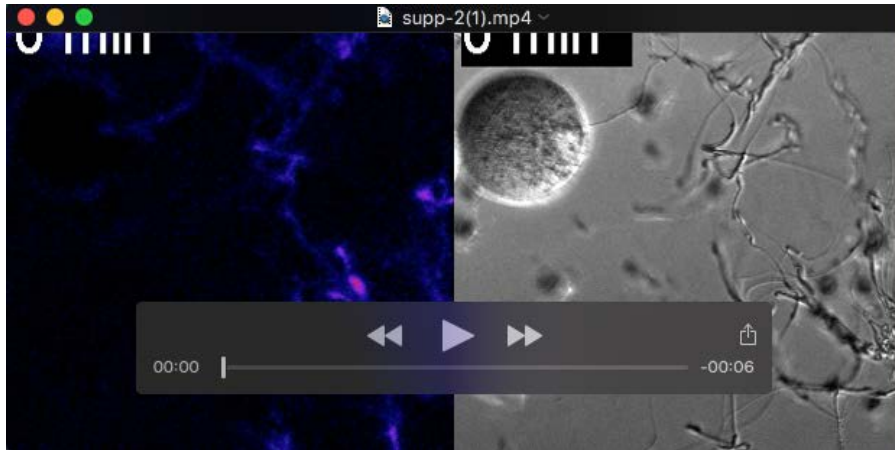
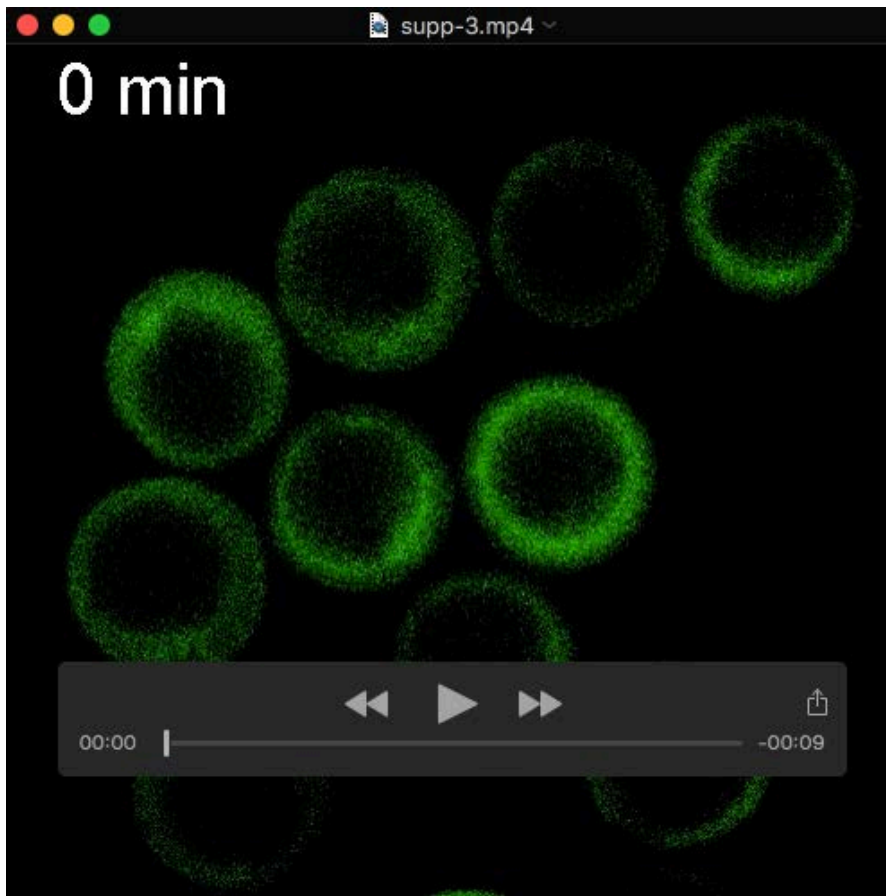


