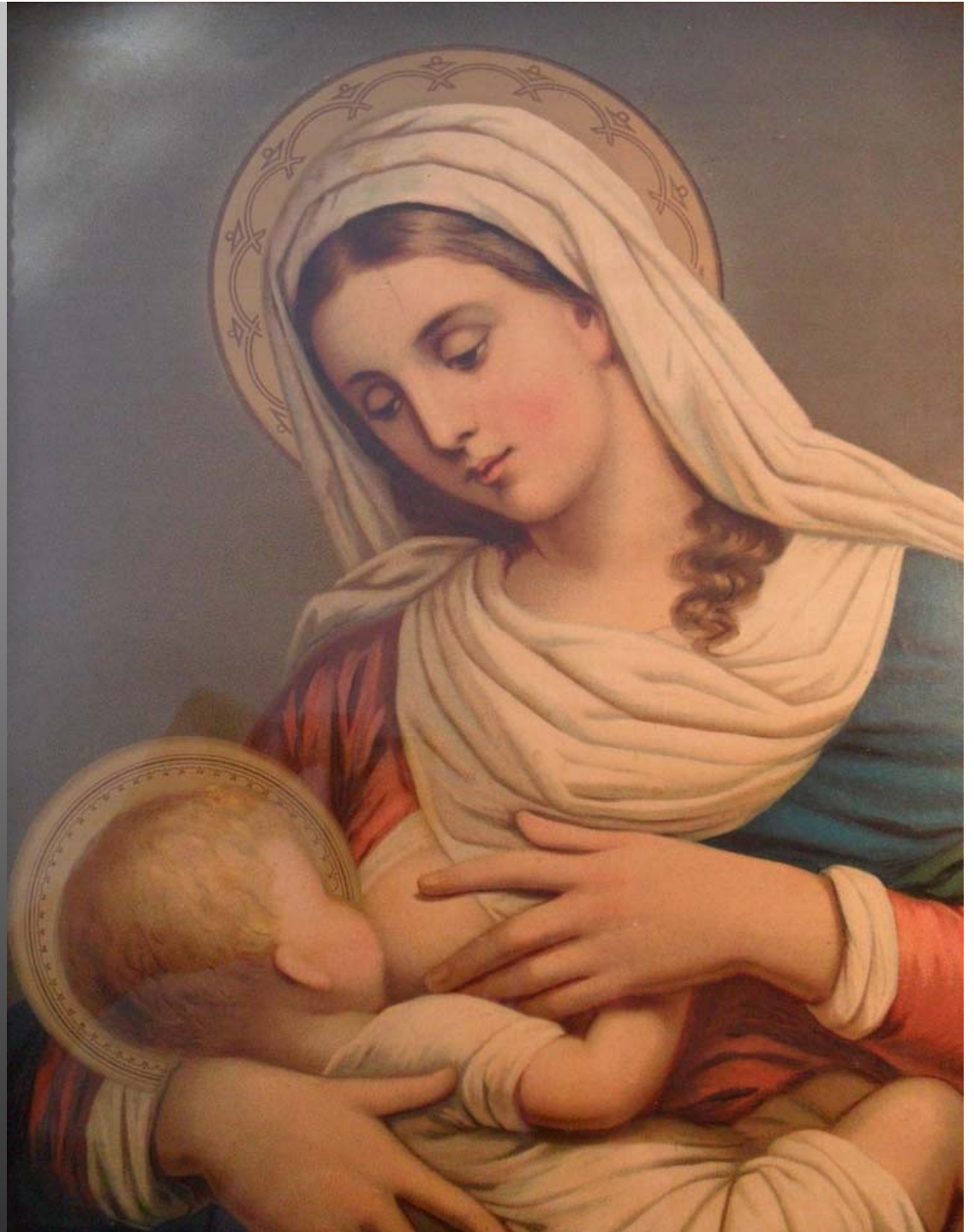


Xenoestrogens and the mother: new lessons from a BPA- replacement chemical

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Sciences



All children are born pre-polluted





The womb was once
thought to be a
protected place,
a fortress

ALCOHOL (1950s-70s)

DRUGS (1950s-60s)

