Supporting Information

White et al. 10.1073/pnas.1318624110

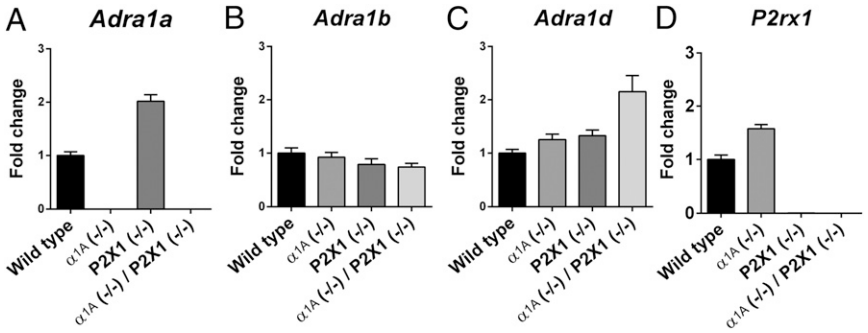
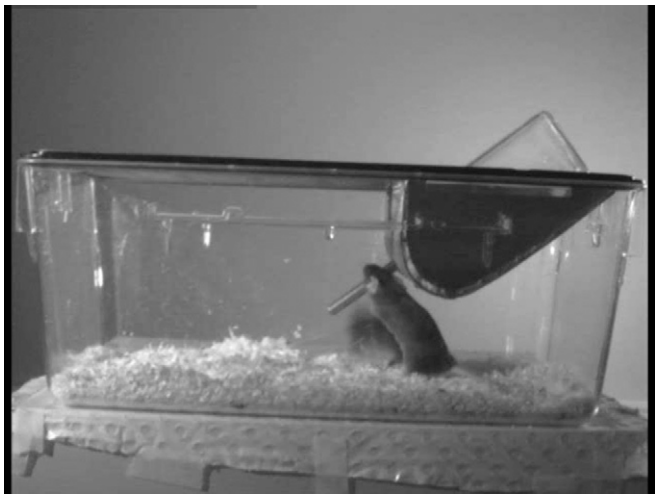


Fig. S1. Receptor subtype mRNA expression in vasa deferentia of wild-type and double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice. (*A*) *Adra1a* receptor subtype mRNA levels, (*B*) *Adra1b* receptor subtype mRNA levels, (*C*) *Adra1d* receptor subtype mRNA levels, and (*D*) *P2rx1* receptor subtype mRNA levels in vas deferens from wild-type, α_{1A} ($^{-/-}$) single knockout, P2X1 ($^{-/-}$) single knockout, and double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) male mice as determined by RT-PCR (n = 5–6 for each).

Table S1. Weights and measures of α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice

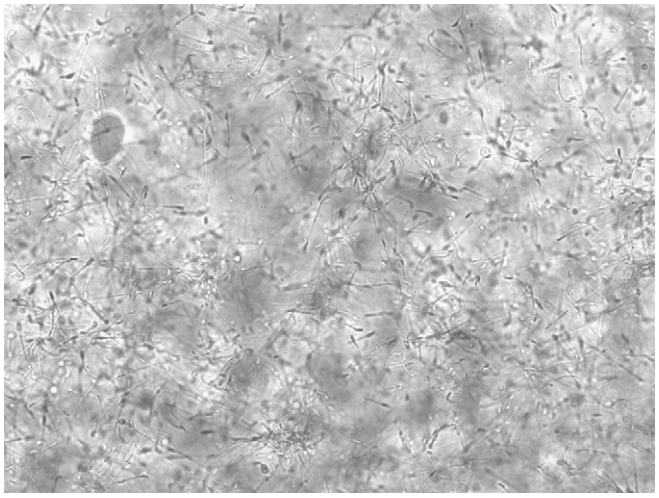
Animal/tissue	Wild type	*n*	α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$)	*n*
Mouse (g)	27.8 ± 0.61	6	28.9 ± 0.49	14
Prostate (mg)	7.86 ± 0.89	9	7.98 ± 0.40	23
Vas deferens weight (mg)	11.5 ± 0.75	12	23.4 ± 1.3***	30
Vas deferens length (mm)	19.4 ± 0.39	12	31.7 ± 0.62***	23
Bladder (mg)	23.5 ± 1.6	11	25.6 ± 1.2	16
Seminal vesicle (mg)	107.9 ± 5.27	14	148.5 ± 9.8**	26
Testis (mg)	94.8 ± 2.7	14	100.6 ± 1.9	28
Spleen (mg)	91.1 ± 7.4	8	99.5 ± 5.7	13
Kidney (mg)	224.8 ± 12.2	16	228.7 ± 7.1	28
Liver (g)	1.41 ± 0.09	7	1.47 ± 0.06	13
Heart (mg)	170.6 ± 12.2	8	158.4 ± 6.0	14

