

7 Literaturverzeichnis

- Arai M., Assil I.Q. und Abou-Samra A.B.** (2001) Characterization of three corticotropin-releasing factor receptors in catfish: a novel third receptor is predominantly expressed in pituitary and urophysis. *Endocrinology* 142, 446-454.
- Ardati A., Goetschy V., Gottowick J., Henriot S., Valdenaire O., Deusdle U. und Kilpatrick G.J.** (1999) Human CRF2 alpha and beta splice variants: pharmacological characterization using radioligand binding and a luciferase gene expression assay. *Neuropharmacology* 38, 441-448.
- Baigent S.M.** (2001) Peripheral corticotropin-releasing hormone and urocortin in the control of the immune response. *Peptides* 22, 809-820.
- Beckers T., Reilander H. und Hilgard P.** (1997) Characterization of gonadotropin-releasing hormone analogs based on a sensitive cellular luciferase reporter gene assay. *Anal Biochem* 251, 17-23.
- Behan D.P., Grigoriadis D.E., Lovenberg T., Chalmers D., Heinrichs S., Liaw C. und De Souza E.B.** (1996) Neurobiology of corticotropin releasing factor (CRF) receptors and CRF-binding protein: implications for the treatment of CNS disorders. *Mol Psychiatry* 1, 265-277.
- Behan D.P., Heinrichs S.C., Troncoso J.C., Liu X.J., Kawas C.H., Ling N. und De Souza E.B.** (1995) Displacement of corticotropin releasing factor from its binding protein as a possible treatment for Alzheimer's disease. *Nature* 378, 284-287.
- Bergwitz C., Gardella T.J., Flannery M.R., Potts J.T., Jr., Kronenberg H.M., Goldring S.R. und Juppner H.** (1996) Full activation of chimeric receptors by hybrids between parathyroid hormone and calcitonin. Evidence for a common pattern of ligand-receptor interaction. *J Biol Chem* 271, 26469-26472.
- Beyermann M., Fechner K., Farkert J., Krause E. und Bienert M.** (1996) A single-point slight alteration set as a tool for structure-activity relationship studies of ovine corticotropin releasing factor. *J Med Chem* 39, 3324-3330.
- Beyermann M., Rothmund S., Heinrich N., Fechner K., Farkert J., Dathe M., Winter R., Krause E. und Bienert M.** (2000) A role for a helical connector between two receptor binding sites of a long-chain peptide hormone. *J Biol Chem* 275, 5702-5709.
- Beyermann M., Sasse A., Fechner K., Farkert J., Heinrich N., Berger H., Kaupp U. und Bienert M.** (1997) CRF-receptor ligands: Insights into the mode of receptor-peptide interaction. *Eur Neuropsychopharmacol* 7, 88.

- Birnbaumer M., Antaramian A., Themmen A.P. und Gilbert S.** (1992) Desensitization of the human V2 vasopressin receptor. Homologous effects in the absence of heterologous desensitization. *J Biol Chem* 267, 11783-11788.
- Birnboim H.C. und Doly J.** (1979) A rapid alkaline extraction procedure for screening recombinant plasmid DNA. *Nucleic Acids Res* 7, 1513-1523.
- Birzin E.T. und Rohrer S.P.** (2002) High-throughput receptor-binding methods for somatostatin receptor 2. *Anal Biochem* 307, 159-166.
- Bittencourt J.C., Vaughan J., Arias C., Rissman R.A., Vale W.W. und Sawchenko P.E.** (1999) Urocortin expression in rat brain: evidence against a pervasive relationship of urocortin-containing projections with targets bearing type 2 CRF receptors. *J Comp Neurol* 415, 285-312.
- Blank T., Nijholt I., Grammatopoulos D.K., Randeva H.S., Hillhouse E.W. und Spiess J.** (2003) Corticotropin-releasing factor receptors couple to multiple G-proteins to activate diverse intracellular signaling pathways in mouse hippocampus: role in neuronal excitability and associative learning. *J Neurosci* 23, 700-707.
- Bradford M.M.** (1976) A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. *Anal Biochem* 72, 248-254.
- Broach J.R. und Thorner J.** (1996) High-throughput screening for drug discovery. *Nature JID* - 0410462 384, 14-16.
- Bullock W.O., Fernandez J.M. und Short J.M.** (1987) XL1-blue: A high efficiency plasmid transforming recA *Escherichia coli* strain with beta-galactosidase selection. *Biotechniques* 5, 376-378.
- Bylund D.B. und Toews M.L.** (1993) Radioligand binding methods: practical guide and tips. *Am J Physiol* 265, L421-L429.
- Cao Y.J., Gimpl G. und Fahrenholz F.** (1995) The amino-terminal fragment of the adenylate cyclase activating polypeptide (PACAP) receptor functions as a high affinity PACAP binding domain. *Biochem Biophys Res Commun JID* - 0372516 212, 673-680.
- Catalano R.D., Kyriakou T., Chen J., Easton A. und Hillhouse E.W.** (2003) Regulation of corticotropin-releasing hormone type 2 receptors by multiple promoters and alternative splicing: identification of multiple splice variants. *Mol Endocrinol* 17, 395-410.

