COBRA analyses. (a) DNA methylation levels at 11 imprinted DMRs in ROSI- and ICSI-derived newborn mice determined by COBRA. The 11 DMRs included three paternally methylated DMRs (H19, Igf2r, Rasgrf1) and eight maternally methylated DMRs (Igfr2r, Lit1, Meg1, Peg1, Peg3, Peg10, Peg13, Snrpn). (b) Images of restriction enzyme-digested bisulfite PCR products electrophoresed using the MCE-202 MultiNA Microchip Electrophoresis System. Results for H19-DMR and IG-DMR are shown as examples. DNA bands corresponding to uncut and cut fragments after restriction enzyme digestion are indicated by closed and open rectangles, respectively. Samples were obtained from ROSI-derived (R2-R4) and ICSI-derived (I1-I4) offspring. The lower (LM) and upper (UM) markers are internal size markers.

Supplementary Figure 1
<table>
<thead>
<tr>
<th>Locus</th>
<th>Amplicon region (mmB)</th>
<th>Primer sequences</th>
<th>Annealing temp (°C)</th>
<th>Restriction enzyme</th>
<th>Fragment size (bp)</th>
</tr>
</thead>
</table>
| Igf2r-DMR    | chr17:12585495-12585984 | F: 5'-GAGGTTAAGGTGAAAAATGTAT-3'  
R: 5'-CAGTTTTTTAAGTTTACTCTG-3'  | 55                   | HpyCH4IV          | 490/417/27         |
| Lit1-DMR     | chr7:14310456-14310488 | F: 5'-TAAGGTGAGTGTTAGGAT-3'  
R: 5'-CCACTATAAACACACACACTAA-T3' | 57                   | BstUI             | 337/211/126        |
| Meg1-DMR     | chr11:11926689-11927075 | F: 5'-GAATTTTTTTTGTAGTTGTTTTT-3'  
R: 5'-AAATATAATTCCACACACATCTCTAA-T3' | 58                   | BstUI             | 387/289/98         |
| Peg1-DMR     | chr6:30686710-30687273 | F: 5'-GGTGGAGATAGGTTTGTATAG-3'  
R: 5'-ATACCCCTTTAAATTATTCTCC-3' | 55                   | HpyCH4IV          | 564/365/199        |
| Peg3-DMR     | chr7:6333226-6333670  | F: 5'-GGTGAGAAGTTGTAGTTGTTATAG-3'  
R: 5'-AAACCAAAATACACACCAATCC-3' | 57                   | TaqI              | 445/183/165/97     |
| Peg10-DMR    | chr6:469822-4698664   | F: 5'-TGAAAGTGGTAGAGTAAATATAAAA-3'  
R: 5'-ACAACACTTTAATACACACCATCC-3' | 57                   | HpyCH4IV          | 443/156/147/128    |
| Peg13-DMR    | chr15:72637492-72637666 | F: 5'-TTTATTGAGTTGTTAGGAGTTAT-3'  
R: 5'-TAAACCCAAATACACACCAATCC-3' | 55                   | BstUI             | 175/126/49         |
| Snrpn-DMR    | chr7:59883493-59883465 | F: 5'-ATTGTTGAGTTGTTATATGTTG-3'  
R: 5'-ATAAAATACACTCCACTTTAATCC-3' | 56                   | BstUI             | 423/272/151        |
| H19-DMR      | chr7:14238855-142388770 | F: 5'-GGTTAGTTTAAATGTATGATAT-3'  
R: 5'-CCTTTTCTAAACTCTAACTTTTTTAAA-3' | 54                   | MboI              | 214/157/57         |
| Ig-DMR       | chr2:109975247-109975514 | F: 5'-TATATATATGTATTGTAATATATAGTTAG-3'  
R: 5'-CACTTTTCTACTATACACACACACTTOC-3' | 54                   | BstUI             | 268/213/55         |
| Rasgrf1-DMR  | chr9:89773458-89773616 | F: 5'-AGTTGGGGAGGTTGTTATATTAGAGA-3'  
R: 5'-AAACCAAAATATACACTTTCAACCTC-3' | 58                   | HpyCH4IV          | 159/86/73          |

Supplementary Table 1