

6. Literaturverzeichnis

1. Allen-Mersh TG (1984): Serum CEA in the follow-up of colorectal carcinoma: experience in a district general hospital, *Ann R Coll Surg Engl* 66(1):14-6
2. Anisowicz A, Sotiropoulou G, Stenman G, Mok SC, Sager R (1996): A novel protease homolog differentially expressed in breast and ovarian cancer, *Mol Med* 2(5):624-36
3. Astler VB, Coller FA (1954): The prognostic significance of direct extension of carcinoma of the colon and rectum, *Ann Surg* 139, 846-852
4. Broach JR, Hicks JB (1980): Replication and recombination functions associated with the yeast plasmid, 2 mu circle, *Cell* 21(2):501-8
5. Brossart P, Schmier JW, Kruger S, Willhauck M, Scheibenbogen C, Mohler T, Keilholz U (1995): A polymerase chain reaction-based semiquantitative assessment of malignant melanoma cells in peripheral blood, *Cancer Res* 55(15):4065-8
6. Burchill SA, Bradbury FM, Selby P, Lewis IJ (1995): Early clinical evaluation of neuroblastoma cell detection by reverse transcriptase-polymerase chain reaction (RT-PCR) for tyrosine hydroxylase mRNA, *Eur J Cancer* 31A(4):553-6
7. Burchill SA, Bradbury MF, Pittman K, Southgate J, Smith B, Selby P (1995): Detection of epithelial cancer cells in peripheral blood by reverse transcriptase-polymerase chain reaction, *Br J Cancer* 71(2):278-81
8. Bustin SA, Dorudi S (1998): Molecular assessment of tumour stage and disease recurrence using PCR-based assays, *Mol Med Today* 4(9):389-96
9. Bustin SA, Gyselman VG, Williams NS, Dorudi S (1999): Detection of cytokeratins 19/20 and guanylyl cyclase C in peripheral blood of colorectal cancer patients, *Br J Cancer* 79(11-12):1813-20
10. Cairns P, Sidransky D (1999): Molecular methods for the diagnosis of cancer, *Biochim Biophys Acta* 25;1423(2):C11-8
11. Caldas C (1998): Molecular assessment of cancer, *BMJ* 316(7141):1360-3
12. Caldas C (1997): Molecular staging of cancer: is it time?, *Lancet* 350(9073):231
13. Cardalda CA, Batlle A, Juknat AA (1998): Sequence and structure of the rat housekeeping PBG-D isoform, *Biochem Biophys Res Commun* 249(2):438-43

14. Cardullo RA, Agrawal S, Flores C, Zamecnik PC, Wolf DE (1988): Detection of nucleic acid hybridization by nonradiative fluorescence resonance energy transfer, *Proc Natl Acad Sci U S A* 85(23):8790-4
15. Castells A, Boix L, Bessa X, Gargallo L, Pique JM (1998): Detection of colonic cells in peripheral blood of colorectal cancer patients by means of reverse transcriptase and polymerase chain reaction, *Br J Cancer* 78(10):1368-72
16. Chelly J, Concorde JP, Kaplan JC, Kahn A (1989): Illegitimate transcription: transcription of any gene in any cell type, *Proc Natl Acad Sci U S A* 86(8):2617-21
17. Chomczynski P, Sacchi N (1987): Single-step method of RNA isolation by acid guanidinium thiocyanate-phenol-chloroform extraction, *Anal Biochem* 162(1):156-9
18. Chretien S, Dubart A, Beaupain D, Raich N, Grandchamp B, Rosa J, Goossens M, Romeo PH (1988): Alternative transcription and splicing of the human porphobilinogen deaminase gene result either in tissue-specific or in housekeeping expression, *Proc Natl Acad Sci U S A* 85(1):6-10
19. Cox PM, Goding CR (1991): Transcription and cancer, *Br J Cancer* 63(5):651-62
20. Cross NC (1995): Quantitative PCR techniques and applications, *Br J Haematol* 89(4):693-7
21. Cunningham BA (1976): Structure and significance of beta2-microglobulin, *Fed Proc* 35(5):1171-6
22. Denis MG, Lipart C, Leborgne J, LeHur PA, Galmiche JP, Denis M, Ruud E, Truchaud A, Lustenberger P (1997): Detection of disseminated tumor cells in peripheral blood of colorectal cancer patients, *Int J Cancer* 21;74(5):540-4
23. Deveney KE, Way LW (1984): Follow-up of patients with colorectal cancer, *Am J Surg* 148(6):717-22
24. Diamandis EP, Yousef GM, Luo I, Magklara I, Obiezu CV (2000): The New Human Kallikrein Gene Family: Implications in Carcinogenesis, *Trends Endocrinol Metab* 11(2):54-60
25. Eckert C, Landt O, Taube T, Seeger K, Beyermann B, Proba J, Henze G (2000): Potential of LightCycler technology for quantification of minimal residual disease in childhood acute lymphoblastic leukemia, *Leukemia* 14(2):316-23

