

## 8. Literaturverzeichnis

- 
- <sup>1</sup> Eden O.B., Harrison G., Richards S. et al. Long-term follow-up of the United Kingdom Medical Research Council protocols for childhood acute lymphoblastic leukaemia, 1980-1997. Medical Research Council Childhood Leukaemia Working Party. *Leukemia* 2000;14:2307-2320.
- <sup>2</sup> Schrappe M., Reiter A., Zimmerman M. et al. Long-term results of four consecutive trials in childhood ALL performed by the ALL-BMF study group from 1981 to 1995. Berlin-Frankfurt-Munster. *Leukemia* 2000;14:2205-2222.
- <sup>3</sup> Pui C.H., Relling M.V., Downing J.R. Acute Lymphoblastic Leukemia. *N Engl J Med* 2004;350:1535-1548.
- <sup>4</sup> Pui C.H.; Evans W.E. Acute lymphoblastic leukemia. *N Engl J Med* 1998;339:605-615.
- <sup>5</sup> Kersey J.H. Fifty years of studies of the biology and therapy of childhood leukemia. *Blood* 1998;92:1838.
- <sup>6</sup> Eckert C., Biondi A., Seeger K. et al. Prognostic value of minimal residual disease in relapsed childhood acute lymphoblastic leukemia. *Lancet* 2001;358:1239-1241.
- <sup>7</sup> ALL-REZ. BFM Pilot 02: Multizentrische kooperative Studie zur Behandlung von Kindern mit Rezidiv einer akuten lymphoblastischen Leukämie. Studienleitung: Prof. Dr. Dr. h.c. G. Henze, Charité Campus Virchow-Klinikum, HU zu Berlin, Berlin, Deutschland.
- <sup>8</sup> Beyermann B., Adams H.P. Henze G. Philadelphia chromosome in relapsed childhood lymphoblastic leukemia: A matched-pair analysis. Berlin-Frankfurt-Munster Study Group. *J Clin Oncol* 1997;15:2231-2237.
- <sup>9</sup> Seeger K., Adams H.P., Buchwald D. et al. TEL-AML1 fusion transcript in relapsed childhood acute lymphoblastic leukemia. The Berlin-Frankfurt-Munster Study Group. *Blood* 1998;91:1716-1722.
- <sup>10</sup> Borkhardt A., Cazzaniga G., Viehmann S. et al. Incidence and clinical relevance of TEL/AML1 fusion genes in children with acute lymphoblastic leukemia enrolled in the German and Italian multicenter therapy trials. Associazione Italiana Ematologia Oncologia Pediatrica and the Berlin-Frankfurt-Munster Study Group. *Blood* 1997;90:571-577.
- <sup>11</sup> Pui C.H. Recent advances in the biology and treatment of childhood acute lymphoblastic leukemia. *Curr Opin Hematol* 1998;5:292-301.
- <sup>12</sup> Beyermann B., Agthe A.G., Adams H.P. et al. Clinical features and outcome of children with first marrow relapse of acute lymphoblastic leukemia expressing BCR-ABL fusion transcripts. BFM Relapse Study Group. *Blood* 1996;87:1532-1538.
- <sup>13</sup> Gianni R.J. Pharmacokinetics and metabolism of anthracyclines. *Cancer Surv* 1993;17:219-252.
- <sup>14</sup> Johnson S.A., Richardson D.S. Anthracyclines in haematology: pharmacokinetics and clinical studies. *Blood Rev* 1998;12:52-71.
- <sup>15</sup> Yamamoto N., Tamura T., Kamiya Y. et al. Correlation between docetaxel clearance and estimated cytochrome P450 activity by urinary metabolite of exogenous cortisol. *J Clin Oncol* 2000;18:2301-2308.
- <sup>16</sup> Boehme A., Ganser A., Hoelzer D. Aggravation of vincristine-induced neurotoxicity by itraconazole in the treatment of adult ALL. *Am J Hematol* 1995;71:311-312.
