**E11.5 PLACENTAS**

**Vehicle Control** (2 out of 33 abnormal)

114-07: P1-P5 WNL

114-07 P2, P4, P5 (range of normal)

116-07: P1-P4 and P6-P10 WNL

P5 gross: Embryo was very pale but could still see heartbeat. No histo correlate.

116-08: P1-P8 WNL

P4 gross: vasculature in embryo was very prominent-no histo correlate-possibly tangential sectioning

117-06: P1-P4 and P6, P8 WNL

P5 gross: embryo was underdeveloped. histo correlate decreased area of labyrinth

P7 gross: no embryo was with the placenta-histo correlate increased thickness of trilaminar trophoblast layers

117-06 P7 (increased thickness of trilaminar trophoblast layers)

118-11: P1-P7 WNL

R6A and R6B embryos had a shared placenta-histo correlate P6 had a slightly malformed placenta consistent with twins

118-11 P6 (shared placenta)

**GenX 2mg/kg/day** (3 out of 43 abnormal)

114-04: P1-P9 WNL

Gross: Excess abdominal fluid in dam

115-03: P1-P11 WNL

L11 gross: A placenta was found with no embryo but the yolk sac was intact. The placenta was collected for histology. Histo correlate-labyrinth hypoplasia/atrophy

115-03 P6 (metrial gland)

116-03: P1-P10 WNL

117-04: P1-P4 WNL

P5-decidua and transitional zone only, labyrinth necrosis consistent with resporption

118-04: P1-P6, P8 WNL

P7 gross: entire embryonic sac was bloody/hemorrhagic but the embryo was still viable -histo correlate large focal labyrinth hemorrhage and thrombus.

118-04 LP1 – placenta on left that had area of hemorrhage-histo correlate labyrinth atrophy/hypoplasia

**GENX 10mg/kg/day** (5 out of 34 abnormal)

114-02: P1-P3 WNL

115-01: P1, P2, P4, P5, P6, P7 WNL

P3 gross: 2 embryos sharing same placenta. Histology consistent with fused placenta (twins)

P8-P10 gross: placentas collected from resorption embryos

P8 labyrinth necrosis and junctional zone hyperplasia with abundant giant cells

P9, P10 labyrinth necrosis

115-01 P3 (shared placenta), P7 (metrial gland)

117-01: P1-P4 WNL

118-01: P1-P11 WNL

118-02: P1-P6 WNL

**PFOA 1mg/kg/day** (4 out of 36 abnormal)

114-05: P1-P4 and P6-P10 WNL

P5-no labyrinth so check to see if a resorption

115-05: P1-P5 WNL

115-06: P1-P7 WNL

116-06: P1- P7 WNL

117-05: P1-P4-WNL

P5, P6, P7-necrotic labyrinth consistent with resorptions

P6 and P7 were resorptions identified grossly-check on P5

117-05 LP3 (shared placenta)

L3A and L3B – fused placentas. Images taken, placentas collected for histology and embryos submitted for genotyping-histo correlate malformed placenta consistent with a shared placenta (twins) check for gross notes or images

**PFOA 5mg/kg/day** (6 out of 39 abnormal)

114-09: P2, P4-P9 WNL

P1-embryo resorption grossly and marked necrosis histologically

P3: Two embryos sharing the same placenta grossly and malformed placenta histologically consistent with this finding

P10: mild labyrinth atrophy

P11: mild labyrinth atrophy

114-09 P3 (shared placenta), P10 (labryrinth atrophy)

115-09: P2-P6: WNL

Gross finding: areas of hemorrhage in the uterus, embryos appeared to be E10.5-E11.5

P1: multifocal moderate labyrinth necrosis

P7: mild labyrinth, decidua and transitional zone atrophy

115-09 P1 (labryrinth necrosis), P7 (labyrinth atrophy)

116-09: P1-P6: WNL

P7: resorption identified grossly and necrotic placenta histology

117-08: P1-P9 WNL

118-13: P1-P5 WNL

**E17.5 Placentas**

**Vehicle Control**

184-05

P1-P8: WNL

P2 gross: head and neck appear thin and elongated. No placenta histology correlate

P8 gross: embryo is very small (0.65g) and the neck appears thin and elongated. No placenta histo correlate

184-05 P2 (metrial gland), P4 (nodule of transitional tissue)

184-06

P1-P8: WNL

184-06 P5 (normal labyrinth)

186-02

P1-P8: WNL

P5 gross: placenta torn. No histo correlate.

