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PUBLICATION LIST

(Abstracts and Extended Abstracts are not listed)

1. Oesch, F. and Meier, H.: Trehalose in the cambial sap of *Fagus silvatica* L. *Phytochemistry* 6: 1147-1148, 1967.
2. Oesch, F.: Die niedermolekularen Kohlenhydrate und Polyole im Cambialsaft der Buche. *Planta (Berl.)* 68: 360-380, 1969.
3. Oesch, F.; Jerina, D.M. and Daly, J.: A radiometric assay for hepatic epoxide hydrase activity with 7-3H-styrene oxide. *Biochim. Biophys. Acta* 227: 685-691, 1971.
4. Oesch, F. and Daly, J.: Solubilization, purification and properties of a hepatic epoxide hydrase. *Biochim. Biophys. Acta* 227: 692-697, 1971.
5. Oesch, F.; Jerina, D.M. and Daly, J.: Substrate specificity of hepatic epoxide hydrase in microsomes and in a purified preparation: Evidence of homologous enzymes. *Arch. Biochem. Biophys.* 144: 253-261, 1971.
6. Oesch, F.; Kaubisch, N.; Jerina, D.M. and Daly, J.: Hepatic epoxide hydrase: Structure-activity relationships for substrates and inhibitors. *Biochemistry* 10: 4858-4866, 1971.
7. Oesch, F. and Daly, J.: Conversion of naphthalene to trans -naphthalene dihydrodiol: Evidence for the presence of a coupled aryl monooxygenase-epoxide hydrase system in hepatic microsomes. *Biochem. Biophys. Res. Commun.* 46: 1713-1720, 1972.
8. Oesch, F.; Waters, J.A.; Daly, J. and Witkop, B.: Fluorescent derivatives of strophanthidin: Interaction with sodium-potassium-activated adenosine triphosphatase. *J. Med. Chem.* 15: 757-759, 1972.
9. Daly, J.; Albuquerque, E.X.; Kauffman, F.C. and Oesch, F.: Effects of batrachotoxin on electroplax Na⁺-K⁺-ATPase and levels of ATP in rat muscle. *J. Neurochem.* 19: 2829-2834, 1972.
10. Nebert, D.W.; Benedict, W.F.; Gielen, J.E.; Oesch, F. and Daly, J.: Aryl hydrocarbon hydroxylase, epoxide hydrase, and 7,12-dimethylbenz[a]anthracene-produced skin tumorigenesis in the mouse. *Mol. Pharmacol.* 8: 374-379, 1972.
11. Oesch, F.; Jerina, D.M.; Daly, J.; Lu, A.Y.H.; Kuntzman, R. and Conney, A.H.: A reconstituted microsomal enzyme system that converts naphthalene to trans-1,2-dihydroxy-1,2-dihydronaphthalene via naphthalene 1,2-oxide: Presence of epoxide hydrase in cytochrome P-450 and P-448 fractions. *Arch. Biochem. Biophys.* 153: 62-67, 1972.

12. Oesch, F.; Jerina, D.M.; Daly, J. and Rice, J.: Induction, activation and inhibition of epoxide hydrolase: An anomalous prevention of chlorobenzene-induced hepatotoxicity by an inhibitor of epoxide hydrolase. *Chem.-Biol. Interactions* 6: 189-202, 1973.
13. Thoenen, H. and Oesch, F.: New enzyme synthesis as a long-term adaptation to increased transmitter utilization. In: *New Concepts in Neurotransmitter Regulation* (ed. Mandell, A.J.), Plenum Publ. Corp., New York, pp. 33-52, 1973.
14. Sorimachi, M.; Oesch, F. and Thoenen, H.: Effects of colchicine and cytochalasin B on the release of ³H-norepinephrine from guinea-pig atria evoked by high potassium, nicotine and tyramine. *Naunyn-Schmiedeberg's Arch. Pharmacol.* 276: 1-12, 1973.
15. Oesch, F. and Thoenen, H.: Increased activity of the peripheral sympathetic nervous system: Induction of choline acetyltransferase in the preganglionic cholinergic neurone. *Nature* 242: 536-537, 1973.
16. Oesch, F.; Otten, U. and Thoenen, H.: Relationship between the rate of axoplasmic transport and subcellular distribution of enzymes involved in the synthesis of norepinephrine. *J. Neurochem.* 20: 1691-1706, 1973.
17. Oesch, F.: Mammalian epoxide hydrolases: Inducible enzymes catalyzing the inactivation of carcinogenic and cytotoxic metabolites derived from aromatic and olefinic compounds. (Review Article) *Xenobiotica* 3: 305-340, 1973.
18. Thoenen, H.; Otten, U. and Oesch, F.: Axoplasmic transport of enzymes involved in the synthesis of noradrenaline: relationship between the rate of transport and subcellular distribution. *Brain Res.* 62: 471-475, 1973.
19. Oesch, F.; Morris, N.; Daly, J.; Gielen, J. and Nebert, D.: Genetic expression of the induction of epoxide hydrolase and aryl hydrocarbon hydroxylase activities in the mouse by phenobarbital or 3-methylcholanthrene. *Mol. Pharmacol.* 9: 692-696, 1973.
20. Thoenen, H.; Otten, U. and Oesch, F.: Trans-synaptic regulation of tyrosine hydroxylase. *Life Sci.* 13: XLIX-CLXI, 1973.
21. Otten, U.; Paravicini, U.; Oesch, F. and Thoenen, H.: Time requirement for the single steps of trans-synaptic induction of tyrosine hydroxylase in the peripheral sympathetic nervous system. *Naunyn-Schmiedeberg's Arch. Pharmacol.* 280: 117-127, 1973.
22. Otten, U.; Oesch, F. and Thoenen, H.: Dissociation between changes in cyclic AMP and subsequent induction of tyrosine hydroxylase in the rat superior cervical ganglion and adrenal medulla. *Naunyn-Schmiedeberg's Arch. Pharmacol.* 280: 129-140, 1973.
23. Thoenen, H.; Otten, U. and Oesch, F.: Trans-synaptic regulation of tyrosine hydroxylase. In: *Frontiers in Catecholamine Research* (eds. Usdin, E. and Snyder, S.H.), Pergamon Press., Oxford, pp. 179-185, 1973.
24. Thoenen, H.; Hendry, I.A.; Stöckel, K.; Paravicini, U. and Oesch, F.: Regulation of enzyme synthesis by neuronal activity and by nerve growth factor. In: *Dynamics of Degeneration and Growth in Neurons* (Wenner-Gren Symposium XXII) (eds. Fuxe, K.; Olson, L. and Zotterman, Y.), Pergamon Press, Oxford, pp. 315-328, 1974.

25. Oesch, F.: Trans-synaptic induction of choline acetyltransferase in the preganglionic neuron of the peripheral sympathetic nervous system. *J. Pharmacol. Exp. Ther.* 188: 439-444, 1974.
26. Goodman, R.; Oesch, F. and Thoenen, H.: Changes in enzyme patterns produced by high potassium concentration and dibutyryl cyclic AMP in organ cultures of sympathetic ganglia. *J. Neurochem.* 23: 369-378, 1974.
27. Otten, U.; Mueller, R.A.; Oesch, F. and Thoenen, H.: Location of an isoproterenol-sensitive cyclic AMP pool in adrenergic nerve cell bodies and its relationship to tyrosine 3-monooxygenase induction. *Proc. Nat. Acad. Sci. USA* 71: 2217-2221, 1974.
28. Oesch, F.; Thoenen, H. and Fahrländer, H. with the technical assistance of Suda, K.: Epoxide hydrase in human liver biopsy specimens: Assay and properties. *Biochem. Pharmacol.* 23: 1307-1317, 1974.
29. Oesch, F.: Purification and specificity of a microsomal human epoxide hydratase. *Biochem. J.* 139: 77-88, 1974.
30. Oesch, F. and Ohnhaus, E.E.: Dimethylbiguanide-evoked increase of anticoagulant elimination not associated with induction of drug metabolizing enzymes. *Biochem. Medicine* 11: 344-349, 1974.
31. Thoenen, H.; Otten, U.; Mueller, R.A.; Goodman, R. and Oesch, F.: Lack of correlation between the rate of increase in cyclic AMP and subsequent induction of tyrosine hydroxylase in sympathetic ganglia and adrenal medulla. In: *Neuropsychopharmacology (Excerpta Med.)*, pp. 944-951, 1974.
32. Oesch, F.: Biochemistry of the mammalian systems involved in biosynthesis and inactivation of carcinogenic and potentially carcinogenic epoxides. *Chimia* 29: 67-68, 1975.
33. Levi-Montalcini, R.; Aloe, L.; Mugnaini, E.; Oesch, F. and Thoenen, H.: Nerve growth factor induces volume increase and enhances tyrosine hydroxylase synthesis in chemically axotomized sympathetic ganglia of newborn rats. *Proc. Nat. Acad. Sci. USA* 72: 595-599, 1975.
34. Oesch, F.: Transplacental control of epoxide forming and inactivating enzymes of rat fetal liver by clinically used drugs and by environmental chemicals. In: *Basic and Therapeutic Aspects of Perinatal Pharmacology* (eds. Morselli, P.L.; Garattini, S. and Sereni, F.), Raven Press, New York, pp. 53-64, 1975.
35. Oesch, F.; Otten, U.; Mueller, R.A.; Goodman, R. and Thoenen, H.: Trans-synaptic regulation of enzyme synthesis. In: *Golgi Centennial Symposium Proceedings* (ed. Santini, M.), Raven Press, New York, pp. 503-513, 1975.
36. Oesch, F.: Transplacental control of epoxide hydratase and its relationship to the control of microsomal monooxygenase. *FEBS Lett.* 53: 205-210, 1975.
37. Bentley, P. and Oesch, F.: Purification of rat liver epoxide hydratase to apparent homogeneity. *FEBS Lett.* 59: 291-295, 1975.
38. Bentley, P.; Oesch, F. and Tsugita, A.: Properties and amino acid composition of pure epoxide hydratase. *FEBS Lett.* 59: 296-299, 1975.

