Table S2. Donor engraftment (mean ± standard deviation) among conventionally housed mice, as determined by SourceTracker. Values sharing the same letter did not differ significantly by Tukey’s *post-hoc* test ($P > 0.05$), where A had the highest engraftment and J the lowest. The final row shows all samples at all time points pooled by donor.

| Sex  | Time (days) | Obese | Lean |
|------|-------------|-------|------|
|      |             | Ob1   | Ob2  | Ob3  | Ln1   | Ln2   | Ln3   |
| Male | 3           | 80.4 ± 4.5<sup>ABC</sup> | 26.5 ± 6.0<sup>F-J</sup> | 80.3 ± 36.1<sup>ABC</sup> | 47.7 ± 2.4<sup>C-H</sup> | 53.2 ± 1.7<sup>C-G</sup> | 50.4 ± 39.9<sup>C-G</sup> |
|      | 7           | 46.1 ± 9.7<sup>C-H</sup> | NC   | NC   | 68.4 ± 4.0<sup>A-E</sup> | NC   | 41.0 ± 2.9<sup>D-I</sup> | 34.9 ± 31.7<sup>E-J</sup> |
|      | 16          | 37.4 ± 11.1<sup>E-I</sup> | 0.0 ± 0.0<sup>I</sup> | 13.0 ± 7.0<sup>HJ</sup> | 37.3 ± 1.5<sup>E-I</sup> | 42.1 ± 7.7<sup>D-I</sup> | 23.6 ± 14.4<sup>E-J</sup> |
|      | 27-32       | 21.1 ± 3.1<sup>G-J</sup> | 0.0 ± 0.0<sup>I</sup> | 45.4 ± 3.3<sup>C-H</sup> | 14.2 ± 1.6<sup>HJ</sup> | 35.9 ± 3.5<sup>E-H</sup> | 39.5 ± 2.7<sup>E-I</sup> |
| Female | 3          | 46.4 ± 7.4<sup>C-H</sup> | 7.9 ± 5.9<sup>J</sup> | 95.3 ± 1.2<sup>A</sup> | 40.3 ± 6.0<sup>E-I</sup> | 42.5 ± 5.1<sup>D-I</sup> | 92.3 ± 0.8<sup>AB</sup> |
|      | 7           | 58.6 ± 8.5<sup>B-F</sup> | 0.0 ± 0.0<sup>I</sup> | 75.5 ± 9.8<sup>A-D</sup> | 62.6 ± 6.0<sup>A-E</sup> | 43.6 ± 4.1<sup>D-H</sup> | 53.3 ± 6.8<sup>C-G</sup> |
|      | 16          | 52.2 ± 3.1<sup>C-G</sup> | NC   | NC   | 53.2 ± 14.1<sup>C-G</sup> | NC   | NC   | NC   |
|      | 27-32       | 21.1 ± 3.1<sup>G-J</sup> | 0.0 ± 0.0<sup>I</sup> | 45.4 ± 3.3<sup>C-H</sup> | 14.2 ± 1.6<sup>HJ</sup> | 35.9 ± 3.5<sup>E-H</sup> | 39.5 ± 2.7<sup>E-I</sup> |

All pooled by donor

A B A A A A

NC: sample not collected