**Supplementary Table 1. Detailed cohort information.** General information about the five original cohorts used for selection of pregnant women to the present study.

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| --- | --- | --- | --- | --- | --- |
|  | NormalFlow(1,2) | ETIP(3,4) | TRIP(5,6) | Preeclampsia Study(7) | Postterm study(8,9) |
| Participants | *n* = 124 | *n* = 91 | *n* = 855 | *n* = 189 | *n* = 508 |
| Study group | Term | Term | Term | Term | Late term |
| Inclusion criteria | (1) Healthy woman, first-trimester pregnancy (2) Viable, singleton fetus(3) 18-38 years | (1) Pre-pregnancy BMI ≥ 28 kg/m2(2) Age ≥ 18 years(3) Live singleton fetus at 11-14 weeks(4) Gestational age < 18 weeks(5) Proximity to St. Olavs hospital | (1) Age ≥ 18 years(2) Live singleton fetus(3) Proximity to St. Olavs hospital or Stavanger University Hospital | (1) Diagnosed preeclampsia and/or FGR; or(2) Normal pregnancies with no history of preeclampsia or FGR(3) Cesarian section (4) Singleton fetus | (1) Live singleton fetus(2) Speaking fluent Norwegian(3) Routine ultrasound scan and delivery at St. Olavs hospital(4) Cephalic presentation(5) Gestational age 289 ± 2 days |
| Exclusion criteria | (1) Somatic/mental disease(2) Complications in earlier pregnancies(3) Multiple pregnancy(4) non-Norwegian speaker, long distance to study center(5) Missed abortions, severe congenital anomalies | (1) High risk forpreterm labor(2) Diseases that could interfere with participation(3) Habitual exercise training(twice or more weekly) in the period before inclusion | (1) High‐risk pregnancies(2) Diseases that could interfere with participation | (1) Diabetes Mellitus, GDM, gestational hypertension(2) Trisomy, twin pregnancy | (1) Prelabor rupture of membranes |
| Sampling times | (1) About week 10(2) About week 12(3) About week 19(4) About week 24 | (1) Week 12–18(2) Week 34–37(3) Postpartum | (1) Week 18–22(2) Week 32–36(3) Postpartum | Prior to delivery week 23-42; and GA-matched samples from normal pregnancies at week 25-42 | Week 41+2 |
| Sampling details | Not fastingCollected June 2008-May 2010 | Fasting ≥ 10 hour overnightCollected September 2010-March 2015 | FastingCollected April 2007-March 2010 | Not fastingCollected 2002-2014 | FastingCollected September 2002-July 2004 |
| Approvals | REK No. 4.2008.841 | REK No. 2010/1522 and ClinicalTrials.gov (NCT01243554) | REK No. 4.2007.81 and ClinicalTrial.gov (NCT00476567) | REK No. 2012/1040REK No. 2009/03 | REK No. 106-01 and ClinicalTrial.gov (NCT00385229) |

Abbreviations: FGR, Fetal growth restriction. GDM, Gestational Diabetes Mellitus. GA, gestational age. REK, Regional Committee for Medical and Health Research Ethics. ETIP, Exercise Training in Pregnancy for obese women. TRIP, Training in pregnancy.

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