39. Glatt, H.R.; Oesch, F.; Frigerio, A. and Garattini, S.: Epoxides metabolically produced from some known carcinogens and from some clinically used drugs: I. Differences in mutagenicity. *Int. J. Cancer* 16: 787-797, 1975.
40. Oesch, F. and Glatt, H.R.: Evaluation of the relative importance of various enzymes involved in the control of mutagenic and cytotoxic metabolites. In: *Tests in Chemical Carcinogenesis* (eds. Montesano, R.; Bartsch, H. and Tomatis, L.), IARC Scientific Publications No. 12. International Agency for Research on Cancer, Lyon, pp. 255-274, 1976.
41. Oesch, F.: Differential control of rat microsomal "aryl hydrocarbon" monooxygenase and epoxide hydratase. *J. Biol. Chem.* 251: 79-87, 1976.
42. Oesch, F. and Bentley, P.: Antibodies against homogeneous epoxide hydratase: Evidence for a single enzyme hydrating styrene oxide and benzo[a]pyrene 4,5-(K-region-)oxide. *Nature* 259: 53-55, 1976.
43. Burchell, B.; Bentley, P. and Oesch, F.: Latency of epoxide hydratase and its relationship to that of UDP-glucuronyltransferase. *Biochem. Biophys. Acta* 444: 531-538, 1976.
44. Oesch, F.: Metabolic transformation of clinically used drugs to epoxides: New perspectives in drug-drug interactions. *Biochem. Pharmacol.* 25: 1935-1937, 1976.
45. Schmassmann, H.U.; Glatt, H.R. and Oesch, F.: A rapid assay for epoxide hydratase activity with benzo[a]pyrene 4,5-(K-region-)oxide as substrate. *Analyt. Biochem.* 74: 94-104, 1976.
46. Glatt, H.R. and Oesch, F.: Phenolic benzo[a]pyrene metabolites are mutagens. *Mutation Res.* 36: 379-384, 1976.
47. Oesch, F.; Bentley, P. and Glatt, H.R.: Prevention of benzo[a]pyrene-induced mutagenicity by homogeneous epoxide hydratase. *Int. J. Cancer* 18: 448-452, 1976.
48. Bentley, P.; Schmassmann, H.U.; Sims, P. and Oesch, F.: Epoxides derived from various polycyclic hydrocarbons as substrates of homogeneous and microsome-bound epoxide hydratase: A general assay and kinetic properties. *Europ. J. Biochem.* 69: 97-103, 1976.
49. Glatt, H.R.; Metzler, M.; Neumann, H.G. and Oesch, F.: Metabolic epoxidation of trans-4-acetylaminostilbene: A protective mechanism against its activation to a mutagen. *Biochem. Biophys. Res. Commun.* 73: 1025-1029, 1976.
50. Oesch, F.; Bentley, P. and Glatt, H.R.: Epoxide hydratase: Purification to apparent homogeneity as a specific probe for the relative importance of epoxides amongst other reactive metabolites. In: *Biological Reactive Intermediates: Formation, Toxicity and Inactivation* (eds. Jollow, D.J.; Kocsis, J.J.; Snyder, R. and Vainio, H.), Plenum Press, New York, pp. 181-206, 1977.
51. Oesch, F.; Glatt, H.R. and Schmassmann, H.U.: The apparent ubiquity of epoxide hydratase in rat organs. *Biochem. Pharmacol.* 26: 603-607, 1977.
52. Platt, K.L. and Oesch, F.: An improved synthesis of trans-1,2-dihydroxy-1,2-dihydrobenzene. *Synthesis* 449-450, 1977.
53. Platt, K.L. and Oesch, F.: The preparation of 14C and 3H-labelled benzene oxide. *J. Labelled Compd. Radiopharm.* 13: 471-479, 1977.

54. Oesch, F.: Epoxide hydratase. In: Advances in Biochemical Pharmacology (eds. Siest, G. and Heusghem, C.), Masson, Paris, pp. 127-148, 1977.
55. Bentley, P. and Oesch, F.: Isolation of rat liver epoxide hydratase: Properties and substrate specificity of the pure enzyme. In: Microsomes and Drug Oxidations (eds. Conney, A.H.; Estabrook, R.W.; Hildebrandt, A.G. and Ullrich, V.), Pergamon Press, Oxford, pp. 646-653, 1977.
56. Oesch, F.; Glatt, H.R. and Bentley, P.: Drug-drug interactions via inhibition of microsomal enzymes involved in metabolism of epoxides produced by microsomal monooxygenase. In: Microsomes and Drug Oxidations (eds. Conney, A.H.; Estabrook, R.W.; Hildebrandt, A.G. and Ullrich, V.), Pergamon Press, Oxford, pp. 442-446, 1977.
57. Oesch, F.: Bedeutung verschiedener Enzyme in der Kontrolle mutagener und kanzerogener polzyklischer Kohlenwasserstoffe. Der Hautarzt 28: 563-573, 1977.
58. Bentley, P.; Oesch, F. and Glatt, H.R.: Dual role of epoxide hydratase in both activation and inactivation. Arch. Toxicol. 39: 65-75, 1977.
59. Glatt, H.R. and Oesch, F.: Inactivation of electrophilic metabolites by glutathione transferases and limitation of the system due to subcellular localization. Arch. Toxicol. 39: 87-96, 1977.
60. Oesch, F.; Raphael, D.; Schwind, H. and Glatt, H.R.: Species differences in activating and inactivating enzymes related to the control of mutagenic metabolites. Arch. Toxicol. 39: 97-108, 1977.
61. Oesch, F.: Chemisch ausgelöste Krebsentstehung. In: Heft Nr. 5 der Schriftenreihe Stiftung Professor Dr. Max Cloetta, Zürich, pp. 19-30, 1977.
- 62a. Oesch, F.: Mechanismen der Inaktivierung reaktiver Stoffwechselprodukte von Pharmaka. Arzneim.-Forsch./Drug Res. 27 (II): 1832-1835, 1977.
- 62b. Oesch, F.: Mechanismen der Inaktivierung reaktiver Stoffwechselprodukte von Pharmaka. In: Mechanismen der Toxizität - Ihre klinische und toxikologische Bedeutung (ed. Gillmann, H.), Editio Cantor, Aulendorf, pp. 36-43, 1978.
63. Oesch, F.; Schmassmann, H.U. and Bentley, P.: Specificity of human, rat and mouse skin epoxide hydratase towards K-region epoxides of polycyclic hydrocarbons. Biochem. Pharmacol. 27: 17-20, 1978.
64. Walker, C.H.; Bentley, P. and Oesch, F.: Phylogenetic distribution of epoxide hydratase in different vertebrate species, strains and tissues measured using three substrates. Biochim. Biophys. Acta 539: 427-434, 1978.
65. Bentley, P. and Oesch, F.: Enzymes involved in activation and inactivation carcinogens and mutagens. In: Primary Liver Tumors (eds. Remmer, H.; Bolt, H.M.; Bannasch, P. and Popper, H.), MTP Press, Lancaster, England, pp. 239-252, 1978.
66. Schmassmann, H.U.; Sparrow, A.; Platt, K. and Oesch, F.: Epoxide hydratase and benzo[a]pyrene monooxygenase activities in liver, kidney and lung after treatment of rats with epoxides of widely varying structures. Biochem. Pharmacol. 27: 2237-2245, 1978.

67. Oesch, F.: Influence of enzyme patterns on mutagenic effects of carcinogenic polycyclic hydrocarbons. *Staub, Reinhaltung der Luft* 38: 244-247, 1978.
68. Tunek, A.; Platt, K.L.; Bentley, P. and Oesch, F.: Microsomal metabolism of benzene to species irreversibly binding to microsomal protein and effects of modifications of this metabolism. *Mol. Pharmacol.* 14: 920-929, 1978.
69. Schmassmann, H.U. and Oesch, F.: Trans-stilbene oxide: A selective inducer of rat liver epoxide hydratase. *Mol. Pharmacol.* 14: 834-847, 1978.
70. Oesch, F.: Metabolic inactivation of reactive metabolites. In: *Advances in Pharmacology and Therapeutics (Proceedings of the 7th International Congress of Pharmacology)*, Vol. 9: Toxicology (ed. Cohen, Y.), Pergamon Press, Oxford, pp. 63-70, 1978.
71. Oesch, F.: Epoxide hydratase. Review. In: *Progress in Drug Metabolism*, Vol. 3 (eds. Bridges, J.W. and Chasseaud, L.F.), John Wiley and Sons, London, pp. 253-301, 1979.
72. Oesch, F. and Schmassmann, H.U.: Species and organ specificity of the trans-stilbene oxide induced effects on epoxide hydratase and benzo[a]pyrene monooxygenase activity in rodents. *Biochem. Pharmacol.* 28: 171-176, 1979.
73. Bentley, P. and Oesch, F.: Enzymic mechanisms of oxidation, reduction and hydrolysis. In: *Foreign Compound Metabolism in Mammals*, Vol. 5 (ed. Hathway, D.E.), The Chemical Society, Burlington House, London, pp. 89-131, 1979.
74. Van Cantfort, J.; Manil, L.; Gielen, J.E.; Glatt, H.R. and Oesch, F.: A new assay for glutathione S-transferase using (3H)benzo[a]pyrene 4,5-oxide as substrate. Inducibility by various chemicals in different rat tissues compared to that of aryl hydrocarbon hydroxylase and epoxide hydratase. *Biochem. Pharmacol.* 28: 455-460, 1979.
75. a. Oesch, f.: Enzymes as regulators of toxic reactions by electrophilic metabolites. Review. In: *Mechanism of Toxic Action on Some Target Organs* (eds. chambers, P.L. and Günzel, P.), Springer-Verlag, Heidelberg, pp. 215-227, 1979.
b. Oesch, F.: Enzymes as regulators of toxic reactions by electrophilic metabolites. Review. *Arch. Toxicol., Suppl.* 2: 215-227, 1979.
76. a. Lorenz, J.; Schmassmann, H.U.; Ohnhaus, E. and Oesch, F.: activities of polycyclic hydrocarbon activating and inactivating enzymes in human lungs of smokers, non-smokers, lung-cancer and non-cancer patients. In: *Mechanism of Toxic Action, on some Target Organs* (eds. Chambers, P.L. and Günzel, P.), Springer-Verlag, Heidelberg, pp. 483-489, 1979.
b. Lorenz, J.; Schmassmann, H.U.; Ohnhaus, E. and Oesch, F.: Activities of polycyclic hydrocarbon activating and inactivating enzymes in human lungs of smokers, non-smokers, lung-cancer and non-cancer patients. *Arch. Toxicol., Suppl.* 2: 483-489, 1979.
77. Glatt, H.R.; Schwind, H.; Zajdela, F.; Croisy, A.; Jacquignon, P.C. and Oesch, F.: Mutagenicity of 43 structurally related heterocyclic compounds and its relationship to their carcinogenicity. *Mutat. Res.* 66: 307-328, 1979.

