References on the Administration of Cortisol Using ALZET® Osmotic Pumps


**ALZET Comments:** Cortisol; radio-isotopes; DMSO; propylene glycol; 2H tracer; SC; Mice; 1003D; 2 days; Dose (1.75 mg/day); Controls received mp w/ vehicle; animal info (Male, C57Bl6, 12 weeks old); stable-isotope labelled [9,11,12,12-2H]4-cortisol; dependence.


**ALZET Comments:** Corticosterone; Cortisol; DMSO; Propylene glycol; SC; Mice (knockout); 2001; 7 days; Dose (corticosterone (250 ug/day) and cortisol (250 ug/day); Controls received mp w/ vehicle; animal info (Male(Abc1−/−) mice).


**ALZET Comments:** Cortisol; propranediol; Hydrocortisone; IP; Fish; 27.3 days; Controls received mp w/ 80% 1.2-propanediol; animal info (cod, 1.8kg, female); 2ML pump used.


**ALZET Comments:** Cortisol; potassium canrenoate; mifepristone; Saline; SC; Sheep (ewe); 2ML2; 10 days; Controls received mp w/ vehicle; animal info (female, singleton pregnancies); teratology; cardiovascular; impact of maternal stress during late gestation.


**ALZET Comments:** Cortisol; PF915275; meloxicam; interferon, tau, recomb. ovine; Ethanol; Intrauterine (uterine horn); Sheep (ewe); 2ML1; Control animals received mp w/ vehicle; animal info (mature, rambouillet, female, ewe); 2% ethanol used; vinyl catheter used (0007760); "Our previous studies found that infusion of that amount of IFNT in the uterine lumen each day mimics effects of the conceptus on endometrial expression of hormone receptors and IFNT-stimulated genes during early pregnancy in ewes" pg 932.


**ALZET Comments:** Cortisol; Cyclodextrin, 2-hydroxypropyl-b-; Fish (Eel); 1003D; 8 days; Controls received mp w/ vehicle; functionality of mp verified by plasma levels; 30% 2-hydroxypropyl-b-cyclodextrin used; “The infusion of cortisol into FW eels using osmotic mini-pumps led to a 2.8-fold increase in the level of plasma cortisol as measured 8-days after the onset of the experiment (Fig. 1)” pg 311; Dose (15 ug/hr);.


**ALZET Comments:** Cortisol; Cyclodextrin, beta; IP; Fish (eel); 1003D; 8 days; Controls received mp w/ vehicle; functionality of mp verified by cortisol plasma levels; pumps implanted IP per contact with author; 30% cyclodextrin used.

ALZET Comments: Cortisol; Cyclodextrin, beta; IP; Fish (eel); 1003D; 8 days; Controls received mp w/ vehicle; cortisol plasma levels; yellow/silver eels with an ambient temp. of 5-14 degrees celsius, 30 degrees celsius Cyclodextrin used; pumps implanted IP; per contact with author; 30% cyclodextrin used.

ALZET Comments: Cortisol; Cyclodextrin, beta; IP; Fish (carp); 1007D; Controls received mp w/ vehicle; functionality of mp verified by cortisol plasma levels taken; "this approach was used instead of cortisol injection, which evokes stress responses due to repetitive handling..." (p. 2275); 30% cyclodextrin used.

ALZET Comments: Cortisol; SC; Rat; 2001; 7 days; Controls received mp w/ saline.

R0368: B. A. Teicher. The Combination of Antiangiogenic Therapy with Cytotoxic Therapy. Tumor Angiogenesis and Microcirculation 2001;506-548
ALZET Comments: Tetrahydrocortisol; Cyclodextrin-beta tetradecasulfate; SC; Mice; 14 days; Dose: b-Cyclodextrin tetradecasulfate (1000 mg/kg) and tetrahydrocortisol (125 mg/kg); cancer (Lewis lung carcinoma).

ALZET Comments: Cortisol; Saline; SC; Rat; 1 week; controls received mp w/ saline.

ALZET Comments: Cortisol; Saline; SC; pig (fetus); 2001; 6 days; controls received mp with saline; after surgery fetuses received 50 mg of ampicillin into the amniotic cavity; sows maintained on antibiotics 3-4 days after surgery.