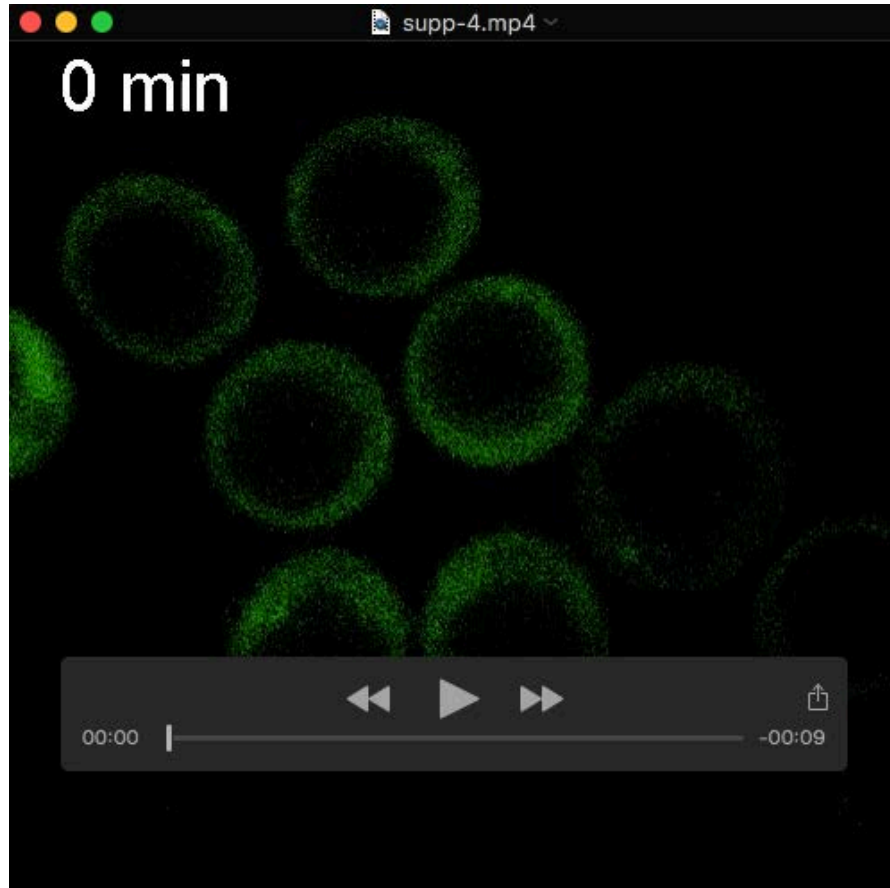
**Figure S1. *In vitro* fertilized eggs stained with LCA-FITC.** Eggs were inseminated with capacitated spermatozoa at a final concentration of  $1-5 \times 10^6$  per ml for 2 hours. After washing, embryos were incubated in CZB medium supplemented with  $5 \mu\text{g/ml}$  LCA-FITC for additional 5 hours. A. 1-cell embryo stained with LCA-FITC (live cell, confocal images); arrow heads indicate polar bodies. B. 1 cell embryo stained with LCA-FITC after fixation (fixed cell, confocal images and Z-projection of 3D reconstruction). Blue, DNA stained with Hoechst 3342. DIC, differential interference contrast.



**Movie 1. In vitro fertilization in presence of LCA-FITC:** Confocal time lapse (left) and Differential interference contrast (DIC, right) microscopy of IVO oocytes incubated with mouse sperm in presence of fluorescenc lectin LCA-FITC.