186-02 P1 (normal labyrinth)

187-07

P1-P7: WNL

187-07 P5 (normal labyrinth)

188-07

P1-P10: WNL

P8 head gross: there was a small, dark spot on the head of the embryo. Histology: Cortical necrosis with inflammatory cells (probably lymphocytes).

**GenX 2mg/kg/day**

184-02

P1-P7: moderate labyrinth atrophy and decreased giant cells in junctional zone

184-02 P2, P5, P7 (moderate labyrinth atrophy)

185-02

P1: minimal labyrinth atrophy

P2-P7: mild labyrinth atrophy

P1-P7: decreased giant cells in junctional zone

P4: nodule of transitional tissue on one end of placenta-focal developmental malformation

P4 gross: Nodule on the placenta from the right horn. Histology correlate: focal developmental malformation

185-02 P1 (minimal labyrinth atrophy)

185-02 P5, P6 (mild labyrinth atrophy)

185-02 P4 nodule

187-03

P1 and P3-P6: all WNL

P2: minimal labyrinth atrophy

188-03

P1-P2: WNL

P2 gross - embryo is small and its face/neck appear elongated (no placenta histology correlate)

188-04

P1-P6: WNL

P7-dilated and congested chorionic vessels and early clot formation (intravascular thrombosis) at interface of labyrinth and chorion

P7 gross: placenta rounded and slightly pale

**GENX 10mg/kg/day**

184-01

P1-P2: mild labyrinth atrophy with early formation of blood clots (intravascular thrombosis) at interface of labyrinth and chorion

Necropsy notes: two reabsorptions on the right uterine horn with no tissue for histology

185-01

P1, P2, P4, P5, P8, P10 - mild labyrinth atrophy

P3, P5, P7, P9 – minimal labyrinth atrophy

187-01

P1, P3-P7: WNL

P2: moderate labyrinth necrosis with degeneration and mineralization. Increased fibrin clots (intravascular thrombosis) in the chorion and dilation of maternal sinuses

P2 gross: the embryo was a resorption and was not collected. The placenta was pale and was collected

P8, P9: minimal labyrinth atrophy

187-02

P1: early clot formation (intravascular thrombosis) in decidua

P2, P3: minimal labyrinth atrophy

187-02 P1

188-02

P1-P8: diffuse mild labyrinth congestion

P2 gross: placenta increased in size. Embryo is pale

P7 gross: enlarged placenta

188-02 P5 & P8

**PFOA 1mg/kg/day**

187-04: P1-P5: WNL

187-05: P1-P8: WNL

187-06: P2-P6: WNL

188-06 P7 (junctional zone nodule)

P1 gross: Dark area of possible necrosis beside the placenta. Images were taken

P1 histo correlate-large area of decidua and labyrinth necrosis

188-05: P1-P7

P1-P5: WNL P1 and P2?

LP1: minimal atrophy

LP2: moderate atrophy, umbilical artery mild inflammation and minimal to marked necrosis

Left horn gross: There was one early-death embryo on the left horn. Images were taken of the embryo and placenta. The placenta was collected for histology and placed in a cassette labeled “188-05-L-P2.” There was a remarkable placenta on the left horn that was imaged and collected for histology. It was placed in a cassette labeled “188-05-L-P1.”

188-06: P1-P7

P1-P6: WNL

P7-nodule of tissue from junctional zone

P7 gross: There was a growth on the side of the placenta from P7 noted at necropsy. Images were taken

**PFOA 5mg/kg/day**

184-07: P1-P5: WNL

185-05: P1-P6: WNL

186-03: P1-P6

P1, P4, P5-mild labyrinth atrophy

P3: Intravascular thrombus in decidua and labyrinth congestion

P2, P6: WNL

187-08: P1-P8

P1-P8: moderate diffuse congestion,

P1-P8 gross: Edema seen in the mammary area / edema in abdominal cavity when opened

187-08 P1-P8

188-09: P1-P9

P1-P9: mild diffuse congestion

P1-P9 gross: There was excess fluid in the dam’s abdominal cavity; There was white foam coming out of the dam’s nose after sac; The placentas were rounded and slightly puffy

188-10: P1-P5

P1-P5: mild diffuse congestion

P1-P5 gross: There was excess fluid in the dam’s abdominal cavity