26. Eisman JA, Barkla DH, Tutton PJ (1987): Suppression of in vivo growth of human cancer solid tumor xenografts by 1,25-dihydroxyvitamin D₃, *Cancer Res* 47(1):21-5
27. Erlich HA, Gelfand D, Sninsky JJ (1991): Recent advances in the polymerase chain reaction, *Science* 252(5013):1643-51
28. Finke J, Fritzen R, Ternes P, Lange W, Dolken G (1993): An improved strategy and a useful housekeeping gene for RNA analysis from formalin-fixed, paraffin-embedded tissues by PCR, *Biotechniques* 14(3):448-53
29. Finnegan MC, Goepel JR, Hancock BW, Goyns MH (1993): Investigation of the expression of housekeeping genes in non-Hodgkin's lymphoma, *Leuk Lymphoma* 10(4-5):387-93
30. Foley KP, Leonard MW, Engel JD (1993): Quantitation of RNA using the polymerase chain reaction, *Trends Genet* 9(11):380-5
31. Foss AJ, Guille MJ, Occleston NL, Hykin PG, Hungerford JL, Lightman S (1995): The detection of melanoma cells in peripheral blood by reverse transcription-polymerase chain reaction, *Br J Cancer* 72(1):155-9
32. Freeman WM, Walker SJ, Vrana KE (1999): Quantitative RT-PCR: pitfalls and potential, *Biotechniques* 26(1):112-22, 124-5
33. Gastrointestinal Tumor Study Group (1984): Adjuvant therapy of colon cancer--results of a prospectively randomized trial *N Engl J Med* 22;310(12)::737-43
34. Gerhard M, Juhl H, Kalthoff H, Schreiber HW, Wagener C, Neumaier M (1994): Specific detection of carcinoembryonic antigen-expressing tumor cells in bone marrow aspirates by polymerase chain reaction, *J Clin Oncol* 12(4):725-9
35. Glaves D, Huben RP, Weiss L (1988): Haematogenous dissemination of cells from human renal adenocarcinomas, *Br J Cancer* 57(1):32-5
36. Gold P, Freedman SO (1965): Demonstration of tumor-specific antigens in human colonic carcinomata by immunological tolerance and absorption techniques, *J Exp Med* 121: 439
37. Gold P, Freedman SO (1965): Specific carcinoembryonic antigens of the human digestive system, *J Exp Med* 122(3):467-81
38. Goldblatt SA, Nadel FM (1965): Cancer cells in the circulating blood: a critical review II, *Acta cytol* 9, 6-20

