

## 8 Literatur

1. Daniel PT. Zellzyklus und Apoptose. In: Schlegelberger B, Fonatsch C, eds. Molekularmedizinische Grundlagen von hämatologischen Neoplasien., vol. Molekulare Medizin Band 11 Berlin Heidelberg: Springer, 2003:130-84.
2. Cory S, Vaux DL, Strasser A, Harris AW, Adams JM. Insights from Bcl-2 and Myc: malignancy involves abrogation of apoptosis as well as sustained proliferation. *Cancer Res* 1999;59:1685s-92s.
3. Cam H, Dynlacht BD. Emerging roles for E2F: Beyond the G1/S transition and DNA replication. *Cancer Cell* 2003;3:311-6.
4. Hingorani SR, Tuveson DA. Ras redux: rethinking how and where Ras acts. *Curr Opin Genet Dev* 2003;13:6-13.
5. Degenhardt K, Chen G, Lindsten T, White E. BAX and BAK mediate p53-independent suppression of tumorigenesis. *Cancer Cell* 2002;2:193-203.
6. Hoeijmakers JH. Genome maintenance mechanisms for preventing cancer. *Nature* 2001;411:366-74.
7. Lee S, Schmitt CA. Chemotherapy response and resistance. *Curr Opin Genet Dev* 2003;13:90-6.
8. Vousden KH, Lu X. Live or let die: the cell's response to p53. *Nat Rev Cancer* 2002;2:594-604.
9. Daniel PT, Wieder T, Sturm I, Schulze-Osthoff K. The kiss of death: promises and failures of death receptors and ligands in cancer therapy. *Leukemia* 2001;15:1022-32.
10. Wieder T, Essmann F, Prokop A, Schmelz K, Schulze-Osthoff K, Beyaert R, Dörken B, Daniel PT. Activation of caspase-8 in drug-induced apoptosis of B-lymphoid cells is independent of CD95/Fas receptor-ligand interaction and occurs downstream of caspase-3. *Blood* 2001;97:1378-87.
11. von Haefen C, Wieder T, Essmann F, Schulze-Osthoff K, Dörken B, Daniel PT. Paclitaxel-induced apoptosis in BJAB cells proceeds via a death receptor-independent, caspases-3/-8-driven mitochondrial amplification loop. *Oncogene* 2003;22:2236-47.

12. Harris SL, Levine AJ. The p53 pathway: positive and negative feedback loops. *Oncogene* 2005;24:2899-908.
13. Schuler M, Green DR. Transcription, apoptosis and p53: catch-22. *Trends Genet* 2005;21:182-7.
14. Selivanova G. p53: fighting cancer. *Curr Cancer Drug Targets* 2004;4:385-402.
15. Slee EA, O'Connor DJ, Lu X. To die or not to die: how does p53 decide? *Oncogene* 2004;23:2809-18.
16. Vousden KH, Prives C. P53 and prognosis: new insights and further complexity. *Cell* 2005;120:7-10.
17. Evan GI, Vousden KH. Proliferation, cell cycle and apoptosis in cancer. *Nature* 2001;411:342-8.
18. Güner D, Belka C, Daniel PT. Disruption of cell death signaling in cancer: impact on disease prognosis and response to therapy. *Curr Med Chem Anti-Canc Agents* 2003;3:319-26.
19. Macleod KF, Hu Y, Jacks T. Loss of Rb activates both p53-dependent and independent cell death pathways in the developing mouse nervous system. *Embo J* 1996;15:6178-88.
20. Blagosklonny MV. A node between proliferation, apoptosis, and growth arrest. *Bioessays* 1999;21:704-9.
21. Bunz F, Dutriaux A, Lengauer C, Waldman T, Zhou S, Brown JP, Sedivy JM, Kinzler KW, Vogelstein B. Requirement for p53 and p21 to sustain G2 arrest after DNA damage. *Science* 1998;282:1497-501.
22. Waldman T, Lengauer C, Kinzler KW, Vogelstein B. Uncoupling of S phase and mitosis induced by anticancer agents in cells lacking p21. *Nature* 1996;381:713-6.
23. Niculescu AB, 3rd, Chen X, Smeets M, Hengst L, Prives C, Reed SI. Effects of p21(Cip1/Waf1) at both the G1/S and the G2/M cell cycle transitions: pRb is a critical determinant in blocking DNA replication and in preventing endoreduplication. *Mol Cell Biol* 1998;18:629-43.

