

9. Literaturverzeichnis

Die Orthographie der Artikel und Verfasser richtet sich nach den Angaben der PubMed (National Library of Medicine)

1. Agarwal AK, Monder C, Eckstein B, White PC. Cloning and expression of rat cDNA encoding corticosteroid 11 beta-dehydrogenase. *J Biol Chem* 1989; 264:18939-18943.
2. Agarwal AK, Mune T, Monder C, White PC. NAD(+)-dependent isoform of 11 beta-hydroxysteroid dehydrogenase. Cloning and characterization of cDNA from sheep kidney. *J Biol Chem* 1994; 269:25959-25962.
3. Agarwal AK, Mune T, Monder C, White PC. Cloning of cDNA encoding an NAD(+)-dependent isoform of 11 beta-hydroxysteroid dehydrogenase in sheep kidney. *Endocr Research* 1995; 21:389-397.
4. Agarwal AK, Tusie Luna MT, Monder C, White PC. Expression of 11 beta-hydroxysteroid dehydrogenase using recombinant vaccinia virus. *Mol Endocrinol* 1990; 4:1827-1832.
5. Albiston AL, Obeyesekere VR, Smith RE, Krozowski ZS. Cloning and tissue distribution of the human 11 beta-hydroxysteroid dehydrogenase type 2 enzyme. *Mol Cell Endocrinol* 1994; 105:R11-R17.
6. Albiston AL, Smith RE, Krozowski ZS. Changes in the levels of 11 beta-hydroxysteroid dehydrogenase mRNA over the oestrous cycle in the rat. *J Steroid Biochem Mol Biol* 1995; 52:45-48.
7. Albiston AL, Smith RE, Krozowski ZS. Sex- and tissue-specific regulation of 11 beta-hydroxysteroid dehydrogenase mRNA. *Mol Cell Endocrinol* 1995; 109:183-188.
8. Albrecht ED, Pepe GJ. Placental steroid hormone biosynthesis in primate pregnancy. *Endocr Rev* 1990; 11:124-150.
9. Alfaidy N, Xiong ZG, Myatt L, Lye SJ, MacDonald JF, Challis JR. Prostaglandin F2alpha potentiates cortisol production by stimulating 11 beta-hydroxysteroid dehydrogenase 1: a novel feedback loop that may contribute to human labor. *J Clin Endocrinol Metab* 2001; 86(11):5585-5592.
10. Amelung D, Hubener HJ, Roka L, Meyerheim G. Conversion of cortisone to compound F. *J Clin Endocrinol Metab* 1953, 13:1225.
11. Apps DK, Cohen BB, Steel CM. A concise text for medical students. *Biochemistry* 1992, 5. Auflage, London, Bailière Tindall.

12. Arcuri F, Monder C, Lockwood CJ, Schatz F. Expression of 11 beta-hydroxysteroid dehydrogenase during decidualization of human endometrial stromal cells. *Endocrinology* 1996; 137:595-600.
13. Arriza JL, Weinberger C, Cerelli G, Glaser TM, Handelin BL, Housman DE, Evans RM. Cloning of human mineralocorticoid receptor complementary DNA: structural and functional kinship with the glucocorticoid receptor. *Science* 1987 ; 237 :268-275.
14. Baggia S, Albrecht ED, Babischkin JS, Pepe GJ. Interconversion of cortisol and cortisone in baboon trophoblast and decidua cells in culture. *Endocrinology* 1990; 127:1735-1741.
15. Baggia S, Albrecht ED, Pepe GJ. Regulation of 11 beta-hydroxysteroid dehydrogenase activity in the baboon placenta by estrogen. *Endocrinology* 1990; 126:2742-2748.
16. Ballard PL, Carter JP, Graham BS, Baxter JD. A radioreceptor assay for evaluation of the plasma glucocorticoid activity of natural and synthetic steroids in man. *J Clin Endocrinol Metab* 1975; 41:290-304.
17. Ballard PL. Hormones and lung maturation. *Monogr Endocrinol* 1986; 28:1-354.
18. Ballard PL, Mason RJ, Douglas WH. Glucocorticoid binding by isolated lung cells. *Endocrinology* 1978; 102(5):1570-1575.
19. Balsinde J, Balboa MA, Li WH, Llopis J, Dennis EA. Cellular regulation of cytosolic group IV phospholipase A2 by phosphatidylinositol bisphosphate levels. *J Immunol* 2000; 164:5398-5402.
20. Bamberger CM, Schulte HM, Chrousos GP. Molecular determinants of glucocorticoid receptor function and tissue sensitivity to glucocorticoids. *Endocr Rev* 1996; 17:245-261.
21. Barker DJ, Bull AR, Osmond C, Simmonds SJ. Fetal and placental size and risk of hypertension in adult life. *Br Med J* 1990; 301:259-262.
22. Beitins IZ, Bayard F, Ances IG, Kiwarski A, Migeon CJ. The metabolic clearance rate, blood production, interconversion and transplacental passage of cortisol and cortisone in pregnancy near term. *Pediatric research* 1973; 7:509-519.
23. Benassayag C, Vallette G, Hassid J, Raymond JP, Nunez EA. Potentiation of estradiol binding to human tissue proteins by unsaturated nonesterified fatty acids. *Endocrinology* 1986; 118(1):1-7.