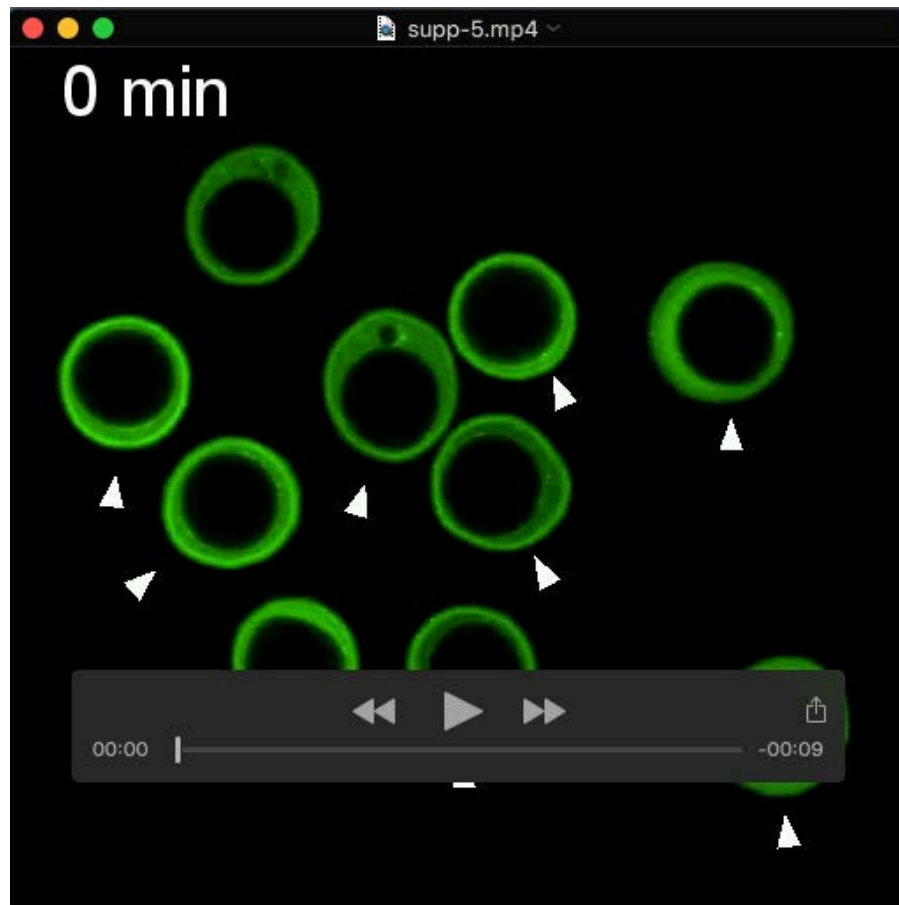


**Movie 2. Live imaging of cortical reaction in ovulated oocytes: experimental condition.** Epifluorescence time lapse of *in vivo* matured oocytes incubated with  $\text{SrCl}_2$  in presence of fluorescent lectin LCA-FITC.