24. Rau B, Sturm I, Lage H, Berger S, Schneider U, Hauptmann S, Wust P, Riess H, Schlag PM, Dörken B, Daniel PT. Dynamic expression profile of p21WAF1/CIP1 and Ki-67 predicts survival in rectal carcinoma treated by preoperative radiochemotherapy. *J Clin Oncol* 2003;18:3391-401.
25. Martinou JC, Green DR. Breaking the mitochondrial barrier. *Nat Rev Mol Cell Biol* 2001;2:63-7.
26. Rudner J, Jendrossek V, Belka C. New insights in the role of Bcl-2: Bcl-2 and the endoplasmic reticulum. *Apoptosis* 2002;7:441-7.
27. Daniel PT, Schulze-Osthoff K, Belka C, Güner D. Guardians of cell death: the Bcl-2 family proteins. *Essays Biochem* 2003;39:73-88.
28. Gillissen B, Essmann F, Graupner V, Starck L, Radetzki S, Dörken B, Schulze-Osthoff K, Daniel PT. Induction of cell death by the BH3-only Bcl-2 homolog Nbk/Bik is mediated by an entirely Bax-dependent mitochondrial pathway. *Embo J* 2003;22:3580-90.
29. van Loo G, Saelens X, van Gurp M, MacFarlane M, Martin SJ, Vandenebeele P. The role of mitochondrial factors in apoptosis: a Russian roulette with more than one bullet. *Cell Death Differ* 2002;9:1031-42.
30. Döhner H, Stilgenbauer S, Benner A, Leupolt E, Krober A, Bullinger L, Döhner K, Bentz M, Lichter P. Genomic aberrations and survival in chronic lymphocytic leukemia. *N Engl J Med* 2000;343:1910-6.
31. Sturm I, Bosanquet AG, Hermann S, Güner D, Dörken B, Daniel PT. Mutation of p53 and consecutive selective drug resistance in B-CLL occurs as a consequence of prior DNA damaging chemotherapy. *Cell Death Differ* 2003;10:477-84.
32. Pharoah PD, Day NE, Caldas C. Somatic mutations in the p53 gene and prognosis in breast cancer: a meta-analysis. *Br J Cancer* 1999;80:1968-73.
33. Huncharek M, Kupelnick B, Geschwind JF, Caubet JF. Prognostic significance of p53 mutations in non-small cell lung cancer: a meta-analysis of 829 cases from eight published studies. *Cancer Lett* 2000;153:219-26.

34. Mitsudomi T, Hamajima N, Ogawa M, Takahashi T. Prognostic significance of p53 alterations in patients with non-small cell lung cancer: a meta-analysis. *Clin Cancer Res* 2000;6:4055-63.
35. Petersen S, Thames HD, Nieder C, Petersen C, Baumann M. The results of colorectal cancer treatment by p53 status: treatment-specific overview. *Dis Colon Rectum* 2001;44:322-33; discussion 33-4.
36. Steels E, Paesmans M, Berghmans T, Branle F, Lemaitre F, Mascaux C, Meert AP, Vallot F, Lafitte JJ, Sculier JP. Role of p53 as a prognostic factor for survival in lung cancer: a systematic review of the literature with a meta-analysis. *Eur Respir J* 2001;18:705-19.
37. Sturm I, Kohne CH, Wolff G, Petrowsky H, Hillebrand T, Hauptmann S, Lorenz M, Dörken B, Daniel PT. Analysis of the p53/BAX pathway in colorectal cancer: low BAX is a negative prognostic factor in patients with resected liver metastases. *J Clin Oncol* 1999;17:1364-74.
38. Sturm I, Papadopoulos S, Hillebrand T, Benter T, Lück H-J, Wolff G, Dörken B, Daniel PT. Impaired BAX protein expression in breast cancer: mutational analysis of the BAX and the p53 gene. *Int J Cancer* 2000;87:517-21.
39. Sturm I, Petrowsky H, Volz R, Lorenz M, Radetzki S, Hillebrand T, Wolff G, Hauptmann S, Dörken B, Daniel PT. Analysis of p53/BAX/p16ink4a/CDKN2 in esophageal squamous cell carcinoma: High BAX and p16ink4a/CDKN2 identifies patients with good prognosis. *J Clin Oncol* 2001;19:2272-81.
40. Schelwies K, Sturm I, Grabowski P, Scherübl H, Schindler I, Hermann S, Stein H, Buhr HJ, Riecken EO, Zeitz M, Dörken B, Daniel PT. Analysis of p53/BAX in primary colorectal carcinoma: low BAX protein expression is a negative prognostic factor in UICC stage III tumors. *Int J Cancer* 2002;99:589-96.
41. Prokop A, Wieder T, Sturm I, Essmann F, Seeger K, Wuchter C, Ludwig W-D, Henze G, Dörken B, Daniel PT. Relapse in childhood acute lymphoblastic leukemia is associated with decrease of Bax/Bcl-2- ratio and loss of spontaneous caspase-3 processing in vivo. *Leukemia* 2000;14:1606-13.