24. Benediktsson R, Calder AA, Edwards CR, Seckl JR. Placental 11 beta-hydroxysteroid dehydrogenase: a key regulator of fetal glucocorticoid exposure. *Clin Endocrinology* 1997; 46:161-166.
25. Benediktsson R, Lindsay RS, Noble J, Seckl JR, Edwards CR. Glucocorticoid exposure in utero: new model for adult hypertension. *Lancet* 1993; 341:339-341.
26. Benediktsson R, Magnusdottir EM, Smith JC, Seckl JR. The effects of ethanol on 11 beta-hydroxysteroid dehydrogenase type-2 activity. *J Endocrinol* 1996; 15th Joint Meeting:P52 Abstract.
27. Benediktsson R, Smith JC, Seckl JR. 11 beta-hydroxysteroid dehydrogenase type-2 in JEG-3 cells and human trophoblast. *J Endocrinol* 1996; 15th Joint Meeting:P51 Abstract.
28. Bernal AL, Flint AP, Anderson AB, Turnbull AC. 11 beta-hydroxysteroid dehydrogenase activity (E.C. 1.1.1.146) in human placenta and decidua. *J Steroid Biochem* 1980; 13:1081-1087.
29. Blazquez E, Sugase T, Blazquez M, Foa PP. Neonatal changes in the concentration of rat liver cyclic AMP and of serum glucose, free fatty acids, insulin, pancreatic, and total glucagon in man and in the rat. *J Lab Clin Med* 1974; 83(6):957-967.
30. Blomquist CH, Kotts CE, Hakanson EY. Phospholipase A2 inactivation of microsomal 17 beta-hydroxysteroid oxidoreductase: rates of phospholipid hydrolysis and enzyme inactivation, effects of hydrolysis products and properties of the phospholipase A2-treated enzyme. *Steroids* 1980; 36(1):97-113.
31. Brätter P, Forth W, Fresenius W, und Mitarbeiter: Mineralstoffe und Spurenelemente. Leitfaden für die ärztliche Praxis 1992. Gütersloh Verlag Bertelsmann Stiftung.
32. Bronnegard M, Okret S. Characterization of the glucocorticoid receptor in fetal rat lung during development: influence of proteolytic activity. *J Steroid Biochem* 1988; 31(5):809-817.
33. Brown RW, Chapman KE, Edwards CR, Seckl JR. Human placental 11 beta-hydroxysteroid dehydrogenase: evidence for and partial purification of a distinct NAD-dependent isoform. *Endocrinology* 1993; 132:2614-2621.

34. Brown RW, Chapman KE, Kotelevtsev Y, Yau JL, Lindsay RS, Brett L, Leckie C, Murad P, Lyons V, Mullins JJ, Edwards CR, Seckl JR. Cloning and production of antisera to human placental 11 beta-hydroxysteroid dehydrogenase type 2. *Biochem J* 1996; 313:1007-1017.
35. Brown RW, Chapman KE, Murad P, Edwards CR, Seckl JR. Purification of 11 beta-hydroxysteroid dehydrogenase type 2 from human placenta utilizing a novel affinity labelling technique. *Biochem J* 1996; 313:997-1005.
36. Brown RW, Diaz R, Robson AC, Kotelevtsev YV, Mullins JJ, Kaufman MH, Seckl JR. The ontogeny of 11 beta-hydroxysteroid dehydrogenase type 2 and mineralocorticoid receptor gene expression reveal intricate control of glucocorticoid action in development. *Endocrinology* 1996; 137:794-797.
37. Burkhardt R, Von Wichert P, Batenburg JJ, Van Golde LM. Fatty acids stimulate phosphatidylcholine synthesis and CTP: choline-phosphate cytidyltransferase in type II pneumocytes isolated from adult rat lung. *Biochem J* 1988; 254(2):495-500.
38. Buhler H, Perschel FH, Fitzner R, Hierholzer K. Endogenous inhibitors of 11 beta-OHSD: existence and possible significance. *Steroids* 1994; 9:131-135.
39. Buhler H, Perschel FH, Hierholzer K. Inhibition of rat renal 11 beta-hydroxysteroid dehydrogenase by steroidal compounds and triterpenoids; structure/function relationship. *Biochim Biophys Acta* 1991; 1075:206-212.
40. Bühler H, Wang D, Hundertmark S, Blum S. Induction of the glucocorticoid metabolizing enzyme 11 β -HSD in MDCK cells by preincubation with dexamethasone. Agonistic effects of the "pure" antiglucocorticoid RU 486. 4. *Wissenschaftswoche Steglitz* 1993; 50-51.
41. Carson-Jurica MA, Schrader WT, O'Malley BW. Steroid receptor family: structure and functions. *Endocr Rev* 1990; 11(2):201-220.
42. Challis JR, Brooks AN. Maturation and activation of hypothalamic-pituitary adrenal function in fetal sheep. *Endocr Rev* 1989; 10(2):182-204.
43. Chander A, Fisher AB. Choline-phosphate cytidyltransferase activity and phosphatidylcholine synthesis in rat granular pneumocytes are increased with exogenous fatty acids. *Biochim Biophys Acta* 1988; 958(3):343-351.
44. Chu AJ, Rooney SA. Developmental differences in activation of cholinephosphate cytidyltransferase by lipids in rabbit lung cytosol. *Biochim Biophys Acta* 1985; 835(1):132-140.

