References on the Administration of Corticotropin Releasing Factor Using ALZET® Osmotic Pumps

Agents: Corticotropin-releasing factor Vehicle: CSF, artificial; Route: CSF/CNS (posterodorsal medial amygdala); Species: Rat; Pump: 1002; Duration: 14 Days;
ALZET Comments: Dose (0.2 nmol/day); Controls received mp w/ vehicle; animal info (Sprague-Dawley prepubertal rats); Brain coordinates (2.5 mm posterior to bregma (AP), 3.2 mm lateral (ML) and 7.8 mm below the surface of the dura (DV)); Cannula placement verified via histological verification;

Agents: Corticotropin Vehicle: Saline; Route: SC; Species: Rat; Pump: 1003; 2001; Duration: 2 days; 7 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (12 week old adult male rats weighing 120–150 g);

Agents: Corticotropin releasing hormone Vehicle: Saline; Route: CSF/CNS; Species: Mice; Pump: Not Stated; Duration: 28 days;
ALZET Comments: Controls received mp w/ vehicle; animal info (12 week old adult male rats weighing 120–150 g);

Agents: Corticotropin-releasing factor; astressin-B Vehicle: CSF, artificial; Route: CSF/CNS; Species: Rat; Pump: 2002; Duration: 14, 14 days;
ALZET Comments: Controls received no treatment/surgery; peptides; no stress (see pg. 105); animal info (female, Sprague-Dawley, 28 days old); dose-response (fig. 1); neuroendocrinology

Agents: Corticotropin-releasing factor; astressin-B Vehicle: CSF, artificial; Route: CSF/CNS; Species: Rat; Pump: 2002; Duration: 14, 14 days;
ALZET Comments: Controls received no treatment/surgery; peptides; no stress (see pg. 105); animal info (female, Sprague-Dawley, 28 days old); dose-response (fig. 1); neuroendocrinology

Agents: Corticotropin-releasing factor, d-phe; CP-154526; astressin-2b Vehicle: Not Stated; Route: CSF/CNS; Species: Prairie vole; Pump: 1007D; Duration: Not Stated;
ALZET Comments: ALZET brain infusion kit 3 used; cyanoacrylate adhesive; animal info (naive, adult, male, female, 70-100 g); catheter contained ringers solution for delayed delivery of 44 hours

Agents: Corticotropin-releasing factor; Stressin1; sauvagine, anti-; urocortin III Vehicle: Saline; Route: SC; Species: Rat; Pump: 2002; Duration: 12 days;
ALZET Comments: Controls received mp w/ vehicle; peptides; multiple pumps per animal (2); animal info (mast cell-deficient, +/-, 10 wks old, 200-250 g.); "The use of the minipump avoids daily interactions with the animals, possibly
causing less variability in the results." pg G458; stressin1 is a selective CFR-R1 agonist; urocortin III is a CFR-R2 agonist; antisauvagine is a CRF-R2 antagonist

**P3582:** M. Clark, et al. Chronic low dose ovine corticotropin releasing factor or urocortin II into the rostral dorsal raphe alters exploratory behavior and serotonergic gene expression in specific subregions of the dorsal raphe. Neuroscience 2007;146(4):1888-1905

**Agents:** Urocortin II, Corticotropin releasing factor, ovine  
**Vehicle:** CSF, artificial;  
**Route:** CSF/CNS;  
**Species:** Rat;  
**Pump:** 1007D;  
**Duration:** 6 days;

**ALZET Comments:** Dose: ovine CRF (100ng/hr), urocortin II (2ng/μL); Controls received mp w/ vehicle; animal info (male Sprague-Dawley rats (250 g)); post op. care (surgical methylacrylate glue (VetBond) used to close incision, 25 ug of buprenorphine once after surgery for pain control); functionality of mp verified by determining residual volume in the pump at the termination of the experiment; stability verified by HPLC HPLC analysis of samples taken at filing and after 6 days; peptides; Brain coordinates (AP −7.5, lateral −0.2, and depth −6.4);

**P7890:** N. Boyadjieva, et al. Role of beta-endorphin, corticotropin-releasing hormone, and autonomic nervous system in mediation of the effect of chronic ethanol on natural killer cell cytolytic activity. Alcoholism Clinical and Experimental Research 2006;30(10):1761-1767

**Agents:** Endorphin, B; corticotropin releasing hormone  
**Vehicle:** CSF, artificial;  
**Route:** CSF/CNS (paraventricular nucleus of hypothalamus);  
**Species:** Rat;  
**Pump:** 2002;  
**Duration:** 16 hours;

**ALZET Comments:** Controls received mp w/ vehicle; peptides; animal info (male, Fischer, 160-175g.)


**Agents:** Corticotropin-releasing factor, a helical (9-41)  
**Vehicle:** Saline, physiological; NaOH;  
**Route:** CSF/CNS;  
**Species:** Fish (rainbow trout);  
**Pump:** 1003D;  
**Duration:** 8 days;

