**Table S1:** RNA expression database for mouse and human placenta.

|  |  |  |  |
| --- | --- | --- | --- |
| Species | GEO Accession | Assays included | **Reference** |
|  | **GSE79121:** |  | Armstrong et al. 2017 |
| Mouse | GSM2086260 | N=1 Pooled litters (d20) |  |
|  | **GSE11224:** |  | Knox et al 2008) |
|  | GSM282796(S1-rep1) | N=4 (E15.0, Decidua, 2 series) |  |
|  | GSM282797(S1-rep2) |  |  |
|  | GSM282845(S2-rep1) |  |  |
|  | GSM282846(S2-rep2) |  |  |
|  | **GSE11224:** |  | Knox et al 2008 |
|  | GSM28776(S1-rep1) | N=6 (E15.0, Placenta, 2 series) |  |
|  | GDM28777(S1-rep2) |  |  |
|  | GSM28778(S1-rep3) |  |  |
|  | GSM282825(S2-rep1) |  |  |
|  | GSM282826(S2-rep2) |  |  |
|  | GSM282827(S2-rep3) |  |  |
|  |  |  |  |
| Human | **GSE9984:** |  | (Mikheev et al. 2008) |
|  | GSM252353--GSM252356 | N=4 second trimester |  |
|  |  |  |  |
|  | **GSE28551:** |  | Sitras et al. 2012 |
|  | GSM707051--GSM707069 | N=16 first trimester |  |
|  |  |  |  |
|  | **GSE10588:** |  | Leavey et al 2015 |
|  | GSM225470--GSM225481 | N1=26 replicates, normal labor. |  |
|  | GSM225483--GSM225497 | N1=37 replicates |  |
|  | **GSE25906:** |  |  |
|  | GSM635923—GSM635963 | N=4 |  |
|  | **GSE4707:** |  |  |
|  | GSM106249, GSM106250 |  |  |
|  | GSM106274, GSM106275 | N=6 |  |
|  | **GSE30186:** |  |  |
|  | GSM747304—GSM747309 |  |  |
|  | **GSE24129:** | N=8 |  |
|  | GSM594041—GSM594048 |  |  |
|  | **GSE44711:** | N=8 |  |
|  | GSM1089237—GSM1089244 |  |  |

**Table S7: Pregnancy complication database:**

|  |  |  |  |
| --- | --- | --- | --- |
| Complications | GEO Accession | Assays included | Reference |
| PE | **GSE93839:** |  | Gormley et al 2017 |
|  | GSM2463682—GSM2463685 | N=4 (Severe PE syncytium) |  |
|  | GSM2463686--GSM2463688 | N=3 (invasive cytotrophoblasts) |  |
|  | GSM2463689--GSM2463692 | N=4 (endovascular cytotrophoblasts) |  |
|  | **GSE10588:** |  | Sitras et al 2009 |
|  | GSM225481, GSM225498--GSM225513 | N=17 (severe preeclampsia) |  |
|  | **GSE24129:** |  | Nishizawa et al 2011 |
|  | GSM594057-GSM594064 | N=8 (severe preeclampsia) |  |
|  | **GSE44711:** |  | Blair et al. 2013 |
|  | (GSM1089229—GSM1089236) | N=8 (Chorionic Villi, Early-Onset Preeclampsia) |  |
|  | **GSE47187:** |  | Song et al 2013 |
|  | GSM1146434--GSM1146438 | N=5 (PE, micoarray) |  |
|  | **GSE30186:** |  | Meng et al 2012 |
|  | GSM747298--GSM747303 | N=6 |  |
|  | **GSE25906:** |  | Tsai et al 2010 |
|  | GSM635904--GSM635926 | N=23 (microarray) |  |
|  | **GSE4707:** |  | Nishizawa et al 2007 |
|  | GSM106276-GSM106280 | N=5, early onset PE |  |
|  | GSM106281-GSM106285 | N=5, late onset PE |  |
|  | **GSE35574:** |  | Tsai et al 2013 |
|  | GSM871047,49,50,70,76,80,81,91,94,96,100,  107,112,117,122,126,128,131,137 | N=19 (microarray) |  |
|  | Supplementary Data S1 | Top 200 | Sober et al. 2015 |
|  |  |  |  |
| GDM |  |  |  |
|  | Supplementary Data S1 | Top 200 | Sober et al. 2015 |
|  | Supplementary Table S1 |  | Bari et al 2016 |
|  | Table 2, 3, 4, 6 |  | Enquobahrie et al 2009 |
|  | **GSE2956** (GSM6154) | N=1 | Radaelli et al 2003 |
|  |  |  |  |
| SGA | **GSE35574:** |  |  |
|  | GSM871046,48,53,55,57,61,62,63,65,69,72,73,  78,79,82,84,85,87,88,92,95,98,103,  105,106,109,110,113,120,121,124,129,132,135,13 | N=39 | Tsai et al 2013 |
|  | Supplementary Data S1 | Top 200 | Sober et al. 2015 |
|  |  |  |  |
| LGA | Supplementary Data S1 | Top 200 | Sober et al. 2015 |
|  |  |  |  |
| IUGR | **GSE22490:** |  |  |
|  | GSM558670-GSM558673 | N=4 (6 week, 2 replicates,  8 week, 14.6 wk) | Rull et al, 2013 |
|  | Supplementary Table S1, S2, S3 |  | Pan et al, 2018 |