45. Clayton DF, Harrelson AL, Darnell Jr JE. Dependence of liver-specific transcription on tissue organization. *Mol Cell Biol* 1985; 5:2623-2632.
46. Clayton DF, Darnell Jr JE. Changes in liver-specific compared to common gene transcription during primary culture of mouse hepatocytes. *Mol Cell Biol* 1983; 3:1552-1561.
47. Crowley P, Chalmers I, Keirse MJ. The effects of corticosteroid administration before preterm delivery: an overview of the evidence from controlled trials. *Br J Obstet Gynaecol* 1990; 97(1):11-25.
48. Dancis J, Jansen V, Levitz M, Rosner W. Effect of protein binding on transfer and metabolism of cortisol in perfused human placenta. *J Clin Endocrinol Metab* 1978; 46:863-868.
49. Das DK, Ayromlooi J, Desiderio D, Tobias M, Steinberg H. Effect of dexamethasone on the synthesis of dipalmitoyl phosphatidylcholine. *Dev Pharmacol Ther* 1981; 3(1):55-64.
50. Deckx R, de Moor P. Study of the 11 beta-hydroxysteroid dehydrogenase in vitro. I. Biochemical characterization in spleen homogenate. *Pflugers Arch* 1966; 289:59-68.
51. Dormer RA, France JT. Cortisol and cortisone levels in umbilical cord plasma and maternal plasma of normal pregnancies. *Steroids* 1973; 21:497-510.
52. Edwards CR, Stewart PM, Burt D, Brett L, McIntyre MA, Sutanto WS, de Kloet ER, Monder C. Localisation of 11 beta-hydroxysteroid dehydrogenase--tissue specific protector of the mineralocorticoid receptor. *Lancet* 1988; 2:986-989.
53. Escher G, Meyer KV, Vishwanath BS, Frey BM, Frey FJ. Furosemide inhibits 11 beta-hydroxysteroid dehydrogenase in vitro and in vivo. *Endocrinology* 1995; 136:1759-1765.
54. Ferrari P, Smith RE, Funder JW, Krozowski ZS. Substrate and inhibitor specificity of the cloned human 11 beta-hydroxysteroid dehydrogenase type 2 isoform. *Am J Physiol Endocrinol Metab* 1996; 270:E900-E904.
55. Forth W, Henschler D, Rummel W, Starke K. *Allgemeine und spezielle Pharmakologie und Toxikologie* 1992. Mannheim, Leipzig, Wien, Zürich, Wissenschaftsverlag; (6):556-568.
56. Funder JW. Mineralocorticoids, glucocorticoids, receptors and response elements. *Science* 1993; 259:1132-1133.

57. Funder JW. Apparent Mineralocorticoid Excess. *Endocrinol Metab Clin North Am* 1995; 24:613-621.
58. Funder JW. 11beta-hydroxysteroid dehydrogenase: New answers, new questions. *Eur J Endocrinol* 1996; 134:267-268.
59. Funder JW, Pearce PT, Smith R, Smith AI. Mineralocorticoid action: target tissue specificity is enzyme, not receptor, mediated. *Science* 1988; 242: 523-585.
60. Genard P, Palem-Vliers P. Structure-activity relationships for agonistic and antagonistic mineralocorticoids. *J Steroid Biochem* 1980, 13:1299-1305.
61. Geppert EF, Elstein KH. Short-term regulation of fatty acid synthesis in isolated alveolar type II cells from adult rat lung. Effects of free fatty acids and hormones. *Exp Lung Res* 1983; 4(4):281-291.
62. Gewolb IH, Warshaw JB. Fetal and maternal corticosterone and corticosteroid binding globulin in the diabetic rat gestation. *Pediatr Res* 1986; 20(2):155-160.
63. Girard JR, Cuendet GS, Marliss EB, Kervran A, Rieutort M, Assan R. Fuels, hormones, and liver metabolism at term and during the early postnatal period in the rat. *J Clin Invest* 1973; 52(12):3190-3200.
64. Glover S, de Carvalho MS, Bayburt T, Jonas M, Chi E, Leslie CC, Gelb MH. Translocation of the 85-kDa phospholipase A2 from cytosol to the nuclear envelope in rat basophilic leukemia cells stimulated with calcium ionophore or IgE/antigen. *J Biol Chem* 1995; 270:15359-15367.
65. Gomez-Sanchez EP, Cox D, Foecking M, Ganjam V, Gomez-Sanchez CE. 11beta-hydroxysteroid dehydrogenases of the choriocarcinoma cell line JEG-3 and their inhibition by glycyrrhetic acid and other natural substances. *Steroids* 1996; 61:110-115.
66. Gustafsson JA, Mode A, Norstedt G, Skett P. Sex steroid induced changes in hepatic enzymes. *Annu Rev Physiol* 1983; 45:51-60.
67. Hammami M, Siiteri PK. Regulation of 11 beta-hydroxysteroid dehydrogenase activity in human skin fibroblasts: enzymatic modulation of glucocorticoid action. *J Clin Endocrinol Metab* 1991; 73:326-334.
68. Hardy DB, Pereria LE, Yang K. Prostaglandins and leukotriene B4 are potent inhibitors of 11 beta-hydroxysteroid dehydrogenase type 2 activity in human choriocarcinoma JEG-3 cells. *Biol Reprod* 1999; 61(1):40-45.

