6. Literaturverzeichnis

1. Bernard C. An Introduction to the Study of Experimental Medicine, 1865

2. Jelkmann W. Erythropoietin: Structure, control of production, and function. Physiol. Rev. 72: 449-489, 1992

3. Bonsdorf E, Jalavisto E. A humoral mechanism in hypoxic erythrocytosis. Acta. Physiol. Scand. 16: 150-170, 1948

4. Jacobson LO, Goldwasser E, Fried W, Plzak L. Role of the kidney in erythropiesis. Nature. 179: 633-634, 1957

5. Kuratowska Z, Lewartowski B, Michalak E. Studies on the production of erythropoietin by isolated perfused organs. Blood. 18: 527-534, 1961

6. Fisher JW, Birdwell BL. The production of an erythopoietic factor by the in situ perfused kidney. Acta Haematol. 26: 224-32, 1961

7. Erslev AJ. In vitro production of erythropoietin by kidneys perfused with a serum-free solution. Blood. 44 (1): 77-85, 1974

8. Beru N, McDonald J, Lacombe C, Goldwasser E. Expression of the erythropoietin gene. Mol Cell Biol. 6: 2571-2575, 1986

9. Bondurant MC, Koury MJ. Anemia induces accumulation of erythropoietin mRNA in the kidney and liver. Mol Cell Biol. 675-683, 1986

10. Schuster SJ, Wilson JH, Erslev AJ, Caro J. Physiologic regulation and tissue localization of renal erythropoietin messenger RNA. Blood. 70: 316-318, 1987

11. Lin FK, Suggs S, Lin CH et al. Cloning and Expression of the human erythropoietin gene. Proc. Natl. Acad. Sci. U.S.A. 82 (22): 7580-7584, 1985

12. Jacobs K, Shoemaker C, Rudersdorf R et al. Isolation and characterization of genomic and cDNA clones of human erythropoietin. Nature. 313 (6005): 860-810, 1985

13. Fisher JW. Erythropoietin: Physiology and pharmacology update. Exp. Biol. Med. 228 (1): 1-14, 2003

14. Jelkmann W, Hellwig-Burgel T. Biology of erythropoietin. Adv. Exp. Med. Biol. 502: 169-187, 2001

15. Fandrey J. Oxygen-dependent and tissue-specific regulation of erythropoietin gene expression. Am J. Physiol. Regul. Integr. Comp. Physiol. 286 (6): R977-988, 2004

16. Zanjani ED, Ascensao JL, McGlave PB, Banisadre M, Ash RC. Studies on the liver to kidney switch of erythropoietin production. J. Clin. Invest. 67: 1183-1188, 1981

17. Clemons GK, Fitzsimmons SL, Demanincor D. Immunoreactive erythropoietin concentrations in fetal and neonatal rats and the effects of hypoxia. Blood. 68: 892-899, 1986

18. Lacombe C, Da Silva JL, Bruneval P et al. Peritubular cells are the site of erythropoietin synthesis in the murine hypoxia kidney. J. Clin. Invest. 271: 69-74, 1988

19. Maxwell PH, Osmond MK, Pugh CW et al. Identification of the renal erythropoietin-producing cells using transgenic mice. Kidney Int. 44: 1149-1162, 1993

20. Bachmann S, Le Hir M, Eckardt KU. Colocalization of erythropoietin mRNA and ecto-5`-nucleotidase immunoreactivity in peritubulär cells of rat renal cortex indicates that fibroblasts produce erythropoietin. The Journal of Histochemistry and Cytochemistry. 41: 335-341, 1993

21. Maxwell PH, Ferguson DJ, Nicholls LG et al. Sites of erythropoietin production. Kidney Int. 51: 393-401, 1997

22. Pugh CW, Tan CC, Jones RW, Ratcliffe PJ. Functional analysis of an oxygen-regulated transcriptional enhancer lying 3`to the mouse erythropoietin gene. Proc. Natl. Acad. Sci. U.S.A. 88: 10553-10557, 1991

23. Semenza GL, Nejfelt MK, Chi SM, Antonarakis SE. Hypoxia-inducible nuclear factors bind to an enhancer element located 3`to the human erythropoietin gene. Proc. Natl. Acad. Sci. U.S.A. 88: 5680-5684, 1991