- Cepoi D., Sutton S., Arias C., Sawchenko P. und Vale W.W.** (1999) Ovine genomic urocortin: cloning, pharmacologic characterization, and distribution of central mRNA. *Brain Res Mol Brain Res* 68, 109-118.
- Chalmers D.T., Lovenberg T.W. und De Souza E.B.** (1995) Localization of novel corticotropin-releasing factor receptor (CRF2) mRNA expression to specific subcortical nuclei in rat brain: comparison with CRF1 receptor mRNA expression. *J Neurosci* 15, 6340-6350.
- Chalmers D.T., Lovenberg T.W., Grigoriadis D.E., Behan D.P. und De Souza E.B.** (1996) Corticotrophin-releasing factor receptors: from molecular biology to drug design. *Trends Pharmacol Sci* 17, 166-172.
- Chambers C., Smith F., Williams C., Marcos S., Liu Z.H., Hayter P., Ciaramella G., Keighley W., Gribbon P. und Sewing A.** (2003) Measuring intracellular calcium fluxes in high throughput mode. *Comb Chem High Throughput Screen* 6, 355-362.
- Chang C.P., Pearse R.V., O'Connell S. und Rosenfeld M.G.** (1993) Identification of a seven transmembrane helix receptor for corticotropin-releasing factor and sauvagine in mammalian brain. *Neuron* 11, 1187-1195.
- Chen A., Perrin M., Brar B., Li C., Jamieson P., Digruccio M., Lewis K. und Vale W.** (2005) Mouse corticotropin-releasing factor receptor type 2alpha gene: isolation, distribution, pharmacological characterization and regulation by stress and glucocorticoids. *Mol Endocrinol* 19, 441-458.
- Chen C., Wilcoxon K.M., Huang C.Q., Xie Y.F., McCarthy J.R., Webb T.R., Zhu Y.F., Saunders J., Liu X.J., Chen T.K., Bozigian H. und Grigoriadis D.E.** (2004) Design of 2,5-dimethyl-3-(6-dimethyl-4-methylpyridin-3-yl)-7-dipropylaminopyrazolo[1',5-a]pyrimidine (NBI 30775/R121919) and structure-activity relationships of a series of potent and orally active corticotropin-releasing factor receptor antagonists. *J Med Chem* 47, 4787-4798.
- Chen F.M., Bilezikjian L.M., Perrin M.H., Rivier J. und Vale W.** (1986) Corticotropin releasing factor receptor-mediated stimulation of adenylate cyclase activity in the rat brain. *Brain Res* 381, 49-57.
- Chen R., Lewis K.A., Perrin M.H. und Vale W.W.** (1993) Expression cloning of a human corticotropin-releasing-factor receptor. *Proc Natl Acad Sci U S A* 90, 8967-8971.
- Chen W., Shields T.S., Stork P.J. und Cone R.D.** (1995) A colorimetric assay for measuring activation of Gs- and Gq-coupled signaling pathways. *Anal Biochem* 226, 349-354.

Clark R.B., Knoll B.J. und Barber R. (1999) Partial agonists and G protein-coupled receptor desensitization. Trends Pharmacol Sci 20, 279-286.

Coward P., Chan S.D., Wada H.G., Humphries G.M. und Conklin B.R. (1999) Chimeric G proteins allow a high-throughput signaling assay of Gi-coupled receptors. Anal Biochem JID - 0370535 270, 242-248.

Culliford S.J., McCauley P., Sutherland A.J., McCairn M., Sutherland J., Blackburn J. und Kozlowski R.Z. (2002) A novel cell-based scintillation proximity assay for studying protein function and activity in vitro using membrane-soluble scintillants. Biochem Biophys Res Commun 296, 857-863.

Dathe M., Fabian H., Gast K., Zirwer D., Winter R., Beyermann M., Schumann M. und Bienert M. (1996) Conformational differences of ovine and human corticotropin releasing hormone. A CD, IR, NMR and dynamic light scattering study. Int J Pept Protein Res 47, 383-393.

Dautzenberg F.M., Dietrich K., Palchaudhuri M.R. und Spiess J. (1997) Identification of two corticotropin-releasing factor receptors from *Xenopus laevis* with high ligand selectivity: unusual pharmacology of the type 1 receptor. J Neurochem JID - 2985190R 69, 1640-1649.

Dautzenberg F.M. und Hauger R.L. (2002) The CRF peptide family and their receptors: yet more partners discovered. Trends Pharmacol Sci 23, 71-77.

Dautzenberg F.M., Higelin J. und Teichert U. (2000) Functional characterization of corticotropin-releasing factor type 1 receptor endogenously expressed in human embryonic kidney 293 cells. Eur J Pharmacol 390, 51-59.

Dautzenberg F.M., Kilpatrick G.J., Hauger R.L. und Moreau J. (2001) Molecular biology of the CRH receptors- in the mood. Peptides 22, 753-760.

Dautzenberg F.M., Kilpatrick G.J., Wille S. und Hauger R.L. (1999) The ligand-selective domains of corticotropin-releasing factor type 1 and type 2 receptor reside in different extracellular domains: generation of chimeric receptors with a novel ligand-selective profile. J Neurochem 73, 821-829.

Dautzenberg F.M., Wille S., Lohmann R. und Spiess J. (1998) Mapping of the ligand-selective domain of the *Xenopus laevis* corticotropin-releasing factor receptor 1: implications for the ligand-binding site. Proc Natl Acad Sci U S A 95, 4941-4946.

De Souza E.B. (1987) Corticotropin-releasing factor receptors in the rat central nervous system: characterization and regional distribution. J Neurosci 7, 88-100.

- De Souza E.B.** (1995) Corticotropin-releasing factor receptors: physiology, pharmacology, biochemistry and role in central nervous system and immune disorders. *Psychoneuroendocrinology* 20, 789-819.
- De Souza E.B., Whitehouse P.J., Kuhar M.J., Price D.L. und Vale W.W.** (1986) Reciprocal changes in corticotropin-releasing factor (CRF)-like immunoreactivity and CRF receptors in cerebral cortex of Alzheimer's disease. *Nature* 319, 593-595.
- Deo S.K. und Daunert S.** (2001) Green fluorescent protein mutant as label in homogeneous assays for biomolecules. *Anal Biochem* 289, 52-59.
- Dieterich K.D., Lehnert H. und De Souza E.B.** (1997) Corticotropin-releasing factor receptors: an overview. *Exp Clin Endocrinol Diabetes* 105, 65-82.
- Donaldson C.J., Sutton S.W., Perrin M.H., Corrigan A.Z., Lewis K.A., Rivier J.E., Vaughan J.M. und Vale W.W.** (1996) Cloning and characterization of human urocortin. *Endocrinology JID - 0375040* 137, 3896-Donaldson, C.
- Dove A.** (1999) Drug screening--beyond the bottleneck. *Nat Biotechnol* 17, 859-863.
- Durocher Y., Perret S., Thibaudeau E., Gaumond M.H., Kamen A., Stocco R. und Abramovitz M.** (2000) A reporter gene assay for high-throughput screening of G-protein-coupled receptors stably or transiently expressed in HEK293 EBNA cells grown in suspension culture. *Anal Biochem* 284, 316-326.
- Fitzgerald L.R., Mannan I.J., Dytko G.M., Wu H.L. und Nambi P.** (1999) Measurement of responses from Gi-, Gs-, or Gq-coupled receptors by a multiple response element/cAMP response element-directed reporter assay. *Anal Biochem* 275, 54-61.
- Florio P., Severi F.M., Ciarmela P., Fiore G., Calonaci G., Merola A., De Felice C., Palumbo M. und Petraglia F.** (2002) Placental stress factors and maternal-fetal adaptive response: the corticotropin-releasing factor family. *Endocrine* 19, 91-102.
- Florio P., Vale W. und Petraglia F.** (2004) Urocortins in human reproduction. *Peptides* 25, 1751-1757.
- Frank R.** (1992) Spot-Synthesis: An Easy Technique for the Positionally Addressable, Parallel Chemical Synthesis on a Membrane Support. *Tetrahedron* 48, 9217-9232.
- Gether U.** (2000) Uncovering molecular mechanisms involved in activation of G protein-coupled receptors. *Endocr Rev* 21, 90-113.