39. Gong Y, Cui L, Minuk GY (1996): Comparison of glyceraldehyde-3-phosphate dehydrogenase and 28s-ribosomal RNA gene expression in human hepatocellular carcinoma, *Hepatology* 23(4):734-7
40. Gotley DC, Fawcett J, Walsh MD, Reeder JA, Simmons DL, Antalis TM (1996): Alternatively spliced variants of the cell adhesion molecule CD44 and tumour progression in colorectal cancer, *Br J Cancer* 74(3):342-51
41. Graham RA, Wang S, Catalano PJ, Haller DG (1998): Postsurgical surveillance of colon cancer: preliminary cost analysis of physician examination, carcinoembryonic antigen testing, chest x-ray, and colonoscopy, *Ann Surg* 228(1):59-63
42. Grandchamp B, De Verneuil H, Beaumont C, Chretien S, Walter O, Nordmann Y (1987): Tissue-specific expression of porphobilinogen deaminase. Two isoenzymes from a single gene, *Eur J Biochem* 162(1):105-10
43. Guan RJ, Van Dam J (1999): Molecular detection of micrometastases: science on stage, *Am J Gastroenterol* 94(10):3062-4
44. Hammarstrom S (1999): The carcinoembryonic antigen (CEA) family: structures, suggested functions and expression in normal and malignant tissues, *Semin Cancer Biol* 9(2):67-81
45. Hansen HJ, Snyder JJ, Miller E, Vandevoorde JP, Miller ON, Hines LR, Burns JJ (1974): Carcinoembryonic antigen (CEA) assay. A laboratory adjunct in the diagnosis and management of cancer, *Hum Pathol* 5(2):139-47
46. Hardingham JE, Kotasek D, Sage RE, Eaton MC, Pascoe VH, Dobrovic A (1995): Detection of circulating tumor cells in colorectal cancer by immunobead-PCR is a sensitive prognostic marker for relapse of disease, *Mol Med* 1(7):789-94
47. Hayashi N, Ito I, Yanagisawa A, Kato Y, Nakamori S, Imaoka S, Watanabe H, Ogawa M, Nakamura Y (1995): Genetic diagnosis of lymph-node metastasis in colorectal cancer, *Lancet* 345(8960):1257-9
48. Holland PM, Abramson RD, Watson R, Gelfand DH (1991): Detection of specific polymerase chain reaction product by utilizing the 5'----3' exonuclease activity of *Thermus aquaticus* DNA polymerase, *Proc Natl Acad Sci U S A* 88(16):7276-80
49. Hornsby-lewis L, Herbsman N (1993): Predicting recurrence in colorectal cancer patients, *Gastroenterology* 104: 1225-1226

50. Jäger U, Laczika K, Scholten C, Mitterbauer M, Novak M, Lechner K (1996): Klinischer Einsatz der Polymerase-Kettenreaktion zu Diagnose und Monitoring maligner Erkrankungen, *Wien Klin Wochenschr* 108(20):634-9
51. Johnson PW, Burchill SA, Selby PJ (1995): The molecular detection of circulating tumour cells, *Br J Cancer* 72(2):268-76
52. Jonas S, Windeatt S, O-Boateng A, Fordy C, Allen-Mersh TG (1996): Identification of carcinoembryonic antigen-producing cells circulating in the blood of patients with colorectal carcinoma by reverse transcriptase polymerase chain reaction, *Gut* 39(5):717-21
53. Jonas SK, Wharton RQ, Klokouzas A, Allen-Mersh TG (1997): Multiple blood sampling increases the probability of identifying circulating tumour cells, *Gut* 40 (Suppl. I) A49
54. Jung R, Ahmad-Nejad P, Wimmer M, Gerhard M, Wagener C, Neumaier M (1997): Quality management and influential factors for the detection of single metastatic cancer cells by reverse transcriptase polymerase chain reaction, *Eur J Clin Chem Clin Biochem* 35(1):3-10
55. Kaplan JC, Kahn A, Chelly J (1992): Illegitimate transcription: its use in the study of inherited disease, *Hum Mutat* 1(5):357-60
56. Keilholz U, Willhauck M, Rimoldi D, Brasseur F, Dummer W, Rass K, de Vries T, Blaheta J, Voit C, Lethe B, Burchill S (1998): Reliability of reverse transcription-polymerase chain reaction (RT-PCR)-based assays for the detection of circulating tumour cells: a quality-assurance initiative of the EORTC Melanoma Cooperative Group, *Eur J Cancer* 34(5):750-3
57. Keilholz U, Willhauck M, Scheibenbogen C, de Vries TJ, Burchill S (1997): Polymerase chain reaction detection of circulating tumour cells. EORTC Melanoma Cooperative Group, Immunotherapy Subgroup, *Melanoma Res* 7 Suppl 2:S133-41
58. Keilholz U (1998): New prognostic factors in melanoma: mRNA tumour markers, *Eur J Cancer* 34 Suppl 3:S37-41
59. Kelly CJ, Daly JM (1992): Colorectal cancer. Principles of postoperative follow-up, *Cancer* 70(5 Suppl):1397-408
60. Knippers, R (1995): Molekulare Genetik. Stuttgart, New York: Thieme, 6. Aufl.