78. Glatt, H.R.; Ohlsson, A.; Agurell, S. and Oesch, F.: □1-Tetrahydrocannabinol and 1□,2□-epoxyhexahydrocannabinol: Mutagenicity investigation in the Ames test. *Mutat. Res.* 66: 329-335, 1979.
79. Bücker, M.; Glatt, H.R.; Platt, K.L.; Avnir, D.; Ittah, Y.; Blum, J. and Oesch, F.: Mutagenicity of phenanthrene and phenanthrene K-region derivatives. *Mutat. Res.* 66: 337-348, 1979.
80. Glatt, H.R.; Metzler, M. and Oesch, F.: Diethylstilbestrol and 11 derivatives: A mutagenicity study with *Salmonella typhimurium*. *Mutat. Res.* 67: 113-121, 1979.
81. Glatt, H.R.; Vogel, K.; Bentley, P. and Oesch, F.: Reduction of benzo[a]pyrene mutagenicity by dihydrodiol dehydrogenase. *Nature* 277: 319-320, 1979.
82. Stasiecki, P.; Waechter, F.; Bentley, P. and Oesch, F.: Distribution of polycyclic hydrocarbon metabolism - linked enzymes in specialized regions of the endoplasmic reticulum. *Biochim. Biophys. Acta* 568: 446-453, 1979.
83. Oesch, F.: Theorie der Krebsentstehung aus der Sicht des Toxikologen. *Krebsgeschehen* 3: 66-69, 1979.
84. Schmidt, W.; Beermann, D.; Oesch, F. and Jähnchen, E.: Differential effect of the enantiomers of phenprocoumon and warfarin on the vitamin K1-epoxide/vitamin K1 ratio in rat plasma. *J. Pharm. Pharmac.* 31: 490-491, 1979.
85. Bindel, U.; Sparrow, A.; Schmassmann, H.U.; Golan, M.; Bentley., P. and Oesch, F.: Endogenous role of epoxide hydratase: Development of a steroid epoxide hydratase assay and properties of the enzyme. *Eur. J. Biochem.* 97: 275-281, 1979.
86. Oesch, F.: Microsomal liver enzymes in the control of the formation and disposition of reactive metabolites. In: *The Liver. Quantitative Aspects of Structure and Funktion. Proceedings of the 3rd International Gstaad Symposium* (eds. Preisig, R.; Bircher, J. and Paumgartner, G.), Editio Cantor, Aulendorf, pp. 280-288, 1979.
87. Manatt, S.L.; Beermann, D. and Oesch, F.: On the potential carcinogenic and mutagenic character of benzobiphenylenes. *Tetrahedron Lett.* 1979: 3691-3694.
88. Rüdiger, W.; Haenisch, F.; Metzler, M.; Oesch, F. and Glatt, H.R.: Metabolites of diethylstilboestrol induce sister chromatid exchange in human cultured fibroblasts. *Nature* 281: 392-394, 1979.
89. Bücker, M.; Golan, M.; Schmassmann, H.U.; Glatt, H.R.; Stasiecki, P. and Oesch, F.: The epoxide hydratase inducer trans-stilbene oxide shifts the metabolic epoxidation of benzo[a]pyrene from the bay- to the K-region and reduces its mutagenicity. *Mol. Pharmacol.* 16: 656-666, 1979.
90. Bentley, P.; Waechter, F.; Oesch, F. and Stäubli, W.: Immunochemical localization of epoxide hydratase in rat liver: Effects of 2-acetylaminofluorene. *Biochem. Biophys. Res. Commun.* 91: 1101-1108, 1979.
91. Tunek, A. and Oesch, F.: Unique behaviour of benzene monooxygenase: Activation by detergent and different properties of benzene- and phenobarbital-induced monooxygenase activities. *Biochem. Pharmacol.* 28: 3425-3429, 1979.

92. Friedberg, T.; Bentley, P.; Stasiecki, P.; Glatt, H.R.; Raphael, D. and Oesch, F.: The identification, solubilization and characterisation of microsome-associated glutathione-S-transferases. *J. Biol. Chem.* 254: 12028-12033, 1979.
93. Oesch, F.; Bentley, P.; Platt, K.L. and Golan, M.D.: Enzymic hydration of benzene oxide: Assay and properties. *Arch. Biochem. Biophys.* 199: 538-544, 1980.
94. Oesch, F.; Sparrow, A.J. and Platt, K.L.: Radioactively labelled epoxides part II. (1) Tritium labelled cyclohexene oxide, trans-stilbene oxide and phenanthrene 9,10-oxide. *J. Labelled Compd. Radiopharm.* 17: 93-102, 1980.
95. Bock, K.W.; von Clausbruch, U.C.; Kaufmann, R.; Lilienblum, W. ; Oesch, F.; Pfeil, H. and Platt, K.: Functional heterogeneity of UDP-glucuronyltransferase in rat tissues. *Biochem. Pharmacol.* 29: 495-500, 1980.
96. Oesch, f. and Golan, M.: Specificity of mouse liver cytosolic epoxide hydrolase for K-region epoxides derived from polycyclic aromatic hydrocarbons. *Cancer Lett.* 9: 169-175, 1980.
97. Jung, R.; Bentley, P. and Oesch, F.: Influence of carbamazepine 10,11-oxide on drug metabolizing enzymes. *Biochem. Pharmacol.* 29: 1109-1112, 1980.
- 98a. Oesch, f.: Species differences in activating and inactivating enzymes related to in vitro mutagenicity mediated by tissue preparations from these species. In: *Quantitative Aspects of Risk Assessment in Chemical Carcinogenesis* (eds. Clemmesen, J.; Conning, D.M.; henschler, D. and Oesch, F.), Springer Verlag, Heidelberg, pp. 179-194, 1980.
- 98b. Oesch, f.: Species differences in activating and inactivating enzymes related to in vitro mutagenicity mediated by tissue preparations from these species. *Arch. Toxicol., Suppl.* 3: 179-194, 1980.
99. Oesch, F.: Epoxide hydratase. In: *Microsomes, Drug Oxidations, and Chemical Carcinogenesis* (eds. Coon, M.J.; Conney, A.H.; Estabrook, R.W.; Gelboin, H.V.; Gillette, J.R. and O'Brien, P.J.), Academic Press, New York, pp. 627-635, 1980.
100. Bentley, P.; Stasiecki, P.; Waechter, F.; Stäubli, W. and Oesch, F.: Epoxide hydratase and its membrane environment. In: *Microsomes, Drug Oxidations, and chemical Carcinogenesis* (eds. Coon, M.J.; Conney, A.H.; Estabrook, R.W.; Gelboin, H.V.; Gillette, J.R. and O'Brien, P.J.), Academic Press, New York, pp. 647-650, 1980.
101. Glatt, H.R.; Lorenz, J.; Fleischmann, R.; Remmer, H.; Ohnhaus, E.E.; Kaltenbach, E.; Tegtmeier, F.; Rüdiger, H. and Oesch, F.: Interindividual variations of epoxide hydratase activity in human liver and lung biopsies, lymphocytes and fibroblast cultures. In: *Microsomes, Drug Oxidations, and Chemical Carcinogenesis* (eds. Coon, M.J.; Conney, A.H.; Estabrook, H.V.; Gelboin, H.V.; Gillette, J.R. and O'Brian, P.J.), Academic Press, New York, pp. 651-654, 1980.
102. Oesch, F.: Biochemistry of polycyclic aromatic hydrocarbons. *VDI-Berichte* 358: 251-256, 1980.
103. Oesch, F.; Tegtmeier, F.; Kohl, F.-V.; Rüdiger, H. and Glatt, H.R.: Interindividual comparison of epoxide hydratase and glutathione S-transferase activities in cultured human fibroblasts. *Carcinogenesis* 1: 305-309, 1980.

104. Stasiecki, P.; Oesch, F.; Bruderer, G.; Jarasch, E.D. and Franke, W.W.: Distribution of enzymes involved in metabolism of polycyclic aromatic hydrocarbons among rat liver endomembranes and plasma membranes. *Europ. J. Cell Biol.* 21: 79-92, 1980.
105. Golan, M.D.; Schmassmann, H.U.; Bücker, M.; Raphael, D.; Jung, R.; Bindel, U.; Bräse, H.D.; Tegtmeyer, F.; Friedberg, T.; Lorenz, J.; Stasiecki, P. and Oesch, F.: Characterization of dog hepatic drug metabolizing enzymes and resultant effects on benzo[a]pyrene metabolite pattern and mutagenicity. *Drug Metab. Dispos.* 8: 121-126, 1980.
106. Sparrow, A.J.; Bindel, U. and Oesch, F.: Radioactively labelled epoxides. Part III. Tritium labelled steroid 1 α ,17 β -epoxides. *J. Labelled Compd. Radiopharm.* 17: 649-656, 1980.
107. Oesch, F.: Influence of foreign compounds on formation and disposition of reactive metabolites. In: *Environmental Chemicals, Enzyme Function and Human Disease* (eds. Connors, T.A. and Evered, D.C.), Excerpta Medica, Amsterdam, pp. 169-189, 1980.
108. Glatt, H.R.; Schwind, H.; Schechtmann, L.M.; Beard, S.; Kouri, R.E.; Zajdela, F.; Croisy, A.; Pépin, F.; Jacquignon, P.C. and Oesch, f.: Mutagenicity of closely related carcinogenic and non-carcinogenic compounds using various metabolizing systems and target cells. In: *Short-Term Test Systems for Detecting Carcinogens* (eds. Norpeth, K. and Garner, R.C.), Springer Verlag, Heidelberg, pp. 103-126, 1980.
109. Ohlsson, A.; Agurell, S.; Glatt, H.R.; Bentley, P. and Oesch, F.: Investigation on the mutagenicity in the Ames test of 1 α ,2 β -epoxyhexahydrocannabinol and its conversion by deactivating enzymes. *Acta Pharm. Suec.* 17: 189-198, 1980.
110. Oesch, F.: Significance of various enzymes in bioactivation and inactivation for toxic effects. In: *25 Jahre Pharmakokinetik* (ed. Gladtke, H.), S. Fischer-Verlag, Frankfurt, pp. 75-81, 1980.
111. Glatt, H.R.; Kaltenbach, E. and Oesch, F.: Epoxide hydrolase activity in native and in mitogen-stimulated lymphocytes of various human donors. *Cancer Res.* 40: 2552-2556, 1980.
112. Oesch, F.: Microsomal epoxide hydrolase. In: *Enzymatic Basis of Detoxication* (ed. Jacoby, B.), a volume of *Biochemical Pharmacology and Toxicology*, Academic Press, New York, pp. 277-290, 1980.
113. Glatt, H.R.; Oesch, F. and Neumann, F.G.: Factors responsible for the metabolic formation and inactivation of bacterial mutagens from trans-4-acetylaminostilbene. *Mutat. Res.* 73: 237-250, 1980.
114. Oesch, f.; Clegg, J.C.S.; Billings, R.; Platt, K.L. and Glatt, H.R.: Enzymic control of reactive metabolites from aromatic carcinogens. In: *Carcinogenesis: Fundamental Mechanisms and Environmental Effects* (eds. Pullmann, B.; Ts'o, P.O.P. and Gelboin, H.V.), Reidel, Dordrecht, Holland, pp. 167-177, 1980.
115. Glatt, H.R.; Platt, K.L.; Vogel, K.; Bücker, M.; Billings, R. and Oesch, F.: Metabolic inactivation of mutagenic benzo[a]pyrene metabolites: significance to carcinogenicity and implications for in vitro tests. In: *Mechanisms of Toxicity and hazard Evaluation* (eds. Holmstedt, B.; Lauwerys, R.; Mercier, M. and Roberfroid, M.), Elsevier/North-Holland Biomedical Press, pp. 181-186, 1980.