Gilligan P.J. und Li Y.W. (2004) Corticotropin-releasing factor antagonists: recent advances and exciting prospects for the treatment of human diseases. *Curr Opin Drug Discov Devel* 7, 487-497.

Gottowik J., Goetschy V., Henriot S., Kitas E., Fluhman B., Clerc R.G., Moreau J.L., Monsma F.J. und Kilpatrick G.J. (1997) Labelling of CRF1 and CRF2 receptors using the novel radioligand, [³H]-urocortin. *Neuropharmacology* 36, 1439-1446.

Grace C.R., Perrin M.H., DiGruccio M.R., Miller C.L., Rivier J.E., Vale W.W. und Riek R. (2004) NMR structure and peptide hormone binding site of the first extracellular domain of a type B1 G protein-coupled receptor. *Proc Natl Acad Sci U S A* 101, 12836-12841.

Graham F.L., Smiley J., Russell W.C. und Nairn R. (1977) Characteristics of a human cell line transformed by DNA from human adenovirus type 5. *J Gen Virol JID - 0077340* 36, 59-74.

Grammatopoulos D.K., Dai Y., Randeva H.S., Levine M.A., Karteris E., Easton A.J. und Hillhouse E.W. (1999) A novel spliced variant of the type 1 corticotropin-releasing hormone receptor with a deletion in the seventh transmembrane domain present in the human pregnant term myometrium and fetal membranes. *Mol Endocrinol* 13, 2189-2202.

Grammatopoulos D.K., Randeva H.S., Levine M.A., Kanellopoulou K.A. und Hillhouse E.W. (2001) Rat cerebral cortex corticotropin-releasing hormone receptors: evidence for receptor coupling to multiple G-proteins. *J Neurochem* 76, 509-519.

Grammatopoulos D.K., Randeva H.S., Levine M.A., Katsanou E.S. und Hillhouse E.W. (2000) Urocortin, but not corticotropin-releasing hormone (CRH), activates the mitogen-activated protein kinase signal transduction pathway in human pregnant myometrium: an effect mediated via R1alpha and R2beta CRH receptor subtypes and stimulation of Gq-proteins. *Mol Endocrinol* 14, 2076-2091.

Grant S.K., Bansal A., Mitra A., Feighner S.D., Dai G., Kaczorowski G.J. und Middleton R.E. (2001) Delay of intracellular calcium transients using a calcium chelator: application to high-throughput screening of the capsaicin receptor ion channel and G protein-coupled receptors. *Anal Biochem* 294, 27-35.

Gravanis A., Makrigiannakis A., Zoumakis E. und Margioris A.N. (2001) Endometrial and myometrial corticotropin-releasing hormone (CRH): its regulation and possible roles. *Peptides* 22, 785-793.

- Grigoriadis D.E., Liu X.J., Vaughn J., Palmer S.F., True C.D., Vale W.W., Ling N. und De Souza E.B.** (1996) 125I-Tyro-sauvagine: a novel high affinity radioligand for the pharmacological and biochemical study of human corticotropin-releasing factor 2 alpha receptors. Mol Pharmacol 50, 679-686.
- Gully D., Geslin M., Serva L., Fontaine E., Roger P., Lair C., Darre V., Marcy C., Rouby P.E., Simiand J., Guitard J., Gout G., Steinberg R., Rodier D., Griebel G., Soubrie P., Pascal M., Pruss R., Scatton B., Maffrand J.P. und Le Fur G.** (2002) 4-(2-Chloro-4-methoxy-5-methylphenyl)-N-[(1S)-2-cyclopropyl-1-(3-fluoro-4-methylphenyl)ethyl]5-methyl-N-(2-propynyl)-1,3-thiazol-2-amine hydrochloride (SSR125543A): a potent and selective corticotrophin-releasing factor(1) receptor antagonist. I. Biochemical and pharmacological characterization. J Pharmacol Exp Ther 301, 322-332.
- Gulyas J., Rivier C., Perrin M., Koerber S.C., Sutton S., Corrigan A., Lahrichi S.L., Craig A.G., Vale W. und Rivier J.** (1995) Potent, structurally constrained agonists and competitive antagonists of corticotropin-releasing factor. Proc Natl Acad Sci U S A 92, 10575-10579.
- Hashimoto K., Nishiyama M., Tanaka Y., Noguchi T., Asaba K., Hossein P.N., Nishioka T. und Makino S.** (2004) Urocortins and corticotropin releasing factor type 2 receptors in the hypothalamus and the cardiovascular system. Peptides 25, 1711-1721.
- Hauger R.L., Grigoriadis D.E., Dallman M.F., Plotsky P.M., Vale W.W. und Dautzenberg F.M.** (2003) International Union of Pharmacology. XXXVI. Current Status of the Nomenclature for Receptors for Corticotropin-Releasing Factor and Their Ligands. Pharmacol Rev 55, 21-26.
- Heinrich N., Meyer M.R., Ferkert J., Sasse A., Beyermann M., Bonigk W. und Berger H.** (1998) Corticotropin-releasing factor (CRF) agonists stimulate testosterone production in mouse leydig cells through CRF receptor-1. Endocrinology 139, 651-658.
- Heinrichs S.C., Joppa M., Lapsansky J., Jeske K., Nelson R. und De Souza E.** (2001) Selective stimulatory actions of corticotropin-releasing factor ligands on correlates of energy balance. Physiol Behav 74, 5-13.
- Hellhammer D.** (1992/93) Mannheimer Forum.
- Hernandez J.F., Kornreich W., Rivier C., Miranda A., Yamamoto G., Andrews J., Tache Y., Vale W. und Rivier J.** (1993) Synthesis and relative potencies of new constrained CRF antagonists. J Med Chem 36, 2860-2867.