- <sup>17</sup> Tanaka E. In vivo age-related changes in hepatic drug-oxidizing capacity in humans. *J Clin Pharm Ther* 1998;23:247-255.
- <sup>18</sup> Biondi A., Cimino G., Pieters R. et al. Biological and therapeutic aspects of infant leukemia. *Blood* 2000;96:24-33.
- <sup>19</sup> Blanco J.G., Harrison P.L., Evans W.E. et al. Human cytochrome P450 maximal activities in pediatric versus adult liver. *Drug Metab Dispos* 2000;28:379-382.
- <sup>20</sup> Crestail T. Onset of xenobiotic metabolism in children: toxicological implications. *Food Addit Contam* 1998;15 (suppl):45-51.
- <sup>21</sup> Evans W.E., Relling M.V., Rodman J.H. et al. Conventional compared with individualized chemotherapy for childhood ALL. *N Engl J Med* 1998;338:499-505.
- <sup>22</sup> Evans W.E. Pharmacogenomics: marshalling the human genome to individualise drug therapy. *Gut* 2003;52 (Suppl II):10-18.
- <sup>23</sup> Roses A.D. Pharmacogenetics. *Hum Mol Genet* 2001;10(20):2261-2267.
- <sup>24</sup> Thomas F.J., McLeod H.L., Watters J.W. Pharmacogenomics: the influence of genomic variation on drug response. *Curr Top Med Chem* 2004;4:1399-1409.
- <sup>25</sup> Twyman R.M. SNP Discovery and Typing Technologies for Pharmacogenomics. *Curr Top Med Chem* 2004;4:1421-1429.
- <sup>26</sup> Hasler J.A., Estabrook R., Murray M. et al. Human cytochromes P 450. *Mol Asp Med* 1999;20:1-137.
- <sup>27</sup> Wormhoudt L.W., Commandeur J.N.M., Vermeulen N. P. E. Genetic polymorphisms of human N-acetyltransferase, cytochrome P450, glutathione-S-transferase and epoxide hydrolase enzymes: relevance to xenobiotic metabolism and toxicity. *Crit Rev Toxicol* 1999;29:59-124.
- <sup>28</sup> Brockmoller J., Cascorbi I., Kerb R. et al. Polymorphisms in xenobiotic conjugation and disease predisposition.

- 
- Toxicol Lett 1998;102-103:173-183.
- <sup>29</sup> Daly A.K. Molecular basis of polymorphic drug metabolism. J Mol Med 1995;73:539-553.
- <sup>30</sup> Meyer U.A., Znager U.M. Molecular mechanisms of genetic polymorphisms of drug metabolism. Annu Rev Pharmacol Toxicol Lett 1997;37:269-296.
- <sup>31</sup> Davies S.M., Bhatia S., Ross J.A. et al. Glutathione S-transferase genotypes, genetic susceptibility and outcome of therapy in childhood acute lymphoblastic leukemia. Blood 2002;100:67-71.
- <sup>32</sup> Stanulla M., Schrappe M., Brechlin A.M. et al. Polymorphisms within glutathione S-transferase genes (GSTM1, GSTT1, GSTP1) and risk of relapse in childhood B-cell precursor acute lymphoblastic leukemia: a case-control study. Blood 2000;95:1222-1228.
- <sup>33</sup> Krajinovic M., Labuda D., Richer C. et al. Susceptibility to childhood acute lymphoblastic leukemia: influence of CYP1A1, CYP2D6, GSTM1 and GSTT1 genetic polymorphisms. Blood 1999;93:1496-1501.
- <sup>34</sup> Sorensen M., Autrup H., Tjonneland A. et al. Glutathione S-transferase T1 null-genotype is associated with an increased risk of lung cancer. Int J Cancer 2004;110:219-224.