116. Schürer, C.C.; Bartram, C.R.; Glatt, H.R.; Kohl, F.V.; Mangels, W.; Oesch, F. and Rüdiger, H.W.: Benzo[a]pyrene 4,5-oxide: discrepancy between induction of sister chromatid exchanges and binding to DNA in cultured human fibroblasts. *Biochim. Biophys. Acta* 609: 272-277, 1980.
117. Trenk, D.; Beermann, D.; Oesch, F. and Jähnchen, E.: Age-dependent differences in the effect of phenprocoumon on the vitamin K1-epoxide cycle in rats. *J. Pharm. Pharmacol.* 32: 828-832, 1980.
118. Röhrborn, F.; Oesch, F. and Glatt, H.R.: Mutagenitätsuntersuchungen mit Antihypertensiva. In: Hypertonie (eds. Siegenthaler, W.; Vetter, W. and Schrey, A.), Verlag für angewandte Wissenschaften, Hypertonie-Workshop, Zürich, pp. 100-129, 1980.
119. Jonen, H.G.; Oesch, f. and Platt, K.L.: 4-Hydroxylation of nitrofurantoin in the rat: a 3-methylcholanthrene-inducible pathway of a relatively non-toxic compound. *Drug Metab. Dispos.* 8: 446-451, 1980.
120. Oesch, F.; Schmassmann, H.; Ohnhaus, E.; Althaus, U. and Lorenz, J.: Monooxygenase, epoxide hydrolase, and glutathione S-transferase activities in human lung. Variation between groups of bronchogenic carcinoma and non-cancer patients and interindividual differences. *Carcinogenesis* 1: 827-835, 1980.
121. Tunek, A.; Platt, K.L.; Przybylski, M. and Oesch, F.: Multi-step metabolic activation of benzene. Effect of superoxide dismutase on covalent binding to microsomal macromolecules, and identification of glutathione conjugates using high pressure liquid chromatography and field desorption mass spectrometry. *Chem. Biol. Interactions* 33: 1-17, 1980.
122. Vogel, K.; Bentley, P.; Platt, K.L. and Oesch, F.: Rat liver cytoplasmic dihydrodiol dehydrogenase: purification to apparent homogeneity and properties. *J. biol. chem.* 255: 9621-9625, 1980.
123. Glatt, H.R.; Billings, R.; Platt, K.L. and Oesch, F.: Improvement of the correlation of bacterial mutagenicity with carcinogenicity of benzo[a]pyrene and four of its major metabolites by activation with intact liver cells instead of cell homogenate. *Cancer Res.* 41: 270-277, 1981.
124. Peter, H.; Jung, R.; Bolt, H.M. and Oesch, F.: Norethisterone-4 β ,5-oxide and laevonorgestrel-4 β ,5-oxide: formation in rat liver microsomal incubations and interference with microsomal epoxide hydrolase and cytoplasmic glutathione S-transferase. *J. Steroid Biochem.* 14: 83-90, 1981.
125. Guenthner, T.M. and Oesch, f.: The effects of modulation of microsomal epoxide hydrolase activity on microsome-catalyzed activation of benzo[a]pyrene and its covalent binding to DNA. *Cancer Lett.* 11: 175-183, 1981.
126. Oesch, F.; Bücker, M. and Glatt, H.R.: Activation of phenanthrene to mutagenic metabolites and evidence for at least two different activation pathways. *Mutat. Res.* 81: 1-10, 1981.
127. Jung, R.; Beermann, D.; Glatt, H.R. and Oesch, F.: Mutagenicity of structurally related oxiranes: derivatives of benzene and its hydrogenated congeners. *Mutat. Res.* 81: 11-19, 1981.
128. Kuhlmann, W.d.; Krischan, R.; Kunz, W.; Guenthner, T.M. and Oesch, F.: Focal elevation of liver microsomal epoxide hydrolase in early preneoplastic stages and its behaviour in the further course of hepatocarcinogenesis. *Biochem. Biophys. Res. Commun.* 98: 417-423, 1981.

129. Guenthner, T. and Oesch, F.: Metabolic activation and inactivation of chemical mutagens and carcinogens. *TIPS* 2: 129-132, 1981.
130. Guenthner, T.M.; Hammock, B.D.; Vogel, U. and Oesch, F.: Cytosolic and microsomal epoxide hydrolases are immunologically distinguishable from each other in the rat and mouse. *J. Biol. chem.* 256: 3163-3166, 1981.
131. Platt, K.L. and Oesch, F.: Reductive cyclization of keto acids to polycyclic aromatic hydrocarbons by hydroiodic acid-red phosphorus. *J. Org. Chem.* 46: 2601-2603, 1981.
132. Périn, F.; dufour, M.; Mispelter, J.; Ekert, B.; Küneke, C.; Oesch, F. and Zajdela, F.: Heterocyclic polycyclic aromatic hydrocarbon carcinogenesis: 7H-dibenzo[c,g]carbazole metabolism by microsomal enzymes from mouse and rat liver. *Chem.-Biol. Interactions* 35: 267-284, 1981.
133. Bentley, P. and Oesch, F.: Enzymic mechanisms of oxidation, reduction and hydrolysis. In: *Foreign Compound Metabolism in Mammals*, Vol. 6 (ed. Hathway, D.E.), The Royal Society of Chemistry, Burlington House, London, pp. 64-110, 1981.
134. Glatt, H.R.; Vogel, K.; Bentley, P.; Sims, P. and Oesch, F.: Large differences in metabolic activation and inactivation of chemically closely related compounds: Effects of pure enzymes and enzyme induction on the mutagenicity of the twelve monomethylated benz[a]anthracenes, 7,12-dimethylbenz[a]anthracene and benz[a]anthracene in the Ames Test. *Carcinogenesis* 2: 813-821, 1981.
135. Guenthner, T. and Oesch, F.: Microsomal epoxide hydrolase and its role in polycyclic aromatic hydrocarbon biotransformation. In: *Polycyclic Hydrocarbons and Cancer*, Vol. 3 (eds. Gelboin, H. and Ts' o, P.O.P.), Academic Press, New York, pp. 183-212, 1981.
136. Oesch, F.: Enzymic control of reactive metabolites derived from aromatic foreign compounds. *Chimia* 35: 405-406, 1981.
137. Lesca, P.; Guenthner, T.M. and Oesch, F.: Modulation of the covalent binding of aryl hydrocarbon metabolites to DNA in vitro after treatment of rats and mice with trans-stilbene oxide. *Carcinogenesis* 2: 1049-1056, 1981.
138. Guenthner, T.M.; Bentley, P. and Oesch, F.: Microsomal epoxide hydrolase. In: *Detoxication and Drug Metabolism: Conjugation and Related Systems*, Vol. 77 (ed. Jakoby, W.B.). *Methods in Enzymology* (eds.-in-chief, S.P. Colowick and N.O. Kaplan), Academic Press, New York, pp. 344-349, 1981.
139. Glatt, H.R.; de Balle, L. and Oesch, F.: Ethanol- or acetone-pretreatment of mice strongly enhances the bacterial mutagenicity of dimethylnitrosamine in assays mediated by liver subcellular fraction, but not in host-mediated assays. *Carcinogenesis* 2: 1057-1061, 1981.
140. Clegg, J.C.S.; Glatt, H.R. and Oesch, F.: Coordinate mutation and transformation of mouse fibroblasts: induction by nitroquinoline oxide and modulation by caffeine. *Carcinogenesis* 2: 1255-1259, 1981.
141. Oesch, f.; Puff, I. and Platt, K.L.: Purity of tritiated polycyclic aromatic hydrocarbons: Identification of (G-3H)-5,6-dihydrodibenz[a,h]anthracene as the major radioactive component in commercial (G-3H)-dibenz[a,h]anthracene. *Anal. Biochem.* 117: 208-212, 1981.

142. Oesch, F.; Beermann, D.; Sparrow, A.J.; Bentley, P. and Vogel-Bindel, U.: A highly sensitive assay for epoxide hydrolase using an endogenous epoxide as substrate: 16 α ,17 β -epoxy-androst-4-en-3-one. *Anal. biochem.* 117: 223-230, 1981.
143. Bolt, H.M.; Filser, J.G.; Oesch, F.; Guenther, T.M.; Friedberg, T. and Bolt, M.: Metabolisierung von Vinylchlorid: Unterschiede zwischen Mensch und Versuchstier und ihre toxikologische Bedeutung. In: *Epidemiologische Ansätze im Bereich der Arbeitsmedizin* (eds. Schäcke, G. and Stollenz, E.), Gentner Verlag, Stuttgart, pp. 507-509, 1981.
144. Platt, K.L. and Oesch, F.: Synthesis of non-K-region ortho-quinones of polycyclic aromatic hydrocarbons from cyclic ketones. *Tetrahedron Lett.* 23: 163-166, 1982.
145. Waechter, F.; Bentley, P.; Germann, M.; Oesch, F. and Staubli, W.: Immunoelectron-microscopic studies on the subcellular distribution of rat liver epoxide hydrolase and the effect of phenobarbitone and 2-acetaminofluorene treatment. *Biochem. J.* 202: 677-686, 1982.
146. Oesch, F.; Stillger, G.; Frank, H. and Platt, K.L.: Improved syntheses of (+)-trans-9,10-dihydroxy-9,10-dihydrobenzo[a]pyrene and of (+)-trans-1,2-dihydroxy-1,2-dihydrodibenz[a,h]anthracene. *J. Org. Chem.* 47: 568-571, 1982.
147. Okada, Y.; Frey, A.B.; Guenthner, T.M.; Oesch, F.; Sabatini, D.d. and Kreibich, G.: Studies on the biosynthesis of microsomal membrane proteins. site of synthesis and insertion of cytochrome b5, cytochrome b5 reductase, cytochrome P-450 reductase and epoxide hydrolase. *Europ. J. Biochem.* 122: 393-402, 1982.
148. Glatt, H.R.; Cooper, C.s.; Grover, P.L.; Sims, P.; Bentley, P.; Merdes, M.; Waechter, F.; Vogel, K.; Guenthner, T.M. and Oesch, F.: Inactivation of a diol-epoxide by dihydrodiol dehydrogenase, but not by two epoxide hydrolases. *Science* 215: 1507-1509, 1982.
149. Oesch, F.: Fate of epoxides. In: *Advances in Experimental Medicine and Biology - Biological Reactive Intermediates-II, Chemical Mechanisms and Biological Effects* (eds. Snyder, R.; Parke, D.V.; Kocsis, J.J.; Jollow, D.J.; Gibson, C.g. and Witmer, C.M.), Plenum Press, New York, pp. 39-52, 1982.
150. Tunek, A. and Oesch, f.: Multi-step metabolic activation of benzene in rat liver microsomes. In: *Advances in Experimental Medicine and Biology - Biological Reactive Intermediates-II, chemical Mechanisms and Biological Effects* (eds. Snyder, R.; Parke, D.V.; Kocsis, J.J.; Jollow, D.J.; Gibson, C.G. and Witmer, C.M.), Plenum Press, New York, pp. 319-329, 1982.
151. Guenthner, T. and Oesch, F.: Modulation of epoxide hydrolase activity; Effect on the activation of benzo[a]pyrene and its covalent binding to DNA in the nucleus. In: *Advances in Experimental Medicine and Biology - Biological Reactive Intermediates-II, Chemical Mechanisms and Biological Effects* (eds. Snyder, R.; Parke, D.V.; Kocsis, J.J.; Jollow, D.J.; Gibson, C.G. and Witmer, C.M.), Plenum Press, New York, pp. 705-716, 1982.
152. Vogel, K.; Platt, K.L.; Petrovic, P.; Seidel, A. and Oesch, F.: Dihydrodiol dehydrogenase: substrate specificity, inducibility and tissue distribution. In: *Proceedings of the 22nd congress of the European Society of Toxicology held in Dublin, Arch. Toxicol. Suppl. 5:* pp. 360-364, 1982.
153. Guenthner, T.M.; Vogel-Bindel, U. and Oesch, F.: Identification and characterization of a novel epoxide hydrolase from mouse liver microsomes. In: *Proceedings of the 22nd congress of the European Society of Toxicology held in Dublin, Arch. Toxicol. Suppl.5:* pp. 365-367, 1982.