Higelin J., Py-Lang G., Paternoster C., Ellis G.J., Patel A. und Dautzenberg F.M. (2001) *125I-Antisauvagine-30: a novel and specific high-affinity radioligand for the characterization of corticotropin-releasing factor type 2 receptors.* Neuropharmacology 40, 114-122.

Hinterding K., Alonso-Diaz D. und Waldmann H. (1998) Organische Synthese und biologische Signaltransduktion. Angew Chemie 110, 716-780.

Hoare S.R., Sullivan S.K., Ling N., Crowe P.D. und Grigoriadis D.E. (2003) Mechanism of corticotropin-releasing factor type I receptor regulation by nonpeptide antagonists. Mol Pharmacol 63, 751-765.

Hodder P., Cassaday J., Peltier R., Berry K., Inglese J., Feuston B., Culberson C., Bleicher L., Cosford N.D., Bayly C., Suto C., Varney M. und Strulovici B. (2003) Identification of metabotropic glutamate receptor antagonists using an automated high-throughput screening system. Anal Biochem 313, 246-254.

Hodder P., Mull R., Cassaday J., Berry K. und Strulovici B. (2004) Miniaturization of intracellular calcium functional assays to 1536-well plate format using a fluorometric imaging plate reader. J Biomol Screen 9, 417-426.

Hofmann B.A., Sydow S., Jahn O., van Werven L., Liepold T., Eckart K. und Spiess J. (2001) Functional and protein chemical characterization of the N-terminal domain of the rat corticotropin-releasing factor receptor 1. Protein Sci 10, 2050-2062.

Holsboer F. (1999) The rationale for corticotropin-releasing hormone receptor (CRH-R) antagonists to treat depression and anxiety. J Psychiatr Res 33, 181-214.

Holsboer F. (2001) CRHR1 antagonists as novel treatment strategies. CNS Spectr 6, 590-594.

Hsu S.Y. und Hsueh A.J. (2001) Human stresscopin and stresscopin-related peptide are selective ligands for the type 2 corticotropin-releasing hormone receptor. Nat Med 7, 605-611.

Huang Y., Yao X.Q., Lau C.W., Chan Y.C., Tsang S.Y. und Chan F.L. (2004) Urocortin and cardiovascular protection. Acta Pharmacol Sin 25, 257-265.

Hurley J.H. (1999) Structure, mechanism, and regulation of mammalian adenylyl cyclase. J Biol Chem JID - 2985121R 274, 7599-7602.

Ichikawa T., McMaster D., Lederis K. und Kobayashi H. (1982) Isolation and amino acid sequence of urotensin I, a vasoactive and ACTH-releasing neuropeptide, from the carp (*Cyprinus carpio*) urophysis. Peptides 3, 859-867.

- Inoue K., Valdez G.R., Reyes T.M., Reinhardt L.E., Tabarin A., Rivier J., Vale W.W., Sawchenko P.E., Koob G.F. und Zorrilla E.P.** (2003) Human urocortin II, a selective agonist for the type 2 corticotropin-releasing factor receptor, decreases feeding and drinking in the rat. *J Pharmacol Exp Ther* 305, 385-393.
- Isfort R.J., Wang F., Tscheiner M., Donnelly E., Bauer M.B., Lefever F., Hinkle R.T. und Mazur A.W.** (2005) Discovery of corticotropin releasing factor 2 receptor selective sauvagine analogues for treatment of skeletal muscle atrophy. *J Med Chem* 48, 262-265.
- Jahn O., Tezval H., van Werven L., Eckart K. und Spiess J.** (2004) Three-amino acid motifs of urocortin II and III determine their CRF receptor subtype selectivity. *Neuropharmacology* 47, 233-242.
- Jain V., Longo M., Ali M., Saade G.R., Chwalisz K. und Garfield R.E.** (2000) Expression of receptors for corticotropin-releasing factor in the vasculature of pregnant rats. *J Soc Gynecol Investig* 7, 153-160.
- Jessop D.S., Harbuz M.S. und Lightman S.L.** (2001) CRH in chronic inflammatory stress. *Peptides* 22, 803-807.
- Jin W., Lee N.M., Loh H.H. und Thayer S.A.** (1994) Opioids mobilize calcium from inositol 1,4,5-trisphosphate-sensitive stores in NG108-15 cells. *J Neurosci* 14, 1920-1929.
- Johnston P.A. und Johnston P.A.** (2002) Cellular platforms for HTS: three case studies. *Drug Discov Today* 7, 353-363.
- Kassack M.U., Hofgen B., Lehmann J., Eckstein N., Quillan J.M. und Sadee W.** (2002) Functional screening of G protein-coupled receptors by measuring intracellular calcium with a fluorescence microplate reader. *J Biomol Screen* 7, 233-246.
- Kenakin T.** (1993) Stimulus-response mechanisms, in *Pharmacologic Analysis of Drug-Receptor Interaction* (Kenakin T., ed.), pp. 39-64. Raven Press, New York.
- Kenakin T.** (1996) The classification of seven transmembrane receptors in recombinant expression systems. *Pharmacol Rev* 48, 413-463.
- Kimple R.J., Jones M.B., Shutes A., Yerxa B.R., Siderovski D.P. und Willard F.S.** (2003) Established and emerging fluorescence-based assays for G-protein function: heterotrimeric G-protein alpha subunits and regulator of G-protein signaling (RGS) proteins. *Comb Chem High Throughput Screen* 6, 399-407.
- King B.R., Smith R. und Nicholson R.C.** (2001) The regulation of human corticotrophin-releasing hormone gene expression in the placenta. *Peptides* 22, 1941-1947.

