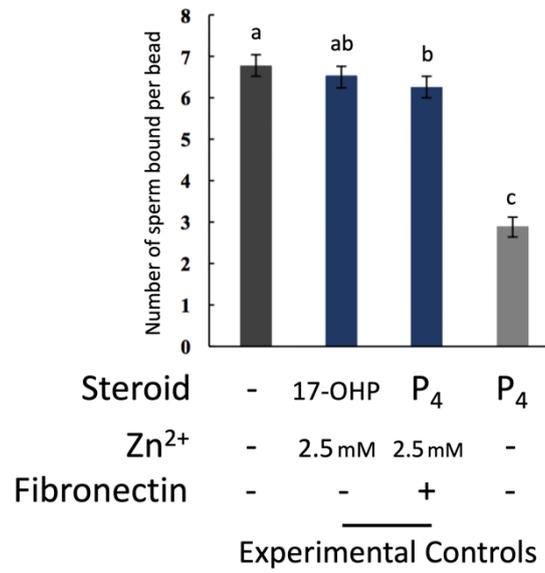
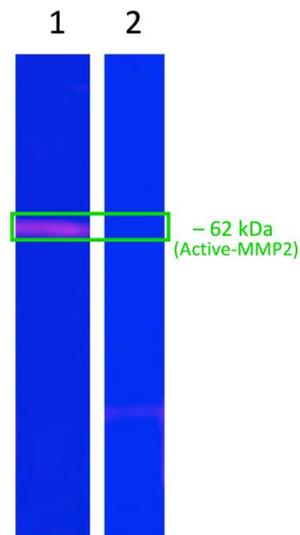


## Supplementary



**Figure S1.** Controls for sperm release from glycans of the oviductal sperm reservoir. Values with different superscripts (a,b,c) indicate significant difference by treatment ( $p$ -value < 0.05).



**Figure S2.** Zinc ions block the activity of the active form of human sperm-borne ZP proteinase MMP2. Clear band in the zymogram indicates enzymatic digestion of gelatin. Lane 1: vehicle block, lane 2: 1.5 mM ZnCl<sub>2</sub> block.

**Table S1.** Zinc inhibits P<sub>4</sub>-induced sperm release from oviductal glycans.

<b>Treatment</b>	<b>Number of Sperm Bound</b>
Before Steroids	6.79 ± 1.29% <sup>A</sup>
15 μM Zn <sup>2+</sup> + P <sub>4</sub>	4.32 ± 1.21% <sup>D</sup>
0.5 mM Zn <sup>2+</sup> + P <sub>4</sub>	4.91 ± 1.30% <sup>C</sup>
1.5 mM Zn <sup>2+</sup> + P <sub>4</sub>	5.95 ± 1.58% <sup>B</sup>
2.5 mM Zn <sup>2+</sup> + P <sub>4</sub>	6.61 ± 1.29% <sup>A</sup>
2.5 mM Zn <sup>2+</sup> + 17-OHP	6.52 ± 1.29% <sup>AB</sup>
2.5 mM Zn <sup>2+</sup> + Fibronectin + P <sub>4</sub>	6.25 ± 1.31% <sup>B</sup>
2.5 mM Ca <sup>2+</sup> + P <sub>4</sub>	3.84 ± 1.28% <sup>E</sup>
P <sub>4</sub>	2.89 ± 1.18% <sup>F</sup>

Table data for manuscript figure 3, presented as mean ± SD. Values with different uppercase superscripts (A,B,C,D,E,F) indicate significant difference by treatment ( $p$ -value < 0.05). Three biological replicates ( $n = 3$ ) were analyzed.