- <sup>35</sup> Rayjean J.H., Boffetta P., Brennan P. et al. GST, NAT, SULT1A1, CYP1B1 genetic polymorphisms, interactions with environmental exposures and bladder cancer risk in a high-risk population. Int J Cancer 2004;110:598-604.
- <sup>36</sup> Krajinovic M., Richer C., Sinnott H. et al. Genetic Polymorphisms of N-Acetyltransferases 1 and 2 and Gene-Gene-Interaction in the Susceptibility to Childhood Acute Lymphoblastic Leukemia. Cancer Epidemiology, Biomarkers & Prevention 2000;9:557-562.
- <sup>37</sup> Vermes A., Guchelaar H.J., Koopmans R.P. Individualization of cancer therapy based on cytochrome P450 polymorphism: a pharmacogenetic approach. Cancer Treat Rev 1997;23:321-339.
- <sup>38</sup> Bertz R.J., Granneman G.R. Use of in vitro and in vivo data to estimate the likelihood of metabolic pharmacokinetic interactions. Clin Pharmacokinet 1997;32:210-258.
- <sup>39</sup> Kivistö K.T., Kroemer H.K., Eichelbaum M. The role of human cytochrome P450 enzymes in the metabolism of anticancer agents: implications for drug interactions. Br J Clin Pharmacol 1995;40:523-530.
- <sup>40</sup> Guengerich F.P. Cytochrome P450 3A4: regulation and role in drug metabolism. Annu Rev Pharmacol Toxicol 1999;39:1-17.
- <sup>41</sup> Ozdemir V., Kalow W., Tang B.K. et al. Evaluation of the genetic component of variability in CYP 3A4 activity: a repeated drug administration method. Pharmacogenetics 2000;10:373-388.
- <sup>42</sup> Lamba J.K., Lin Y.S., Schuetz E.G.. Genetic contribution to variable human CYP3A-mediated metabolism. Adv Drug Deliv Rev 2002;54:1271-1294.
- <sup>43</sup> Westlind A., Loefberg L., Tindberg N. et al. Interindividual differences in hepatic expression of Cyp 3A4: relationship to genetic polymorphism in the 5'-upstream region. Biochem Biophys Res Commun 1999;259:201-205.
- <sup>44</sup> Ball S.E., Scatina J., Kao J. et al. Population distribution and effects on drug metabolism of a genetic variant in the 5'-promoter region of Cyp 3A4. Clin Pharmacol Ther 1999;66:288-294.
- <sup>45</sup> Wandel C., Witte J. S., Hall J.M. et al. CYP3A4 activity in African American and European men: population differences and functional effect of the CYP3A4\*1B 5'-promoter region polymorphism. Clin Pharmacol Ther 2000;68:82-91.
- <sup>46</sup> Rebbeck T.R., Jaffe J.M., Walker A.H. et al. Modification of clinical presentation of prostate tumors by a novel genetic variant in Cyp 3A4. J Natl Cancer Inst 1998;90:1225-1229.
- <sup>47</sup> Sata F., Sapone A., Elizondo G. et al. Cyp 3A4 allelic variants with amino acid substitutions in exons 7 and 12: evidence for an allelic variant with altered catalytic activity. Clin Pharmacol Ther 2000;6:48-56.
- <sup>48</sup> Rooseboom M., Commandeur J.M.N., Vermeulen N.P.E. Enzyme-Catalyzed Activation of Anticancer Prodrugs. Pharmacol Rev 2004;56:53-102.
- <sup>49</sup> Wagner T., Ehninger G. Self-induction of cyclophosphamide and ifosfamide metabolism by repeated high-dose treatment. In Brade et al. (Eds) Ifosfamide in tumour therapy. Contributions to Oncology. 1987;26:69-75, Karger, Basel.
- <sup>50</sup> Huang Z., Roy P., Waxman D.J. Role of human liver microsomal CYP3A4 and CYP2B6 in catalyzing N-dechloroethylation of cyclophosphamide and ifosfamide. Biochem Pharmacol 2000;15:961-972.
