Underestimating BPA levels

Patricia Hunt
Washington State University
BPA: A wide range of adverse effects
BPA: Is the rodent a good model?

BPA

BPA-G

Enterohepatic recirculation

Bile

Gut

Blood

Feces/

urine

RATS &

MICE

HUMANS &

MONKEYS

Blood

Urine
BPA Metabolism: Monkey studies

BPA

BPA-G

BPA-S

Passage to fetal compartment

Pregnancy

Contamination

Oral/Non-oral

Unconjugated serum dBPA (ng/ml) vs Time after dBPA feeding (hours)

MOUSE vs MONKEY

Monkey, 19g/Kg

Monkey, 400 µg/kg
Unconjugated serum dBPA (ng/ml)

Time after dBPA feeding (hours)

MOUSE vs MONKEY

MONKEY

MOUSE

19/400

19/400

Unconjugated serum dBPA (ng/ml)
PREGNANCY ALTERS BPA METABOLISM

Time after administration (h)

Unconjugated dBPA (ng/ml)

Unconjugated dBPA

Non-pregnant

GD95

GD50

Non-pregnant dBPA
BPA

BPA-G

BPA-S

Indirect vs Direct
Indirect
Underestimating BPA:

- Human exposure levels
  - Risk assessment?
- Epidemiological studies
  - Accuracy?
- Indirect analysis
  - Other EDCs?