 0.6111   | 0.0578 | 0.7185 |
| Interaction                           | 0.0578   | 0.7185 | 0.7185 |
| **Oxygen Consumption** (ml/hr)        |          |       |      |
| Mass                                  | 0.0072** | 0.8920 | 0.0085** |
| Group                                 | 0.5483   | 0.0620 | 0.7887 |
| Interaction                           | 0.0620   | 0.7887 | 0.7887 |
| **Carbon Dioxide Production** (ml/hr) |          |       |      |
| Mass                                  | 0.2968   | 0.0410* | 0.0423* |
| Group                                 | 0.8885   | 0.0693 | 0.4300 |
| Interaction                           | 0.0693   | 0.4300 | 0.4300 |

#### GLM (hSyn-GFP NS vs hSyn-CRE S)

| Effect                                | Full Day | Light | Dark |
|---------------------------------------|----------|-------|------|
| **Food Consumed** (kcal/hr)           |          |       |      |
| Mass                                  | 0.0036** | 0.0048** | 0.0035** |
| Group                                 | 0.0200*  | 0.0199* | 0.0197* |
| Interaction                           | 0.0314*  | 0.0367* | 0.0258* |
| **Water Consumed** (ml/hr)            |          |       |      |
| Mass                                  | 0.4387   | 0.2988 | 0.8835 |
| Group                                 | 0.5962   | 0.2986 | 0.2339 |
| Interaction                           | 0.2986   | 0.2339 | 0.2339 |
| **Energy Expenditure** (kcal/hr)      |          |       |      |
| Mass                                  | 0.0048** | 0.7581 | 0.0091** |
| Group                                 | 0.4196   | 0.0578 | 0.8192 |
| Interaction                           | 0.0578   | 0.8192 | 0.8192 |
| **Oxygen Consumption** (ml/hr)        |          |       |      |
| Mass                                  | 0.0072** | 0.8281 | 0.0085** |
| Group                                 | 0.4445   | 0.0620 | 0.7906 |
| Interaction                           | 0.0620   | 0.7906 | 0.7906 |
| **Carbon Dioxide Production** (ml/hr) |          |       |      |
| Mass                                  | 0.2969   | 0.4193 | 0.3714 |
| Group                                 | 0.3982   | 0.0693 | 0.9969 |
| Interaction                           | 0.0693   | 0.9969 | 0.9969 |

### Females

#### ANOVA

| Effect                                | (hSyn-GFP S vs hSyn-CRE S) | (hSyn-CRE NS vs hSyn-CRE S) | (hSyn-GFP NS vs hSyn-CRE S) | (hSyn-GFP S vs hSyn-CRE S) | (hSyn-CRE NS vs hSyn-CRE S) | (hSyn-GFP NS vs hSyn-CRE S) | (hSyn-CRE NS vs hSyn-CRE S) | (hSyn-GFP NS vs hSyn-CRE S) |
|---------------------------------------|---------------------------|-----------------------------|----------------------------|---------------------------|-----------------------------|---------------------------|-----------------------------|-----------------------------|
| **Pedestrian Locomotion (m)**         | 0.4479                    | 0.1318                      | 0.7027                     | 0.4501                    | 0.1291                      | 0.7971                    | 0.4888                      | 0.1673                      | 0.6401                      |
| **Total Distance in Cage (m)**       | 0.5556                    | 0.2160                      | 0.7991                     | 0.5322                    | 0.2371                      | 0.9261                    | 0.6080                      | 0.2129                      | 0.6984                      |
| **Respiratory Exchange Ratio**        | 0.9555                    | 0.5859                      | 0.5793                     | 0.8351                    | 0.5993                      | 0.5547                    | 0.9100                      | 0.6589                      | 0.7126                      |
| **Locomotor Activity** (beam breaks/hr) | 0.6531                    | 0.5541                      | 0.7130                     | 0.5917                    | 0.7995                      | 0.8429                    | 0.7498                      | 0.4812                      | 0.6713                      |