- <sup>51</sup> Petros W.P., Hopkins P.J., Spruill S. et al. Associations Between Drug Metabolism Genotype, Chemotherapy Pharmacokinetics and Overall Survival in Patient With Breast Cancer. J Clin Oncol 2005;23:6117-6125.
- <sup>52</sup> Rodriguez-Antona C., Ingelman-Sundberg M. Cytochrome P450 pharmacogenetics and cancer. Oncogene. 2006 Mar;25(11):1679-91. Review.
- <sup>53</sup> Lindley C., Hamilton G., McCune J.S. et al. The effect of cyclophosphamide with and without dexamethasone on cytochrome P450 3A4 and 2B6 in human heptocytes. Drug Metab Dispos 2002;30:814-822.
- <sup>54</sup> Yu J.L., Drewes P., Gustaffson K. et al. In Vivo Modulation of Alternative Pathways of P-450-Catalyzed Cyclophosphamide Metabolism: Impact on Pharmacokinetics and Antitumor Activity. J Pharmacol Exp Ther 1999;288:928-937.
- <sup>55</sup> Schuetz E.G., Wrighton S.A., Barwick J.L. et al. Induction of cytochrome P-450 by glucocorticoids in rat liver, I:

- 
- evidence that glucocorticoids and pregnenolone 16 alpha-carbonitrile regulate de novo synthesis of a common form of cytochrome P-450 in cultures of adult rat hepatocytes and in the liver in vivo. *J Biol Chem* 1984;259:1999-2006.
- <sup>56</sup> Pascussi J.M., Drocourt L., Gerbal-Chaloin S. et al. Dual effect of dexamethasone on CYP 3A4 gene expression in human hepatocytes: sequential role of glucocorticoid receptor and pregnane X receptor. *Eur J Biochem* 2001;268:6346-6358.
- <sup>57</sup> Kishi S., Yang W., Boureau B. et al. Effects of prednisone and genetic polymorphisms on etoposide disposition in children with acute lymphoblastic leukemia. *Blood* 2004;103:67-72.
- <sup>58</sup> Yao D., Ding S., Burchell B. et al. Detoxication of vinca alkaloids by human P450 CYP3A4-mediated metabolism: implications for the development of drug resistance. *J Pharmacol Exp Ther* 2000;294:387-395.
- <sup>59</sup> Hirth J., Watkins P.B., Strawderman M. et al. The Effect of an Individual's CYP 3A4 Activity on Docetaxel Clearance. *Clin Canc Res* 2000;6:1255-1258.
- <sup>60</sup> Paris P.L., Kupelian P.A., Hall J.M. et al. Association between a CYP3A4 genetic variant and clinical presentation in African-American prostate cancer patients. *Cancer Epidemiol Biomarkers Prev* 1999;8:901-905.
- <sup>61</sup> Felix C.A., Walker A.H., Lange B.J et al. Association of Cyp 3A4 genotype with treatment-related leukemia. *Proc Natl Acad Sci USA* 1998;95(22):13176-13181.
- <sup>62</sup> Blanco J.G., Edick M.J., Hancock M.L. et al. Genetic polymorphisms in CYP3A5, CYP3A4 and NQO1 in children who developed therapy-related myeloid malignancies. *Pharmacogenetics* 2002;12:605-611.
- <sup>63</sup> Spurdle A.B., Goodwin B., Hodgson E. et al.. The CYP3A4\*1B polymorphism has no functional significance and is not associated with risk of breast or ovarian cancer. *Pharmacogenetics* 2002;12:355-366.
- <sup>64</sup> Schuetz E.G. Lessons from the CYP 3A4 Promoter. *Molecular Pharmacology* 2004;65:279-281.
- <sup>65</sup> Tanaka E. Update: genetic polymorphism of drug metabolizing enzymes in humans. *J Clin Pharm Ther* 1999;24:323-329.