42. Mrozek A, Petrowsky H, Sturm I, Krauss J, Hermann S, Hauptmann S, Lorenz M, Daniel PT. Combined p53/Bax mutation results in extremely poor prognosis in gastric carcinoma with low microsatellite instability. *Cell Death Differ* 2003;10:461-67.
43. Güner D, Sturm I, Hemmati PG, Hermann S, Hauptmann S, Wurm R, Budach V, Dörken B, Lorenz M, Daniel PT. Multigene analysis of Rb-pathway and apoptosis-control in esophageal squamous cell carcinoma identifies patients with good prognosis. *Int J Cancer* 2003;103:445-54.
44. Flores ER, Tsai KY, Crowley D, Sengupta S, Yang A, McKeon F, Jacks T. p63 and p73 are required for p53-dependent apoptosis in response to DNA damage. *Nature* 2002;416:560-4.
45. Soengas MS, Lowe SW. Apoptosis and melanoma chemoresistance. *Oncogene* 2003;22:3138-51.
46. Mustika R, Budiyanto A, Nishigori C, Ichihashi M, Ueda M. Decreased expression of Apaf-1 with progression of melanoma. *Pigment Cell Res* 2005;18:59-62.
47. Sturm I BA, Güner D, Hemmati PG, Dörken B, Daniel PT. Combined inactivation of APAF-1 and p53 in B-CLL results in an extremely poor prognosis 2005.
48. Barlow C, Brown KD, Deng CX, Tagle DA, Wynshaw-Boris A. Atm selectively regulates distinct p53-dependent cell-cycle checkpoint and apoptotic pathways. *Nat Genet* 1997;17:453-6.
49. Canman CE, Lim DS, Cimprich KA, Taya Y, Tamai K, Sakaguchi K, Appella E, Kastan MB, Siliciano JD. Activation of the ATM kinase by ionizing radiation and phosphorylation of p53. *Science* 1998;281:1677-9.
50. Xu Y, Yang EM, Brugarolas J, Jacks T, Baltimore D. Involvement of p53 and p21 in cellular defects and tumorigenesis in Atm-/- mice. *Mol Cell Biol* 1998;18:4385-90.
51. Bullrich F, Rasio D, Kitada S, Starostik P, Kipps T, Keating M, Albitar M, Reed JC, Croce CM. ATM mutations in B-cell chronic lymphocytic leukemia. *Cancer Res* 1999;59:24-7.
52. Stankovic T, Weber P, Stewart G, Bedenham T, Murray J, Byrd PJ, Moss PA, Taylor AM. Inactivation of ataxia telangiectasia mutated gene in B-cell chronic lymphocytic leukaemia. *Lancet* 1999;353:26-9.

53. Sturm I, Bosanquet AG, Güner D, Hemmati PG, Dörken B, Daniel PT. Combined inactivation of APAF-1 and p53 in B-CLL results in an extremely poor prognosis. *Cell Death Differ* 2003;submitted.
54. Sturm I, Bosanquet AG, Hummel M, Dörken B, Daniel PT. In B-CLL, the codon 72 polymorphic variants of p53 are not related to drug resistance and disease prognosis. *BMC Cancer* 2005:in press.
55. Stankovic T, Hubank M, Cronin D, Stewart GS, Fletcher D, Bignell CR, Alvi AJ, Austen B, Weston VJ, Fegan C, Byrd PJ, Moss PA, Taylor AM. Microarray analysis reveals that TP53- and ATM-mutant B-CLLs share a defect in activating proapoptotic responses after DNA damage but are distinguished by major differences in activating prosurvival responses. *Blood* 2004;103:291-300.
56. Kim M, Katayose Y, Rojanala L, Shah S, Sgagias M, Jang L, Jung YJ, Lee SH, Hwang SG, Cowan KH. Induction of apoptosis in p16INK4A mutant cell lines by adenovirus- mediated overexpression of p16INK4A protein. *Cell Death Differ* 2000;7:706-11.
57. Sandig V, Brand K, Herwig S, Lukas J, Bartek J, Strauss M. Adenovirally transferred p16INK4/CDKN2 and p53 genes cooperate to induce apoptotic tumor cell death. *Nat Med* 1997;3:313-9.
58. Puthalakath H, Strasser A. Keeping killers on a tight leash: transcriptional and post-translational control of the pro-apoptotic activity of BH3-only proteins. *Cell Death Differ* 2002;9:505-12.
59. Villunger A, Scott C, Bouillet P, Strasser A. Essential role for the BH3-only protein Bim but redundant roles for Bax, Bcl-2, and Bcl-w in the control of granulocyte survival. *Blood* 2003;101:2393-400.
60. Yin XM, Wang K, Gross A, Zhao Y, Zinkel S, Klocke B, Roth KA, Korsmeyer SJ. Bid-deficient mice are resistant to Fas-induced hepatocellular apoptosis. *Nature* 1999;400:886-91.
61. Kamer I, Sarig R, Zaltsman Y, Niv H, Oberkovitz G, Regev L, Haimovich G, Lerenthal Y, Marcellus RC, Gross A. Proapoptotic BID is an ATM effector in the DNA-damage response. *Cell* 2005;122:593-603.