24. Beck I, Ramirez S, Weinmann R, Caro J. Enhancer element at the 3`-flanking region controls transcriptional response to hypoxia in the human erythropoietin gene. J. Biol. Chem. 266: 1230-1237, 1993

25. Wang GL, Semenza GL. Purification and characterization of Hypoxia-inducible Factor 1. Biochem. Mol. Biol. 270: 1230-1237, 1995

26. Semenza GL. Regulation of mammalian O_2-Homeostase by hypoxia-inducible factor 1. Cell Dev Biol. 15: 551-78, 1999

27. Wang GI, Jiang BH, Rue EA, Semenaza GL. Hypoxia-inducible factor 1 is a basic helix-loop-helix-PAS heterodimer regulated by cellular O_2 tension. Proc. Natl. Acad. Sci. USA, 92: 5510-5514, 1995

28. Wang GL, Semenza GL. Purification and characterization of hypoxia-inducible factor 1. J. Biol. Chem. 270: 1230-1237, 1995

29. Flamme I, Froelich T, von Reutern M, Koppel A, Damat A, Risau W. HRF, a putative basic helix-loop-helix-PAS-domain transkription factor is closely related to hypoxia-inducible factor-1α and developmentally expressed in blood vessels. Mech. Dev., 63: 51-60, 1997

30. Wiesener MS, Turley H, Allen WE et al. Induction of endothelial PAS domain protein-1 by hypoxia: characterization and comparison with hypoxia-inducible factor-1α. Blood 92: 2260-2268, 1998

31. Jewell UR, Kvietikova I, Scheid A, Bauer C, Wenger RH, Gassmann M. Induction of HIF-1α in response to hypoxia is instantaneous. FASEB J. 15 (7): 1312-1314, 2001

32. Ratcliffe, P.J. From erythropoietin to oxygen: hypoxia-inducible factor hydroxylases and the hypoxia signal pathway. Blood 20: 445-450, 2002

33. Salceda S, Caro J. Hypoxia-inducible factor 1α protein is rapidly degraded by the ubiquitin-proteasome system under normoxic conditions its stabilization by hypoxia depends on redox-induced changes. JBC, 272: 22642-22647, 1997

34. Huang LE, Gu J, Schau M, Bunn HF. Regulation of hypoxia-inducible factor 1α is mediated by an O_2 dependent degradation domain via the ubiquitin-proteasome pathway. Proc. Natl. Acad. Sci. USA, 95: 7987-7992, 1998

35. Masson N, Ratcliffe PJ. HIF prolyl and asparaginyl hydroxylases in the biological response to intracellular O_2 levels. J. Cell. Sci. 3041-3049, 2003

36. Kaelin Jr, WG. Proline hydroxylation and Gene Expression. Annu. Rev. Biochem. 2004

37. Lando D, Peet DJ, Whelan DA, Gorman JJ, Whitelaw ML. Asparagine hydroxylation of the HIF transactivation domain a hypoxic switch. Science. 295:858-851, 2002

38. Firth JD, Ebert BL, Pugh CW, Ratcliffe PJ. Oxygen-regulated control elements in the phosphoglycerate kinase 1 and lactat dehydrogenase A genes: similarities with the erythropietin 3´enhancer. Proc. Natl. Acad. Sci. USA. 91: 6496-500, 1994

39. Forsythe JA, Jiang BH, Iyer NV et al. Activation of vascular endothelial growth factor gene transcription by hypoxia-inducible factor 1. Moll. Cell. Biol. 16: 4604-13, 1996

40. Semenza GL. Expression of Hypoxia-inducible factor 1: Mechanisms and Consequences. Biochem. Pharma. 59: 47-53, 2000

41. Warburg O. The metabolism of tumors constable and co. Ltd., London, 1930

42. Zhong H, De Marzo AM, Laughner E et al. Overexpression of Hypoxia-inducible Factor 1α in Common Human Cancers and their metastases. Cancer Res. 59: 5830-5835, 1999

43. Talks KL, Turley H, Gatter KC et al. The expression and distribution of the hypoxia-inducible factors HIF-1α and HIF-2α in normal human tissues, cancers, and tumor-associated macrophages. Am. J. Pathol. 157: 411-421, 2000