- <sup>66</sup> Gries E.U., Asante-Poku S., Ofori-Adjei D. et al. Analysis of the Cyp 2D6 gene mutations and their consequences for enzyme function in West African population. *Pharmacogenetics* 1999;9:715-723.
- <sup>67</sup> Garcia-Barcelo M., Chow L.Y., Chui H.F.K. et al. Genetic analysis of the Cyp 2D6 locus in a Hong Kong Chinese population. *Clin Chem* 2000;4:18-23.
- <sup>68</sup> Sachse C., Brockmoller J., Bauer S. et al. Cytochrome P450 2D6 variants in a Caucasian population: allele frequencies and phenotypic consequences. *Am J Hum Genet* 1997;60:284-295.
- <sup>69</sup> Marez D., Legrand M., Sabbagh N. et al. Polymorphism of the cytochrome P450 2D6 gene in a European population: characterization of 48 mutations and 53 alleles, their frequencies and evolution. *Pharmacogenetics* 1997;7:193-202.
- <sup>70</sup> Aynacioglu A.S., Sachse C., Bozkurt A. et al. Low frequency of defective alleles of cytochrome P450 enzymes 2C19 and 2D6 in the Turkish population. *Clin Pharmacol Ther* 1999;66:185-192.
- <sup>71</sup> Kimura S., Umeno M., Skoda R.C. et al. The human debrisoquine 4-hydroxylase (CYP2D) locus: sequence and identification of the polymorphic CYP2D6 gene, a related gene, and a pseudogene. *Am J Hum Genet* 1989;45:889-904.
- <sup>72</sup> Rowland P., Blaney F.E., Smyth M.G. et al. Crystal structure of human cytochrome P450 2D6. *J Biol Chem*. 2006 Mar;281(11):7614-22.
- <sup>73</sup> Le Guellec C., Lacarelle B., Catalin J. et al. Inhibitory effects of anticancer drugs on dextromethorphan-O-demethylase activity in human liver microsomes. *Cancer Chemother Pharmacol* 1993;32(6):491-945.
- <sup>74</sup> Laforest L., Wilkman H., Benhamou S. et al. CYP2D6 gene polymorphism in caucasian smokers: lung cancer susceptibility and phenotype-genotype relationships. *Eur J Cancer* 2000;36(14):1825-1832.
- <sup>75</sup> Silvestri L., Sonzogni L., De Silvestri A. et al. CYP enzyme polymorphisms and susceptibility to HCV-related chronic liver disease and liver cancer. *Int J Cancer* 2003;104:310-317.
- <sup>76</sup> Maliakal P.P., Coville P.F., Wanwimolruk S. Decreased hepatic drug metabolising enzyme activity in rats with nitroasamine-induced tumours. *Drug Metabol Drug Interact* 2002;19:13-27.
- <sup>77</sup> Moran J.L., Siegel D., Ross D. A potential mechanism underlying the increased susceptibility of individuals with a polymorphism in NAD(P)H:quinone oxidoreductase 1 (NQO1) to benzene toxicity. *Proc Natl Acad Sci USA* 1999;96:8159-8155.
- <sup>78</sup> Joseph P., Jaiswal A.K. NAD(P)H quinone oxidoreductase 1 reduces the mutagenicity of DNA caused by NADPH:P450 reductase-activated metabolites of benzo(a)pyrene quinones. *Br J Cancer* 1998;77:709-719.
- <sup>79</sup> Iskander K., Gaikwad A., Paquet M. et al. Lower induction of p53 and decreased apoptosis in NQO1-null mice lead to increased sensitivity to chemical-induced skin carcinogenesis. *Cancer Res* 2005;15:2054-2058.
- <sup>80</sup> Skelly J.V., Knox R.J., Jenkins T.C. Aerobic Nitroreduction by Flavoproteins: Enzyme Structure, Mechanisms and Role in Cancer Chemotherapy. *Mini Rev Med Chem* 2001;1:293-306.