69. Hirasawa G, Sasano H, Takahashi KI, Fukushima K, Suzuki T, Hiwatashi N, Toyota T, Krozowski ZS, Nagura H. Colocalization of 11 beta-hydroxysteroid dehydrogenase type II and mineralocorticoid receptor in human epithelia. *J Clin Endocrinol Metab* 1997; 82:3859-3863.
70. Homma M, Oka K, Niitsuma T, Itoh H. A novel 11 beta-hydroxysteroid dehydrogenase inhibitor contained in saiboku-to, a herbal remedy for steroid-dependent bronchial asthma. *J Pharm Pharmacol* 1994; 46:305-309.
71. Hubener HJ, Fukushima DK, Gallagher TF. Substrate specificity of enzymes reducing the 11- and 20-keto groups of steroids. *J Biol Chem* 1956, 220:499-511.
72. Hundertmark S, Buhler H, Ragosch V, Dinkelborg L, Arabin B, Weitzel HK. Correlation of surfactant phosphatidylcholine synthesis and 11 beta-hydroxysteroid dehydrogenase in the fetal lung. *Endocrinology* 1995; 136:2573-2578.
73. Hundertmark S, Ragosch V, Schein B, Buhler H, Lorenz U, Fromm M, Weitzel HK. Gestational age dependence of 11 beta-hydroxysteroid dehydrogenase and its relationship to the enzymes of phosphatidylcholine synthesis in lung and liver of fetal rat. *Biochim Biophys Acta* 1994; 1210: 348-354.
74. Hundertmark S, Ragosch V, Schein B, Buhler H, Fromm M, Lorenz U, Weitzel HK. 11 beta-hydroxysteroid dehydrogenase of rat lung: enzyme kinetic, oxidase-reductase ratio, electrolyte and trace element dependence. *Enzyme Protein* 1993; 47:83-91.
75. Hundertmark S, Dill A, Ebert A, Zimmermann B, Kotelevtsev YV, Mullins JJ, Seckl JR. Foetal lung maturation in 11 beta-hydroxysteroid dehydrogenase type 1 knockout mice. *Horm Metab Res* 2002; 34(10):545-549.
76. Hundertmark S, Dill A, Buhler H, Stevens P, Looman K, Ragosch V, Seckl JR, Lipka C. 11 beta-hydroxysteroid dehydrogenase type 1: a new regulation of fetal lung maturation. *Horm Metab Res* 2002; 34(19):537-544.
77. Jamieson PM, Chapman KE, Edwards CR, Seckl JR. 11 beta-hydroxysteroid dehydrogenase is an exclusive 11 beta-reductase in primary cultures of rat hepatocytes: Effect of physiochemical and hormonal manipulations. *Endocrinology* 1995; 136:4754-4761.
78. Johansson ED, Jonasson LE. Progesterone levels in amniotic fluid and plasma from women. I. Levels during normal pregnancy. *Acta Obstet Gynecol Scand* 1971; 50:339-343.

79. Kato J, Takano A, Mitsuhashi N, Koike N, Yoshida K, Hirata S. Modulation of brain progesterin and glucocorticoid receptors by unsaturated fatty acid and phospholipid. *J Steroid Biochem* 1987; 27(4-6):641-648.
80. Kenouch S, Alfaidy N, Bonvalet JP, Farman N. Expression of 11 beta-OHSD along the nephron of mammals and humans. *Steroids* 1994; 59: 100-104.
81. King RJ. Pulmonary surfactant. *J Appl Physiol* 1982; 53:1-8.
82. Kitanaka S, Tanae A, Hibi I. Apparent mineralocorticoid excess due to 11 beta-hydroxysteroid dehydrogenase deficiency: a possible cause of intrauterine growth retardation. *Clin Endocrinol (Oxf)* 1996; 44:353-359.
83. Khosla SS, Smith GJ, Parks PA, Rooney SA. Effects of estrogen on fetal rabbit lung maturation: morphological and biochemical studies. *Pediatr Res* 1981; 15(9):1274-1281.
84. Krozowski Z. 11 beta-hydroxysteroid dehydrogenase and the short-chain alcohol dehydrogenase (SCAD) superfamily. *Mol Cell Endocrinol* 1992; 84:C25-31.
85. Krozowski Z, Maguire JA, Stein-Oakley AN, Dowling J, Smith RE, Andrews RK. Immunohistochemical localization of the 11 beta-hydroxysteroid dehydrogenase type II enzyme in human kidney and placenta. *J Clin Endocrinol Metab* 1995; 80:2203-2209.
86. Krozowski ZS, Funder JW. Renal mineralocorticoid receptors and hippocampal corticosterone-binding species have identical intrinsic steroid specificity. *Proc Natl Acad Sci U S A* 1983; 80:6056-6060.
87. Krozowski ZS, Rundle SE, Wallace C, Castell MJ, Shen JH, Dowling J, Funder JW, Smith AI. Immunolocalization of renal mineralocorticoid receptors with an antiserum against a peptide deduced from the complementary deoxyribonucleic acid sequence. *Endocrinology* 1989; 125:192-198.
88. Labbe A, Grizard G, Dechelotte P, Raynaud EJ. Glucocorticoid receptor concentrations in human lung at different growth stages. *Pediatr Pulmonol* 1990; 9(3):140-145.
89. Lakshmi V, Monder C. Evidence for independent 11-oxidase and 11-reductase activities of 11 beta-hydroxysteroid dehydrogenase: enzyme latency, phase transitions, and lipid requirements. *Endocrinology* 1985; 116:552-560.

