SUPPLEMENTARY MATERIAL

corresponding to:

Large-scale production of growing oocytes in vitro from neonatal mouse ovaries

ARATA HONDA, MICHIKO HIROSE, KIMIKO INOUE, HITOSHI HIURA, HIROMI MIKI, NARUMI OGONUKI, MICHIIHIKO SUGIMOTO, KUNIYA ABE, MITO KANATSU-SHINOHARA, TOMOHIRO KONO, TAKASHI SHINOHARA and ATSUO OGURA
Supplementary Fig. 1. Formation of tetrad chromosomes within MII ooplasm. In vitro-growing oocytes were fused with MII ooplasm using inactivated Sendai virus (Obata and Kono, 2002) and their chromosomal integrity was observed. The donor chromosomes condensed within one hour and showed a typical tetrad composition with some undergoing chromosomal crossover (arrows).

Supplementary Fig. 2. The methylation status of the differentially methylated regions of three imprinted genes, Igf2r, Zac1, and H19, in oocytes growing in vivo in juvenile mice. Oocytes were collected from juvenile B6D2F1 ([C57BL/6 X DBA/2]F1) mice and analyzed. The methylation patterns of the two maternally imprinted genes, Igf2r and Zac1, suggest that genomic imprinting was established in an oocyte-size-dependent manner. The paternally imprinted gene, H19, remained unmethylated, irrespective of the size of the oocyte. Because there are DNA polymorphisms between the C57BL/6 and DBA/2 mouse strains in the methylation region analyzed in Zac1, the maternal allele sequences and paternal allele sequences are indicated by red and blue lines, respectively.