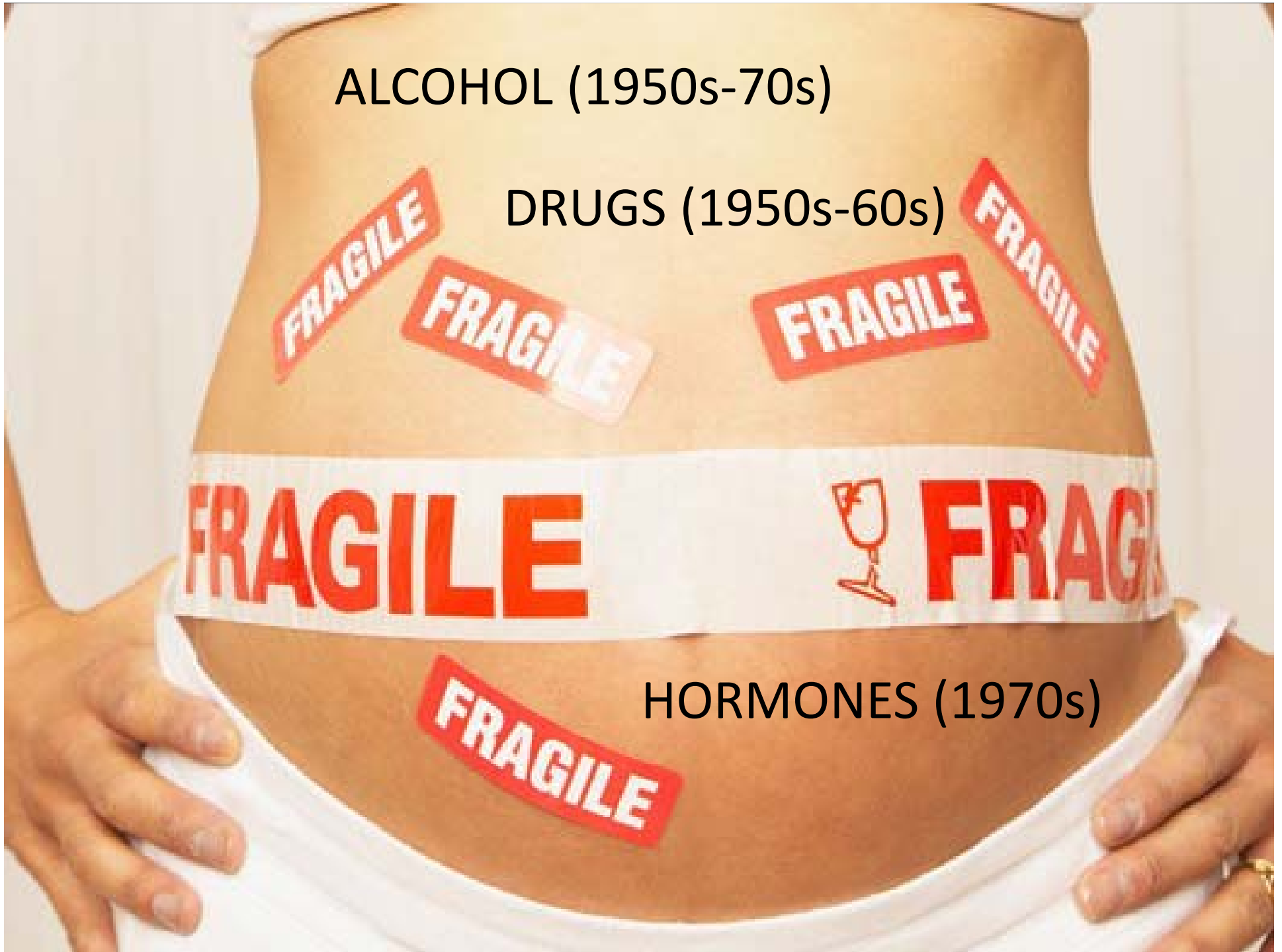
FRAGILE



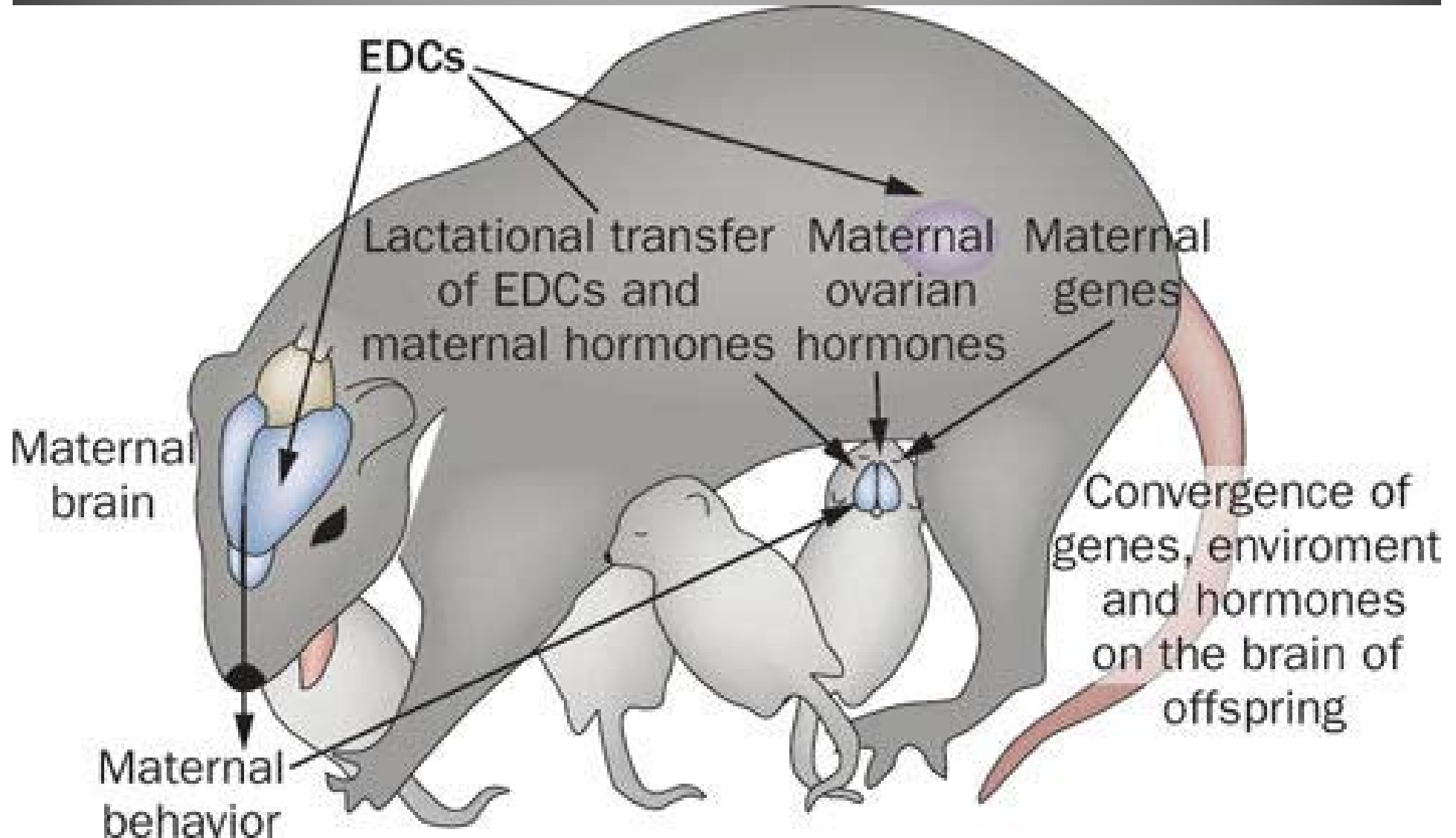
FRAGILE

HORMONES (1970s)