90. Lakshmi V, Monder C. Purification and characterization of the corticosteroid 11 beta-dehydrogenase component of the rat liver 11 beta-hydroxysteroid dehydrogenase complex. *Endocrinology* 1988; 123:2390-2398.
91. Lakshmi V, Nath N, Muneyyirci-Delale O. Characterization of 11 beta-hydroxysteroid dehydrogenase of human placenta: evidence for the existence of two species of 11 beta-hydroxysteroid dehydrogenase. *J Steroid Biochem Mol Biol* 1993; 45:391-397.
92. Latif SA, Hartman LR, Souness GW, Morris DJ. Possible endogenous regulators of steroid inactivating enzymes and glucocorticoid-induced Na⁺ retention. *Steroids* 1994; 59:352-356.
93. Latif SA, Sheff MF, Ribeiro CE, Morris DJ. Selective inhibition of sheep kidney 11 beta-hydroxysteroid dehydrogenase isoform 2 activity by 5 alpha-reduced (but not 5 beta-reduced) derivatives of adrenocorticoids. *Steroids* 1997; 62:230-237.
94. Lax ER, Ghraf R, Schriefers H. The hormonal regulation of hepatic microsomal 11 beta-hydroxysteroid dehydrogenase activity in the rat. *Acta Endocrinol (Copenh)* 1978; 89(2):352-358.
95. Lax ER, Ghraf R, Schriefers H, Voigt KH. The involvement of the thyroid and adrenal in the regulation of enzyme activities of hepatic and renal steroid metabolism in the rat. *Hoppe Seylers Z Physiol Chem* 1979; 360:137-143.
96. Leckie C, Chapman KE, Edwards CR, Seckl JR. LLC-PK₁ cells model 11 beta-hydroxysteroid dehydrogenase type 2 regulation of glucocorticoid access to renal mineralocorticoid receptors. *Endocrinology* 1995; 136:5561-5569.
97. Lee YS, Lorenzo BJ, Koufis T, Reidenberg MM. Grapefruit juice and its flavonoids inhibit 11 beta-hydroxysteroid dehydrogenase. *Clin Pharmacol Ther* 1996; 59:62-71.
98. Li KX, Smith RE, Ferrari P, Funder JW, Krozowski ZS. Rat 11 beta-hydroxysteroid dehydrogenase type 2 enzyme is expressed at low levels in the placenta and is modulated by adrenal steroids in the kidney. *Mol Cell Endocrinol* 1996; 120:67-75.
99. Liang T, Liao S. Growth suppression of hamster flank organs by topical application of gamma-linolenic and other fatty acid inhibitors of 5 alpha-reductase. *J Invest Dermatol* 1997; 109(2):152-157.

100. Liggins GC. Adrenocortical-related maturational events in the fetus. *Am J Obstet Gynecol* 1976; 126(7):931-941.
101. Liu YJ, Nakagawa Y, Nasuda K, Saegusa H, Igarashi Y. Effect of growth hormone, insulin and dexamethasone on 11 beta-hydroxysteroid dehydrogenase activity on a primary culture of rat hepatocytes. *Life Sci* 1996; 59:227-234.
102. Lombes M, Farman N, Oblin ME, Baulieu EE, Bonvale JP, Erlanger BF, Gasc JM. Immunohistochemical localization of renal mineralocorticoid receptor by using an anti-idiotypic antibody that is an internal image of aldosterone. *Proc Natl Acad Sci USA* 1990; 87(3):1086-1088.
103. Low SC, Assaad SN, Rajan V, Chapman KE, Edwards CR, Seckl JR. Regulation of 11 beta-hydroxysteroid dehydrogenase by sex steroids in vivo: further evidence for the existence of a second dehydrogenase in rat kidney. *J Endocrinol* 1993; 139:27-35.
104. Low SC, Chapman KE, Edwards CR, Seckl JR. 'Liver-type' 11 beta-hydroxysteroid dehydrogenase cDNA encodes reductase but not dehydrogenase activity in intact mammalian COS-7 cells. *J Mol Endocrinol* 1994; 13:167-174.
105. Low SC, Chapman KE, Edwards CR, Wells T, Robinson IC, Seckl JR. Sexual dimorphism of hepatic 11 beta-hydroxysteroid dehydrogenase in the rat: The role of growth hormone patterns. *J Endocrinol* 1994; 143:541-548.
106. Maniscalco WM, Finkelstein JN, Parkhurst AB. Dexamethasone increases de novo fatty acid synthesis in fetal rabbit lung explants. *Pediatr Res* 1985; 19(12):1272-1277.
107. Maniscalco WM, Finkelstein JN, Parkhurst AB. Effects of exogenous fatty acids and inhibition of de novo fatty acid synthesis on disaturated phosphatidylcholine production by fetal lung cells and adult type II cells. *Exp Lung Res* 1989; 15(3):473-489.
108. Mercer WR, Krozowski ZS. Localization of an 11 beta-hydroxysteroid dehydrogenase activity to the distal nephron. Evidence for the existence of two species of dehydrogenase in the rat kidney. *Endocrinology* 1992; 130:540-543.
109. Mitsuhashi N, Kato J. Modulation of steroid hormone receptors in the brain- -inhibitory effect of fatty acids on the binding between cytosol progestin receptors in the rat cortex and R5020. *Psychoneuroendocrinology* 1987; 12(2):159-161.

110. Moisan MP, Edwards CR, Seckl JR. Differential promoter usage by the rat 11 beta-hydroxysteroid dehydrogenase gene. *Mol Endocrinol* 1992; 6: 1082-1087.
111. Monder C, Stewart PM, Lakshmi V, Valentino R, Burt D, Edwards CR. Licorice inhibits corticosteroid 11 beta-dehydrogenase of rat kidney and liver: in vivo and in vitro studies. *Endocrinology* 1989; 125:1046-1053.
112. Mooney D, Hansen L, Vacanti J, Langer R, Farmer S, Ingber D. Switching from differentiation to growth in hepatocytes: control by extracellular matrix. *J Cell Physiol* 1992; 151:497-505.
113. Morita H, Zhou MY, Foecking MF, Gomez-Sanchez EP, Cozza EN, Gomez-Sanchez CE. 11 beta-hydroxysteroid dehydrogenase type 2 complementary deoxyribonucleic acid stably transfected into chinese hamster ovary cells: Specific inhibition by 11 alpha-hydroxyprogesterone. *Endocrinology* 1996; 137:2308-2314.
114. Morris DJ, Semafuko WE, Latif SA, Vogel B, Grimes CA, Sheff MF. Detection of glycyrrhetic acid-like factors (GALFs) in human urine. *Hypertension* 1992; 20:356-360.
115. Morris DJ, Souness GW, Latif SA. Ring A reduced steroids can confer mineralocorticoid activity upon corticosterone in the ADX rat. 20th International Aldosterone Conference 1994.
116. Murphy BE. Ontogeny of cortisol-cortisone interconversion in human tissues: a role for cortisone in human fetal development. *J Steroid Biochem* 1981; 14:811-817.
117. Murphy BE, Clark SJ, Donald IR, Pinsky M, Vedady DL. Conversion of maternal cortisol to cortisone during placental transfer to human fetus. *Am J Obstet Gynecol* 1974; 118:538-541.
118. Naray-Fejes-Toth A, Fejes-Toth G. Expression cloning of the aldosterone target cell-specific 11 beta-hydroxysteroid dehydrogenase from rabbit collecting duct cells. *Endocrinology* 1995; 136:2579-2586.
119. Naray-Fejes-Toth A, Watlington CO, Fejes-Toth G. 11 beta-hydroxysteroid dehydrogenase activity in the renal target cells of aldosterone. *Endocrinology* 1991; 129:17-21.
120. Nicholas TE, Lugg MA. The physiological significance of 11 beta-hydroxysteroid dehydrogenase in the rat lung. *J Steroid Biochem* 1982; 17:113-118.