44. Maxwell PH, Dachs GU, Gleadle JM et al. Hypoxia-inducible factor-1 modualtes gene expression in solid tumors and influences both angiogenesis and tumor growth. Proc. Natl. Acad. Sci. U.S.A. 94: 8104-8109, 1997

45. Ryan HE, Lo J, Johnson RS. HIF-1alpha is required for solid tumor formation and embryonic vascularization. EMBO J. 17 (11): 3005-3015, 1998

46. Ryan HE, Poloni M, McNulty W et al. Hypoxia-inducible factor-1α is a positive factor in solid tumor growth. Cancer res. 60: 4010-4015, 2000

47. Carmeliet P, Dor Y, Herbert JM et al. Role of HIF-1alpha in hypoxia-mediated apoptosis, cell proliferation, and tumor angiogenesis. Nature. 394: 435-439, 1998

48. Blouw B, Song H, Tihan T et al. The hypoxic response of tumors is dependent on their mircoenviroment. Cancer Cell. 4 (2): 133-146, 2003

49. Mandriota SJ, Turner KJ, Davies DR et al. HIF activation identifies early lesions in VHL kidneys: evidence for site specific tumor suppressor function in the nephron. Cancer Cell; 1: 459-468, 2002

50. Kondo K, Klco J, Nakamura E, Lechpammer M, Kaelin WGJr. Inhibition of HIF is necessary for tumor suppression by the von Hippel-Lindau protein. Cancer Cell; 1: 237-246, 2002

51. Maranchie JK, Vasselli JR, Riss J, Bonifacino JS, Lineham WM, Klausner RD. The contribution of VHL substrate binding and HIF-1α to the phenotype of VHL loss in renal cell carcinoma. Cancer Cell; 1: 247-255, 2002

52. Seizinger BR, Rouleau GA, Ozelius LJ et al. Von Hippel-Lindau disease maps to the region of chromosome 3 associated with renal cell carcinoma. Nature. 332 (6161): 268-9, 1988

53. Latif F, Tory K, Gnarra J et al. Identification of the von Hippel-Lindau disease tumor suppressor gene. Science. 260: 1317-1320, 1993

54. Mircea I, William G, Kaelin JR. The von Hippel-Lindau tumor suppressor protein. Genet. 11: 27-34, 2001

55. William G, Kaelin JR. Cancer: Many vessels, faulty gene. Nature. 399: 203-204, 1999

56. Kaelin WG, Maher ER. The VHL tumor-suppressor gene paradigm. Trends Genet. 14: 423-426, 1998

57. Gnarra JR, Tory K, Weng Y et al. Mutations of the VHL tumor suppressor gene in renal carcinoma. Nat. Genet. 7: 85-90, 1994

58. Herman JG, Latif F, Weng Y et al. Silencing of the VHL tumor-suppressor gene by DNA methylation in renal carcinoma. Proc. Natl. Acad. Sci. U.S.A. 91: 9700-9704, 1994

59. Maxwell PH, Wiesener MS, Chang GW et al. The tumor suppressor protein VHL targets hypoxia-inducible factors for oxygen-dependent proteolysis. Nature. 399: 271-275, 1999

60. Wiesener MS, Münchenhagen PM, Berger I et al.. Constitutive activation of hypoxia-inducible genes related to overexpression of HIF-1 alpha in clear cell renal carcinomas. Cancer Res. 61: 5215-5222, 2001

61. Turner KJ, Moore JW, Jones A et al. Expression of hypoxia-inducible factors in human renal cancer: relationship to angiogenesis and to the von Hippel-Lindau gene mutation. Cancer Res. 62: 2957-2961, 2002

62. Kosary CL, Mc Laughlin JK. Kidney and renal pelvis. National Cancer Institute. 93-2789, 1993

63. Motzer RJ, Bander NH, Nanus DM. Renal-cell carcinoma. N Engl J Med. 335: 865-873, 1996

64. Vogelzang NJ, Stadler WM. Kidney cancer. Lancet. 352: 1691-1696, 1998

65. Mc Credie M, Pommer W, Mc Laughlin JK et al. International renal-cell cancer study.ll. Analgesics. Int J Cancer. 60: 345-9, 1995

