SLOW FREEZING VERSUS VITRIFICATION OF MOUSE OVARIES: FROM *EX VIVO* ANALYSES TO SUCCESSFUL PREGNANCIES AFTER AUTO-TRANSPLANTATION

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Table S1: Experimental distribution of ex vivo analysed ovaries

Analysis	CT	CT cult	SF	SF cult	VT	VT cult
IHC	16	10	5	5	4	5
RTqPCR	22	10	9	9	9	9
WB	16	10	7	5	6	6
Total	54	30	21	19	19	20

Table S2: p-values associated to individual differences between the experimental groups corrected for multiple testing (Bonferroni's correction)

Comparisons	Pregnant mice	Number of pregnancies
	p-values	p-values
CT versus SF	ns	ns
vs VTo	ns	0.4632
vs VTc	**0.0008 (***)**	**0.0044 (*)**
SF versus VTo	ns	0.1472
vs VTc	**0.0008 (***)**	**0.0132 (*)**
VTo versus VTc	**0.0156 (*)**	NA

NA : not applicable ; ns : non signoificant

Figure S1: Representative western blot for (a) caspase-3, (b) LC3 and (c) BMP15 proteins. CT: control/fresh ovaries; SF: slow frozen/thawed ovaries, VTo: open vitrified/warmed ovaries, cult: *ex vivo* culture during 4 hours.
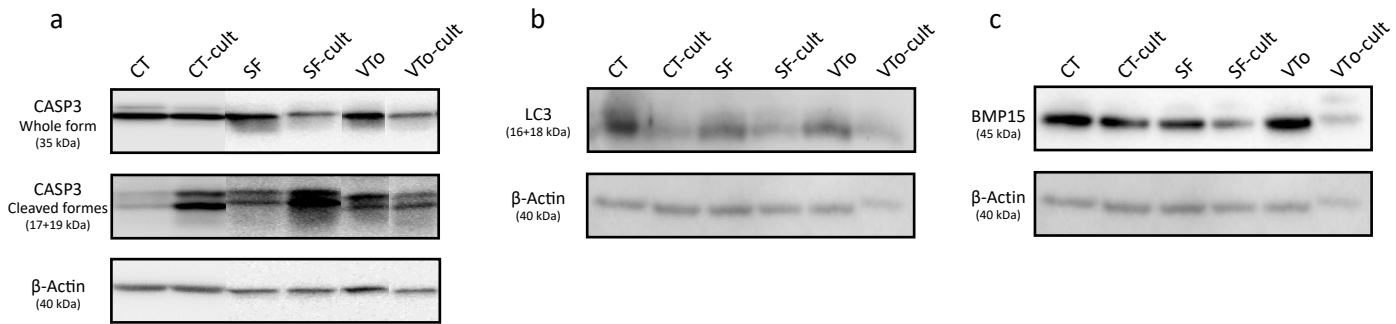
Figure S2: Experimental design and time line for the mice model of induced ovarian failure.


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                    ┌──────────────┐
                    │  Unilateral  │                           ─   Day 0
                    │     OVX      │
                    └──────────────┘
          ┌──────────┬────┴────┬──────────┐
   ┌──────┐    ┌──────┐    ┌──────┐    ┌──────┐
   │  CT  │    │  SF  │    │ VTo  │    │ VTc  │              ─   Day 0
   │ n=5  │    │ n=22 │    │ n=11 │    │ n=11 │
   └──────┘    └──────┘    └──────┘    └──────┘

   ┌───────────────────────────────────────────┐
   │         VCD or vehicle  injections         │              ─   Day 10-29
   └───────────────────────────────────────────┘

   ┌───────────────────────────────────────────┐
   │              Vaginal smears                │              ─   Day 70-99
   └───────────────────────────────────────────┘

 ┌──────┐  ┌──────────────────────────────────┐
 │ Sham │  │        Autotransplantation        │              ─   Day 100
 └──────┘  └──────────────────────────────────┘

   ┌───────────────────────────────────────────┐
   │              Vaginal smears                │              ─   Day 103-130
   └───────────────────────────────────────────┘