121. Nunez EA, Benassayag C, Vallette G, Saru L, Clerc-Hofmann F, Delorme J, Christeff N. The role of nonesterified fatty acids and of alpha 1-feto-protein in estrogen-dependent endocrine systems. *Ann NY Acad Sci* 1983; 417:137-148.
122. Obeyesekere VR, Ferrari P, Andrews RK, Wilson RC, New MI, Funder JW, Krozowski ZS. The R337C mutation generates a high Km 11 beta-hydroxysteroid dehydrogenase type II enzyme in a family with apparent mineralocorticoid excess. *J Clin Endocrinol Metab* 1995; 80:3381-3383.
123. Odermatt A, Arnold P, Stauffer A, Frey BM, Frey FJ. The N-terminal anchor sequences of 11 beta-hydroxysteroid dehydrogenase determine their orientation in the endoplasmatic reticulum membrane. *J Biol Chem* 1999; 274(40):28762-28770.
124. Ozols J. Lumenal orientation and post-translational modifications of the liver microsomal 11 beta-hydroxysteroid dehydrogenase. *J Biol Chem* 1995; 270:2305-2312.
125. Patterson CE, Davis KS, Beckman DE, Rhoades RA. Fatty acid synthesis in the fetal lung: relationship to surfactant lipids. *Biochim Biophys Acta* 1986; 78(1):110-126.
126. Patterson CE, Davis KS, Rhoades RA. Regulation of fetal lung disaturated phosphatidylcholine synthesis by de novo palmitate supply. *Biochim Biophys Acta* 1988; 958(1):60-69.
127. Pácha J, Miksik I. 11 beta-hydroxysteroid dehydrogenase in developing rat intestine. *J Endocrinol* 1996; 148:561-566.
128. Pearce D. A mechanistic basis for distinct mineralocorticoid and glucocorticoid receptor transcriptional specificities. *Steroids* 1994; 59:153-159.
129. Pepe GJ, Albrecht ED. Actions of placental and fetal adrenal steroid hormones in primate pregnancy. *Endocr Rev* 1995; 16:608-648.
130. Perschel FH, Buhler H, Hierholzer K. Bile acids and their amidates inhibit 11 beta-hydroxysteroid dehydrogenase obtained from rat kidney. *Pflugers Arch* 1991; 418:538-543.
131. Qian SZ, Wang ZG. Gossypol: a potential antifertility agent for males. *Annu Rev Pharmacol Toxicol* 1984; 24:329-360.

132. Quinkler M, Johanssen S, Grossmann C, Bahr V, Muller M, Oelkers W, Diederich S. Progesterone metabolism in the human kidney and inhibition of 11 beta-hydroxysteroid dehydrogenase type 2 by progesterone and its metabolites. *J Clin Endocrinol Metab* 1999; 84(11):4165-4171.
133. Rajan V, Chapman KE, Lyons V, Jamieson P, Mullins JJ, Edwards CR. Cloning, sequencing and tissue-distribution of mouse 11 beta-hydroxysteroid dehydrogenase-1 cDNA. *J Steroid Biochem Mol Biol* 1995; 52:141-147.
134. Raven PW, Checkley SA, Taylor NF. Extra-adrenal effects of metyrapone include inhibition of the 11-oxoreductase activity of 11 beta-hydroxysteroid dehydrogenase: A model for 11-HSD I deficiency. *Clin Endocrinol (Oxf)* 1995; 43:637-644.
135. Reinisch JM, Simon NG, Karow WG, Gandelman R. Prenatal exposure to prednisone in humans and animals retards intrauterine growth. *Science* 1978; 202:436-438.
136. Ricketts ML, Shoesmith KJ, Eggo MC, Strain AJ, Stewart PM. Regulation of 11 beta-hydroxysteroid dehydrogenase type 1 in primary cultures of rat and human hepatocytes. *J Endocrinol* 1996; 15th Joint Meeting:P44 Abstract.
137. Riddle MC, McDaniel PA. Acute reduction of renal 11 beta-hydroxysteroid dehydrogenase activity by several antinatriuretic stimuli. *Metabolism* 1993; 42:1370-1374.
138. Riddle MC, McDaniel PA. Renal 11 beta-hydroxysteroid dehydrogenase activity is enhanced by ramipril and captopril. *J Clin Endocrinol Metab* 1994; 78:830-834.
139. Roland BL, Krozowski ZS, Funder JW. Glucocorticoid receptor, mineralocorticoid receptors, 11 beta-hydroxysteroid dehydrogenase-1 and -2 expression in rat brain and kidney: in situ studies. *Mol Cell Endocrinol* 1995; 111:R1-7.
140. Rooney SA. Fatty acid biosynthesis in developing fetal lung. *Am J Physiol* 1989; 257(4 Pt 1):L195-201.
141. Rooney SA, Dynia RJ, Smart DA, Chu AJ, Ingelson LD, Wilson CM, Gross I. Glucocorticoid stimulation of choline-phosphate cytidyltransferase activity in fetal rat lung: receptor-response relationships. *Biochim Biophys Acta* 1986; 888:208-216.