- Kishimoto T., Pearse R.V., Lin C.R. und Rosenfeld M.G.** (1995) A sauvagine/corticotropin-releasing factor receptor expressed in heart and skeletal muscle. Proc Natl Acad Sci U S A 92, 1108-1112.
- Koob G.F.** (1999) Corticotropin-releasing factor, norepinephrine, and stress. Biol Psychiatry 46, 1167-1180.
- Kornreich W.D., Galyean R., Hernandez J.F., Craig A.G., Donaldson C.J., Yamamoto G., Rivier C., Vale W. und Rivier J.** (1992) Alanine series of ovine corticotropin releasing factor (oCRF): a structure-activity relationship study. J Med Chem 35, 1870-1876.
- Kostich W.A., Chen A., Sperle K. und Largent B.L.** (1998) Molecular identification and analysis of a novel human corticotropin-releasing factor (CRF) receptor: the CRF2gamma receptor. Mol Endocrinol JID - 8801431 12, 1077-1085.
- Kramer A. und Schneider-Mergener J.** (1998) Synthesis and screening of peptide libraries on continuous cellulose membrane supports. Methods Mol Biol 87, 25-39.
- Kunapuli P., Ransom R., Murphy K.L., Pettibone D., Kerby J., Grimwood S., Zuck P., Hodder P., Lacson R., Hoffman I., Inglese J. und Strulovici B.** (2003) Development of an intact cell reporter gene beta-lactamase assay for G protein-coupled receptors for high-throughput screening. Anal Biochem 314, 16-29.
- Lau S.H., Rivier J., Vale W., Kaiser E.T. und Kezdy F.J.** (1983) Surface properties of an amphiphilic peptide hormone and of its analog: corticotropin-releasing factor and sauvagine. Proc Natl Acad Sci U S A 80, 7070-7074.
- Lederis K., Letter A., McMaster D., Moore G. und Schlesinger D.** (1982) Complete amino acid sequence of urotensin I, a hypotensive and corticotropin-releasing neuropeptide from Catostomus. Science 218, 162-165.
- Lei S., Richter R., Bienert M. und Mulvany M.J.** (1993) Relaxing actions of corticotropin-releasing factor on rat resistance arteries. Br J Pharmacol 108, 941-947.
- Lewis K., Li C., Perrin M.H., Blount A., Kunitake K., Donaldson C., Vaughan J., Reyes T.M., Gulyas J., Fischer W., Bilezikjian L., Rivier J., Sawchenko P.E. und Vale W.W.** (2001) Identification of urocortin III, an additional member of the corticotropin-releasing factor (CRF) family with high affinity for the CRF2 receptor. Proc Natl Acad Sci U S A JID - 7505876 98, 7570-7575.
- Li C., Chen P., Vaughan J., Blount A., Chen A., Jamieson P.M., Rivier J., Smith M.S. und Vale W.** (2003a) Urocortin III is expressed in pancreatic beta-cells and stimulates insulin and glucagon secretion. Endocrinology 144, 3216-3224.

- Li C., Vaughan J., Sawchenko P.E. und Vale W.W.** (2002) Urocortin III-immunoreactive projections in rat brain: partial overlap with sites of type 2 corticotrophin-releasing factor receptor expression. *J Neurosci* 22, 991-1001.
- Li Y.W., Hill G., Wong H., Kelly N., Ward K., Pierdomenico M., Ren S., Gilligan P., Grossman S., Trainor G., Taub R., McElroy J. und Zazcek R.** (2003b) Receptor occupancy of nonpeptide corticotropin-releasing factor 1 antagonist DMP696: correlation with drug exposure and anxiolytic efficacy. *J Pharmacol Exp Ther* 305, 86-96.
- Liaw C.W., Grigoriadis D.E., Lovenberg T.W., De Souza E.B. und Maki R.A.** (1997) Localization of ligand-binding domains of human corticotropin-releasing factor receptor: a chimeric receptor approach. *Mol Endocrinol* 11, 980-985.
- Liaw C.W., Lovenberg T.W., Barry G., Oltersdorf T., Grigoriadis D.E. und De Souza E.B.** (1996) Cloning and characterization of the human corticotropin-releasing factor-2 receptor complementary deoxyribonucleic acid. *Endocrinology* 137, 72-77.
- Lovenberg T.W., Chalmers D.T., Liu C. und De Souza E.B.** (1995b) CRF2 alpha and CRF2 beta receptor mRNAs are differentially distributed between the rat central nervous system and peripheral tissues. *Endocrinology* 136, 4139-4142.
- Lovenberg T.W., Liaw C.W., Grigoriadis D.E., Clevenger W., Chalmers D.T., De Souza E.B. und Oltersdorf T.** (1995a) Cloning and characterization of a functionally distinct corticotropin-releasing factor receptor subtype from rat brain. *Proc Natl Acad Sci U S A JID - 7505876* 92, 836-840.
- Mandel M. und Higa A.** (1970) Calcium-dependent bacteriophage DNA infection. *J Mol Biol* 53, 159-162.
- Mannstadt M., Luck M.D., Gardella T.J. und Juppner H.** (1998) Evidence for a ligand interaction site at the amino-terminus of the parathyroid hormone (PTH)/PTH-related protein receptor from cross-linking and mutational studies. *J Biol Chem* 273, 16890-16896.
- Mastorakos G. und Zapanti E.** (2004) The hypothalamic-pituitary-adrenal axis in the neuroendocrine regulation of food intake and obesity: the role of corticotropin releasing hormone. *Nutr Neurosci* 7, 271-280.
- Mazur A.W., Wang F., Tcheiner M., Donnelly E. und Isfort R.J.** (2004) Determinants of corticotropin releasing factor. Receptor selectivity of corticotropin releasing factor related peptides. *J Med Chem* 47, 3450-3454.
- Meyendorf R. und Kabza H.** (2005) Depressionen und Angst, pp. 5-249. Wort & Bild Verlag, Baierbrunn.