FRAGILE

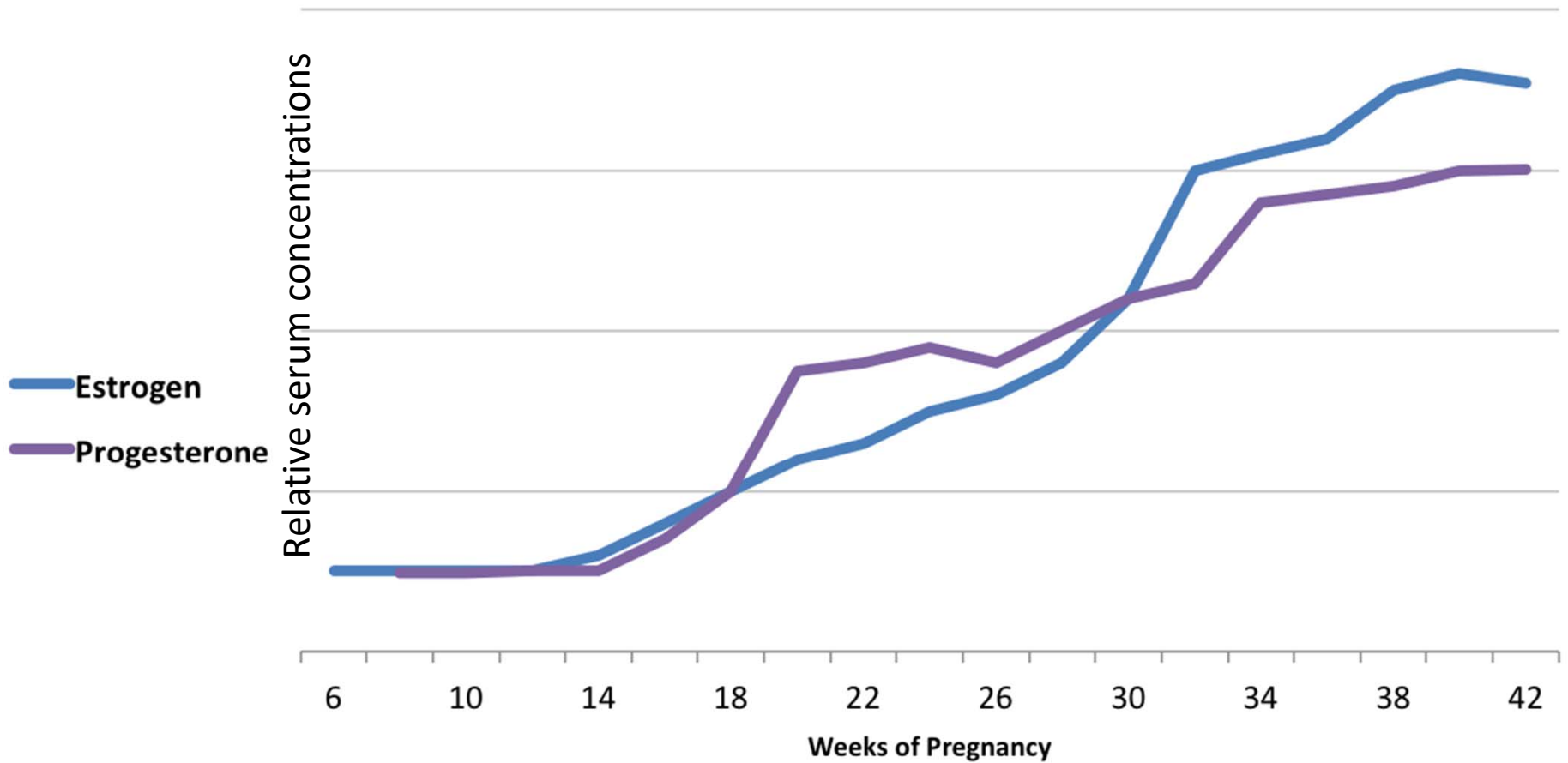


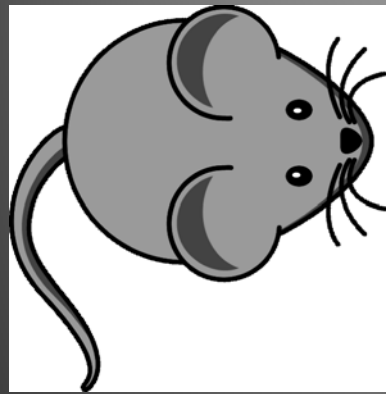
It is well known that developing individuals are sensitive to estrogens



For many years, it was assumed that estrogenic chemicals wouldn't affect adults...