142. Rooney SA, Nardone LL, Shapiro DL, Motoyama EK, Gobran L, Zaehring N. The phospholipids of rabbit type II alveolar epithelial cells: comparison with lung lavage, lung tissue, alveolar macrophages, and a human alveolar tumor cell line. *Lipids* 1977; 12(5):438-42.
143. Rudolph AM, Itskovits J, Iwamoto H, Reuss ML, Heymann MA. Fetal cardiovascular response to stress. *Semin Perinatol* 1981; 5:109-120.
144. Rusvai E, Naray-Fejes-Toth A. A new isoform of 11 beta-hydroxysteroid dehydrogenase in aldosterone target cells. *J Biol Chem* 1993; 268:10717-10720.
145. Sang GW, Lorenzo B, Reidenberg MM. Inhibitory effects of gossypol on corticosteroid 11 beta-hydroxysteroid dehydrogenase from guinea pig kidney: a possible mechanism for causing hypokalemia. *J Steroid Biochem Mol Biol* 1991; 39:169-176.
146. Sasano H, Fukushima K, Sasaki I, Matsuno S, Nagura H, Krozowski ZS. Immunolocalization of mineralocorticoid receptor in human kidney, pancreas, salivary, mammary, and sweat glands: a light and electron microscopic immunohistochemical study. *J Endocrinol* 1992; 132:305-310.
147. Schievella AR, Regier MK, Smith WL, Lin LL. Calcium-mediated translocation of cytosolic phospholipase A2 to the nuclear envelope and endoplasmic reticulum. *J Biol Chem* 1995; 270:30749-30754.
148. Seckl JR, Chapman KE. Medical and physiological aspects of the 11 beta-hydroxysteroid dehydrogenase system. *Eur J Biochem* 1997; 249(2):361-364.
149. Shams M, Kilby MD, Somerset DA, Howie AJ, Gupta A, Wood PJ, Afnan M, Stewart PM. 11 beta-hydroxysteroid dehydrogenase type 2 in human pregnancy and reduced expression in intrauterine growth restriction. *Hum Reprod* 1998; 13(4):799-804.
150. Smith PK, Krohn RI, Hermanson GT, Mallia AK, Gartner FH, Provenzano MD, Fujimoto EK, Goeke NM, Olson BJ, Klenk DC. Measurement of protein using bicinchoninic acid. *Anal Biochem* 1985; 150:76-85.
151. Smith RE, Funder JW. Renal 11 beta-hydroxysteroid dehydrogenase activity: effects of age, sex and altered hormonal status. *J Steroid Biochem Mol Biol* 1991; 38:265-267.
152. Song D, Lorenzo B, Reidenberg MM. Inhibition of 11 beta-hydroxysteroid dehydrogenase by gossypol and bioflavonoids. *J Lab Clin Med* 1992; 120:792-797.

153. Souness GW, Latif SA, Lorenzo JL, Morris DJ. 11 alpha- and 11 beta-hydroxyprogesterone, potent inhibitors of 11 beta-hydroxysteroid dehydrogenase (isoforms 1 and 2), confer marked mineralocorticoid activity on corticosterone in the ADX rat. *Endocrinology* 1995; 136:1809-1812.
154. Stauffer AT, Rochat MK, Dick B, Frey FJ, Odermatt A. Chenodeoxycholic acid and deoxycholic acid inhibit 11 beta-hydroxysteroid dehydrogenase type 2 and cause cortisol-induced transcriptional activation of the mineralocorticoid receptor. *J Biol Chem*. 2002; 277: 26286-26292.
155. Stewart PM, Murry BA, Mason JI. Type 2 11 beta-hydroxysteroid dehydrogenase in human fetal tissues. *J Clin Endocrinol Metab* 1994; 78:1529-1532.
156. Stewart PM, Rogerson FM, Mason JI. Type 2 11 beta-hydroxysteroid dehydrogenase messenger ribonucleic acid and activity in human placenta and fetal membranes: Its relationship to birth weight and putative role in fetal adrenal steroidogenesis. *J Clin Endocrinol Metab* 1995; 80:885-890.
157. Stewart PM, Whorwood CB, Mason JI. Type 2 11 beta-hydroxysteroid dehydrogenase in foetal and adult life. *J Steroid Biochem Mol Biol* 1995; 55:465-471.
158. Sun K, Yang K, Challis JR. Differential expression of 11 beta-hydroxysteroid dehydrogenase types 1 and 2 in human placenta and fetal membranes. *Endocrinology* 1997; 138(11):4912-4920.
159. Sun K, Yang K, Challis JR. Regulation of 11 beta-hydroxysteroid dehydrogenase type 2 by progesterone, estrogen, and the cyclic adenosine 5'-monophosphate pathway in cultured human placental and chorionic trophoblasts. *Biol Reprod* 1998; 58(6):1379-1384.
160. Takeuchi T, Ogawa M, Furihata C, Kawachi T, Sugimura T. Perinatal changes in amylase and serum corticosterone levels in rats. *Biochim Biophys Acta* 1977; 497(3):657-662.
161. Tannin GM, Agarwal AK, Monder C, New MI, White PC. The human gene for 11 beta-hydroxysteroid dehydrogenase. Structure, tissue distribution, and chromosomal localization. *J Biol Chem* 1991; 266:16653-16658.
162. Thomas JH, Gilham B. *Will's biochemical basis of medicine*. Butterworth & Co. 1989, 2. Auflage, London.
163. Tremblay J, Hardy DB, Pereira LE, Yang K. Retinoic acid stimulates the expression of 11 beta-hydroxysteroid dehydrogenase type 2 in human choriocarcinoma JEG-3 cells. *Biol Reprod* 1999; 60(3):541-545.

