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Supplementary Material

Glutamine protects rabbit spermatozoa against oxidative stress via glutathione synthesis during cryopreservation

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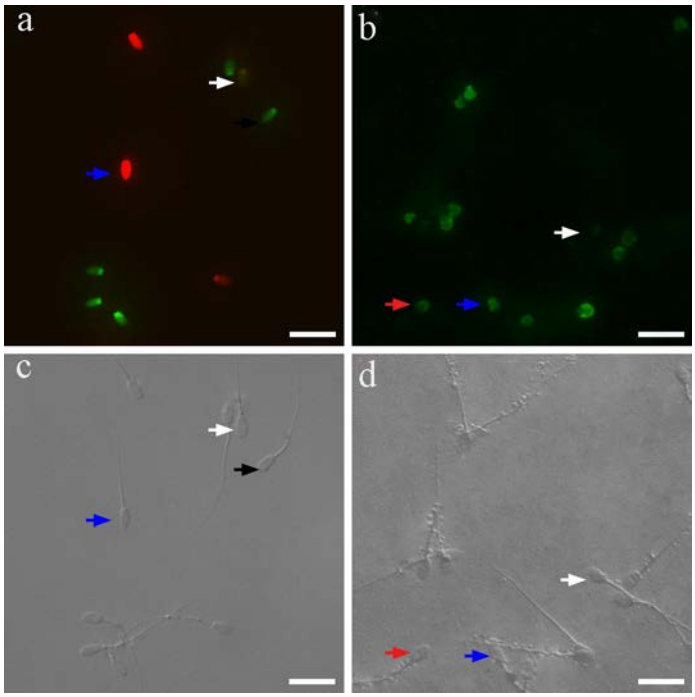

Fig. S1. Photomicrographs of the post-thaw rabbit spermatozoa. Images (c, d) obtained under phase contrast microscope. Images (a) and (c) were from the same field, black arrows indicates membrane integrity; blue arrows indicates membrane damaged, white arrows indicates membrane damaged slightly. Images (b) and (d) were from the same field. Red arrow indicates intact acrosomes, spermatozoa with intensively bright fluorescence of the acrosomal cap which were indicated by an intact outer acrosomal membrane; white arrow indicates damaged acrosome, spermatozoa with no fluorescence which were indicated by a complete loss of the outer acrosomal membrane and was determined under a phase contrast illumination system; blue arrows indicates partially damaged acrosome, spermatozoa with disrupted fluorescence of the acrosomal cap which were indicated by partial disruption of the acrosomal membrane. Bars = 30 μm.

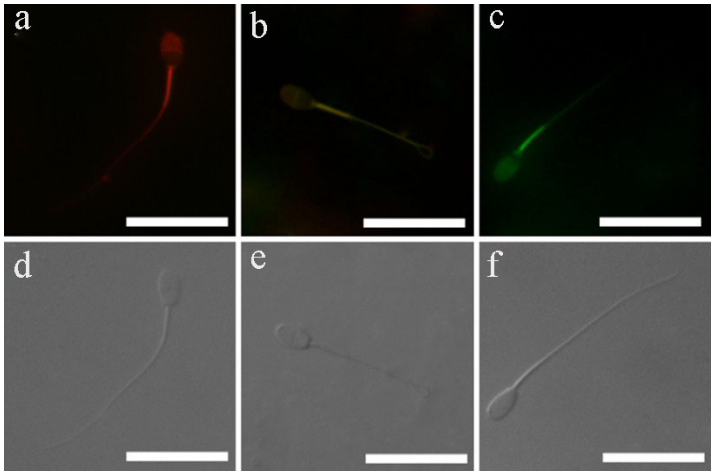

Fig. S2. Photomicrographs of rabbit spermatozoa. (a–c) Images obtained using phase contrast microscope; (d–f) Images, which were the same images as (a–c) respectively. Three kinds of staining could be observed under a fluorescence microscope: (a) indicates that sperm was not oxidized; (b) sperm was partly oxidized; (c) sperm was seriously oxidized. Bars = 24 μm.