Million M., Maillet C., Saunders P., Rivier J., Vale W. und Tache Y. (2002) Human urocortin II, a new CRF-related peptide, displays selective CRF(2)-mediated action on gastric transit in rats. Am J Physiol Gastrointest Liver Physiol 282, G34-G40.

Miyashiro M., Furuya S. und Sugita T. (2005) A high-throughput screening system for alpha1-3 fucosyltransferase-VII inhibitor utilizing scintillation proximity assay. Anal Biochem 338, 168-170.

Montecuccchi P.C. und Henschen A. (1981) Amino acid composition and sequence analysis of sauvagine, a new active peptide from the skin of Phyllomedusa sauvagei. Int J Pept Protein Res 18, 113-120.

Mullis K., Faloona F., Scharf S., Saiki R., Horn G. und Erlich H. (1986) Specific enzymatic amplification of DNA in vitro: the polymerase chain reaction. Cold Spring Harb Symp Quant Biol 51 Pt 1, 263-273.

Myers D.A., Trinh J.V. und Myers T.R. (1998) Structure and function of the ovine type 1 corticotropin releasing factor receptor (CRF1) and a carboxyl-terminal variant. Mol Cell Endocrinol 144, 21-35.

Nagy S.R., Sanborn J.R., Hammock B.D. und Denison M.S. (2002) Development of a green fluorescent protein-based cell bioassay for the rapid and inexpensive detection and characterization of ah receptor agonists. Toxicol Sci 65, 200-210.

Nestler E.J., Barrot M., DiLeone R.J., Eisch A.J., Gold S.J. und Monteggia L.M. (2002) Neurobiology of depression. Neuron 34, 13-25.

Neumann L., Wohland T., Whelan R.J., Zare R.N. und Kobilka B.K. (2002) Functional immobilization of a ligand-activated G-protein-coupled receptor. Chembiochem 3, 993-998.

New D.C. und Wong Y.H. (2004) Characterization of CHO cells stably expressing a G alpha 16/z chimera for high throughput screening of GPCRs. Assay Drug Dev Technol 2, 269-280.

Owens M.J. und Nemeroff C.B. (1991) Physiology and pharmacology of corticotropin-releasing factor. Pharmacol Rev 43, 425-473.

Parkes D.G., Weisinger R.S. und May C.N. (2001) Cardiovascular actions of CRH and urocortin: an update. Peptides 22, 821-827.

Perrin M.H., DiGruccio M.R., Koerber S.C., Rivier J.E., Kunitake K.S., Bain D.L., Fischer W.H. und Vale W.W. (2003) A soluble form of the first extracellular domain of

mouse type 2beta corticotropin-releasing factor receptor reveals differential ligand specificity. J Biol Chem 278, 15595-15600.

Perrin M.H., Donaldson C.J., Chen R., Lewis K.A. und Vale W.W. (1993) Cloning and functional expression of a rat brain corticotropin releasing factor (CRF) receptor. Endocrinology JID - 0375040 133, 3058-3061.

Perrin M.H., Fischer W.H., Kunitake K.S., Craig A.G., Koerber S.C., Cervini L.A., Rivier J.E., Groppe J.C., Greenwald J., Moller N.S. und Vale W.W. (2001) Expression, purification, and characterization of a soluble form of the first extracellular domain of the human type 1 corticotropin releasing factor receptor. J Biol Chem 276, 31528-31534.

Perrin M.H., Haas Y., Rivier J.E. und Vale W.W. (1986) Corticotropin-releasing factor binding to the anterior pituitary receptor is modulated by divalent cations and guanyl nucleotides. Endocrinology 118, 1171-1179.

Perrin M.H., Sutton S., Bain D.L., Berggren W.T. und Vale W.W. (1998) The first extracellular domain of corticotropin releasing factor-R1 contains major binding determinants for urocortin and astressin. Endocrinology 139, 566-570.

Perrin M.H., Sutton S.W., Cervini L.A., Rivier J.E. und Vale W.W. (1999) Comparison of an agonist, urocortin, and an antagonist, astressin, as radioligands for characterization of corticotropin-releasing factor receptors. J Pharmacol Exp Ther 288, 729-734.

Perrin M.H. und Vale W.W. (1999) Corticotropin releasing factor receptors and their ligand family. Ann N Y Acad Sci 885, 312-328.

Petsko G.A. (1996) For medicinal purposes. Nature 384, 7-9.

Pohl S., Darlison M.G., Clarke W.C., Lederis K. und Richter D. (2001) Cloning and functional pharmacology of two corticotropin-releasing factor receptors from a teleost fish. Eur J Pharmacol 430, 193-202.

Reul J.M. und Holsboer F. (2002) Corticotropin-releasing factor receptors 1 and 2 in anxiety and depression. Curr Opin Pharmacol 2, 23-33.

Reyes T.M., Lewis K., Perrin M.H., Kunitake K.S., Vaughan J., Arias C.A., Hogenesch J.B., Gulyas J., Rivier J., Vale W.W. und Sawchenko P.E. (2001) Urocortin II: a member of the corticotropin-releasing factor (CRF) neuropeptide family that is selectively bound by type 2 CRF receptors. Proc Natl Acad Sci U S A 98, 2843-2848.

Rijkers D.T., Kruijzer J.A., van Oostenbrugge M., Ronken E., den Hartog J.A. und Liskamp R.M. (2004) Structure-activity studies on the corticotropin releasing factor antagonist astressin, leading to a minimal sequence necessary for antagonistic activity. Chembiochem 5, 340-348.

Rivier J., Rivier C., Galyean R., Miranda A., Miller C., Craig AG., Yamamoto G., Brown M. und Vale W. (1993) Single point D-substituted corticotropin-releasing factor analogues: effects on potency and physicochemical characteristics. J Med Chem 36, 2851-2859.

Rivier J., Rivier C. und Vale W. (1984) Synthetic competitive antagonists of corticotropin-releasing factor: effect on ACTH secretion in the rat. Science 224, 889-891.