- <sup>81</sup> Dehn D.L., Winski S.L., Ross D. Development of a new isogenic cell-xenograft system for evaluation of NAD(P)H:quinone oxidoreductase-directed antitumor quinones: evaluation of the activity of RH1. *Clin Cancer Res* 2004;10:3147-3155.

- 
- <sup>82</sup> Gaedigk A., Tyndale R.F., Jurima-Romet M. et al. NAD(P)H:quinone oxidoreductase: polymorphisms and allele frequencies in Caucasian, Chinese and Canadian Native Indian and Inuit populations. *Pharmacogenetics* 1998;8:305-313.
- <sup>83</sup> Kelsey K.T., Ross D., Traver R.D. et al. Ethnic variation in the prevalence of a common NAD(P)H quinone oxidoreductase polymorphism and its implications for anticancer chemotherapy. *Br J Cancer* 1997;76:852-854.
- <sup>84</sup> Traver R.D., Siegel D., Beall H.D. et al. Characterization of a polymorphism in NAD(P)H:quinone oxidoreductase (DT-diaphorase). *Br J Cancer* 1997;75:69-75.
- <sup>85</sup> Faig M., Blanchet M.A., Talalay P. et al. Structures of recombinant human and mouse NAD(P)H:quinone oxidoreductases: species comparison and structural changes with substrate binding and release. *Proc Natl Acad Sci U S A* 2000 Mar;97(7):3177-82.
- <sup>86</sup> Pinaire J.A., Xiao G.H., Falkner K.C. et al. Regulation of NAD(P)H:quinonine oxidoreductase by glucocorticoids. *Toxicol Appl Pharmacol* 2004;199(3):344-353.
- <sup>87</sup> Faig M., Blanchet M.A., Winski S. et al. Structure-Based Development of Anticancer Drugs. Complexes of NAD(P)H:Quinone Oxidoreductase 1 with Chemotherapeutic Quinones. *Structure* 2001;9:659-667.
- <sup>88</sup> Chen H., Lum A., Seifried A. et al. Association of the NAD(P)H:quinone oxidoreductase 609 C->T polymorphism with a decreased lung cancer risk. *Cancer Res* 1999;59(13):3045-3048.
- <sup>89</sup> Choi J.Y., Lee K.M., Cho S.H. et al. CYP2E1 and NQO1 genotypes, smoking and bladder cancer. *Pharmacogenetics* 2003;13:349-355.
- <sup>90</sup> Rothman N., Smith M.T., Hayes R.B. et al. Benzene poisoning, a risk factor for hematological malignancy, is associated with the NQO1 609 C->T mutation and rapid fractional excretion of chloroxazone. *Cancer Res* 1997;57:2839-2842.
- <sup>91</sup> Eguchi-Ishimae M., Eguchi M., Ishii E. The association of a distinctive allele of NAD(P)H:quinone oxidoreductase with pediatric acute lymphoblastic leukemias with MLL fusion genes in Japan. *Haematologica* 2005;90:1511-1515.
- <sup>92</sup> Wiemels J.L., Pagnamenta A., Taylor G.M. et al. A lack of a functional NAD(P)H:quinone oxidoreductase allele is selectively associated with pediatric leukemias that have MLL fusion. *Cancer Res* 1999;59:4095-4099.
- <sup>93</sup> Smith M.T., Wang Y., Skibola C.F. et al. Low NAD(P)H:quinone oxidoreductase activity is associated with increased risk of leukemia with MLL translocation in infants and children. *Blood* 2002;15:4590-4593.
- <sup>94</sup> Lanciotti M., Dufour C., Corral L. et al. Genetic polymorphism of NAD(P)H:quinone oxidoreductase is associated with an increased risk of infant acute lymphoblastic leukemia without MLL gene rearrangements. *Leukemia* 2005;19:214-216.