Estrogen & Progesterone Levels During Pregnancy





LD2



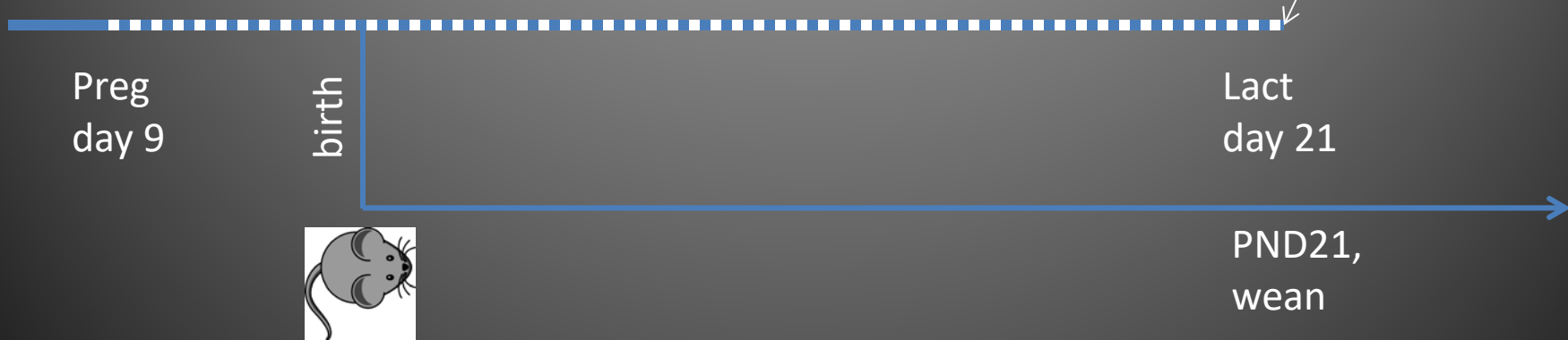
LD7



LD14



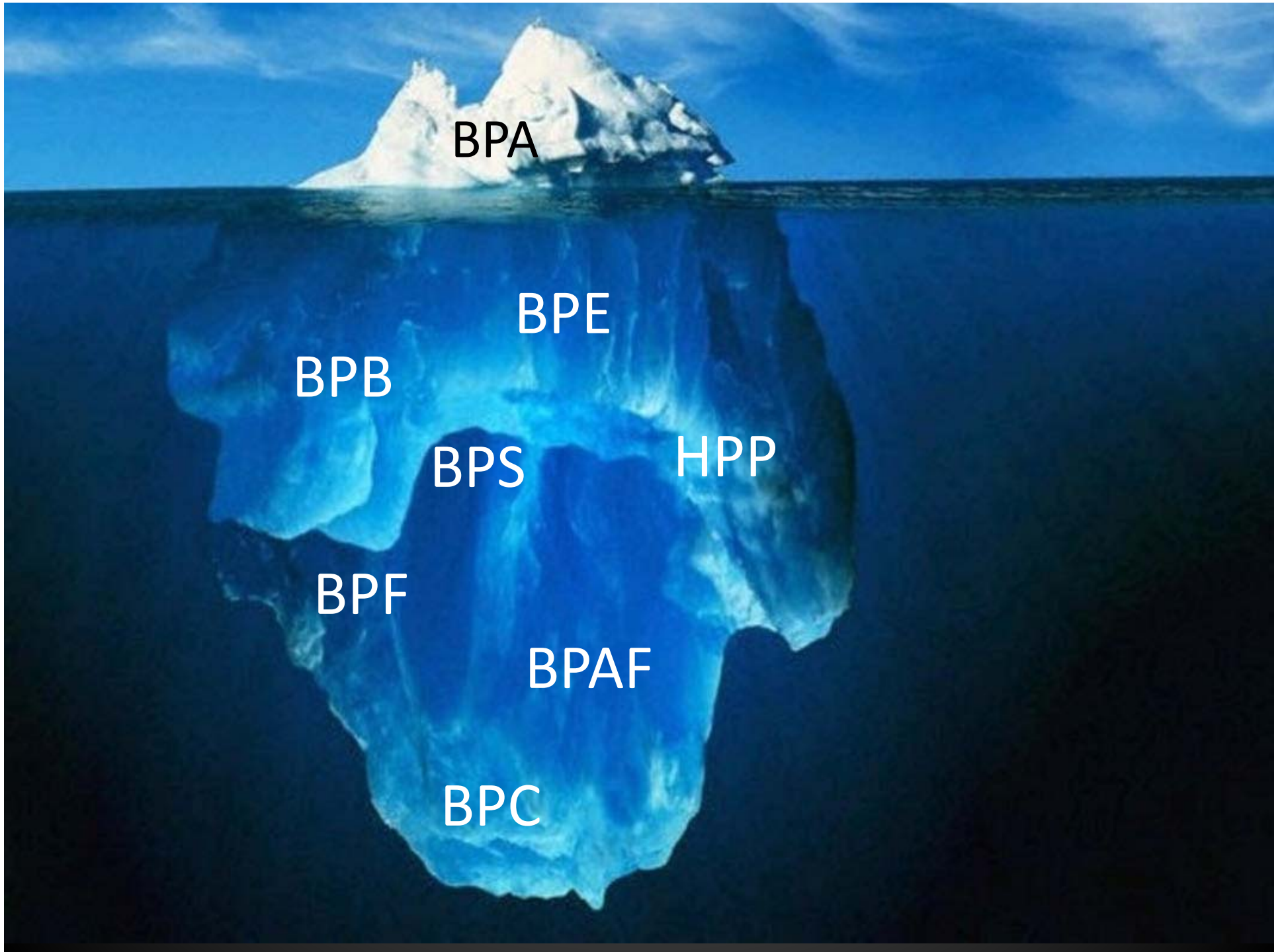
Collect maternal samples



Looking at exposed mothers... Is pregnancy a sensitive window of development?

Bisphenol-A (BPA), a xenoestrogen, is found in a wide variety of consumer products





BPA

BPE

BPB

BPS

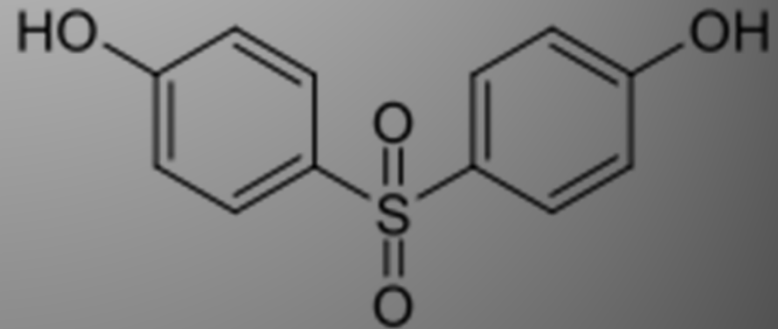
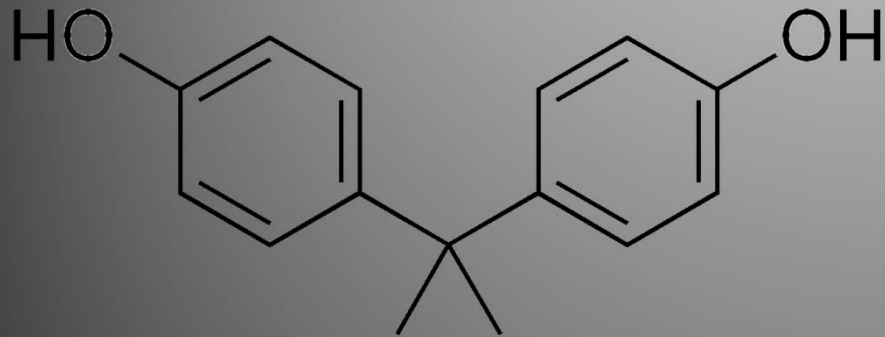
HPP