62. Cartron PF, Juin P, Oliver L, Martin S, Meflah K, Vallette FM. Nonredundant role of Bax and Bak in Bid-mediated apoptosis. *Mol Cell Biol* 2003;23:4701-12.
63. Chen L, Willis SN, Wei A, Smith BJ, Fletcher JI, Hinds MG, Colman PM, Day CL, Adams JM, Huang DC. Differential targeting of prosurvival Bcl-2 proteins by their BH3-only ligands allows complementary apoptotic function. *Mol Cell* 2005;17:393-403.
64. Cheng EH, Wei MC, Weiler S, Flavell RA, Mak TW, Lindsten T, Korsmeyer SJ. Bcl-2, Bcl-xL sequester BH3 domain-only molecules preventing Bax- and Bak-mediated mitochondrial apoptosis. *Mol Cell* 2001;8:705-11.
65. Zong WX, Lindsten T, Ross AJ, MacGregor GR, Thompson CB. BH3-only proteins that bind pro-survival Bcl-2 family members fail to induce apoptosis in the absence of Bax and Bak. *Genes Dev* 2001;15:1481-6.
66. Ranger AM, Zha J, Harada H, Datta SR, Danial NN, Gilmore AP, Kutok JL, Le Beau MM, Greenberg ME, Korsmeyer SJ. Bad-deficient mice develop diffuse large B cell lymphoma. *Proc Natl Acad Sci U S A* 2003;100:9324-9.
67. Egle A, Harris AW, Bouillet P, Cory S. Bim is a suppressor of Myc-induced mouse B cell leukemia. *Proc Natl Acad Sci U S A* 2004;101:6164-9.
68. Sturm I, Stephan C, Gillissen B, Siebert R, Radetzki S, Hauptmann S, Jung K, Loening S, Dörken B, Daniel PT. Loss of the tissue-specific pro-apoptotic BH3-only protein NbK/Bik is a unifying feature of renal cell carcinoma. *Cell Death Differ* 2005;in press.
69. Bosanquet AG, Sturm I, Wieder T, Essmann F, Bosanquet MI, Head DJ, Dörken B, Daniel PT. Bax expression correlates with cellular drug sensitivity to doxorubicin, cyclophosphamide and chlorambucil but not fludarabine, cladribine or corticosteroids in B cell chronic lymphocytic leukemia. *Leukemia* 2002;16:1035-44.
70. Blagosklonny MV. Sequential activation and inactivation of G2 checkpoints for selective killing of p53-deficient cells by microtubule-active drugs. *Oncogene* 2002;21:6249-54.
71. Gadducci A, Cianci C, Cosio S, Carnino F, Fanucchi A, Buttitta F, Conte PF, Genazzani AR. p53 status is neither a predictive nor a prognostic variable in patients

with advanced ovarian cancer treated with a paclitaxel-based regimen. *Anticancer Res* 2000;20:4793-9.

72. Sjostrom J, Blomqvist C, Heikkila P, Boguslawski KV, Raisanen-Sokolowski A, Bengtsson NO, Mjaaland I, Malmstrom P, Ostenstadt B, Bergh J, Wist E, Valvere V, Saksela E. Predictive value of p53, mdm-2, p21, and mib-1 for chemotherapy response in advanced breast cancer. *Clin Cancer Res* 2000;6:3103-10.

73. Kandioler-Eckersberger D, Ludwig C, Rudas M, Kappel S, Janschek E, Wenzel C, Schlagbauer-Wadl H, Mittlbock M, Gnant M, Steger G, Jakesz R. TP53 mutation and p53 overexpression for prediction of response to neoadjuvant treatment in breast cancer patients. *Clin Cancer Res* 2000;6:50-6.

74. Sturm I, Rau B, Schlag P, Wust P, Hildebrandt B, Riess H, Hauptmann S, Dörken B, Daniel PT. Genetic dissection of apoptosis and cell cycle control in response of colorectal cancer treated with preoperative radiochemotherapy. in revision 2005.