**ALZET Comments:** Controls received mp w/ vehicle; ALZET brain infusion kit 1 used; 2 week recovery period by filling tubing and cannula with sterile saline; pump connected to catheter after recovery period; CRF receptor antagonist; x-ray radiography; mp encased in a layer of dialysis tubing; cannula placement confirm; mp at 14C


**Agents:** Corticotropin-releasing factor; astressin  
**Vehicle:** Saline; BSA; Ascorbic acid;  
**Route:** CSF/CNS;  
**Species:** Rat;  
**Pump:** 2002;  
**Duration:** 7 days;

**ALZET Comments:** Controls received mp w/ vehicle; ALZET brain infusion kit 1 used; 2 week recovery period by filling tubing and cannula with sterile saline; pump connected to catheter after recovery period; astressin is a novel CRF antagonist; BSA and ascorbic acid was 0.1%; ischemia (cerebral)


**Agents:** Corticotropin-releasing hormone, human/rat  
**Vehicle:** BSA; acetic acid; Ascorbic acid;  
**Route:** SC;  
**Species:** Mice;  
**Pump:** 1002;  
**Duration:** 9 days;

**ALZET Comments:** Controls received mp w/ vehicle; peptides


**Agents:** Urocortin; Corticotropin-releasing factor  
**Vehicle:** Not Stated;  
**Route:** CSF/CNS (lateral ventricle);  
**Species:** Rat;  
**Pump:** 2001;  
**Duration:** 13 days;

**ALZET Comments:** Dose (0.01-1.0 nmol/day); Controls received mp w/ vehicle; animal info (Male Long-Evans rats: 300–347 g); pumps replaced every 7 days; Urocortin, Corticotropin are CRF-related peptide; peptides; Silicone catheter used to connect pump to cannula; Brain coordinates (AP=-0.8 mm, ML=+1.2mm, and DV=-4.5mm); Cannula placement verified via cresyl violet dye injection post mortem;

Agents: Corticotropin-rel. factor; Corticotropin-rel. factor, 9-41 Vehicle: Saline, normal; Route: SC; Species: Rat (pregnant); Pump: 2ML1; Duration: no duration posted;

ALZET Comments: controls received mp w/vehicle; peptides; cardiovascular


Agents: Corticotropin-rel. hormone antagonist Vehicle: Not Stated; Route: Not Stated; Species: Rat; Pump: Not Stated; Duration: no duration posted;

ALZET Comments: no comment posted


Agents: Corticotropin-rel. hormone Vehicle: Acetic Acid; Ascorbate; Albumin, bovine serum; Route: SC; Species: Mice (knockout); Pump: Not Stated; Duration: 2-6 days;

ALZET Comments: Controls received mp w/ vehicle; replacement therapy (adrenalectomy); dose-response (p.2926); peptides


Agents: Corticotropin-rel. hormone Vehicle: Saline, pyrogen-free; Ascorbic acid; Route: SC; CSF/CNS; Species: Rat; Pump: 2001; Duration: 7 days;

ALZET Comments: controls received mp w/ vehicle; no stress (see pg. 4452); ALZET brain infusion kit used


Agents: Dexamethasone; Corticotropin-rel. factor, ovine Vehicle: Not Stated; Route: SC; Species: Rat; Pump: 1003D; 2001; Duration: 14 days;

ALZET Comments: replacement therapy; peptides


Agents: Corticotropin-rel. factor, ovine Vehicle: Saline; BSA; Ascorbic acid; Route: CSF/CNS; Species: Rat; Pump: 2002; Duration: 10 days;

ALZET Comments: controls received mp w/ vehicle; peptides; ALZET brain infusion kit used; catheter filled w/ saline to delay agent delivery; delayed delivery;


Agents: Nicotine tartrate salt; Corticotropin-rel. factor, 6-33; Vehicle: Saline; Route: SC; CSF/CNS; Species: Rat; Pump: 2001; 2002; Duration: 14 days;

ALZET Comments: controls received mp w/ vehicle; functionality of mp verified by plasma levels; peptides; ALZET brain infusion kit used; recomb. human corticotropin releasing factor used; dummy cannula maintained cannula patency during one week recovery period; after 14 day SC nicotine infusion, r/h CRF (6-33) was infused ICV


Agents: Corticotropin-rel. factor Vehicle: Saline, sterile; Ascorbic acid; Route: CSF/CNS; Species: Rat; Pump: 2001; Duration: 1 week;

ALZET Comments: controls received mp w/ vehicle; replacement therapy (adrenalectomy); peptides

Agents: Triiodothyronine; Corticotropin Vehicle: NaOH; Route: IP; Species: Rat; Pump: 2002; Duration: 8-10 days;
ALZET Comments: peptides

P2287: S. Rivest, et al. CRF alters the infundibular LHRH secretory system from the medial preoptic area of female rats: possible involvement of opioid receptors. Neuroendocrinology 1993;57(3):236-246

Agents: Corticotropin-rel. factor Vehicle: Ascorbic acid; Albumin, bovine serum; Saline; Route: CSF/CNS (hypothalamic medial preoptic area); Species: Rat; Pump: 2001; Duration: 7 days;
ALZET Comments: two pumps connected to double internal cannula; animals were ovariectomized