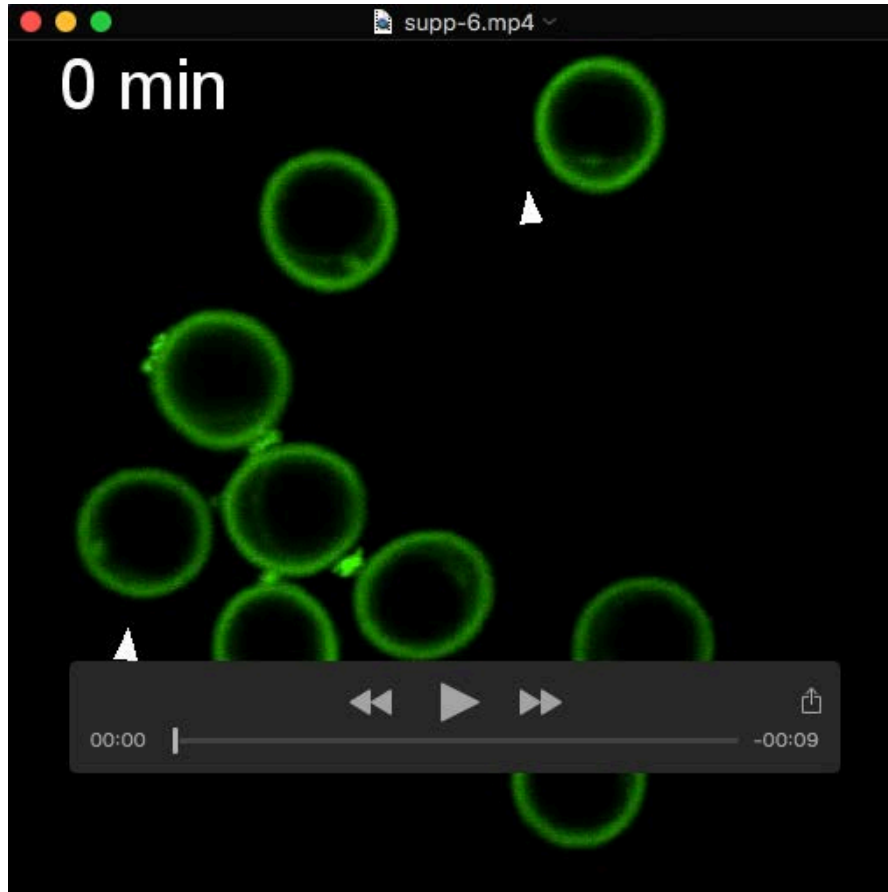


**Movie 3. Live imaging of cortical reaction in ovulated oocytes: control condition.**

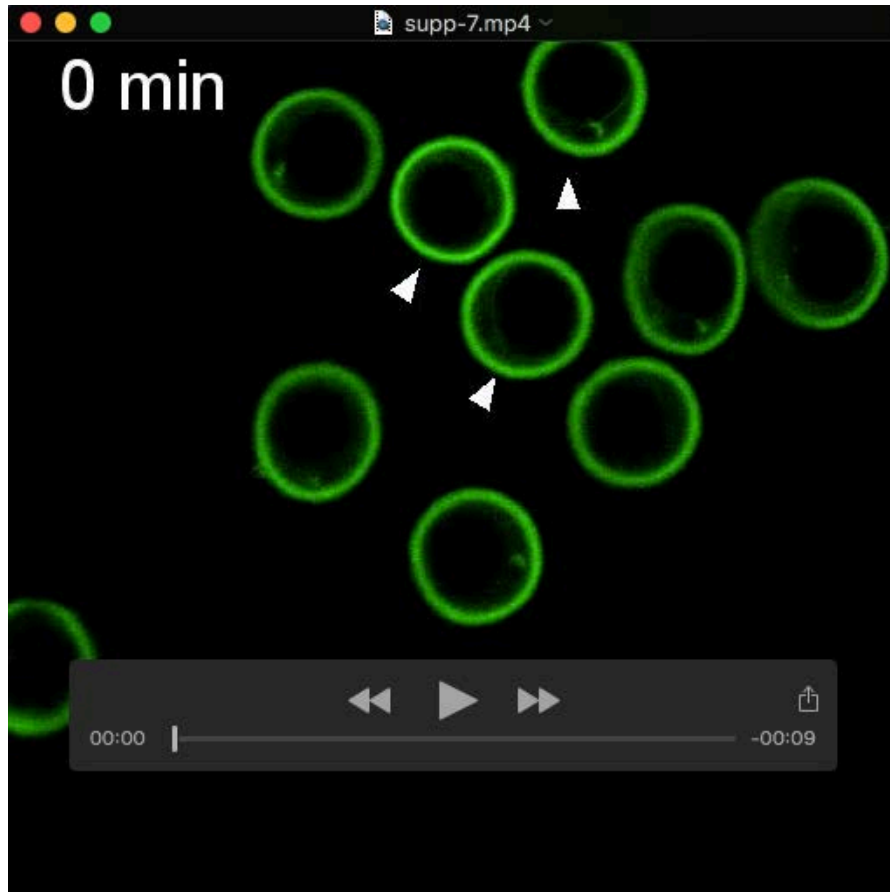
Epifluorescence time lapse of *in vivo* matured oocytes incubated without  $\text{SrCl}_2$  in presence of LCA-FITC.



**Movie 4. Live imaging of cortical reaction in ovulated oocytes (IVO).** Confocal time lapse of IVO oocytes incubated with  $\text{SrCl}_2$  and LCA-FITC. Arrowheads indicate responding cells.



**Movie 5.** Live imaging of cortical reaction in **CZB *in vitro* matured oocytes (CZB IVM)**. Confocal time lapse of CZB IVM oocytes incubated with SrCl<sub>2</sub> and LCA-FITC. Arrowheads indicate responding cells.



**Movie 6. Live imaging of cortical reaction in G-IVF *in vitro* matured oocytes (G-IVF IVM).** Confocal time lapse of G-IVF IVM oocytes incubated with SrCl<sub>2</sub> and LCA-FITC. Arrowheads indicate responding cells.