154. Oesch, F.; Friedberg, T.; Herbst, M.; Paul, W.; wilhelm, N. and Bentley, P.: Effects of lindane treatment on drug metabolizing enzymes and liver weight of CF-1 mice in which it evoked hepatomas and in non-susceptible rodents. *Chem.-Biol. Interactions*. 40: 1-14, 1982.
155. Platt, K.L. and Oesch, F.: K-region trans-dihydrodiols of polycyclic arenes; an efficient and convenient preparation from o-quinones or o-diphenols by reduction with sodium borohydride in the presence of oxygen. *Synthesis*, 459-462, 1982.
156. Oesch, F. and Doerjer, G.: Detection of N2,3-etheno guanine in DNA after treatment with chloroacetaldehyde in vitro. *Carcinogenesis* 3: 663-665, 1982.
157. Bentley, P. and Oesch, F.: Foreign compound metabolism in the liver. In: *Progress in Liver Diseases*, Vol. VII (eds. Popper, H. and Schaffner, F.), Grune & Stratton, New York, pp. 157-178, 1982.
158. Oesch, F.: The role of microsomal epoxide hydrolase in endogenous steroid metabolism. In: *Microsomes, Drug Oxidations, and Drug Toxicity* (eds. Sato, R. and Kato, R.), Japan Scientific Societies Press, Tokyo, pp. 327-333, 1982.
159. Glatt, H.R.; Friedberg, T.; Vogel, K.; Guenthner, T.M.; Oesch, F.; Cooper, C.S.; Grover, P.L.; Sims, P.; Waechter, F.; Merdes, M. and Bentley, P.: Effect of six highly-purified enzymes on the mutagenicity of a vicinal diol-epoxide and of the K-region oxide of benz[a]anthracene. In: *Microsomes, Drug Oxidations, and Drug Toxicity* (eds. Sato, R. and Kato, R.), Japan Scientific societies Press, Tokyo, pp. 537-538, 1982.
160. Platt, K.L.; Bücker, M.; Golan, M. and Oesch, F.: The mutagenicity of dibenz[a,h]anthracene activated by phenobarbital-inducible mouse liver monooxygenase is potentiated by the presence of hydrophilic residues at the K-region of the molecule. *Mutat. Res.* 96: 1-13, 1982.
161. Vogel-Bindel, U.; Bentley, P. and Oesch, F.: Endogenous role of microsomal epoxide hydrolase: ontogenesis, induction, inhibition, tissue distribution, immunological behaviour and purification of microsomal epoxide hydrolase with 16 α ,17 β -epoxy-androstene-3-one as substrate. *Europ. J. Biochem.* 126: 425-431, 1982.
162. Seidegard, J.; DePierre, J.W.; Guenthner, T.M. and Oesch, f.: The influence of different effectors on microsomal epoxide hydrolase activity towards various substrates. In: *Microsomes, Drug Oxidations, and Drug Toxicity* (eds. Sato, R. and Kato, R.), Japan Scientific Societies Press, Tokyo, pp. 239-240, 1982.
163. Raphael, D.; Glatt, H.R.; Protic, M. and Oesch, F.: Effects of various enzyme inducers on monooxygenase, glutathione S-transferase and epoxide hydrolase activities in cultured hepatoma cells. *Chem.-Biol. Interactions* 42: 27-43, 1982.
164. Oesch, F.: Chemical carcinogenesis by polycyclic aromatic hydrocarbons. In: *NATO ASI Life Sciences Series. Chemical Carcinogenesis* (ed. Nicolini, C.), Plenum Press, New York, pp. 1-24, 1982.
165. Oesch, F.: Problems associated with the use of chemical class controls in absence of information on the underlying mechanism. In: *NATO ASI Life Sciences Series: Chemical Carcinogenesis* (ed. Nicolini, C.), Plenum Press, New York, pp. 67-70, 1982.

166. Gill, S.S.; Wie, S.I.; Guenthner, T.M.; Oesch, F. and Hammock, B.D.: Rapid and sensitive enzyme-linked immunosorbent assay for the microsomal epoxide hydrolase. *Carcinogenesis* 3: 1307-1310, 1982.
167. Seidegard, J.; DePierre, J.W.; Guenthner, T.M. and Oesch, F.: Topology of epoxide hydrolase in the membrane of the endoplasmic reticulum. *Acta Chem. Scand.* B36: 555-575, 1982.
168. Platt, K.L. and Oesch, f.: Synthesis and properties of the seven isomeric phenols of dibenz[a,h]anthracene. *J. Org. Chem.* 47: 5321-5326, 1982.
169. Oesch, F. and Guenthner, T.M.: Effects of the modulation of epoxide hydrolase activity on the binding of benzo[a]pyrene metabolites to DNA in intact nuclei. *Carcinogenesis* 4: 57-65, 1983.
170. Oesch, F.; Vogel-Bindel, U.; Guenthner, T.M.; Cameron, R. and Farber, E.: Characterization of microsomal epoxide hydrolase in hyperplastic nodules. *Cancer Res.* 43: 313-319, 1983.
171. Platt, K.L. and Oesch, F.: Efficient synthesis of non-K-region dihydrodiols of polycyclic aromatic hydrocarbons from o-quinones and catechols. *J. Org. Chem.* 48: 265-268, 1983.
172. Wolf, C.R. and Oesch, F.: Isolation of a high spin form of cytochrome P-450 induced in rat liver by 3-methylcholanthrene. *Biochem. Biophys. Res. Commun.* 111: 504-511, 1983.
173. Oesch, F.: Importance of enzymes involved in metabolic activation and inactivation. In: *Short-Term Tests for Carcinogenesis, Quo Vadis?* (eds. Mazue, G. and Roncucci, R.), Excerpta Medica, Amsterdam, pp. 186-205, 1983.
174. Oesch, F.: Chemisch ausgelöste Krebsentstehung. Robert Koch Stiftung Beiträge und Mitteilungen/Robert Koch Foundation Bulletin and Communications 5: 21-29, 1983.
175. Walker, C.H. and Oesch, F.: Enzymes in selective toxicity. In: *Biological Basis of Detoxication* (eds. Caldwell, J. and jakoby, W.B.), a volume of *Biochemical Pharmacology and Toxicology*, Academic Press, New York, pp. 349-368, 1983.
176. Pyerin, W.; Wolf, C.R.; Kinzel, V.; Kübler, D. and Oesch, F.: Phosphorylation of cytochrome-P-450-dependent monooxygenase components. *Carcinogenesis* 4: 573-576, 1983.
177. Oesch, F.; Zimmer, A. and Glatt, H.R.: Microsomal epoxide hydrolase in different rat strains. *Biochem. Pharmacol.* 32: 1783-1788, 1983.
178. Wolf, C.R.; Oesch, F.; Timms, C.W.; Guenthner, T.; Hartmann, R.; Maruhn, M. and Burger, R.: Use of monoclonal and polyclonal antibodies as structural and topographical probes for hepatic epoxide hydrolase. *FEBS Lett.* 157: 271-276, 1983.
179. Glatt, H.R.; Protic-Sabljic, M. and Oesch, F.: Mutagenicity of endogenous compounds, glutathione and cysteine, in the Ames test. *Science* 220: 961-963, 1983.
180. Oesch, F.; Protic-Sabljic, M.; Friedberg, T.; Klimisch, H.-J. and Glatt, H.R.: Vinylidene chloride: changes in drug-metabolizing enzymes, mutagenicity and relation to its targets for carcinogenesis. *Carcinogenesis* 4: 1031-1038, 1983.