61. Ko Y, Klinz M, Totzke G, Gouni-Berthold I, Sachinidis A, Vetter H (1998): Limitations of the reverse transcription-polymerase chain reaction method for the detection of carcinoembryonic antigen-positive tumor cells in peripheral blood, *Clin Cancer Res* 4(9):2141-6
62. Kreuzer KA, Lass U, Bohn A, Landt O, Schmidt CA (1999): LightCycler technology for the quantitation of bcr/abl fusion transcripts, *Cancer Res* 59(13):3171-4
63. Kvalheim G (1998): Diagnosis of minimal residual disease in bone marrow and blood in cancer patients--methods and clinical implications, *Acta Oncol* 37(5):455-62
64. Kwok S, Higuchi R (1989): Avoiding false positives with PCR, *Nature* 339(6221):237-8 Published erratum appears in *Nature* (1989) 339(6224):490
65. Leather AJ, Gallegos NC, Kocjan G, Savage F, Smales CS, Hu W, Boulos PB, Northover JM, Phillips RK (1993): Detection and enumeration of circulating tumour cells in colorectal cancer, *Br J Surg* 80(6):777-80
66. Lie YS, Petropoulos CJ (1998): Advances in quantitative PCR technology: 5' nuclease assays, *Curr Opin Biotechnol* 9(1):43-8
67. Liefers GJ, Cleton-Jansen AM, van de Velde CJ, Hermans J, van Krieken JH, Cornelisse CJ, Tollenaar RA (1998): Micrometastases and survival in stage II colorectal cancer, *N Engl J Med* 339(4):223-8
68. Liefers GJ, Tollenaar RA, Cleton-Jansen AM (1999): Molecular detection of minimal residual disease in colorectal and breast cancer, *Histopathology* 34(5):385-90
69. Liefers GJ, Tollenar RA, Cleton-Jansen AM (1999): Molecular staging of colorectal cancer: a step forward, *Gastroenterology* 116(3):769-70
70. Lindemann F, Schlimok G, Dirschedl P, Witte J, Riethmuller G (1992): Prognostic significance of micrometastatic tumour cells in bone marrow of colorectal cancer patients, *Lancet* 19;340(8821):685-9
71. Liotta LA, Stetler-Stevenson WG (1991): Tumor invasion and metastasis: an imbalance of positive and negative regulation, *Cancer Res* 51(18 Suppl):5054s-5059s

72. Little SP, Dixon EP, Norris F, Buckley W, Becker GW, Johnson M, Dobbins JR, Wyrick T, Miller JR, MacKellar W, Hepburn D, Corvalan J, McClure D, Liu X, Stephenson D, Clemens J, Johnstone EM (1997): Zyme, a novel and potentially amyloidogenic enzyme cDNA isolated from Alzheimer's disease brain, *J Biol Chem* 3;272(40):25135-42
73. Livak KJ, Flood SJ, Marmaro J, Giusti W, Deetz K (1995): Oligonucleotides with fluorescent dyes at opposite ends provide a quenched probe system useful for detecting PCR product and nucleic acid hybridization, *PCR Methods Appl* 4(6):357-62
74. Mafune K, Saini KS, Ravikumar TS, Chen LB, Steele GD Jr, Thomas P (1992): Differences in messenger RNA expression of carcinoembryonic antigen in surgical specimens of colorectal carcinoma, *Tumour Biol* 13(5-6):330-7
75. Moertel CG, Fleming TR, Macdonald JS, Haller DG, Laurie JA, Goodman PJ, Ungerleider JS, Emerson WA, Tormey DC, Glick JH, et al (1990): Levamisole and fluorouracil for adjuvant therapy of resected colon carcinoma, *N Engl J Med* 322(6):352-8
76. Mori M, Mimori K, Inoue H, Barnard GF, Tsuji K, Nanbara S, Ueo H, Akiyoshi T (1995): Detection of cancer micrometastases in lymph nodes by reverse transcriptase-polymerase chain reaction, *Cancer Res* 1;55(15):3417-20
77. Mori M, Mimori K, Ueo H, Karimine N, Barnard GF, Sugimachi K, Akiyoshi T (1996): Molecular detection of circulating solid carcinoma cells in the peripheral blood: the concept of early systemic disease, *Int J Cancer* 11;68(6):739-43
78. Morrison TB, Weis JJ, Wittwer CT (1998): Quantification of low-copy transcripts by continuous SYBR Green/SYBR Green I monitoring during amplification, *Biotechniques* 24(6):954-8, 960, 962
79. Nakamori S, Kameyama M, Furukawa H, Takeda O, Sugai S, Imaoka S, Nakamura Y (1997): Genetic detection of colorectal cancer cells in circulation and lymph nodes, *Dis Colon Rectum* 40(10 Suppl):S29-36
80. Nakanishi H, Kodera Y, Yamamura Y, Kuzuya K, Nakanishi T, Ezaki T, Tatematsu M (1999): Molecular diagnostic detection of free cancer cells in the peritoneal cavity of patients with gastrointestinal and gynecologic malignancies, *Cancer Chemother Pharmacol* 43 Suppl:S32-6

