**ELECTRONIC SUPPLEMENTARY MATERIAL (ESM)**

**ESM Table 1: Offspring energy intake**

|          | Con | Ob | Ob-Met | p-value |
|----------|-----|----|--------|---------|
| **Males (kJ)** |     |    |        |         |
| 785 [746-886] | 839 [801-914] | 849 [741-928] | ns       |
| n=12     | n=9 | n=12 |        |         |
| **Females (kJ)** |     |    |        |         |
| 690 [676-707] | 696 [659-751] | 709 [658-790] | ns       |
| n=12     | n=12 | n=11 |        |         |

Energy intake data was collected between 11 and 11.5 months of age.

**ESM Table 2: Adipose tissue weights**

|          | Con | Ob | Ob-Met | p |
|----------|-----|----|--------|---|
| **Male offspring** |     |    |        |   |
| Absolute weight (mg) |     |    |        |   |
| BW (g) | 37.2 ± 1.0 | 41.8 ± 1.9 | 40.5 ± 2.1 | ns |
| gWAT | 1771 [1206-2170] | 2437** [2255-2920] | 2288 [1569-2307] | <0.01 |
| iWAT | 539 ± 44 | 933 ± 80** | 854 ± 99* | <0.01 |
| rWAT | 409 ± 37 | 410 ± 32 | 379 ± 32 | ns |
| sWAT | 782 ± 111 | 1264 ± 115 | 1239 ± 186 | <0.05 |
| VAT | 2603 ± 242 | 3834 ± 231** | 3237 ± 301 | <0.05 |
| BAT | 111 ± 8 | 158 ± 16 | 157 ± 21 | 0.058 |

**Female offspring**

|          | Con | Ob | Ob-Met | p |
|----------|-----|----|--------|---|
| Absolute weight (mg) |     |    |        |   |
| BW (g) | 29.9 ± 0.9 | 31.0 ± 1.1 | 35.1 ± 1.4**†† <0.001 |
| gWAT | 1203 ± 102 | 1504 ± 135 | 2053 ± 147***†† <0.001 |
| iWAT | 466 ± 42 | 621 ± 51 | 809 ± 73*** <0.001 |
| rWAT | 244 ± 28 | 274 ± 21 | 341 ± 23* <0.05 |
| sWAT | 795 ± 81 | 1083 ± 115 | 1632 ± 182***†† <0.001 |
| VAT | 1913 ± 165 | 2376 ± 208 | 3203 ± 235***†† <0.001 |
| BAT | 74 ± 5 | 80 ± 6 | 114 ± 10**†† <0.001 |

|          | Con | Ob | Ob-Met | p |
|----------|-----|----|--------|---|
| Relative to BW (%) |     |    |        |   |
| gWAT | 4.47 ± 0.33 | 5.95 ± 0.20** | 5.12 ± 0.20* <0.01 | 3.96 ± 0.23 | 4.76 ± 0.29 | 5.78 ± 0.21***†† <0.001 |
| iWAT | 1.46 ± 0.09 | 2.21 ± 0.14** | 2.04 ± 0.16** <0.01 | 1.53 ± 0.10 | 1.98 ± 0.12* | 2.26 ± 0.11*** <0.001 |
| rWAT | 1.09 ± 0.08 | 0.99 ± 0.08 | 0.92 ± 0.05 ns | 0.80 ± 0.07 | 0.86 ± 0.05 | 0.97 ± 0.04 ns |
| sWAT | 2.04 ± 0.25 | 3.00 ± 0.19 | 2.90 ± 0.35 <0.05 | 2.61 ± 0.19 | 3.42 ± 0.26 | 4.53 ± 0.33***‡‡ <0.001 |
| VAT | 7.01 ± 0.52 | 9.15 ± 0.31** | 8.22 ± 0.29 <0.01 | 6.29 ± 0.38 | 7.87 ± 0.33*** | 9.01 ± 0.32* <0.05 |
| BAT | 111 ± 8 | 158 ± 16 | 157 ± 21 <0.05 | 235 | 240 | 300***†† <0.01 |

All data reflects depot weights from 16-hour fasted animals at 12 months of age. 
*p<0.05, **p<0.01, ***p<0.001 vs Con offspring, †p<0.001 vs Ob offspring on one-way ANOVA with Tukey’s multiple comparison test or Kruskal-Wallis test for non-parametric data (absolute male gWAT and relative female BAT weight). Con = offspring of control-fed dams, Ob = offspring of obese dams, Ob-Met = offspring of obese metformin-treated dams. BAT = brown adipose tissue, gWAT = gonadal WAT, iWAT = intraperitoneal WAT, rWAT = retroperitoneal WAT, sWAT = inguinal subcutaneous WAT, VAT = visceral adipose tissue (combined gWAT, rWAT and sWAT), WAT = white adipose tissue (combined VAT + sWAT).
**ESM Table 3: Age-related changes in epididymal adipocyte number**

| Male offspring | x 10^6 cells | Con     | Ob       | Ob-Met   | p-value | Two-way ANOVA |
|----------------|-------------|---------|----------|----------|---------|---------------|
| 8 weeks        |             | 9.1 ± 0.2 | 11.8 ± 0.4*** | 13.3 ± 0.5***↑ | <0.001  | Age Group Interaction |
| 12 months      |             | 13.9 ± 1.2↓ | 18.2 ± 0.8*§§ | 14.9 ± 1.4 | 0.0393  | p<0.001      |

| Female offspring | x 10^6 cells | Con     | Ob       | Ob-Met   | p-value | Two-way ANOVA p-values |
|-----------------|-------------|---------|----------|----------|---------|------------------------|
| 8 weeks         |             | 9.5     | [8.1–10.7] | 10.8     | ns      | p<0.001                |
| 12 months       |             | 11.5 ± 0.4 | 10.9 ± 0.6 | 13.2 ± 0.6↑ | 0.0169  | p=0.0227 Ob vs Ob-Met*** ns |

^8p<0.01, §§p<0.001 for age-related change in cell number. *p<0.05 vs Con, ***p<0.001 vs Con, †p<0.05 vs Ob offspring on one-way (left columns) or two-way ANOVA (right columns). Data from 8-week-old mice was previously published by Schoonejans et al. 2021 [10].
ESM Figure 1: Hepatic collagen content in male (a) and female (b) 12-month-old offspring assessed by picrosirius red staining.

No significant differences were found. Pie charts refer to outcomes of pathological scoring for hepatic fibrosis: white = absent, blue = mild, light red = moderate. An outlier was excluded from (a) male Con (Grubb’s method, outlier excluded value 2.30%). Con (white bars, circles) = offspring of control-fed dams, Ob (pink bars, squares) = offspring of obese dams, Ob-Met (blue bars, triangles) = offspring of obese metformin-treated dams. Closed symbols denote male offspring, open symbols denote female offspring. Scale bar = 100µm.