BPF

BPAF

BPC

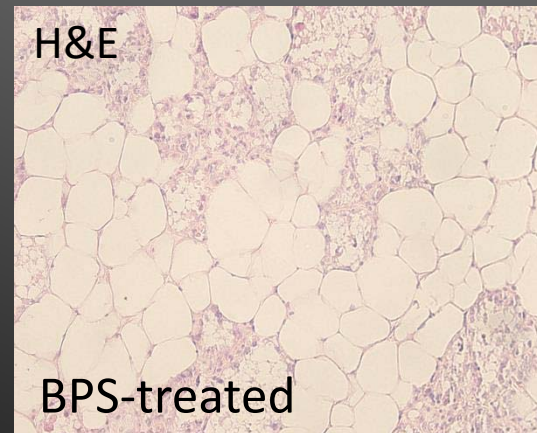
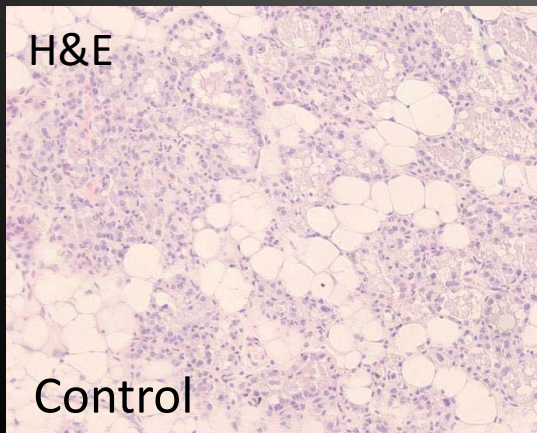
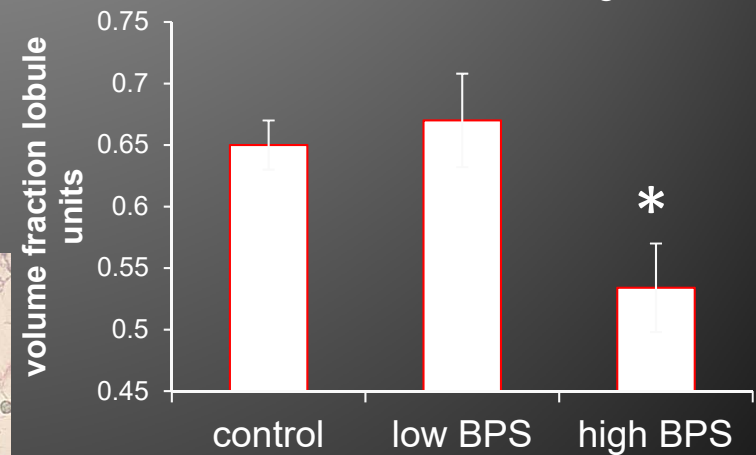
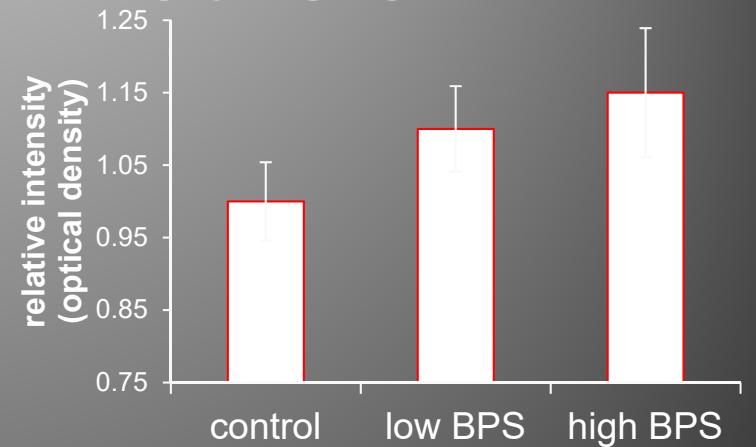
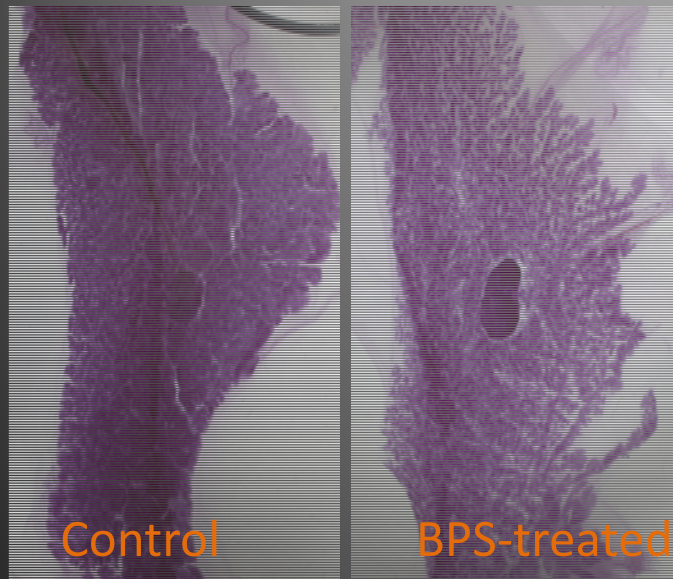
BPA replacements