- <sup>95</sup> Larson R.A., Wang Y., Banerjee M. et al. Prevalence of the inactivating 609 C->T polymorphism in the NAD(P)H:quinone oxidoreductase (NQO1) gene in patients with primary and therapy-related myeloid leukemia. *Blood* 1999;94:803-807.
- <sup>96</sup> Smith M.T., Wang Y., Kane E. et al. Low NAD(P)H:quinone oxidoreductase 1 activity is associated with increased risk of acute leukemia in adults. *Blood* 2001;97:1422-1426.
- <sup>97</sup> Mullis K., Faloona F., Scharf S. et al. Specific enzymatic amplification of DNA in vitro: the polymerase chain reaction. *Cold Spring Harb Symp Quant Biol*. 1986;51 Pt 1:263-73.
- <sup>98</sup> Mullis K.B. The unusual origin of the polymerase chain reaction. *Sci Am* 1990;262(4):56-61,64-65.
- <sup>99</sup> Yuille M., Condie A., Hudson C. et al. Relationship between glutathione S-transferase M1, T1, and P1 polymorphisms and chronic lymphocytic leukemia. *Blood* 2002;99(11):4216-8.
- <sup>100</sup> Pakakasama S., Mukda E., Sasankul W. et al. Polymorphisms of drug-metabolizing enzymes and risk of childhood acute lymphoblastic leukemia. *Am J Hematol* 2005;79(3):202-205.
- <sup>101</sup> Krajinovic M., Lamothe S., Labuda D. et al. Role of MTHFR genetic polymorphisms in the susceptibility to childhood acute lymphoblastic leukemia. *Blood* 2004;103(1):252-7.
- <sup>102</sup> Rocha C., Cheng C., Liu W. et al. Pharmacogenetics of outcome in children with acute lymphoblastic leukemia. *Blood* 2005;105:4752-4758.
- <sup>103</sup> TIB MOLBIOL® Syntheselabor, O. Landt, Tempelhofer 11-12, 10829 Berlin, Deutschland.
- <sup>104</sup> Asher G., Lotem J., Kama R. et al. NQO1 stabilizes p53 through a distinct pathway. *Proc Natl Acad Sci U S A*. 2002;99(5):3099-104.
- <sup>105</sup> Henze G. Chemotherapy for relapsed childhood acute lymphoblastic leukemia. *Int J Ped Hematol/Oncol* 1998;52:199-213.
- <sup>106</sup> Chesells J. Relapsed lymphoblastic leukemia in children: a continuing challenge. *Br J Haematol* 1998;102:423-438.
- <sup>107</sup> Lilleyman J.S., Lennard L. Mercaptopurine metabolism and risk of relapse in childhood lymphoblastic leukemia. *Lancet* 1994;343:1188-1190.
- <sup>108</sup> Relling M.V., Hancock M.L., Boyett J. M. et al. Prognostic importance of 6-mercaptopurine dose intensity in acute lymphoblastic leukemia. *Blood* 1999;93:2817-2823.
- <sup>109</sup> McLeod H.L., Krynetski E.Y., Relling M.V. Genetic polymorphism of thiopurine methyltransferase and its

- 
- clinical relevance for childhood acute lymphoblastic leukemia. Leukemia 2000;14:567-572.
- <sup>110</sup> Relling M.V., Hancock M.L., Rivera G.K. et al. Mercaptopurine therapy intolerance and heterozygosity at the thiopurine S-methyltransferase gene locus. J Natl Cancer Inst 1999;91:2001-2008.
- <sup>111</sup> Robert J., Gianni L. Pharmacokinetics and metabolism of anthracyclines. Cancer Surv 1993;17:219-252.
- <sup>112</sup> Aplenc R., Glatfelter W., Han P. et al. CYP3A genotypes and treatment response in paediatric acute lymphoblastic leukaemia. Br J Haematol 2003;122(2):240-4.