Mean body and organ weights and measures from wild-type (n = 6–16) and double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) (n = 13–30) mice. Asterisks represent a significant difference from wild type; $^{**}P < 0.01$, $^{***}P < 0.001$.



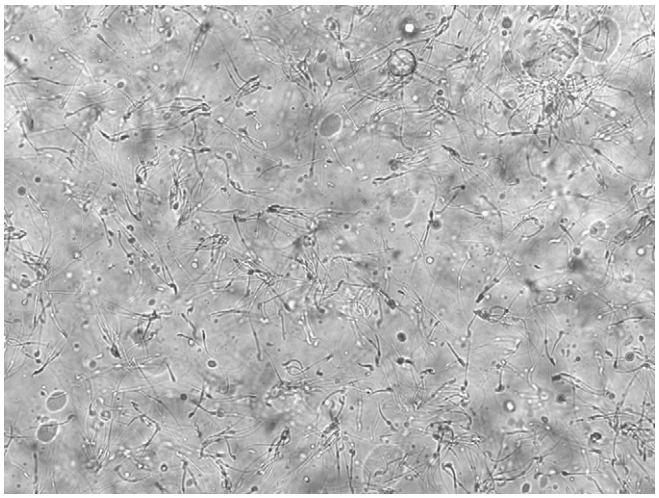
Movie S1. Sexual behavior of male double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice. Representative video recording of 29 matings that resulted in ejaculation between a male double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mouse and a wild-type female mouse. Male double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice were placed in cages with female wild-type mice for 2 h during the 12-h daily dark cycle for up to 9 consecutive days to cover two complete ovarian cycles. Cages were fitted with infrared video-recording equipment that allowed the post hoc analysis of sexual behavior activity including chasing, sniffing, mounting, pelvic thrusting, and postejaculation latency with subsequent disinterest in the female. Following matings that resulted in ejaculation, male double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice were given 2 d of rest (typical latent period for this strain of mouse) before being paired with another wild-type female.

Movie S1



Movie S2. Qualitative evaluation of sperm extracted from wild-type male mice. Cauda epididymides were dissected from mice and contents were expressed onto single concave glass microscope slides. Two drops of physiological saline were added to the epididymal contents before coverslipping and viewing under a conventional bright-field light microscope (Olympus BX60) fitted with a SPOT RT slider digital camera. The movie is representative of the number and motility of sperm taken from the cauda epididymides of six wild-type mice.

Movie S2



Movie S3. Qualitative evaluation of sperm extracted from male double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice. Cauda epididymides were dissected from mice and contents were expressed onto single concave glass microscope slides. Two drops of physiological saline were added to the epididymal contents before coverslipping and viewing under a conventional bright-field light microscope (Olympus BX60) fitted with a SPOT RT slider digital camera. The movie is representative of the number and motility of sperm taken from the cauda epididymides of six male double knockout α_{1A} ($^{-/-}$)/P2X1 ($^{-/-}$) mice.

Movie S3