181. Glatt, H.R.; Wölfel, T. and Oesch, F.: Determination of epoxide hydrolase activity in whole cells (human lymphocytes) and activation by benzoflavones. *Biochem. Biophys. Res. Commun.* 110: 525-529, 1983.
182. Oesch, F.; Milbert, U.; Friedberg, T. and Wolf, C.R.: Identification of novel glutathione S-transferases in kidney and lung and the inducibility of various isozymes in liver and other organs. In: *Extrahepatic Drug Metabolism and Chemical Carcinogenesis* (eds. Rydström, J.; Montelius, J. and Bengtsson, M.), Elsevier Biomedical Press, Amsterdam, pp. 163-170, 1983.
183. Glatt, H.R.; Jung, R. and Oesch, F.: Bacterial mutagenicity investigation of epoxides: drugs, drug metabolites, steroids and pesticides. *Mutat. Res.* 11: 99-118, 1983.
184. Ohnhaus, E.E.; Berger, W.; Duckert, F. and Oesch, F.: The influence of dimethylbiguanide on phenprocoumon elimination and its mode of action. *Klin. Wochenschr.* 61: 851-858, 1983.
185. Friedberg, T.; Milbert, U.; Bentley, P.; Guenthner, T.M. and Oesch, F.: Purification and characterization of a new cytosolic glutathione S-transferase (glutathione S-transferase X) from rat liver. *Biochem. J.* 215: 617-625, 1983.
186. Glatt, H.R.; Friedberg, T.; Grover, P.L.; Sims, P. and Oesch, F.: Inactivation of a diol-epoxide and a K-region epoxide by glutathione S-transferases: High efficiency of the new form X. *Cancer Res.* 43: 5713-5717, 1983.
187. Oesch, F.; Sparrow, A.J. and Platt, K.L.: Radioactively labelled epoxides. Part IV. Tritium labelled α - and β -methyl styrene oxides. *J. Lab. Comp. Radiopharm.* 20: 1297-1303, 1983.
188. Oesch, F.: Drug detoxification: Epoxide hydrolase. In: *Development Pharmacology* (ed. MacLeod, S.), Allan R. Liss, New York, pp. 81-105, 1983.
189. Guenthner, T.M. and Oesch, F.: Identification and characterization of a new epoxide hydrolase from mouse liver microsomes. *J. biol. chem.* 258: 15054-15061, 1983.
190. Frey, A.B.; Friedberg, T.; Oesch, F. and Kreibich, G.: Studies on the subunit composition of rat liver glutathione S-transferases. *J. Biol. Chem.* 258: 11321-11325, 1983.
191. Oesch, F.: chemische Umwelt - zwischen Furcht und Sicherheit. In: *Genetische Herkunft und Zukunft des Menschen* (ed. Passarge, E.), Verlag Chemie, Weinheim, pp. 121-130, 1984.
192. Oesch, F.: Scope of the application of the biochemical basis of chemical carcinogenesis towards a more rational risk estimation. In: *Biochemical Basis of Chemical Carcinogenesis* (eds. Greim, H.; Jung, R.; Kramer, M.; Marquardt, H. and Oesch, F.), Raven Press, New York, pp. 1-3, 1984.
193. Oesch, F.; Glatt, H.R.; Vogel, K.; Seidel, A.; Petrovic, P. and Platt, K.L.: Dihydrodiol dehydrogenase: A new level of control by both sequestration of proximate and inactivation of ultimate carcinogens. In: *Biochemical Basis of Chemical Carcinogenesis* (eds. Greim, H.; Jung, R.; Kramer, M.; Marquardt, H. and Oesch, F.), Raven Press, New York, pp. 23-31, 1984.
194. Glatt, H.R.; Mertes, I.; Wölfel, T. and Oesch, F.: Epoxide hydrolase in laboratory animals and in man. In: *Biochemical Basis of Chemical Carcinogenesis* (eds. Greim, H.; Jung, R.; Kramer, M.; Marquardt, H. and Oesch, F.), Raven Press, New York, pp. 107-121, 1984.

195. Oesch, F.; Timms, C.W.; Walker, C.H.; Guenthner, T.M.; Sparrow, A.; Watabe, T. and Wolf, C.R.: Existence of multiple forms of microsomal epoxide hydrolase with radically different substrate specificities. *Carcinogenesis* 5: 7-9, 1984.
196. Wolf, C.R.; Buchmann, A.; Friedberg, T.; Moll, E.; Kuhlmann, W.D.; Kunz, H.W. and Oesch, F.: Dynamics of the localisation of drug metabolising enzymes in tissues and cells. *Biochem. Soc. Transact.* 12: 60-62, 1984.
197. Oesch, F.: Detoxication and toxication of foreign compounds. *Fresenius Z. Anal. Chem.* 317: 643-644, 1984.
198. Doerjer, G.; Bedell, m.A. and Oesch, f.: DNA adducts and their biological relevance. In: *Mutations in Man* (ed. Obe, G.), Springer Verlag, Heidelberg, pp. 20-34, 1984.
199. Wörner, W. and Oesch, F.: Identity of dihydrodiol dehydrogenase and 3 α -hydroxysteroid dehydrogenase in rat but not in rabbit liver cytosol. *FEBS Lett.* 170: 263-267, 1984.
200. Glatt, H.R. and Oesch, F.: Variations in epoxide hydrolase activities in human liver and blood. In: *Banbury Report 16: Genetic Variability in Responses to Chemical Exposure*. Cold Spring Harbor Laboratory, pp. 189-203, 1984.
201. Wolf, C.R.; Moll, E.; Friedberg, T.; Oesch, F.; Buchmann, A.; Kuhlmann, W.D. and Kunz, H.W.: Characterization, localization and regulation of a novel phenobarbital-inducible form of cytochrome P450, compared with three further cyt. P450-isoenzymes, NADPH cyt. P450-reductase, glutathione transferases and microsomal epoxide hydrolase. *Carcinogenesis* 5: 993-1001, 1984.
202. Glatt, H.R. and Oesch, F.: Metabolizing systems used in mutagenicity tests and their significance. In: *Critical Evaluation of Mutagenicity Tests* (eds. Baß, R.; Glocklin, V.; Grosdanoff, P.; Henschler, D.; Kilbey, B.; Müller, D. and Neubert, D.), MMV Medizin Verlag, München, pp. 399-420, 1984.
203. Oesch, F.: Relationship between transformation and mutation in cells in culture. In: *Critical Evaluation of Mutagenicity Tests* (eds. Baß, R.; Glocklin, V.; Grosdanoff, P.; Henschler, D.; Kilbey, B.; Müller, D. and Neubert, D.), MMV Medizin Verlag, München, pp. 485-488, 1984.
- 204a. Oesch, F.: Metabolism of carcinogens, possibilities for modulation. In: *Modifiers of Tumorigenesis* (ed. thorling, E.B.), Munksgaard, Copenhagen, pp. 15-33, 1984.
- 204b. Oesch, F.: Metabolism of carcinogens, possibilities for modulation. *Acta Pharmacol. Toxicol.* 55, Suppl. II: 15-33, 1984.
205. Lorenz, J.; Glatt, H.R.; Fleischmann, R.; Ferlinz, R. and Oesch, F.: Drug metabolism in man and its relationship to that in three rodent species: Monooxygenase, epoxide hydrolase and glutathione S-transferase activities in subcellular fractions of lung and liver. *Biochem. Med.* 32: 43-56, 1984.
206. Borm, P.J.A.; Kroon, M.; Noordhoek, J.; Platt, K.L. and Oesch, F.: Dose dependent activation of rat small intestinal monooxygenase-activity towards benzo[a]pyrene and 7-ethoxycoumarin after oral pretreatment with cimetidine. *Res. Commun. Chem. Pathol. Pharmacol.* 44: 99-111, 1984.

207. Pyerin, W.; Taniguchi, H.; Stier, A.; Oesch, F. and Wolf, C.R.: Phosphorylation of rabbit liver cytochrome P-450 LM2 and its effect on monooxygenase activity. *Biocem. Biophys. Res. Commun.* 122: 620-626, 1984.
208. Batt, A.; Siest, G. and Oesch, F.: Differential regulation of two microsomal epoxide hydrolases in hyperplastic nodules from rat liver. *Carcinogenesis* 5: 1205-1206, 1984.
209. Beermann, D.; Petrovic, P.; Seidel, A. and Oesch, F.: A facile microsynthesis of 14C-labelled picene. *J. Lab. Comp. Radiopharm.* XXI: 781-787, 1984.
210. Timms, C.; Oesch, F.; Schladt, L. and Wörner, W.: Multiple forms of epoxide hydrolase. In: *Proceedings of the 9th International Congress of Pharmacology* (eds. Mitchell, J.F.; Paton, W. and turner, P.), Macmillan press, London, pp. 231-237, 1984.
211. Glatt, H.R.; Utesch, D. and Oesch, F.: Hepatocyte- but not S9-mediated mutagenicity correlates with the carcinogenicity of methylbenz[a]anthracenes. In: *Polynuclear Aromatic Hydrocarbons: Chemistry and Biology* (eds. Cooke, M. and Dennis, A.J.), Batelle Press, Columbus, Ohio, pp. 475-484, 1984.
212. Glatt, H.R.; Yona, I.; Ben-Shoshan, S.; Jerushalmey, P.; Blum, J. and Oesch, F.: Exceptionally potent mutagenicity in bacterial and mammalian cells by aziridines derived from polycyclic aromatic hydrocarbons. In: *Polynuclear Aromatic Hydrocarbons: Chemistry and Biology* (eds. Cooke, M. and Dennis, A.J.), Batelle Press, Columbus, Ohio, pp. 485-496, 1984.
213. Glatt, H.R.; Utesch, D.; Turchi, G.; Doerjer, G. and Oesch, F.: Hepatocytes as metabolizing system in bacterial mutagenicity tests. In: *Max von pettenkofer-Berichte*, pp. 13-32, 1984.
214. Oesch, F.: Significance of various enzymes in the control of mutagenic and carcinogenic metabolites derived from aromatic structures. In: *Toxicologic Pathology*, vol. 12: *Chemical Carcinogenesis: Xenobiotics and Biotransformation (Proceedings of the Second International Symposium)*, pp. 391-396, 1984.
215. Oesch, F.: Metabolism of genotoxic agents: Control of reactive epoxides by hydrolase and transferase reactions. In: *Proceedings of the International Seminar on Methods of Monitoring Human Exposure to Carcinogenic and Mutagenic Agents held in Espoo, Finland, 12.-15. December 1983* (eds. Hemminki, K.; Henschler, D.; Lauwerys, R.; Legator, M.; Saracci, R.; Sorsa, M. and Vainio, H.), International Agency for Research on Cancer, Lyon, pp. 73-83, 1984.
216. Amelizad, Z.; Narbonne, J.-F. and Oesch, F.: Nutritional influence on some cytochrome P-450 characteristics. *Biochem. Pharmacol.* 34: 383-384, 1985.
217. Mertes, I.; Fleischmann, R. and Oesch, F.: Interindividual variations in the activities of cytosolic and microsomal epoxide hydrolase in human liver. *Carcinogenesis* 6: 219-223, 1985.
218. Glatt, H.R. and Oesch, F.: Activation of N-acetoxy- and N-hydroxy-2-acetylaminofluorene to mutagenic and cytotoxic metabolites by V79 Chinese hamster cells. *Mutat. Res.* 149: 265-269, 1985.
219. Buchmann, A.; Kuhlmann, W.D.; Schwarz, M.; Kunz, H.W.; Wolf, C.R.; Moll, E.; Friedberg, T. and Oesch, F.: Regulation and expression of four cytochrome P-450 isoenzymes, NADPH-cytochrome P-450 reductase, the glutathione transferases B and C and microsomal epoxide hydrolase in preneoplastic and neoplastic lesions in rat liver. *Carcinogenesis* 6: 513-521, 1985.