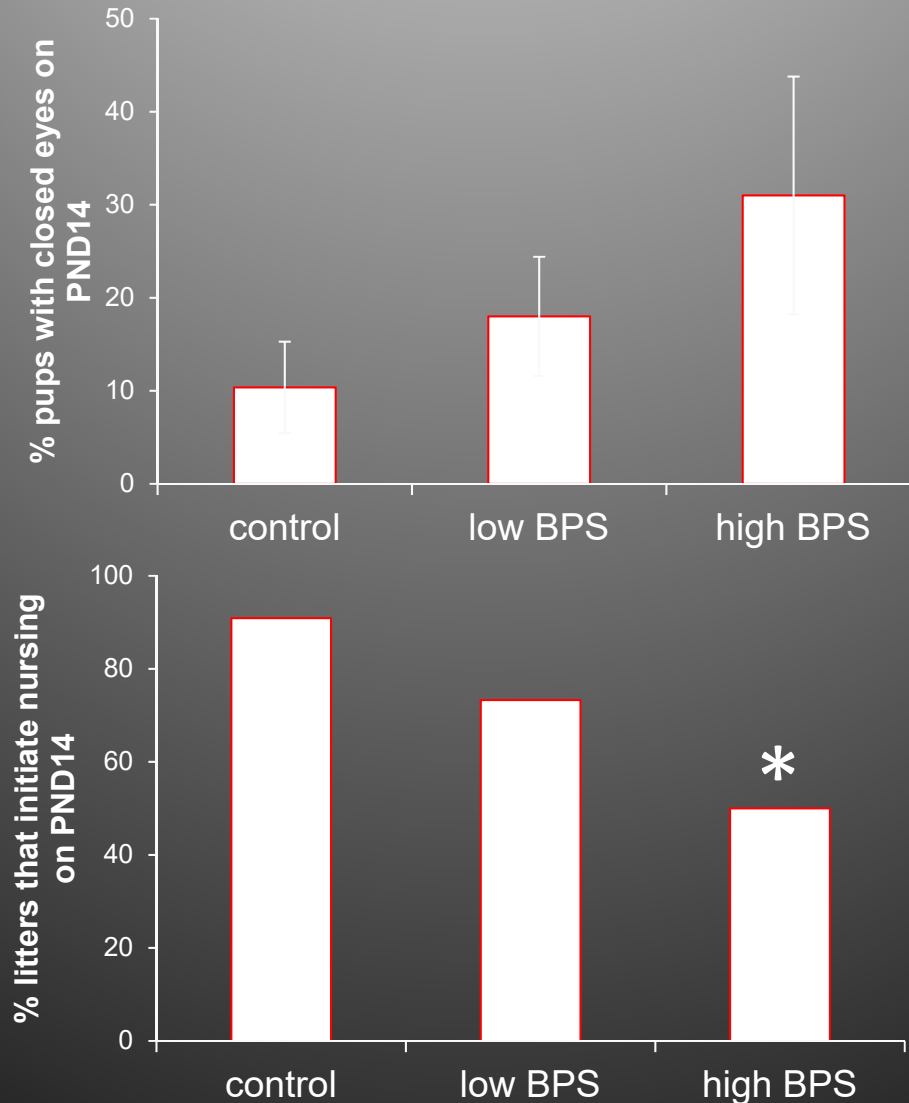


**Question 1: Does BPS exposure
alter milk production?**

BPS alters the lactating mammary gland in exposed mothers



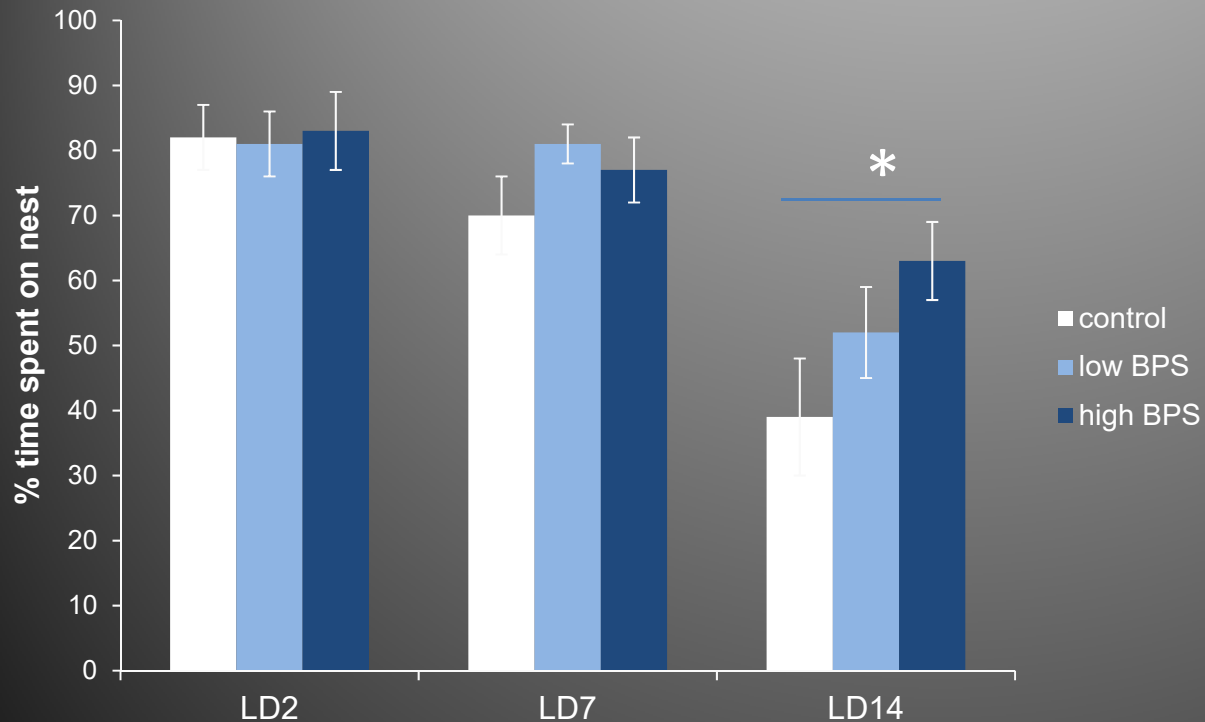
These lactation problems may be responsible for deficits in the offspring