Rivier J., Spiess J. und Vale W. (1983) Characterization of rat hypothalamic corticotropin-releasing factor. Proc Natl Acad Sci U S A 80, 4851-4855.

Rivier J.E., Kirby D.A., Lahrichi S.L., Corrigan A., Vale W.W. und Rivier C.L. (1999) Constrained corticotropin releasing factor antagonists (astressin analogues) with long duration of action in the rat. J Med Chem 42, 3175-3182.

Rohde E., Furtwangler J., Fechner K., Beyermann M., Mulvany M.J., Richter R.M., Denef C., Bienert M. und Berger H. (1996) Corticotropin-releasing hormone (CRH) receptors in the mesenteric small arteries of rats resemble the (2)-subtype. Biochem Pharmacol 52, 829-833.

Rominger D.H., Rominger C.M., Fitzgerald L.W., Grzanna R., Largent B.L. und Zaczek R. (1998) Characterization of [¹²⁵I]sauvagine binding to CRH2 receptors: membrane homogenate and autoradiographic studies. J Pharmacol Exp Ther 286, 459-468.

Ruhmann A., Bonk I., Lin C.R., Rosenfeld M.G. und Spiess J. (1998) Structural requirements for peptidic antagonists of the corticotropin-releasing factor receptor (CRFR): development of CRFR2beta-selective antisauvagine-30. Proc Natl Acad Sci U S A 95, 15264-15269.

Sajdyk T.J., Shekhar A. und Gehlert D.R. (2004) Interactions between NPY and CRF in the amygdala to regulate emotionality. Neuropeptides 38, 225-234.

Salomon Y., Londos C. und Rodbell M. (1974) A highly sensitive adenylate cyclase assay. Anal Biochem JID - 0370535 58, 541-548.

Sanger F., Nicklen S. und Coulson A.R. (1977) DNA sequencing with chain-terminating inhibitors. Proc Natl Acad Sci U S A 74, 5463-5467.

Schulz D.W., Mansbach R.S., Sprouse J., Braselton J.P., Collins J., Corman M., Dunaiskis A., Faraci S., Schmidt A.W., Seeger T., Seymour P., Tingley F.D., III, Winston E.N., Chen Y.L. und Heym J. (1996) CP-154,526: a potent and selective nonpeptide antagonist of corticotropin releasing factor receptors. Proc Natl Acad Sci U S A 93, 10477-10482.

Seasholtz A.F., Burrows H.L., Karolyi I.J. und Camper S.A. (2001) Mouse models of altered CRH-binding protein expression. Peptides 22, 743-751.

Seasholtz A.F., Valverde R.A. und Denver R.J. (2002) Corticotropin-releasing hormone-binding protein: biochemistry and function from fishes to mammals. J Endocrinol 175, 89-97.

Sen S., Jaakola V.P., Heimo H., Kivela P., Scheinin M., Lundstrom K. und Goldman A. (2002) Development of a scintiplate assay for recombinant human alpha(2B)-adrenergic receptor. Anal Biochem 307, 280-286.

Shibahara S., Morimoto Y., Furutani Y., Notake M., Takahashi H., Shimizu S., Horikawa S. und Numa S. (1983) Isolation and sequence analysis of the human corticotropin-releasing factor precursor gene. EMBO J 2, 775-779.

Short J.M., Fernandez J.M., Sorge J.A. und Huse WD. (1988) Lambda ZAP: a bacteriophage lambda expression vector with in vivo excision properties. Nucleic Acids Res 16, 7583-7600.

Skelton K.H., Owens M.J. und Nemeroff C.B. (2000) The neurobiology of urocortin. Regul Pept 93, 85-92.

Slominski A., Wortsman J., Pisarchik A., Zbytek B., Linton E.A., Mazurkiewicz J.E. und Wei E.T. (2001) Cutaneous expression of corticotropin-releasing hormone (CRH), urocortin, and CRH receptors. FASEB J 15, 1678-1693.

Spina M., Merlo-Pich E., Chan R.K., Basso A.M., Rivier J., Vale W. und Koob G.F. (1996) Appetite-suppressing effects of urocortin, a CRF-related neuropeptide. Science 273, 1561-1564.

Stenzel P., Kesterson R., Yeung W., Cone R.D., Rittenberg M.B. und Stenzel-Poore M.P. (1995) Identification of a novel murine receptor for corticotropin-releasing hormone expressed in the heart. Mol Endocrinol 9, 637-645.

Strijbos P.J., Hardwick A.J., Relton J.K., Carey F. und Rothwell N.J. (1992) Inhibition of central actions of cytokines on fever and thermogenesis by lipocortin-1 involves CRF. Am J Physiol 263, E632-E636.

Sullivan E., Tucker E.M. und Dale I.L. (1999) Measurement of [Ca²⁺] using the Fluorometric Imaging Plate Reader (FLIPR). *Methods Mol Biol* 114, 125-133.

Suman-Chauhan N., Carnell P., Franks R., Webdale L., Gee N.S., McNulty S., Rossant C.J., Van Leeuwen D., MacKenzie R. und Hall M.D. (1999) Expression and characterisation of human and rat CRF2alpha receptors. *Eur J Pharmacol* 379, 219-227.

Sydow S., Flaccus A., Fischer A. und Spiess J. (1999) The role of the fourth extracellular domain of the rat corticotropin-releasing factor receptor type 1 in ligand binding. *Eur J Biochem* 259, 55-62.

Tache Y. und Perdue M.H. (2004) Role of peripheral CRF signalling pathways in stress-related alterations of gut motility and mucosal function. *Neurogastroenterol Motil* 16 Suppl 1, 137-142.

Takahashi A.K., Totsune B.K., Murakami C.O. und Shibahara A.S. (2004) Urocortins as cardiovascular peptides. *Peptides* 25, 1723-1731.

Takahashi K., Totsune K., Sone M., Murakami O., Satoh F., Arihara Z., Sasano H., Iino K. und Mouri T. (1998) Regional distribution of urocortin-like immunoreactivity and expression of urocortin mRNA in the human brain. *Peptides* 19, 643-647.