220. Robertson, L.W.; Regel, U.; Filser, J.G. and Oesch, F.: Absence of lipid peroxidation as determined by ethane exhalation in rats treated with 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). Arch. Toxicol. 57: 13-16, 1985.
221. Oesch, F.: Erfassung von Mutationen in Bakterien und deren Relevanz für den Säuger. Swiss Chem. 7: 66-67, 1985.
222. Glatt, H.R.; Bucker, M.; Platt, K.L. and Oesch, F.: Host-mediated mutagenicity experiments with benzo[a]pyrene and two of its metabolites. Mutat. Res. 156: 163-169, 1985.
223. Liptay-Reuter, I.; Dose, K.; Guenthner, T.; Wörner, A. and Oesch, F.: Vitamin K epoxide reductase activity in the metabolism of epoxides. Biochem. Pharmacol. 34: 2617-2620, 1985.
224. Glatt, H.R.; Ludewig, G.; Platt, K.L.; Yona, I.; Ben-Shoshan, S.; Jerushalmi, P.; Blum, J. and Oesch, F.: Arene imines, a new class of exceptionally potent mutagens in bacterial and mammalian cells. Cancer Res. 45: 2600-2607, 1985.
225. Oesch, f.: Enzymic control of metabolically produced epoxides. In: Microsomes and Drug Oxidations, Proceedings of the 6th International Symposium, Brighton, 6-10 August 1984 (eds. Boobis, A.R.; Caldwell, J.; De Matteis, F. and Elcombe, C.R.), Taylor and Francis, London, pp. 178-189, 1985.
226. Klein, J.; Milbert, U. and Oesch, F.: Was wissen wir heute über chemisch ausgelöste Krebsentstehung? In: Wirkstoffe im Zellgeschehen (ed. Böger, P.), Konstanzer Bibliothek, Band 1, Universitätsverlag, Konstanz, pp. 33-54, 1985.
- 227a. Wolf, C.r.; Hartmann, R.; Oesch, f. and Adams, D.J.: Regulation and multiplicity of drug metabolising enzymes in tissues and cells In: Drug Metabolism Molecular Approaches and Pharmacological Implications (ed. Siest, G.), Pergamon Press, Oxford, pp. 121-130, 1985.
- 227b. Wolf, C.R.; Hartmann, R.; Oesch, F. and Adams, D.J.: Regulation and multiplicity of drug metabolising enzymes in tissues and cells. Biochem. Pharmacol. Suppl. 1: 121-130, 1985.
228. Wieser, R.J.; Heck, R. and Oesch, F.: Involvement of plasma membrane glycoproteins in the contact-dependent inhibition of growth of human fibroblasts. Exp. Cell Res. 158: 493-499, 1985.
229. Glatt, H.R. and Oesch, F.: Mutagenicity of cysteine and penicillamine and its enantiomeric selectivity. Biochem. Pharmacol. 34: 3725-3728, 1985.
230. Schramm, H.; Robertson, L.W. and Oesch, F.: Differential regulation of hepatic glutathione transferase and glutathione peroxidase activities in the rat. Biochem. Pharmacol. 34: 3735-3739, 1985.
231. Nishihara, Y.; Robertson, L.W.; Oesch, F. and Utsumi, K.: Interaction of tetrachlorobiphenyls with isolated rat liver mitochondria. J. Pharmacobi-Dyn. 8: 726-732, 1985.
232. Manschreck, A.; Pustet, N.; Robertson, L.W.; Oesch, F. and Püttmann, M.: Enantiomers of polychlorinated biphenyls - Semipreparative enrichment by liquid chromatography. Liebigs Ann. Chem., 2101-2103, 1985.

233. Bochnitschek, W.; Seidel, A.; Kunz, H. and Oesch, F.: Reactive metabolites of carcinogenic polycyclic hydrocarbons: synthesis and trapping reaction of 9-hydroxybenzo[a]pyrene 4,5-oxide. *Angew. Chem. Int. Ed. Engl.* 24: 699-700, 1985.
234. Oesch, F.; Bentley, P.; Golan, M. and Stasiecki, P.: Metabolism of benzo[a]pyrene by subcellular fractions of rat liver: evidence for similar patterns of cytochromes P-450 in rough and smooth endoplasmic reticulum but not in nuclei and plasma membrane. *Cancer Res.* 45: 4838-4843, 1985.
235. Glatt, H.R.; Halfer-Wirkus, H.; Herborn, J.; Lehrbach, E.; Löffler, S.; Porn, W.; Setiabudi, F.; Wölfel, T.; Gemperlein-Mertes, I.; Doerjer, G. and Oesch, F.: Interindividual variations in epoxide-detoxifying enzymes. In: *Familial Cancer*, 1st Int. Res. Conf. (eds. Müller and Weber), Karger, Basel, pp. 242-247, 1985.
236. Adams, D.J.; Seilman, S.; Amelizad, Z.; Oesch, F. and Wolf, R.C.: Identification of human cytochromes P-450 analogous to forms induced by phenobarbital and 3-methylcholanthrene in the rat. *Biochem. J.* 232: 869-876, 1985.
237. Glatt, H.R. and Oesch, F.: Propyldazine is mutagenic in *Salmonella typhimurium* and *Escherichia coli*: Distinct specificity for strains TA1537 and TA97. *Teratog. Carcinog. Mutagen.* 5: 339-345, 1985.
238. Renauer, D.; Oesch, F.; Kinkel, J.; Unger, K.K. and Wieser, R.J.: Fractionation of membrane proteins on immobilized lectins by high-performance liquid affinity chromatography. *Anal. biochem.* 151: 424-427, 1985.
239. Hodgson, R.M.; Seidel, A.; Bochnitschek, W.; Glatt, H.R.; Oesch, F. and Grover, P.L.: The formation of 9-hydroxychrysene-1,2-diol as an intermediate in the metabolic activation of chrysene. *Carcinogenesis* 6: 135-139, 1985.
240. Adams, D.J.; Oesch, F.; Hartmann, R. and Wolf, C.R.: Induction and suppression of cytochromes P-450 in rat tissues. *Biochem. Soc. Transact.* 13: 358, 1985.
241. Ishikawa, T.; Milbert, U.; Oesch, F. and Sies, H.: The major isozyme of rat cardiac glutathione transferases. Its correspondence to hepatic transferase X. *Eur. J. Biochem.* 154: 299-305, 1986.
242. Walker, C.H.; Timms, C.W.; Wolf, C.R. and Oesch, F.: The hydration of sterically hindered epoxides by epoxide hydrolase of the rat and rabbit. *Biochem. Pharmacol.* 35: 499-503, 1986.
243. Oesch, F.; Steinberg, P.; Lafranconi, M. and Glatt, H.R.: The role of liver parenchymal and non-parenchymal cells in the control of mutagenic and carcinogenic metabolites. Editorial. *Falk's Hepatology No. 3: VII-XIV*, 1986.
244. Frei, E.; Pool, B.L.; Glatt, H.R.; Gemperlein-Mertes, I.; Oesch, F.; Schlehofer, J.R.; Schmezer, P.; Weber, H. and Wiessler, M.: Determination of DNA single strand breaks and selective DNA amplification by N-nitrodimethylamine and analogs, and estimation of the indicator cells' metabolic capacities. *J. Cancer Res. Clin. Oncol.* 111: 123-128, 1986.
245. Oesch, F.: Enzymatic control of reactive metabolites. In: *Colloque International, INSERM - Université - CNRS, Hepatotoxicité Médicamenteuse* (ed. Fillastre, J.P.), Rouen, pp. 199-207, 1986.

246. Glatt, H.R. and Oesch, F.: Structural and metabolic parameters governing the mutagenicity of polycyclic aromatic hydrocarbons. In: *Chemical Mutagens: Principles and Methods for Their Detection*, Vol. 10 (ed. de Serres, F.J.), Plenum Publishing Corporation, New York, pp. 73-127, 1986.
247. Wermuth, B.; Platt, K.L.; Seidel, A. and Oesch, F.: Carbonyl reductase provides the enzymatic basis of quinone detoxication in man. *Biochem. Pharmacol.* 35: 1277-1282, 1986.
248. Oesch, f.: Mechanisms in chemical carcinogenesis: Enzymatic control of reactive metabolites. *Cancer Lett.* 30: 22-24, 1986.
249. Mönig, J.; Asmus, K.-D.; Robertson, L.W. and Oesch, F.: Polychlorinated biphenyl radical cations: A pulse radiolysis investigation. *J. Chem. Soc. Perkin Trans. II:* 891-896, 1986.
250. Lafranconi, W.M.; Glatt, H.R. and Oesch, F.: Xenobiotic metabolizing enzymes of rat liver nonparenchymal cells. *Toxicol. Appl. Pharmacol.* 84: 500-511, 1986.
251. Oesch, F.; Lafranconi, M. and Glatt, H.R.: Role of parenchymal versus non-parenchymal cells in the control of biologically reactive intermediates. *Adv. Exp. Med. Biol.* 197: 53-61, 1986.
252. Oesch, F.; Schladt, L.; Hartmann, R.; Timms, C. and Wörner, W.: Rat cytosolic epoxide hydrolase. *Adv. Exp. Med. Biol.* 197: 195-201, 1986.
253. Glatt, H.R.; Oesch, F. and Neumann, H.-G.: V79 chinese hamster cells deacetylate trans-N-acetoxy-4-acetylaminostilbene and trans-N-hydroxy-4-acetylaminostilbene to mutagenic and cytotoxic metabolites. *Cell Biol. Toxicol.* 2: 213-221, 1986.
254. Oesch, F.: Short-term and long-term modulation of the enzymatic control of mutagenic and carcinogenic metabolites. In: *Genetic Toxicology of Environmental Chemicals, Part A: Basic Principles and Mechanisms of Action* (eds. Ramel, C.; Lambert, B. and Magnusson, J.), Alan R. Liss, Inc., pp. 495-506, 1986.
255. Wieser, R.J. and Oesch, F.: Contact inhibition of growth of human diploid fibroblasts by immobilized plasma membrane glycoproteins. *J. Cell Biol.* 103: 361-367, 1986.
256. Amelizad, Z.; Narbonne, J.-F.; Daubeze, M.; Bonnamour, D. and Oesch, F.: Monooxygenase activity of systems reconstituted with fractions from rats fed standard and low protein diets. *Biochem. Pharmacol.* 35: 3169-3171, 1986.
257. Glatt, H.R.; Seidel, A.; Bochnitschek, W.; Marquardt, H.; Marquardt, H.; Hodgson, R.M.; Grover, P.L. and Oesch, F.: Mutagenic and cell-transforming activities of triol-epoxides as compared to other chrysene metabolites. *Cancer Res.* 46: 4556-4565, 1986.
258. Oesch, F.; Adler, S.; Rettelbach, R. and Doerjer, G.: Repair of etheno DNA adducts by N-glycosylases. In: *The Role of Cyclic Nucleic Acid Adducts in Carcinogenesis and Mutagenesis* (eds. Singer, B. and Bartsch, H.), IARC Scientific Publications No. 70, International Agency for Research on Cancer, Lyon, pp. 373-379, 1986.
259. Doerjer, G.; Nies, E.; Mertes, I. and Oesch, F.: Three-dimensional fluorometry for the detection of DNA adducts. In: *The Role of Cyclic Nucleic Acid Adducts in Carcinogenesis and Mutagenesis* (eds. Singer, B. and Bartsch, H.), IARC Scientific Publications No. 70, International Agency for Research on Cancer, Lyon, pp. 419-424, 1986.