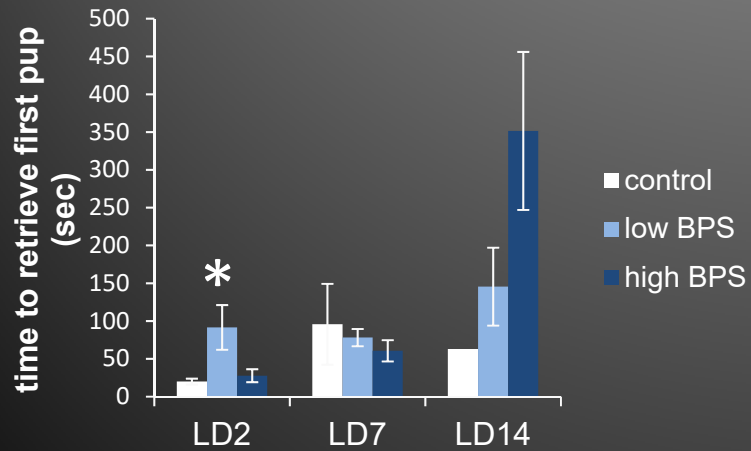
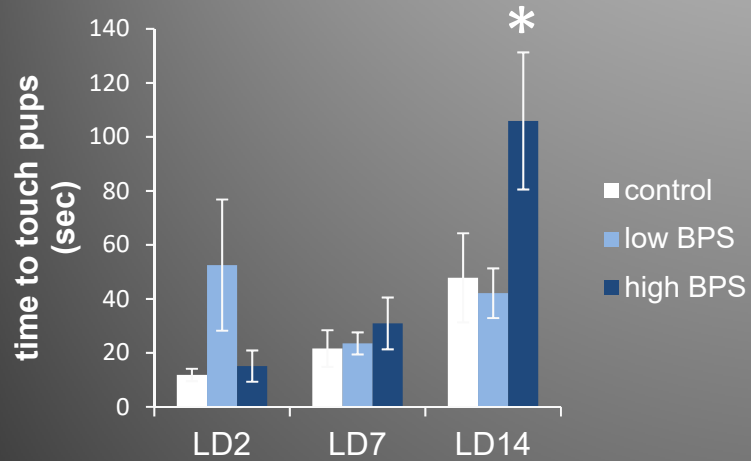


Question 2: Does BPS alter maternal care?

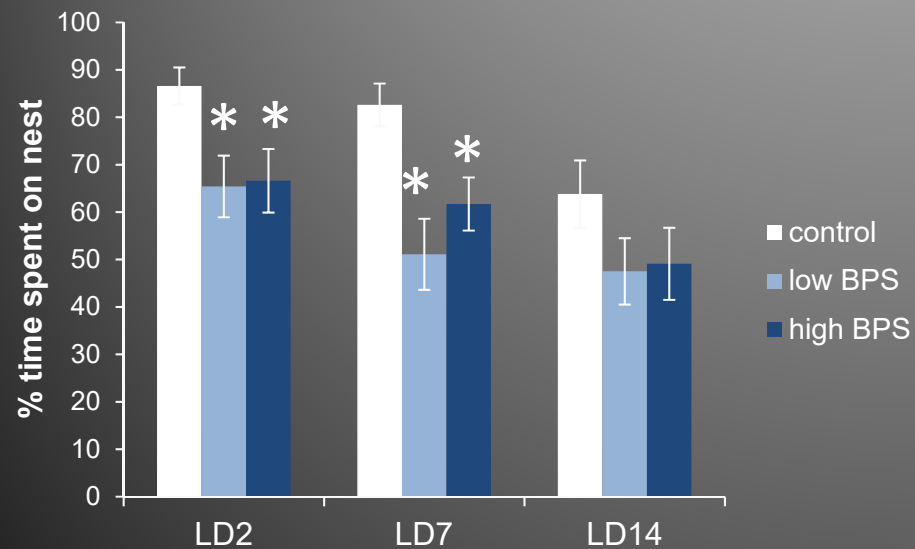
BPS alters some aspects of maternal behavior in exposed mothers



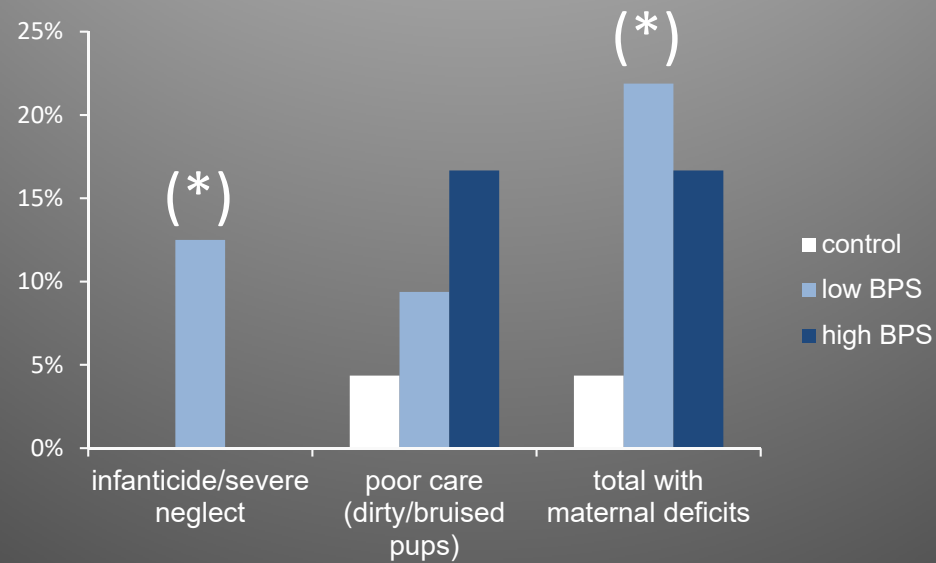
BPS alters some aspects of maternal behavior in exposed mothers



Daughters exposed in the womb also have disrupted maternal behaviors




Some disruptions to these daughters are severe



*Warning, this may be disturbing to
some viewers*



A photograph of a woman with dark hair, wearing a white sleeveless top and a red patterned shawl, holding a young child. The child is wearing a red patterned garment. They are standing in front of a colorful, patterned fabric backdrop. The text "Question 3: Do other xenoestrogens alter aspects of maternal health?" is overlaid in white on the lower half of the image.

Question 3: Do other
xenoestrogens alter aspects of
maternal health?

Obsessive-compulsive behavior in ethinyl estradiol-exposed mothers



Vandenberg & Catanese, Repro Toxicol 2017

Obsessive Compulsive Disorders in the postpartum period



Why does this matter?

- Good behavior begets good behavior... (and bad begets bad)



Why does this matter?

