Drug Dosage

The authors and the publisher have exerted every effort to ensure that drug selection and dosage set forth in this text are in accord with current recommendations and practice at the time of publication. However, in view of ongoing research, changes in government regulations, and the constant flow of information relating to drug therapy and drug reactions, the reader is urged to check the package insert for each drug for any change in indications and dosage and for added warnings and precautions. This is particularly important when the recommended agent is a new and/or infrequently employed drug.
No. 2

Original Papers
Evidence for a Brain Site of Melatonin Action in the White-Footed Mouse, *Peromyscus leucopus*
Glass, J.D.; Lynch, G.R. ........................................................... 1

Thalamic-Hypothalamic Interrelationships and Stress-Induced Rebounding Adrenocortical Response in the Pigeon
Ramade, F.; Bayle, J.D ............................................................ 7

Effects of Aging on the Activity of Hypothalamic Dopamine-Beta-Hydroxylase during Various Stages of the Estrous Cycle in C57BL/6 Mice
Banerji, T.K.; Parkening, T.A.; Collins, T.J ............................ 14

Influence of Adrenocorticotropic and Adrenalectomy on Gonadotropin Secretion in Immature Rats
Mann, D.R.; Jackson, G.G.; Blank, M.S................................. 20

Evidence that the Effects of 5-Hydroxytryptophan on the Secretion of ACTH and Growth Hormone in Dogs are not Mediated by Central Release of Serotonin
Zimmermann, H.; Kaplan, S.L.; Ganong, W.F ........................ 27

Distribution and Characterization of Corticotropin-Releasing Factor and Arginine Vasopressin in Rat Hypothalamic Nuclei
Hashimoto, K.; Ohno, N.; Aoki, Y.; Kageyama, J.; Takahara, J.; Ofuji, T ................................................................. 32

Dissociation of the Effects of Gonadal Steroids on Brain Serotonin Metabolism and Sexual Behavior in the Male Rat
Bradshaw, W.G.; Erskine, M.S.; Baum, M.J ........................... 38

Patterns of Cyclic AMP Phosphodiesterases in the Rat Pineal Gland: Sex Differences in Diurnal Rhythmicity Epplen, J.T.; Kaltenhäuser, H.; Engel, W.; Schmidtke, J. 46

Vasopressin Has a Direct Effect on Prolactin Release in Male Rats
Shin, S.H.................................................................................. 55

Oxytocin and Neurophysin in Plasma and CSF during Suckling in the Guinea-Pig
Robinson, I.C.A.F.; Jones, P.M ................................................. 59

Effects of Testosterone Metabolites and Estrogen in the Midbrain Control of Courtship Behavior in the Male Ring Dove (*Streptopelia risoria*)
Cohen, J.; Cheng, M.-F............................................................ 64

Progress in Neuroendocrinology
The Supraoptic Nucleus as an Osmoreceptor
Leng, G.; Mason, W.T.; Dyer, R.G........................................... 75

Announcements ................................................................. 83
Original Papers

Ultrastructural Evidence for Endogenous Vasoactive Intestinal Peptide-Like Immunoreactivity in the Pituitary Gland
Morel, G.; Besson, J.; Rosselin, G.; Dubois, P.M.......................... 85

Triphasic Changes in Plasma ACTH Concentration and Brain Serotonin Synthesis Rate following Adrenalectomy in Rats
Van Loon, G.R.; Shiu, A.; De Souza, E.B ......................... 90

Neurotensin Stimulation of Prolactin Secretion in vitro
Enjalbert, A.; Arancibia, S.; Priam, M.; Bluet-Pajot, M.T.; Kordon, C .......................................................... 95

Properties of CRF from Normal and Brattleboro Rat Median Eminence

Estrogenic Feminization of the LH Response to Orchidectomy in the Rat: Evidence for a Hypothalamic Site of Action
DePaolo, L.V.; Negro-Vilar, A......................................... 104

Selectivity of Melatonin Pituitary Inhibition for Luteinizing Hormone-Releasing Hormone
Martin, J.E.; Sattler, C .................................................. 112

GABA Neuron Systems in Hypothalamus and the Pituitary Gland. Immunohistochemical Demonstration Using Anti bodies against Glutamate Decarboxylase

Plasma Melatonin Levels and Nocturnal Transitions between Sleep and Wakefulness
Birkeland, A.J .......................................................... 126

The Effect of Intracerebroventricular Indomethacin on Osmotically Stimulated Vasopressin Release
Hoffman, P.K.; Share, L.; Crofton, J.T.; Shade, R.E. ... 132

Mammotroph and Gonadotroph Volume Percentage in the Rat Anterior Pituitary after Lesion of the Medial Basal Hypothalamus
Cronin, M.J.; Cheung, C.Y.; Weheier, R.I.; Goldsmith, P.C ........................................................... 140