164. Ulick S, Chan CK, Rao KN, Edassery J, Mantero F. A new form of the syndrome of apparent mineralocorticoid excess. *J Steroid Biochem* 1989; 32:209-212.
165. Ulick S, Levine LS, Gunczler P, Zanconato G, Ramirez LC, Rauh W, Rosler A, Bradlow HL, New MI. A syndrome of apparent mineralocorticoid excess associated with defects in the peripheral metabolism of cortisol. *J Clin Endocrinol Metab* 1979; 49:757-764.
166. Valentino R, Tommaselli AP, Savastano S, Stewart PM, Ghiggi MR, Galletti F. Alcohol inhibits 11 beta-hydroxysteroid dehydrogenase activity in rat kidney and liver. *Hormone Research* 1995; 43:176-180.
167. Viscardi RM, Max SR. Unsaturated fatty acid modulation of glucocorticoid receptor binding in L2 cells. *Steroids* 1993; 58(8):357-361.
168. Voice MW, Seckl JR, Edwards CR, Chapman KE. 11 beta-hydroxysteroid dehydrogenase type 1 expression in 2S FAZA hepatoma cells is hormonally regulated: A model system for the study of hepatic glucocorticoid metabolism. *Biochem J* 1996; 317:621-625.
169. Wahawisan R, Gorell TA. Steroidal control of rat uterine 17 beta-hydroxysteroid dehydrogenase activity. *Steroids* 1980; 36(1):115.
170. Walker BR, Aggarwal I, Stewart PM, Padfield PL, Edwards CR. Endogenous inhibitors of 11 beta-hydroxysteroid dehydrogenase in hypertension. *J Clin Endocrinol Metab* 1995; 80:529-533.
171. Weinhold PA, Charles LG, Feldman DA. Microsomal CTP: choline phosphate cytidyltransferase: kinetic mechanism of fatty acid stimulation. *Biochim Biophys Acta* 1991; 1086(1):57-62.
172. Whorwood CB, Franklyn JA, Sheppard MC, Stewart PM. Tissue localization of 11 beta-hydroxysteroid dehydrogenase and its relationship to the glucocorticoid receptor. *J Steroid Biochem Mol Biol* 1992; 41:21-28.
173. Whorwood CB, Ricketts ML, Stewart PM. Epithelial cell localization of type 2 11 beta-hydroxysteroid dehydrogenase in rat and human colon. *Endocrinology* 1994; 135:2533-2541.
174. Whorwood CB, Sheppard MC, Stewart PM. Tissue specific effects of thyroid hormone on 11 beta-hydroxysteroid dehydrogenase gene expression. *J Steroid Biochem Mol Biol* 1993; 46:539-547.
175. Wright JR, Clements JA. Metabolism and turnover of lung surfactant. *Amer Rev Respir Dis* 1987; 135:426-444.

176. Xu ZX, Smart DA, Rooney SA. Glucocorticoid induction of fatty-acid synthase mediates the stimulatory effect of the hormone on choline-phosphate cytidyltransferase activity in fetal rat lung. *Biochim Biophys Acta* 1990; 1044(1):70-76.
177. Xu ZX, Stenzel W, Sasic SM, Smart DA, Rooney SA. Glucocorticoid regulation of fatty acid synthase gene expression in fetal rat lung. *Am J Physiol* 1993; 265(2Pt 1):L140-147.
178. Xu ZX, Rooney SA. Glucocorticoids increase fatty-acid synthase mRNA stability in fetal rat lung. *Am J Physiol* 1997; 272(5 Pt 1):L860-864.
179. Xu ZX, Rooney SA. Influence of dexamethasone on the lipid distribution of newly synthesized fatty acids in fetal rat lung. *Biochim Biophys Acta* 1989; 1005(3):209-16.
180. Yang K. Ovine 11 beta-hydroxysteroid dehydrogenase: From gene to function. *Endocrine Research* 1995; 21:367-377.
181. Yang K, Smith CL, Dales D, Hammond GL, Challis JR. Cloning of an ovine 11 beta-hydroxysteroid dehydrogenase complementary deoxyribonucleic acid: tissue and temporal distribution of its messenger ribonucleic acid during fetal and neonatal development. *Endocrinology* 1992; 131:2120-2126.
182. Yang K, Yu M. Evidence for distinct isoforms of 11 beta-hydroxysteroid dehydrogenase in the ovine liver and kidney. *J Steroid Biochem Mol Biol* 1994; 49:245-250.
183. Zhang YD, Lorenzo B, Reidenberg MM. Inhibition of 11 beta-hydroxysteroid dehydrogenase obtained from guinea pig kidney by furosemide, naringenin and some other compounds. *J Steroid Biochem Mol Biol* 1994; 49:81-85.
184. Zhou MY, Gomez Sanchez EP, Cox DL, Cosby D, Gomez Sanchez CE. Cloning, expression, and tissue distribution of the rat nicotinamide adenine dinucleotide-dependent 11 beta-hydroxysteroid dehydrogenase. *Endocrinology* 1995; 136:3729-3734.