- Pediatric diseases associated with insufficient breastfeeding include acute lymphoblastic leukemia, ulcerative colitis, lower respiratory tract infection requiring hospitalization, necrotizing enterocolitis, and sudden infant death syndrome
- 80% of women experience problems initiating or maintaining breast feeding

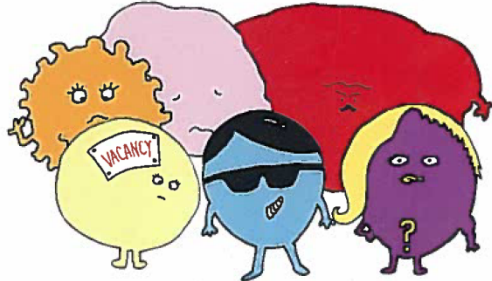
The mother isn't merely a vessel



BPS is a regrettable substitution...
right?

MOST WANTED

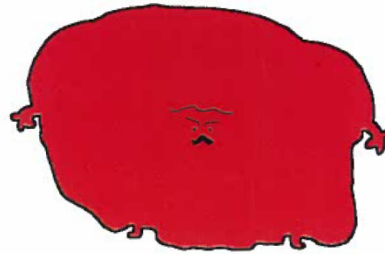
**Highly Suspicious
Chemical Characters**



**Have you seen or heard
of alternatives to...**

WANTED

Bisphenol A
A.K.A. "Bad Ass BPA"



Accused of: Associating with heart disease, diabetes, and obesity, and generally messing with fertility – correlating with lowered sperm count, fibroids, ovarian cysts, and miscarriage; increasing the risk of prostate and breast cancer.

Last seen: Leaching from metal food can lining, hard plastic bottles, receipt paper, recycled paper, dental fillings, sunglasses, CD's and DVD's, electronic equipment, automobile parts, sports gear ... pretty much everywhere.

BPA-FREE

IS A LOAD OF

B (P) S

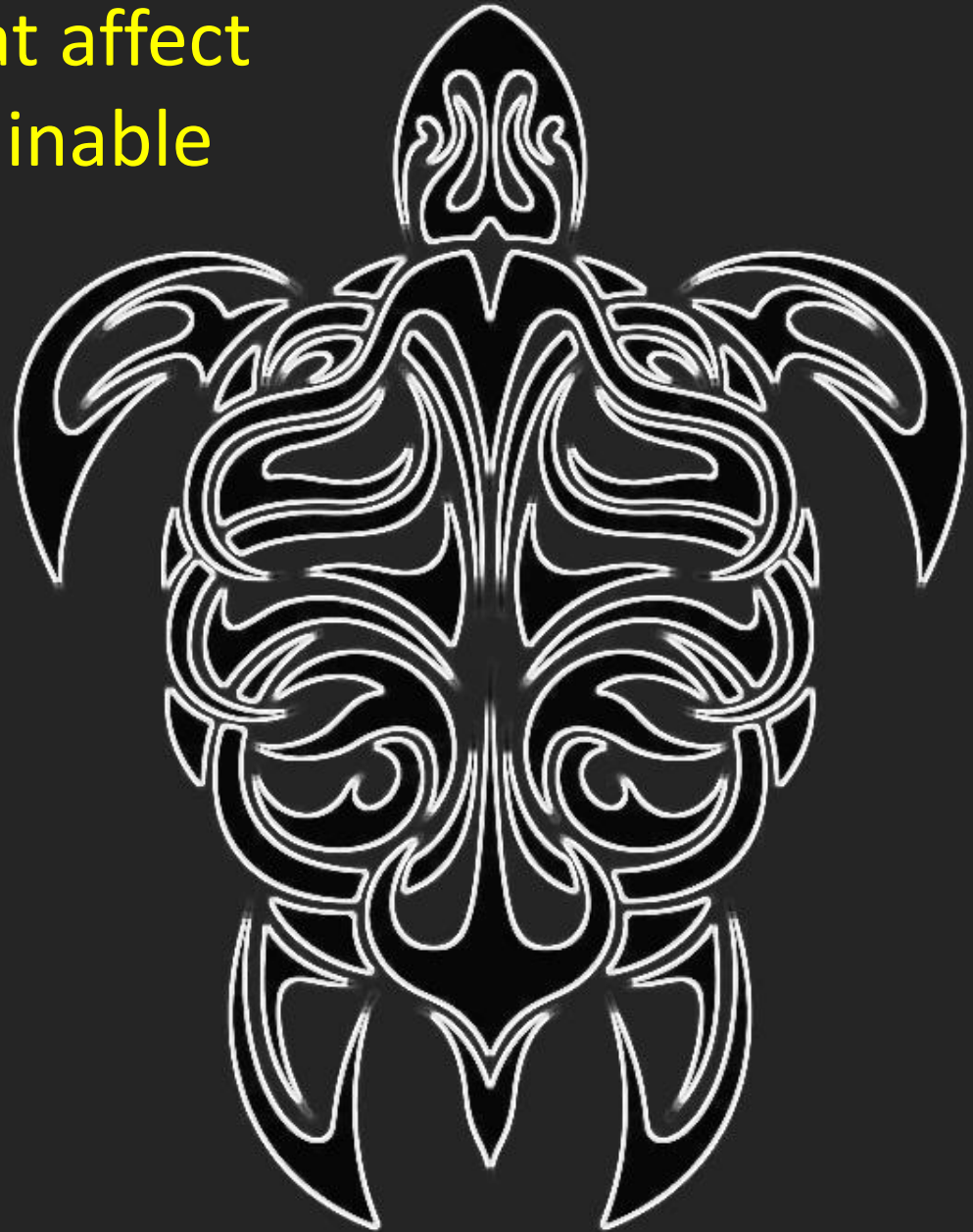
LITERALLY.

Bisphenol-A has been replaced by its nasty cousin, Bisphenol-S. Sound similar right? Well so do their associated health hazards...

www.bodyunburdened.com

Chemical exposures that affect the mother are unsustainable

The “7th generation” principle taught by Native Americans says that in **every decision**, be it personal, governmental or corporate, we must **consider how it will affect our descendants seven generations** into the future





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