66. Wolk A, Gridley G, Niwa S et al. International reanl-cell cancer study.Vll. Role of diet. Int J Cancer. 65: 67-73, 1996

67. Yu MC, Mack TM, Hanisch R, Cicioni C, Henderson BE. Cigarette smoking, obesity, diuretic use, and coffee consumption as risk factors for renal cell carcinoma. J Natl Cancer inst. 77: 351-6, 1986

68. Kovacs G, Akhtar M, Beckwith BJ et al. The Heidelberg Classification of renal cell tumours. J of Pathol. 183: 131-133. 1997

69. van den Berg E, van der Hout AH, Oosterhuis JW et al. Cytogenetic analysis of epithelial renal-cell tumors: relationship with a new histopathological classification. Int J Cancer. 55: 223-7, 1993

70. Bander NH, Finstad CL, Cordon-Cardo C et al. Analysis of a mouse monoclonal antibody that reacts with a specific region of the human proximal tubule and subsets of renal cell carcinomas. Cancer Res. 49: 6774-80, 1989

71. Prchal JT. Pathogenetic mechanisms of polycythemia vera and congenital polycythemic disorders. Semin. Hematol. 38: 10-20, 2001

72. Ang SO, Chen H, Hirota K et al. Disruption of oxygen homeostasis underlies congetial Chuvash polycythemia. Nat. Genet. 32: 614-621, 2002

73. Pastore YD, Jelinek J, Ang S et al. Mutations in the VHL Gene in Sporadic Apparently Congenital Polycythemia. Blood. 101: 1591-1595, 2003

74. Noguchi Y, Goto T, Yufu Y et al. Gene expression of erythropoietin in renal cell carcinoma. Intern. Med. 38: 991-994, 1999

75. Katsuoka Y, Mc Gonigle R, Rege AB, Beckamn B, Fisher JW. Erythropoietin production in human renal carcinoma cells passaged in nude mice and in tissue culture. Gann. 74: 534-41, 1983

76. Okabe T, Urabe A, Kato T, Chiba S, Takaku F. Production of erythropoietin-like activity by human renal and hepatic carcinomas in cell culture. Cancer. 55: 1918-23, 1985

77. Shouval D, Anton M, Galun E, Sherwood JB. Erythropoietin-induced polycythemia in athymic mice following transplantation of a human renal carcinoma cell line. Cancer Res. 48: 3430-4, 1988

78. Thoenes W, Störkel S, Rumpelt HJ. Histopathology and classification of renal cell tumors (adenomas, oncocytomas and carcinomas). Pathol. Res. Pract. 181: 125-143, 1986

79. Sobin LH, Flemming ID. TMN Classification of Malignant Tumors, fifth edition (1997). Union Internationale Contre le Cancer and the American Joint Committee on Cancer. Cancer. 80: 1803-1804, 1997

80. Janout V, Janoutova G. Epidemiology and risk factors of kidney cancer. Biomed. Pap. Med. Fac. 148: 95-1001, 2004

81. Wykoff CC, Beasley NJ, Watson PH et al. Hypoxia-inducible expression of tumor-associated carbonic anhydrases. Cancer Res. 60: 7075-83, 2000

82. Da Silva JL, Lacombe C, Bruneval P et al. Tumor cells are the site of erythropoietin synthesis in human renal cancers associated with polycythemia. Blood. 75: 577-82, 1990

83. Wiesener MS, Seyfarth M, Warnecke C et al. Paraneoplastic erythrocytosis with an inactivating point mutation of the von Hippel-Lindau gene in a renal cell carcinoma. Blood. 99: 35-62-5, 2002

84. Kaelin WGJr. The von Hippel-Lindau tumor suppressor gene and kidney cancer. Clin. Cancer Res. 10: 6290S-5S, 2004

85. Randi ML, Murgia A, Putti MC et al. Low frequency of VHL gene mutations in young individuals with polycythemia and high serum erythropoietin. Haematologica. 90: 689-91, 2005

86. Cario H, Goerttler PS, Steimle C, Levine RL, Pahl HL. The JAK2V617F mutation is acquired secondary to the predisposing alteration in familial polycythaemia vera. Br. J. Haematol. 130: 800-1, 2005