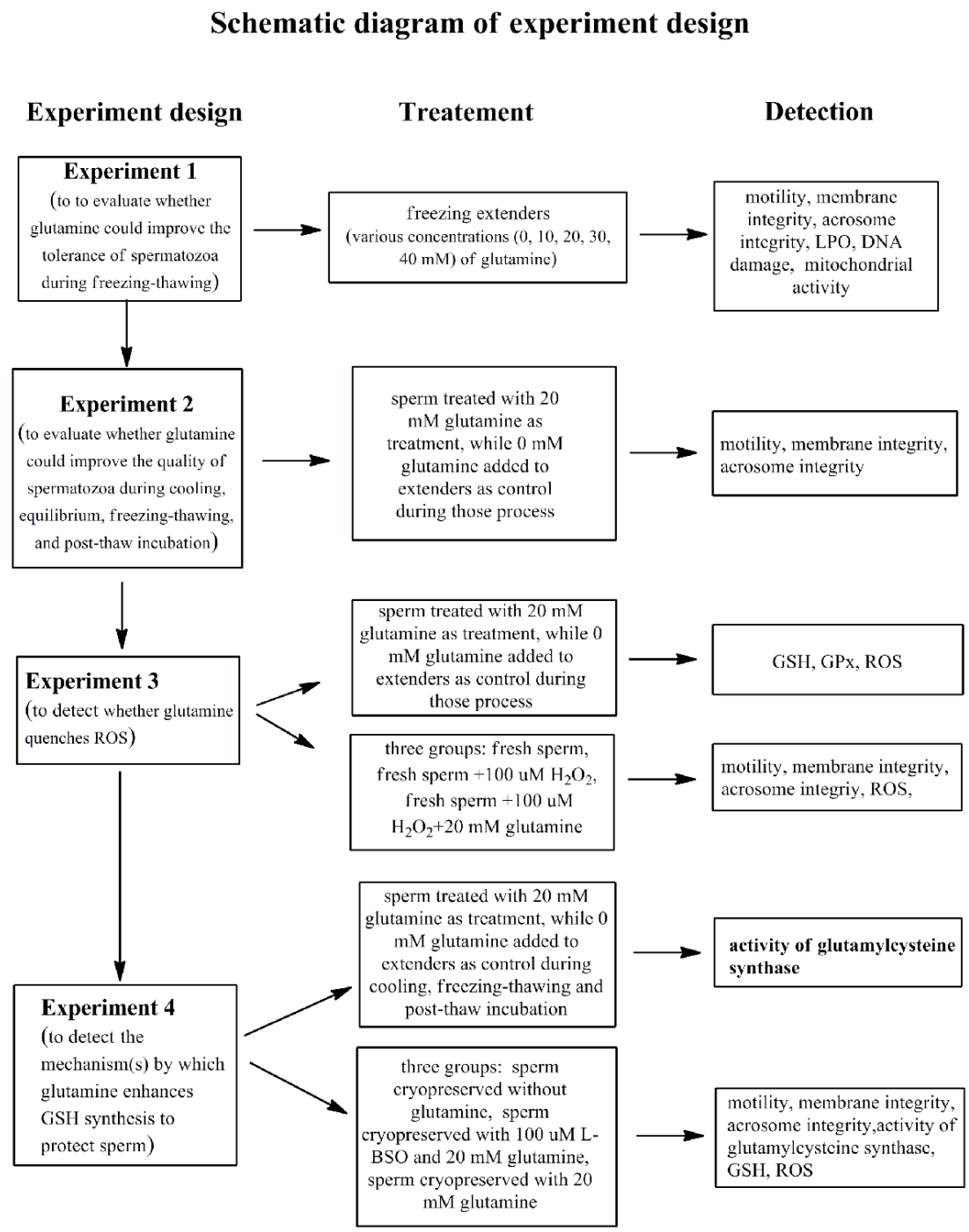

Fig. S3. A schematic diagram of experiment design.