Takahashi L.K. (2001) Role of CRF(1) and CRF(2) receptors in fear and anxiety. *Neurosci Biobehav Rev* 25, 627-636.

Tang W.J. und Hurley J.H. (1998) Catalytic mechanism and regulation of mammalian adenylyl cyclases. *Mol Pharmacol* 54, 231-240.

Tellam D.J., Smart D., Qian X. und Lovejoy D.A. (2002) An artificial peptide with corticotropin-releasing factor receptor-2 (CRF-R2) selective properties: the role of primary structure in the induction of signal transduction pathways. *J Pept Res* 60, 215-222.

Temml C. (1997) Arbeit und Gesundheit: Streß. *Gesundheitsbericht* 1-18.

Tian Y.E., Wu L.H., Mueller W.T. und Chung F.Z. (1999) A Screening Strategy Based on Differential Binding of Ligand to Receptor and to Binding Proteins: Screening for Compounds Interacting with Corticotrophin-Releasing Factor-Binding Protein. *J Biomol Screen* 4, 319-326.

Tsigos C. und Chrousos G.P. (2002) Hypothalamic-pituitary-adrenal axis, neuroendocrine factors and stress. *J Psychosom Res* 53, 865-871.

Uehara A., Sekiya C., Takasugi Y., Namiki M. und Arimura A. (1989) Anorexia induced by interleukin 1: involvement of corticotropin-releasing factor. *Am J Physiol* 257, R613-R617.

- Valdenaire O., Giller T., Breu V., Gottowik J. und Kilpatrick G.** (1997) A new functional isoform of the human CRF2 receptor for corticotropin-releasing factor. *Biochim Biophys Acta* 1352, 129-132.
- Valdez G.R., Inoue K., Koob G.F., Rivier J., Vale W. und Zorrilla E.P.** (2002) Human urocortin II: mild locomotor suppressive and delayed anxiolytic-like effects of a novel corticotropin-releasing factor related peptide. *Brain Res* 943, 142-150.
- Valdez G.R., Zorrilla E.P., Rivier J., Vale W.W. und Koob G.F.** (2003) Locomotor suppressive and anxiolytic-like effects of urocortin 3, a highly selective type 2 corticotropin-releasing factor agonist. *Brain Res* 980, 206-212.
- Vale W., Spiess J., Rivier C. und Rivier J.** (1981) Characterization of a 41-residue ovine hypothalamic peptide that stimulates secretion of corticotropin and beta-endorphin. *Science JID - 0404511* 213, 1394-1397.
- Vaughan J., Donaldson C., Bittencourt J., Perrin M.H., Lewis K., Sutton S., Chan R., Turnbull A.V., Lovejoy D. und Rivier C.** (1995) Urocortin, a mammalian neuropeptide related to fish urotensin I and to corticotropin-releasing factor. *Nature JID - 0410462* 378, 287-292.
- Vetter D.E., Li C., Zhao L., Contarino A., Liberman M.C., Smith G.W., Marchuk Y., Koob G.F., Heinemann S.F., Vale W. und Lee K.F.** (2002) Urocortin-deficient mice show hearing impairment and increased anxiety-like behavior. *Nat Genet* 31, 363-369.
- Vita N., Laurent P., Lefort S., Chalon P., Lelias J.M., Kaghad M., Le Fur G., Caput D. und Ferrara P.** (1993) Primary structure and functional expression of mouse pituitary and human brain corticotrophin releasing factor receptors. *FEBS Lett* 335, 1-5.
- Waller A., Simons P., Prossnitz E.R., Edwards B.S. und Sklar L.A.** (2003) High throughput screening of Gprotein coupled receptors via flow cytometry. *Comb Chem High Throughput Screen* 6, 389-397.
- Walters W.P. und Namchuk M.** (2003) Designing screens: how to make your hits a hit. *Nat Rev Drug Discov* 2, 259-266.
- Webster E.L., Lewis D.B., Torpy D.J., Zachman E.K., Rice K.C. und Chrousos G.P.** (1996) In vivo and in vitro characterization of antalarmin, a nonpeptide corticotropin-releasing hormone (CRH) receptor antagonist: suppression of pituitary ACTH release and peripheral inflammation. *Endocrinology* 137, 5747-5750.
- Wiedemann K.** (2001) Psychopharmaka: Unkritischer Einsatz ist gefährlich. *Medizin Report* 2, 10-11.

Wieland H.A., Willim K. und Doods H.N. (1998) Divalent cations influencing neuropeptide Y receptor subtype binding in rat hippocampus and cortex membranes as well as in recombinant cells. *Regul Pept* 75-76, 263-269.

Wietfeld D., Heinrich N., Ferkert J., Fechner K., Beyermann M., Bienert M. und Berger H. (2004) Regulation of the coupling to different G proteins of rat corticotropin-releasing factor receptor type 1 in human embryonic kidney 293 cells. *J Biol Chem* 279, 38386-38394.

Wnendt S., Kruger T., Janocha E., Hildebrandt D. und Englberger W. (1999) Agonistic effect of buprenorphine in a nociceptin/OFQ receptor-triggered reporter gene assay. *Mol Pharmacol* 56, 334-338.

Wu B., Gao J. und Wang M.W. (2005) Development of a complex scintillation proximity assay for high-throughput screening of PPARgamma modulators. *Acta Pharmacol Sin* 26, 339-344.

Yamada Y., Mizutani K., Mizusawa Y., Hantani Y., Tanaka M., Tanaka Y., Tomimoto M., Sugawara M., Imai N., Yamada H., Okajima N. und Haruta J. (2004) New class of corticotropin-releasing factor (CRF) antagonists: small peptides having high binding affinity for CRF receptor. *J Med Chem* 47, 1075-1078.

Yu J., Xie L.Y. und Abou-Samra A.B. (1996) Molecular cloning of a type A chicken corticotropin-releasing factor receptor with high affinity for urotensin I. *Endocrinology* 137, 192-197.

Zhao L., Donaldson C.J., Smith G.W. und Vale W.W. (1998) The structures of the mouse and human urocortin genes (Ucn and UCN). *Genomics* 50, 23-33.