Agents: Corticotropin-rel. factor; Vasopressin; Vasopressin antagonist Vehicle: Not Stated; Route: SC; Species: Rat; Pump: 2001; Duration: 48 hours;
ALZET Comments: controls received inactive mp or silastic tubing; peptides; the vasopressin antagonist was (mercapto cycloenta-methylene propionic acid)-[methyl-tyrosine]arginine VP; agents given singly or together


Agents: Corticotropin-rel. factor; Vasopressin Vehicle: Not Stated; Route: SC; Species: Rat; Pump: Not Stated; Duration: 48-50 hours;
ALZET Comments: controls received silastic tubing; peptides; animals given CRF or CRF + vasopressin

P1829: F. C. Iturriza, et al. Transplantation of the pituitary pars distalis induces the corticotrophs to store melanocyte-stimulating hormone, an effect reversed by the administration of corticotropin-releasing factor. Neuroendocrinology 1991;53(75-78

Agents: Corticotropin-rel. factor Vehicle: Albumin, bovine serum; Saline; Route: SC; Species: Rat; Pump: 2001; Duration: 24 hours;
ALZET Comments: no comment posted


Agents: Corticotropin-rel. factor, ovine Vehicle: Ascorbic acid; Albumin, bovine serum; Saline; Route: CSF/CNS; Species: Rat; Pump: 2001; Duration: 1 week;
ALZET Comments: peptides


Agents: Corticotropin-rel. factor, human; Corticotropin-rel. factor, rat Vehicle: Ascorbic acid; Albumin, bovine serum; Saline; Route: CSF/CNS; Species: Rat; Pump: 2002; Duration: 14 days;
ALZET Comments: infusion delayed about 4 days by 10.6 cm saline-filled catheter; delayed delivery;


Agents: Corticotropin-rel. factor Vehicle: Sodium chloride; Route: CSF/CNS; Species: Rat; Pump: 2001; Duration: 6 days;
ALZET Comments: ICV cannula capped to prevent scratching; peptides

Agents: Corticotropin-rel. factor  
 vehicle: Acetic acid; Ascorbate; Albumin, bovine serum; route: SC; species: Rat; pump: Not Stated; duration: 5 days;

ALZET Comments: Pump model not stated; controls received sham-op; mp primed overnight in saline; pump inserted sc adjacent to wax or cort pellet; varying doses of agent infused; replacement therapy (hypothalmic lesions); peptides


Agents: Corticotropin-rel. factor  
 vehicle: Saline; route: CSF/CNS; species: Rat; pump: 2001; duration: 7 days;

ALZET Comments: mp connected to cannula; dose-response (text); functionality of mp verified by serum levels; peptides


Agents: Corticotropin-rel. factor, ovine  
 vehicle: Saline; route: CSF/CNS; species: Rat; pump: Not Stated; duration: 7 days;

ALZET Comments: mp model not stated; controls received mp with vehicle; peptides


Agents: Dye, Trypan blue; Corticotropin-rel. factor; Vasopressin  
 vehicle: Saline; route: SC; species: Rat; pump: Not Stated; duration: 48 hours;

ALZET Comments: Pump model not stated; concomitant and simultaneous infusion of agents; functionality of mp verified; replacement therapy (vasopressin deficiency); peptides


Agents: Corticotropin-rel. factor, rat  
 vehicle: Ascorbic acid; Albumin, bovine serum; Saline; route: SC; species: Rat; pump: 2001; duration: 52 days;

ALZET Comments: controls received mp w/vehicle; pumps replaced at 10-14 day intervals; long-term study; peptides


Agents: Corticotropin-rel. factor  
 vehicle: Not Stated; route: IP; species: Rat; pump: 2001; duration: 2 days;

ALZET Comments: comparison of adrenal excision vs. mp infusion; sham pump used in controls to determine stress of abdominal surgery p. 440; dose-response data, 2 doses of CRF


Agents: Corticotropin-rel. factor, rat  
 vehicle: Acetic acid; Ascorbate; Albumin, bovine serum; route: SC; species: Rat; pump: 2001; duration: 5 days;

ALZET Comments: replacement therapy (adrenalectomy); mp primed in saline 4-12 h prior to implant


Agents: Corticotropin-rel. factor, 7-14; Corticotropin-rel. factor; Corticotropin-rel. factor, ovine  
 vehicle: Ascorbic acid; Albumin, bovine serum; PBS; route: IV (jugular); species: Rat; pump: Not Stated; duration: 1 week;

ALZET Comments: comparison of acute iv injec vs. multiple icv injec vs. iv mp infusion; comparison of agents effects


Agents: Corticotropin-rel. factor  
 vehicle: Water; route: SC; species: Rat; pump: 2001; duration: 8 days;

ALZET Comments: controls received mp w/ water; peptides

Agents: Corticotropin-rel. factor  
Vehicle: Ascorbic acid; Saline  
Route: IV (jugular)  
Species: Rat  
Pump: 2001  
Duration: 3-15 days  

ALZET Comments: peptides