81. Nicolson GL (1991): Molecular mechanisms of cancer metastasis: tumor and host properties and the role of oncogenes and suppressor genes, *Curr Opin Oncol* 3(1):75-92
82. NIH consensus conference (1990): Adjuvant therapy for patients with colon and rectal cancer, *JAMA* 264(11):1444-50
83. Noh YH, Im G, Ku JH, Lee YS, Ahn MJ (1999): Detection of tumor cell contamination in peripheral blood by RT-PCR in gastrointestinal cancer patients, *J Korean Med Sci* 14(6):623-8
84. O'Connell MJ, Martenson JA, Wieand HS, Krook JE, Macdonald JS, Haller DG, Mayer RJ, Gunderson LL, Rich TA (1994): Improving adjuvant therapy for rectal cancer by combining protracted-infusion fluorouracil with radiation therapy after curative surgery, *N Engl J Med* 331(8):502-7
85. O'Gorman S, Fox DT, Wahl GM (1991): Recombinase-mediated gene activation and site-specific integration in mammalian cells, *Science* 15;251(4999):1351-5
86. Oldach D (1999): "Real-time" polymerase chain reaction, *Gastroenterology* 116(3):763-4
87. O'Sullivan GC, Collins JK, Kelly J, Morgan J, Madden M, Shanahan F (1997): Micrometastases: marker of metastatic potential or evidence of residual disease? *Gut* 40(4):512-5
88. Pantel K (1999): Minimal residual disease. Introductory overview, *Cancer Metastasis Rev* 18(1):1-2
89. Pantel K, Cote RJ, Fodstad O (1999): Detection and clinical importance of micrometastatic disease, *J Natl Cancer Inst* 91(13):1113-24
90. Pelkey TJ, Frierson HF Jr, Bruns DE (1996): Molecular and immunological detection of circulating tumor cells and micrometastases from solid tumors, *Clin Chem* 42(9):1369-81
91. Peterson PA, Rask L, Ostberg L (1977): beta2-microglobulin and the major histocompatibility complex, *Adv Cancer Res* 24:115-63
92. Raj GV, Moreno JG, Gomella LG (1998): Utilization of polymerase chain reaction technology in the detection of solid tumors, *Cancer* 82(8):1419-42
93. Reinhold U, Ludtke-Handjery HC, Schnautz S, Kreysel HW, Abken H (1997): The analysis of tyrosinase-specific mRNA in blood samples of melanoma patients by