87. Stebbins CE, Kaelin WGJr, Pavletich NP. Structure of the VHL-ElonginC-ElonginB complex: implications for VHL tumor suppressor function. Science. 284: 455-61, 1999

88. Sekido Y, Bader S, Latif F et al. Molecular analysis of the von Hippel-Lindau disease tumor suppressor gene in human lung cancer cell lines. Oncogene. 9:1599-604, 1994

89. Kuwai T, Kitadai Y, Tanaka S, Hiyama T, Tanimoto K, Chayama K. Mutation of the von Hippel-Lindau (VHL) gene in human colorectal carcinoma: association with cytoplasmatic accumulation of hypoxia-inducible factor (HIF)-1 alpha). Cancer Sci. 95: 149-53, 2004

90. Cheng TI, Tsou MH, Yang PS, Sung SM, Chuang VP, Sung JL. Dermatomyositis and erythrocytosis associated with hepatocellular carcinoma. J. Gastroenterol. Hepatol. 17: 1239-1240, 2002

91. Wang LY, Shih LY, Chen SH, Liu HC, Chai IJ, Liang DC. Neuroblastoma with expression of erythropoietin resulting in erythrocytosis. J. Pediatr. Hematol. Oncol. 25: 649-650, 2003

92. Matsuo M, Koga S, Kanetake H et al. EPO-producing gastric carcinoma in a hemodialysis patient. Am J. Kidney Dis. 42: E3-4, 2003

93. Kaito K, Otsubo H, Usui N, Kobayashi M. Secondary polythemia as a paraneoplastic syndrome of testicular seminoma. Ann. Hematol. 83: 55-57, 2004

94. Dagnon K, Pacary E, Commo F, Antoine M, Bernaudin JF, Callard P. Expression of erythropoietin and erythropoietin receptor in non-small cell lung carcinomas. Cli. Cancer Res. 11: 993-9, 2005

95. Vogel TW, Brouwers FM, Lubensky IA et al. Differential expression of erythropoietin and its receptor in von hippel-lindau-associated and multiple endocrine neoplasia type 2-associated pheochromocytomas. J. Clin. Endocrinol. Metab. 90: 3747-51, 2005

96. Westenfelder C, Baranowski RL. Erythropoietin stimulates proliferation of human renal carcinoma cells. Kidney Int. 58: 647-57, 2000

97. Rosenberger C, Mandriota S, Juergensen JS et al. Expression of hypoxia-inducible factor-1alpha and -2alpha in hypoxic and ischemic rat kidneys. J. Am. Soc. Nephrol. 13: 1721-1732, 2002

98. Warnecke C, Zaborowska Z, Kurreck J, Erdmann VA, Frei U, Wiesener MS, Eckardt KU. Differentiating the functional role of hypoxia-inducible factor (HIF)-1alpha and -2alpha (EPAS-1) by the use of RNA interference: erythropoietin is a HIF-2alpha target gene in Hep3B and Kelly cells. Faseb J. 18: 1462-1464, 2004

99. Scortegagna M, Ding K, Zhang Q et al. HIF-2alpha regulates murine hematopoietic development in an erythropoietin-dependent manner. Blood. 105: 313-3140, 2005

100. Maynard MA, Ohh M. Von Hippel-Lindau tumor suppressor protein and hypoxia-inducible factor in kidney cancer. Am J. Nephrol. 24:1-13, 2004

101. Hagiwara M, Chen IL, McGonigle R, Beckmann B, Kasten FH, Fisher JW. Erythropoietin producing in a primary culture of human renal cell carcinoma maintained in nude mice. Blood. 63: 828-35, 1984

102. Toyama K, Fujiyama N, Suzuki H, Chen TP, Tamaoki N, Ueyama Y. Erythropoietin levels in course of a patient with erythropoietin-producing renal cell carcinoma and transplantation of this tumor in nude mice. Blood. 54: 245-53, 1979

103. Means RTJr, Krantz SB. Progress in understanding the pathogenesis of the anemia of chronic disease. Blood. 80: 1639-47, 1992;

104. Faquin WC, Schneider TJ, Goldberg MA. Effect of inflammatory cytokines on hypoxia-induced erythropoietin production. Blood. 79: 1987-94, 1992;

105. Sadoff L. Erythropoietin and cancer. JAMA. 293: 1858-9, 2005