ALZET Comments: Epidermal growth factor; Cortisol; Toxin, cholera; Uridine, bromodeoxy--; Medium 199--; SC; gel--; Mice (nude)--; 1003D--; 3 days--; peptides; "tissue perfusion" -- gel containing human mammary epithelial cells was infused; estradiol, progesterone, and cholesterol combinations administered via silastic capsules EGF cholera toxin and hydrocortisone stimulated DNA synthesis substantially with the greatest response seen in the gel proximal to the pump: local delivery appears to be superior to injection--.

ALZET Comments: Cortisol; SC; Rat; 2001; 7 days; controls received mp w/ saline.

ALZET Comments: Cortisol, 21-hemisuccinate; Saline; Cyclodextrin; IP; fish; 18 days; controls received mp w/ vehicle or no surgery; functionality of mp verified by plasma levels; comparison of ip injections and daily handling vs. mp; no stress (see pg. R433); stability verified for 18 days at 7.5 degrees C; only chronic infusion resulted in reduction of corticosteroid receptor number and affinity; cyclodextrin was Molecusol HBP.

ALZET Comments: Cortisol; ACTH; Saline; SC; pig (fetus); 2001; 6 days; controls received mp with saline; peptides; no stress: mp was generally well tolerated; the cortisol used was hydrocortisone hemisuccinate.

**ALZET Comments:** Cortisol; ACTH(1-24); Saline; SC; pig (fetus); 2001; 6 days; controls received mp with saline; peptides.


**ALZET Comments:** Cortisol; SC; pig (fetus); 2001; 6 days; controls received mp with saline or no operation; mp implanted just behind ribs; ampicillin given via amniotic fluid.


**ALZET Comments:** Cortisol; SC; pig (fetus); 2002; 14 days; controls received mp with vehicle or sham operation; replacement therapy (adrenalectomy).


**ALZET Comments:** Progesterone; Cortisol; Cortisone; Corticosterone; Dehydroepiandrosterone; Androstenedione; 4-Androstendiol; 5-Testosterone; Nortestosterone; 19-Estradiol; B-Estrone; Estradiol; Deoxycorticosterone; PEG 400; IV (lower cava); Rat; 2002; 15 days; controls received mp with PEG; no stress (see pg. 351); pumps placed into peritoneal cavity and sutured to musculature; surgical wound sprinkled with sulphathiazol.


**ALZET Comments:** Cortisol; Saline; SC; Rat; 2001; 7 days; no comment posted.


**ALZET Comments:** Cyclodextrin-beta tetradecasulfate; Cortisol, tetrahydro-; SC; mice; 2002; 14 days; cancer.


**ALZET Comments:** Cortisol; Saline; SC; Rat; 2001; 7 days; controls received mp w/ vehicle; microdialysis.


**ALZET Comments:** Cortisol 21-phosphate; Saline; SC; monkey; 2001; 2ML2; 8 weeks; controls received mp w/ saline; functionality of mp verified by plasma level assay; pumps replaced every 7 or 14 days; long-term study.


**ALZET Comments:** Cortisol; Cyclodextrin, B-; IA (dorsal aorta); fish (rainbow trout); 2001; 10-14 days; controls received mp w/ vehicle or sham operation; functionality of mp verified by RIA of plasma levels; stress from surgery caused hyperglycemia (p.816) for 22 hours; "Mini-osmotic pumps. . .were an effective method for chronically elevating cortisol titers in trout."; Molecusol HBP is a beta-cyclodextrin.


**ALZET Comments:** Cortisol; Saline; SC; Rat; 2001; 7 days; dose-response; functionality of mp verified by plasma levels.


**ALZET Comments:** Cortisol; Saline; SC; Rat; 2001; 7 days; dose-response; functionality of mp verified by plasma levels.
ALZET Comments: Cortisol; Growth hormone, human; Triiodothyronine; Sodium hydroxide; Saline; SC; Rat; 7, 14 days; pump model not stated; male rats infused for 7 days, females for 14; agents infused separately; replacement therapy (hypophysectomy); peptides.

ALZET Comments: Aldosterone; Fluorocortisol acetate, 9a-; Corticosterone; Deoxycorticosterone; Dexamethasone; Ethanol; Propylene glycol; Water; SC; Rat; 3 days; replacement therapy (unilateral adrenalectomy); each mp used twice, 3 days in one animal, then 3 days in another; cannot tell if stability/concentration of ald. determined by RIA before or after exp.