Supplementary Figure S1. The small RNA signatures of young and aged oocytes. Following filtering and normalisation, sncRNA reads were mapped to known and miRNA, endo-siRNA, piRNA, rRNA, snoRNA, snRNA, and tRNA fragments from RNAcentral. Pie chart was generated to illustrate the number of total sequences aligning to each small RNA category.
Supplementary Figure S2 (Part 1). mRNA sequence alignment of Kifc1 and Kifc5b. Location of siRNA targeting sites, 5’ and 3’ untranslated regions are as marked.
Supplementary Figure S2 (Part 2). mRNA sequence alignment of Kifc1 and Kicf5b. Location of siRNA targeting sites, 5’ and 3’ untranslated regions are as marked.
Supplementary Figure S2 (Part 3). mRNA sequence alignment of Kifc1 and Kicf5b. Location of siRNA targeting sites, 5' and 3' untranslated regions are as marked.
**Supplementary Figure S3.** Protein sequence alignment of Kifc1 and Kifc5b.
Supplementary Figure S4. Antibody specificity. Primary antibodies were substituted with the appropriate concentration of either anti-rabbit (red) or anti-mouse (green) IgG in negative control groups for immunocytochemistry. Oocytes were counterstained with the nuclear stain Hoechst 33342 (blue) and viewed using confocal microscopy. Scale bar = 20 μm.
Supplementary Figure S5. Anti-HSET immunoblot in young and aged oocytes. Immunoblotting with anti-HSET antibodies revealed a predominant band at the appropriate molecular weight of approximately 74 kDa in cell lysates prepared from isolated GV, MI and MII stage oocytes of young (Y) and aged (A) animals. Densitometric analysis of the labeling intensity of the HSET band relative to that of the GAPDH loading control, revealed an age-dependent decrease in the relative abundance of HSET in lysates of aged GV, MI and, to a lesser extent, MII stage oocytes. This experiment was repeated once with each lane being loaded with total protein lysates prepared from the equivalent of 100 oocytes (i.e. ~ 2 µg protein / lane).