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   │              Natural mating                │              ─   Day 131-225
   └───────────────────────────────────────────┘

   ┌───────────────────────────────────────────┐
   │                Ultrasounds                 │              ─   Day 138-220
   └───────────────────────────────────────────┘

   ┌───────────────────────────────────────────┐
   │                 Sacrifices                 │              ─   Day 225
   └───────────────────────────────────────────┘

   ┌───────────────────────────────────────────┐
   │                IHC analyses                │
   └───────────────────────────────────────────┘
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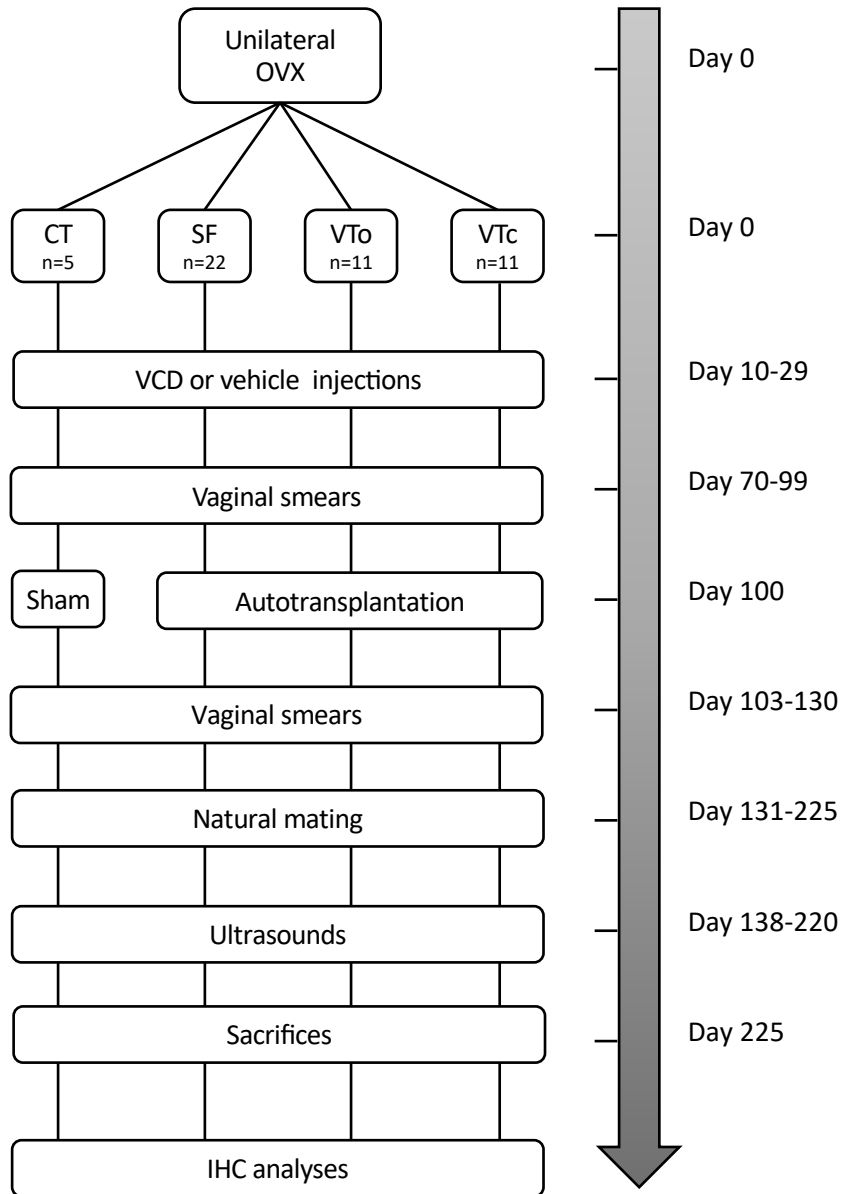
Figure S3: Follow-up of the induction of menopause by daily vaginal smears from 8 to 11 weeks after the first injection of VCD in unilaterally ovariectomized mice. n=44 mice