- RT-PCR is not a useful test for metastatic tumor progression, *J Invest Dermatol* 108(2):166-9
94. Ririe KM, Rasmussen RP, Wittwer CT (1997): Product differentiation by analysis of DNA melting curves during the polymerase chain reaction, *Anal Biochem* 15;245(2):154-60
95. Rubio CA, Emas S, Nylander G (1977): A critical reappraisal of Dukes' classification, *Surg Gynecol Obstet* 145(5):682-4
96. Schalhorn A, Jauch KW In: Wilmanns W, Huhn D, Wilms, K, Hrsg. Internistische Onkologie. 2. Aufl. Stuttgart: Thieme; 2000. S. 560-91.
97. Schek N, Hall BL, Finn OJ (1988): Increased glyceraldehyde-3-phosphate dehydrogenase gene expression in human pancreatic adenocarcinoma, *Cancer Res* 48(22):6354-9
98. Schrewe H, Thompson J, Bona M, Hefta LJ, Maruya A, Hassauer M, Shively JE, von Kleist S, Zimmermann W (1990): Cloning of the complete gene for carcinoembryonic antigen: analysis of its promoter indicates a region conveying cell type-specific expression, *Mol Cell Biol* 10(6):2738-48
99. Shively JE, Beatty JD (1985): CEA-related antigens: molecular biology and clinical significance, *Crit Rev Oncol Hematol* 2(4):355-99
100. Sidransky D (1995): Molecular markers in cancer diagnosis, *Natl Cancer Inst Monogr* (17):27-9
101. Sinicrope FA, Sugarman SM (1995): Role of adjuvant therapy in surgically resected colorectal carcinoma, *Gastroenterology* 109(3):984-93
102. Smith B, Selby P, Southgate J, Pittman K, Bradley C, Blair GE (1991): Detection of melanoma cells in peripheral blood by means of reverse transcriptase and polymerase chain reaction, *Lancet* 16;338(8777):1227-9
103. Soeth E, Roder C, Juhl H, Kruger U, Kremer B, Kalthoff H (1996): The detection of disseminated tumor cells in bone marrow from colorectal-cancer patients by a cytokeratin-20-specific nested reverse-transcriptase-polymerase-chain reaction is related to the stage of disease, *Int J Cancer* 22;69(4):278-82
104. Soeth E, Vogel I, Roder C, Juhl H, Marxsen J, Kruger U, Henne-Brunns D, Kremer B, Kalthoff H (1997): Comparative analysis of bone marrow and venous blood isolates from gastrointestinal cancer patients for the detection of

- disseminated tumor cells using reverse transcription PCR, *Cancer Res* 1;57(15):3106-10
105. Suggs SV, Wallace RB, Hirose T, Kawashima EH, Itakura K (1981): Use of synthetic oligonucleotides as hybridization probes: isolation of cloned cDNA sequences for human beta 2-microglobulin, *Proc Natl Acad Sci U S A* 78(11):6613-7
106. Thiounn N, Saporta F, Flam TA, Pages F, Zerbib M, Vieillefond A, Martin E, Debre B, Chevillard S (1997): Positive prostate-specific antigen circulating cells detected by reverse transcriptase-polymerase chain reaction does not imply the presence of prostatic micrometastases, *Urology* 50(2):245-50
107. Thomson DM, Krupey J, Freedman SO, Gold P (1969): The radioimmunoassay of circulating carcinoembryonic antigen of the human digestive system, *Proc Natl Acad Sci U S A* 64(1):161-7
108. Veres G, Gibbs RA, Scherer SE, Caskey CT (1987): The molecular basis of the sparse fur mouse mutation, *Science* 237(4813):415-7
109. von Knebel Doeberitz M, Lacroix J (1999): Nucleic acid based techniques for the detection of rare cancer cells in clinical samples, *Cancer Metastasis Rev* 18(1):43-64
110. Wagner C Malignes Wachstum, in: Lehrbuch der klinischen Chemie und Pathobiochemie, Greiling, Gressner 1995
111. Watzinger F, Lion T (1998): Multiplex PCR for quality control of template RNA/cDNA in RT-PCR assays, *Leukemia* 12(12):1984-6; discussion 1987-93
112. Weitz J, Kienle P, Lacroix J, Willeke F, Benner A, Lehnert T, Herfarth C, von Knebel Doeberitz M (1998): Dissemination of tumor cells in patients undergoing surgery for colorectal cancer, *Clin Cancer Res* 4(2):343-8
113. Weitz J, Kienle P, Magener A, Koch M, Schrodel A, Willeke F, Autschbach F, Lacroix J, Lehnert T, Herfarth C, von Knebel Doeberitz M (1999): Detection of disseminated colorectal cancer cells in lymph nodes, blood and bone marrow, *Clin Cancer Res* 5(7):1830-6
114. Willhauck M, Vogel S, Keilholz U (1998): Internal control for quality assurance of diagnostic RT-PCR, *Biotechniques* 25(4):656-9