Diurnal Variations in Rat Posterior Pituitary Catecholamine Levels
Barden, N.; Chevillard, C; Saavedra, J.M.......................... 148

Sixth Geoffrey Harris Memorial Lecture
Changes in Neuroendocrine Control of Anterior Pituitary Function during Aging
Meites, J........................................................................ 151
Original Papers

Circadian Adrenocortical Rhythm in the Adrenalectomized Rat with or without Autotransplanted Adrenal Gland
Murakami, N.; Takahashi, K. ..............................157

L-Dopa Restores Amplitude of Growth Hormone Pulses in Old Male Rats to That Observed in Young Male Rats

Pituitary Responsiveness to LHRH Stimulation in Hamsters Treated Neonatally with Monosodium Glutamate
Lamperti, A.,; Baldwin, D., ..............................169

In vitro Release of Endogenous Catecholamines from the Neural and Intermediate Lobe of the Hypophysis
Sharman, D.,; Holzer, P.,; Holzbauer, M. ..............................175

Effect of Chloroquine on Thyroliberin Interaction with Clonal Rat Prolactin Cells. Cytochemical Correlates Tixier-Vidal, A.; Moreau, M.,; Picart, R.,; Gourdi, D. 180

Diurnal Variation in Hypothalamic Monoamines and Plasma Corticosterone in the Turkey after Inhibition of Tyrosine Hydroxylase or Tryptophan Hydroxylase
Martin, J.,; El Halawani, M.; Phillips, R.E. ..............................191

Immunocytochemical Evidence for Gonadoliberin in Rat Anterior Pituitary Gland
Morel, G.; Dubois, P.,M. ..............................197

Differential Effects of Central Adrenoceptor Agonists on Luteinizing Hormone Release

Effect of Intravenous and Intracerebroventricular Infusion of Hypertonic Solutions on Plasma and Cerebrospinal Fluid Vasopressin Concentrations
Wang, B.C.; Share, L.; Crofton, J.T.; Kimura, T. ..............................215

Comparison of Gonadotroph, Thyrotroph and Mammatroph Development in situ, in Transplants and in Organ Culture
Gash, D.; Ahmad, N.; Schechter, J. ..............................222

Semicircadian Rhythm of Tuberoinfundibular Dopamine Neuronal Activity during Early Pregnancy and Pseudopregnancy in the Rat
McKay, D.,; Pasieka, C.,A.; Moore, K.,; Riegle, G.,; Demarest, K.T. ..............................229

Announcements ..........................................................236
Original Papers

Inhibition of Lordosis Behavior by Intrahypothalamic Implants of Pargyline
Luine, V.N.; Fischette, C.T. ...............................................................237

Effects of Monoamine Oxidase Inhibition on Female Sexual Behavior, Serotonin Levels and Type A and B Monoamine Oxidase Activity
Luine, V.N.; Paden, C.M...............................................................245

Changes in the Rate of Dopamine Synthesis in the Posterior Pituitary during Dehydration and Rehydration: Relationship to Plasma Sodium Concentrations
Alper, R.H.; Demarest, K.T.; Moore, K.E .........................................252

Immunocytochemical Evidence that Suckling Inhibits the Postovariectomy Depletion of Median Eminence Luteinizing Hormone Releasing Hormone
Culler, M.D.; McArthur, N.H.; Dees, W.L.; Owens, R.E.; Harms, P.G.................................................................258

Effect of Light and Darkness on the in vitro Release of N-Acetylsheotonin and Melatonin by the Retina of Guinea Pigs
Yu, H.S.; Chow, P.H.; Tang, P.L.; Pang, S.F......................................265

Effects of Morphine and Naloxone on Inhibition by Ovarian Hormones of Pulsatile Release of LH in Ovariectomized Rats
Sylvester, P.W.; Van Vught, D.A.; Aylsworth, C.A.; Hanson, E.A.; Meites, J.............................................................................269

Counteraction of Gonadal Steroid Inhibition of Luteinizing Hormone Release by Naloxone
Van Vught, D.A.; Sylvester, P.W.; Aylsworth, C.F.; Meites, J.....................................................................................................274

Correlative Surges of LHRH, LH and FSH in Pituitary Stalk Plasma and Systemic Plasma of Rat during Proestrus. Effect of Anesthetics
Ching, M....................................................................................279

Postpartum Luteinizing Hormone Release and Maternal Behavior in the Rat after Late-Gestational Depletion of Hypothalamic Norepinephrine
Bridges, R.S.; Clifton, D.K.; Sawyer, C.H......................................286

High-Affinity Uptake of Hypothalamic Neurotransmitters in Mice Treated Neonatally with Monosodium Glutamate
Dawson, R., Jr.; Valdes, J.J.; Annau, Z..........................................292