- <sup>113</sup> Collado M., Barragan E., Bolufer P. et al. Lack of association of CYP3A4-V polymorphism with the risk of treatment-related leukemia. Leuk Res. 2005; 29(5):595-7.
- <sup>114</sup> Hustert E., Zibat A., Presecan-Siedel E. et al. Natural protein variants of pregnane X receptor with altered transactivation activity toward CYP3A4. Drug Metab Dispos 2001; 29:1454-1459.
- <sup>115</sup> Koyano S., Kurose K., Saito Y. et al. Functional characterization of four naturally occurring variants of human pregnane X receptor (PXR): one variant causes dramatic loss of both DNA binding activity and the transactivation of the CYP3A4 promoter/enhancer region. Drug Metab Dispos 2004; 32:149-154.
- <sup>116</sup> Fukushima-Uesaka H., Saito Y., Watanabe H. et al. Haplotypes of CYP3A4 and their close linkage with CYP3A5 haplotypes in a Japanese population. Hum Mutat 2004;23(1):100.
- <sup>117</sup> (<http://www.genecards.org/cgi-bin/carddisp.pl?gene=CYP3A4>)
- <sup>118</sup> Li D.N., Pritchard M.P., Hanlon S.P. et al. Competition between cytochrome P-450 isozymes for NADPH-cytochrome P-450 oxidoreductase affects drug metabolism. J. Pharmacol. Exp. ther., 1999;289:661-667.
- <sup>119</sup> Stresser D.M., Kupfer D. Prosubstrates of CYP3A4, the major human hepatic cytochrome P450. Biochem. Pharmacol., 1998;55:1861-1871.
- <sup>120</sup> Wang R.W., Newton D.J., Atkins W.M. Human cytochrome P450 3A4: in vitro drug-drug interaction patterns are substrate-dependent. Drug Metab. Dispos., 2000;28:360-366.
- <sup>121</sup> Pui, C.H., Evans, W.E.. Drug Therapy: Treatment of Acute Lymphoblastic Leukemia. [Review Article] N Engl J Med. 2006;354(2):166-178
- <sup>122</sup> Bushman J.E., Palmieri D., Whinna H.C. et al. Insight into the mechanism of asparaginase-induced depletion of antithrombin III in treatment of childhood acute lymphoblastic leukemia. Leuk Res. 2000;24:559-565.
- <sup>123</sup> Daly A.K., Brockmoller J., Broly F. et al. Nomenclature for human CYP2D6 alleles. Pharmacogenetics 1996;6(3):193-201.
- <sup>124</sup> Fontana R.J., Watkins P.B. Genetic Predisposition to Drug-induced Liver Disease. Gastroenterology Clinics of North America. 1995;24:811-838.
- <sup>125</sup> Lemos M.C., Cabrita F.J., Silva H.A. et al. Genetic polymorphism of CYP2D6, GSTM1 and NAT2 and susceptibility to haematological neoplasias. Carcinogenesis, 1999;20:1225-1229.
- <sup>126</sup> Roddam P.L., Rollinson S., Kane E. et al. Poor metabolizers at the cytochrome P450 2D6 and 2C19 loci are at increased risk of developing adult acute leukaemia. Pharmacogenetics 2000;10:605-615.
- <sup>127</sup> Greaves M.F., Maia A.T., Wiemels J. L. et al. Leukemia in twins: lessons in natural history. Blood 2003; 102(7):2321-2333.
- <sup>128</sup> Morgan G.J., Smith M.T. Metabolic enzyme polymorphisms and susceptibility to acute leukemia in adults. Am J Pharmacogenomics 2002;2(2):79-92. Review.
- <sup>129</sup> Nebert D.W., Roe A.L., Vandale S.E. et al. NAD(P)H:quinone oxidoreductase (NQO1) polymorphism, exposure to benzene, and predisposition to disease: a HuGE review. Genet Med. 2002;4(2):62-70.