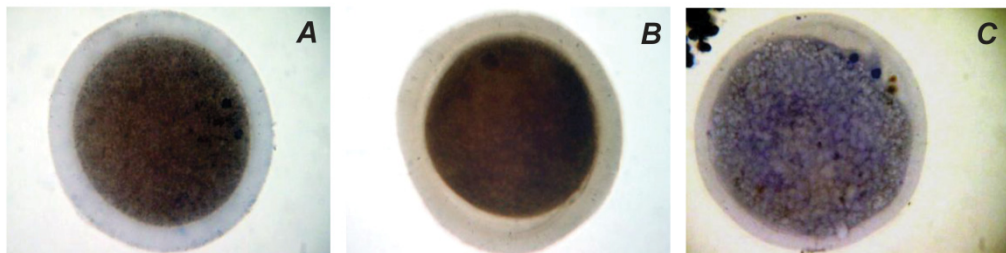
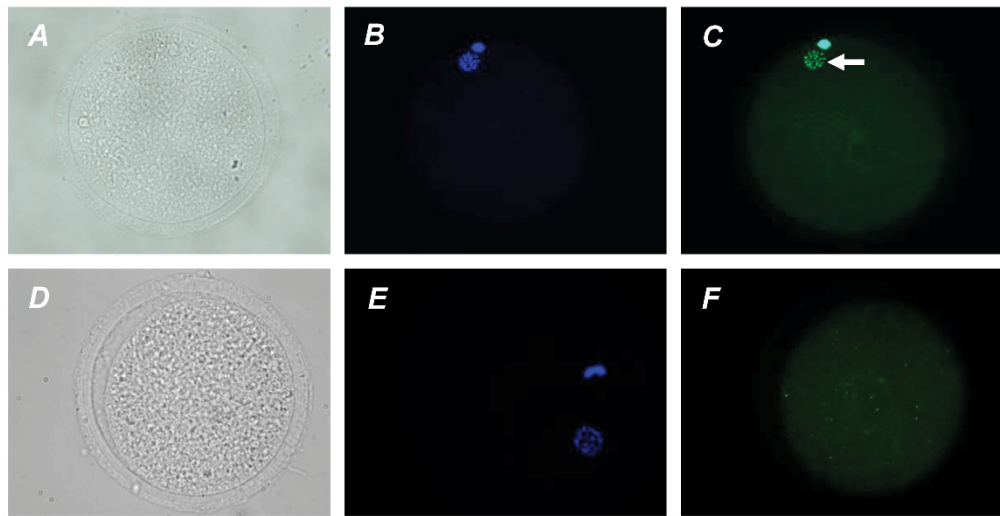


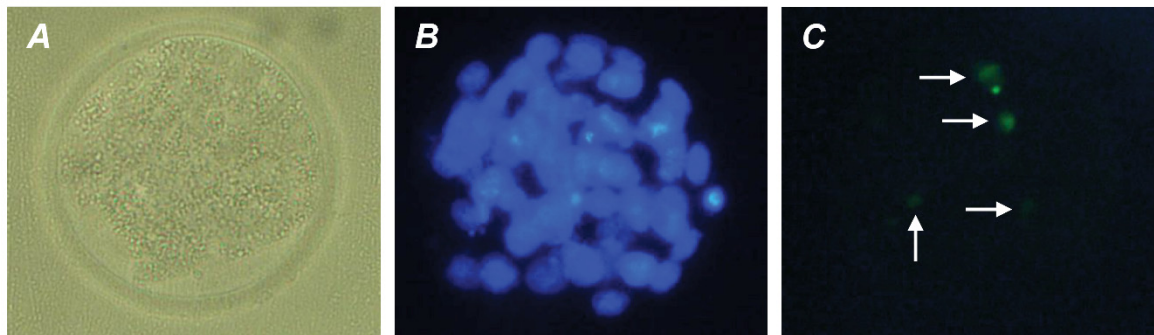
**Figure S1.** Morphology of the nuclear material at various stages of spontaneous parthenogenetic activation of aged bovine oocytes (cytogenetic preparations): (A) anaphase-II, (B) telophase-II, (C) pronucleus stage, (D) two-cell embryo. Original magnification:  $\times 1000$ .



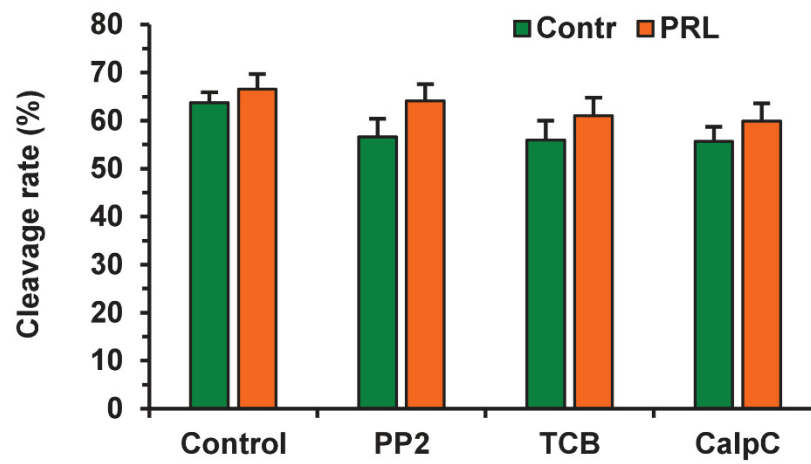
**Figure S2.** Immunocytochemical detection of PRL and GH receptors in M-II oocytes using a brown DAB-chromophore. (A) Positive staining for PRL receptors with MA1-610 antibody. (B) Positive staining for GH receptors with MAB 263 antibody. (C) Negative control performed by omitting primary antibodies. Nuclei were counterstained with hematoxylin. Original magnification:  $\times 400$ .



**Figure S3.** Representative images of apoptosis detection in matured bovine oocytes by TUNEL assay. (A, D) Bright-field images. (B, E) DNA staining with DAPI (blue). (C) TUNEL-positive staining (green) of chromosomes is indicated by a white arrow. (F) TUNEL-negative staining. Original magnification:  $\times 400$ .



**Figure S4.** Representative images illustrating detection of apoptosis in bovine day 7 embryos. (A) bright-field images. (B) DAPI staining of nuclei (blue). (C) TUNEL staining of nuclei (green). TUNEL-positive nuclei are indicated by white arrows. Original magnification:  $\times 200$ .



**Figure S5.** Effects of PRL (50 ng/ml) during the 12 h aging of bovine CEOs in the presence or absence of PP2 (10  $\mu$ M), triciribine (50  $\mu$ M), and calphostin C (0.5  $\mu$ M) on subsequent embryo cleavage. Data represent means  $\pm$  SEM of 6-7 replicates using 177–212 oocytes per treatment. Means with different letters differ significantly (at least  $p < 0.05$ ).