Differential Clearance of Neurophysin and Neurohypophysial Peptides from the Cerebrospinal Fluid in Conscious Guinea Pigs
Jones, P.M.; Robinson, I.C.A.F.....................................................297

Progress in Neuroendocrinology

Adenohypophyseal Hormones in the CSF
Lenhard, L.; Deftos, L.J.................................................................303
Original Papers

Effects of Acetylcholine Injection into the Hypothalamus on the Insulin and Glucagon Release. Role of Adrenal Gland
Ishikawa, K.; Suzuki, M.; Shimazu, T. ..................................................310
Characterization of Estrogen Stimuli Sufficient to Initiate Cyclic Luteinizing Hormone Release in Acutely Ovariectomized Rats
Krey, L.C.; Parsons, B. ..........................................................315
Evidence that the Medial basal Hypothalamus is Involved in Serotonergic Stimulation of Renin Secretion
Kartesz, M.; Van de Kar, L.D.; Makara, G.B.; Stark, E.; Ganong, W.F. ........................................................................323
Implantation of Dihydrotestosterone Propionate into the Lat eral Septum Inhibits Sexual Receptivity in Estrogen-Primed, Ovariectomized Rats
Tobet, S.A.; Bauli, M. ..........................................................333
Effect of Tamoxifen Administration on Prolactin Release by Invasive Prolactin-Secreting Pituitary Adenomas
Lamberts, S.W.J.; Verleun, T.; Oosterom, R. ..................................339
Pharmacologic Effects of Melatonin on Hypothalamic-Adeno- hypophyseal Function in the Nonhuman Primate
Chrousos, G.P.; Brown, T.; Bercu, B.B ..............................................343
Methadone Blocks Dopamine-Mediated Release of Gonado- tropins in Rat Hypothalamus
Singh, H.H.; Purohit, V.; Ahluwalia, B.S. ..................................347
Evidence for Inhibition by ß-Endorphin of Vasopressin Release during Foot Shock-Induced Stress in the Rat
Knepel, W.; Nutto, D.; Hertting, G. ..................................................353
Anesthetic Pregnanes Counteract Androgen-Induced Defeminization. Gonzalez-Mariscal, G.; Fernandez-Guasti, A.; Beyer, C. . . . 357
24-Hour Rhythm of Hypothalamic Melatonin Immunofluorescence Correlates with Serum and Retinal Melatonin Rhythms
Grota, L.J.; Holloway, W. R.; Brown, G.M. ......................................363
Suppression of Prolactin Secretion by Benzodiazepines in vivo
Grandison, L. ..............................................................................369
Significance of ACTH4-10 in the Control of Hippocampal Corticosterone Receptor Capacity of Hypophysectomized Rats
Veldhuis, H.D.; De Kloet, E.R.........................................................374
Original Papers

Effects of Ovarian Hormones on Norepinephrine and Dopamine Turnover in Individual Hypothalamic and Extrahypothalamic Nuclei
Crowley, W.R ...........................................................................381

Pituitary Gonadotrophin-Releasing Hormone Responsiveness in the Prepubertal Period: Effect of Delayed Puberty Onset
Ramaley, J.A.................................................................387

Discrete Lesions Reveal Functional Heterogeneity of Supra-chiasmatic Structures in Regulation of Gonadotropin Secretion in the Female Rat
Wiegand, S.J.; Terasawa, E ..................................................395

Spontaneous ‘Phasic-Firing’ in Supraoptic Neurons Recorded from Hypothalamo-Neurohypophysial Explants in vitro
Armstrong, W.E.; Sladek, C.O ...........................................405

Effect of Central Catecholamine Depletion on [H]-Dexamethasone Binding in the Dog
Stith, R.D.; Person, R.J.........................................................410

Characterization of Cephalic Arteriovenous LH Differences by Continuous Sampling in Ovariectomized Sheep
Rasmussen, D.D.; Malven, P.V .............................................415

Melatonin Does Not Affect Luteinizing Hormone-Releasing Hormone Binding to Neonatal Rat Anterior Pituitary Membranes
Henshel, D.S.; Sattler, C; Martin, J.E ...................................421

Nuclear Progesting Receptors in Rat Brain and Pituitary
Rainbow, T.C.; McGinnis, M.Y.; Krey, L.C.; McEwen, B.S .................................................................426

Effect of α-Melanocyte-Stimulating Hormone on Basal and Stimulated Release of Prolactin: Evidence for Dopaminergic Mediation
Khorram, O.; Mizunuma, H.; McCann, S.M. .........................433

Sleep Organization in Hypo- and Hyperthyroid Rats
Carpenter, A.C.; Timiras, P.S ................................................438

Author Index .................................................................444

Subject Index .......................................................................445