

### **Supplementary Data Description**

Supplementary data present different markers that were not affected by the BFR mixture treatments. These data include mammary gland/body weight ratios and the levels of markers of the epithelial-mesenchymal transition in offspring. Tables of the different antibodies used in this study are also included.

#### **Supplementary Figure 1: Effects of exposure to a BFR mixture on epithelial to mesenchymal transition makers in the mammary glands of PND 46 offspring.**

Quantitative western blot of total proteins extracted from the mammary glands of control pups or pups exposed during gestation and lactation to a dietary BFR mixture formulated to deliver daily nominal BFR mixture doses of 0.06, 20 or 60 mg/kg of body weight/day (mg/kg/day). Graphs show N-cadherin (**A**) and Vimentin (**B**) protein expression at PND 46. Histograms represent the means  $\pm$  SEM (n=9-14 pups, one per litter) for each band normalized to the total protein level.

#### **Supplementary Figure 2: Effects of exposure to a BFR mixture on epithelial surface area and elongation of the mammary gland in PND 46 offspring.**

Whole mounts of mammary glands were analyzed with Image J software. Mammary epithelium elongation or surface area were quantified at PND 46 (**A**; **C**) from control pups or pups exposed during gestation and lactation to a dietary BFR mixture intended to deliver nominal BFRs mixture dose of 0.06, 20, or 60 mg/kg of body weight/day (mg/kg/day). Elongation was measured from the lowest lymph node to the end of the longest branch of the epithelium (**A**). Surface area was measured by tracing the best-adjusted contour of the mammary epithelium at PND 46 (**C**). Terminal end buds were counted in PND 46 mammary glands using Image J software (**C**). Total body or mammary gland weight were measured at time of sacrifice of PND 46 (**D**; **E**). The mammary gland weight of PND 46 (**F**) were normalized to the total body weight. Histograms represent the mean  $\pm$  SEM (n=9-14 pups, one per litter). p-values were calculated with a Kruskal-wallis or an ANOVA statistical tests.

**Supplementary table 1: Antibodies used for western blot analysis**

<b>Target protein</b>	<b>Description/Host</b>	<b>Dilution</b>	<b>Catalogue number</b>	<b>Manufacturer</b>
E-cadherin	(4A2) Mouse	1/1000	14472	Cell signaling
$\beta$ -catenin	(L54E2) Mouse	1/1000	8480	Cell signaling
Phospho- $\beta$ -Catenin (Ser675)	(D2F1) Rabbit	1/1000	4176	Cell signaling
Cx43	Rabbit	1/500	C6219	Sigma Aldrich
Cx26	Mouse	1/750	33-5800	Invitrogen
ER $\alpha$	Rabbit	1/400	Ab75635	Abcam
ER $\beta$	Rabbit	1/500	SC-8974	Santa Cruz biotechnology
PR A/B	Rabbit	1/500	Ab16661	Abcam
Thyroid Hormone Receptor $\alpha$ 1	Rabbit	1/500	Ab53729	Abcam
Thyroid Hormone Receptor $\beta$	Rabbit	1/500	Ab196484	Abcam
N-cadherin	Rabbit	1/1000	4061	Cell signaling
Vimentin	Rabbit	1/1000	5741	Cell signaling
CREB	(C21) Rabbit	1/500	Sc-186	Santa Cruz biotechnology
Phospho-CREB(Ser133)	(87G3) Rabbit	1/1000	9198	Cell signaling
PARP	Rabbit	1/1000	9532	Cell signaling
Cleaved Caspase-3	Rabbit	1/1000	9661	Cell signaling

PCNA	Mouse	1/2000	2586S	Cell signaling
<b>Secondary antibodies</b>				
Anti-rabbit IgG HRP-linked antibody		1/10000	7074s	Cell signaling
anti-mouse IgG HRP-linked antibody		1/10000	7076s	Cell signaling

**Supplementary table 2: Antibodies used for immunofluorescence blot analysis**

<b>Target protein</b>	<b>Description/Host</b>	<b>Dilution</b>	<b>Catalogue number</b>	<b>Manufacturer</b>
E-cadherin	(4A2) Mouse	1/1000	14472	Cell signaling
$\beta$ -catenin	(L54E2) Mouse	1/1000	8480	Cell signaling
Phospho- $\beta$ -Catenin (Ser675)	(D2F1) Rabbit	1/1000	4176	Cell signaling
Cx43	Rabbit	1/500	C6219	Sigma Aldrich
<b>Secondary antibodies</b>				
anti-rabbit IgG Fab2 Alexa Fluor 488		1/1000	4412s	Cell signaling
anti-mouse IgG Fab2 Alexa Fluor 555		1/1000	4409s	Cell signaling