115. Wittwer CT, Herrmann MG, Moss AA, Rasmussen RP (1997): Continuous fluorescence monitoring of rapid cycle DNA amplification, *Biotechniques* 22(1):130-1, 134-8
116. Wittwer CT, Ririe KM, Andrew RV, David DA, Gundry RA, Balis UJ (1997): The LightCycler: a microvolume multisample fluorimeter with rapid temperature control, *Biotechniques* 22(1):176-81
117. Wong LS, Cantrill JE, Odogwu S, Morris AG, Fraser IA (1997): Detection of circulating tumour cells and nodal metastasis by reverse transcriptase-polymerase chain reaction technique, *Br J Surg* 84(6):834-9
118. World Medical Association declaration of Helsinki. Recommendations guiding physicians in biomedical research involving human subjects. (1997) *JAMA* 277(11):925-6
119. Wyld DK, Selby P, Perren TJ, Jonas SK, Allen-Mersh TG, Wheeldon J, Burchill SA (1998): Detection of colorectal cancer cells in peripheral blood by reverse-transcriptase polymerase chain reaction for cytokeratin 20, *Int J Cancer* 79(3):288-93
120. Yamamura Y, Yamashiro K, Tsuruoka N, Nakazato H, Tsujimura A, Yamaguchi N (1997): Molecular cloning of a novel brain-specific serine protease with a kringle-like structure and three scavenger receptor cysteine-rich motifs, *Biochem Biophys Res Commun* 239(2):386-92
121. Yousef GM, Luo LY, Scherer SW, Sotiropoulou G, Diamandis EP (1999): Molecular characterization of zyme/protease M/neurosin (PRSS9), a hormonally regulated kallikrein-like serine protease, *Genomics* 62(2):251-9
122. Zetter BR (1990): The cellular basis of site-specific tumor metastasis, *N Engl J Med* 322(9):605-12
123. Zimmermann W, Ortlieb B, Friedrich R, von Kleist S (1987): Isolation and characterization of cDNA clones encoding the human carcinoembryonic antigen reveal a highly conserved repeating structure, *Proc Natl Acad Sci U S A* 84(9):2960-4

Abkürzungsverzeichnis

μg	Mikrogramm
art.	artifiziell
as	antisense (Gegensinn)
bp	Basenpaare
Cc	Kolonkarzinomzellen
Ccsg1	Colon carcinoma specific gene 1
cDNA	copy (Kopie) Desoxyribonukleinsäure
CEA	Carcinoembryonales Antigen
Ct	Crossing Point
DNA	Desoxyribonukleinsäure
dNTP	Desoxynukleosidtriphosphat
EDTA	Ethylendiamintetraessigsäure
gDNA	genomische DNA
GTC	Guanidiniumisothiocyanat
h	Stunde
ID	Identifikationsnummer
LED	Licht emittierende Diode
m	männlich
MESA	MOPS-EDTA-Sodium-Azetat
mmol	Millimol
MOPS	3-N-Morpholino-Propan-Sulfonsäure
mRNA	messenger Ribonukleinsäure
n	Anzahl
nat.	natürlich
PBG-D	Porphobilinogen Deaminase
PCR	Polymerasekettenreaktion
Pm	Protease M
PRSS9	protease, serine, 9
RT	Reverse Transkription
RT-PCR	reverse Transkriptase Polymerase Kettenreaktion

se	sense (Sinn)
$\beta 2m$	$\beta 2$ -Mikroglobulin
TBE	Tris Borat Ethylenediamintetraessigsäure
Upm	Umdrehungen pro Minute
Uk, Uk 605	Protease M
v, ve	Vektor
w	weiblich