260. Oesch, F.: Zur aktuellen Mutagenitätstestung und über Trends. In: Aktuelle Probleme der Biomedizin (eds. Burger, O.K.; Grosdanoff, P.; Henschler, D.; Kraupp, O. and Schnieders, B.), Walter de Gruyter & Co., Berlin - New York, pp. 191-198, 1986.
261. Seidegard, J.; DePierre, J.W.; Guenthner, T.M. and Oesch, F.: The effects of metyrapone, chalcone epoxide, benzil, clotrimazole and related compounds on the activity of microsomal epoxide hydrolase in situ, in purified form and in reconstituted systems towards different substrates. *Eur. J. Biochem.* 159: 415-423, 1986.
262. Schladt, L.; Wörner, W.; Setiabudi, F. and Oesch, F.: Distribution and inducibility of cytosolic epoxide hydrolase in male Sprague-Dawley rats. *Biochem. Pharmacol.* 35: 3309-3316, 1986.
263. Buchmann, A.; Kunz, W.; Wolf, C.r.; Oesch, F. and Robertson, L.W.: Polychlorinated biphenyls, classified as either phenobarbital- or 3-methylcholanthrene-type inducers of cytochrome P-450, are both hepatic tumor promoters in diethylnitrosamine-initiated rats. *Cancer Lett.* 32: 243-253, 1986.
264. Platt, K.L.; Utesch, D.; Gemperlein-Mertes, I.; Glatt, H.R. and Oesch, F.: Metabolizing systems in short-term in vitro tests for carcinogenicity. *Fd. Chem. toxic.* 24: 721-729, 1986.
265. Hodgson, R.M.; Weston, A.; Seidel, A.; Bochnitschek, W.; Glatt, H.R.; Oesch, F. and Grover, P.L.: Metabolism of chrysene to triols and a triol-epoxide in mouse skin and rat liver preparations. In: *Polynuclear Aromatic Hydrocarbons: Chemistry, Characterization and Carcinogenesis* (eds. Cooke, M. and Dennis, A.J.), Battelle Press, Columbus (Ohio), pp. 387-399, 1986.
266. Glatt, H.R.; Seidel, A.; Bochnitschek, W.; Marquardt, H.; Marquardt, H.; Hodgson, R.M.; Grover, P.L. and Oesch, F.: Mutagenicity in bacterial and mammalian cells of diol-epoxides, triol-epoxides and other metabolites of chrysene. In: *Polynuclear Aromatic Hydrocarbons: Chemistry, Characterization and Carcinogenesis* (eds. Cooke, M. and Dennis, A.J.), Battelle Press, Columbus (Ohio) pp. 343-358, 1986.
267. Nishihara, Y.; Robertson, L.W.; Oesch, F. and utsumi, K.: The effects of tetrachlorobiphenyls on the electron transfer reaction of isolated rat liver mitochondria. *Life Sci.* 38: 627-635, 1986.
268. Phillips, D.H.; Glatt, H.R.; Seidel, A.; Bochnitschek, W.; Oesch, f. and Grover, P.L.: Mutagenic potential and DNA adducts formed by diol-epoxides, triol-epoxides and K-region epoxide of chrysene in mammalian cells. *Carcinogenesis* 7: 1739-1743, 1986.
269. Hodgson, R.M.; Seidel, A.; Bochnitschek, W.; Glatt, H.R.; Oesch, F. and Grover, P.L.: Metabolism of the bay-region diol-epoxide of chrysene to a triol-epoxide and the enzyme-catalysed conjugation of these epoxides with glutathione. *Carcinogenesis* 7: 2095-2098, 1986.
270. Azais, V.; Pascal, G.; Arand, M.; Oesch, F. and Robertson, L.W.: Effects of congeneric polychlorinated biphenyls on liver and kidney retinoid levels. *Chemosphere* 15: 1905-1908, 1986.
271. Püttmann, M.; Oesch, F.; Robertson, L.W. and Manschreck, A.: Characteristics of polychlorinated biphenyl (PCB) atropisomers. *Chemosphere* 15: 2061-2064, 1986.
272. Mertes, I.; Glatt, H.R. and Oesch, F.: Methodenentwicklung zur Prüfung von kanzerogenen und mutagenen Stoffen mit metabolisch aktiven Zellen in Kultur. In: *Schriftenreihe des*

Bundesministerium für Forschung und Technologie: Carcinogenese, Mutagenese, Teratogenese, Nr. ISBN 3-88135-171-X, pp. 32-40, 1986.

273. Glatt, H.R.; Robertson, L.W.; Arand, M.; Rauch, P.; Schramm, H.; Setiabudi, F.; Pöchlauer, P.; Müller, E.P. and Oesch, F.: cis- and trans-1,2-diphenylaziridines: Induction of xenobiotic-metabolizing enzymes in rat liver and mutagenicity in *Salmonella typhimurium*. *Arch. Toxicol.* 59: 242-248, 1986.
274. Glatt, H.R.; Shtelzer, S.; Sheradsky, T.; Blum, J. and Oesch, F.: Mutagenicity of N-substituted phenanthrene 9,10-imines in *Salmonella typhimurium* and Chinese hamster V79 cells. *Environ. Mutagenesis* 8: 829-837, 1986.
275. Schollmeier, M.; Frank, H.; Oesch, F. and Platt, K.L.: Assignment of absolute configuration to metabolically formed trans-dihydrodiols of dibenz[a,h]-anthracene by two distinct spectroscopic methods. *J. Org. Chem.* 51: 5368-5372, 1986.
276. Milbert, U.; Wörner, W. and Oesch, F.: Characterization of rat hepatic and renal glutathione S-transferases. In: Primary Changes and Control Factors in Carcinogenesis (eds. Friedberg, T. and Oesch, F.), Deutscher Fachschriften-Verlag, Wiesbaden, pp. 14-21, 1986.
277. Steinberg, P.; Lafranconi, W.M.; Buchmann, A.; Schwarz, M.; Kunz, W.D. and Oesch, F.: Biochemical and immunocytochemical evidences for the presence of drug metabolizing enzymes in rat liver Kupffer and endothelial cells. In: Primary Changes and Control Factors in Carcinogenesis (eds. Friedberg, T. and Oesch, F.), Deutscher Fachschriften-Verlag, Wiesbaden, pp. 22-25, 1986.
278. Schwarz, M.; Buchmann, A.; Pearson, D.; Peres, G.; Schael, S.; Kuhlmann, W.d.; Kunz, H.w.; Wolf, C.R. and Oesch, F.: Alterations in gene expression in preneoplastic and neoplastic hepatic lesions. In: Primary Changes and Control Factors in Carcinogenesis (eds. Friedberg, T. and Oesch, F.), Deutscher Fachschriften-Verlag, Wiesbaden, pp. 102-106, 1986.
279. Ansprach, B.; Inthoff, H.; Renauer, D.; Kinkel, J.N.; Kunz, H.; Oesch, F.; Unger, K.K. and Wieser, R.: Development of HPLC methods for the analysis and isolation of plasma membrane proteins. In: primary Changes and Control Factors in Carcinogenesis (eds. Friedberg, T. and Oesch, F.), Deutscher Fachschriften-Verlag, Wiesbaden, pp. 126-129, 1986.
280. Wolf, C.R.; Seilman, S.; Oesch, F.; Mayer, R.T. and Burke, M.D.: Multiple forms of cytochrome p-450 related to forms induced marginally by phenobarbital. *Biochem. J.* 240: 27-33, 1986.
281. Glatt, H.R. and Oesch, F.: Species differences in enzymes controlling reactive epoxides. In: Mouse Liver Tumors (eds. Chambers, P.L.; Henschler, D. and Oesch, F.) *Arch. Toxicol., Suppl.* 10: 111-124, 1987.
282. Steinberg, P.; Lafranconi, W.M. and Oesch, F.: The distribution of carcinogen metabolizing enzymes in the mouse liver: comparison of parenchymal and non-parenchymal cell populations. In: Mouse Liver Tumors (eds. Chambers, P.L.; Henschler, D. and Oesch, F.), *Arch. Toxicol., Suppl.* 10: 148-156, 1987.
283. Oesch, F.; Aulmann, W.; Platt, K.L. and Doerjer, G.: Individual differences in DNA repair capacities in man. In: Mouse Liver Tumors (eds. Chambers, P.L.; Henschler, D. and Oesch, F.), *Arch. Toxicol., Suppl.* 10: 172-179, 1987.

284. Schladt, L.; Hartmann, R.; Timms, C.; Strolin-Benedetti, M.; Dostert, R.; Wörner, W. and Oesch, F.: Concomitant induction of cytosolic but not microsomal epoxide hydrolase with peroxisomal β -oxidation by various hypolipidemic compounds. *biochem. Pharmacol.* 36: 345-351, 1987.
285. Glatt, H.r.; Faigle, J.W. and Oesch, F.: Tricyclic drugs: potent mutagenicity of traces of a nitroarene formed in the reaction of opipramol with nitrite. *Mutat. Res.* 190: 7-11, 1987.
286. Oesch, F.: Mechanisms in chemical carcinogenesis: Enzymatic control of reactive metabolites. In: *Concepts and Theories in Carcinogenesis* (eds. Maskens, A.P.; Ebbesen, P. and burny, A.), Excerpta Medica, Amsterdam - New York - Oxford, pp. 53-63, 1987.
287. Janik-Schmitt, B.; Oesch, F. and Wieser, R.J.: Immobilized glycolipids from human diploid fibroblasts inhibit DNA synthesis of cultured human fibroblasts. *Exp. Cell Res.* 169: 15-24, 1987.
288. Turchi, G.; Glatt, H.R.; Doerjer, G. and Oesch, F.: A benzo[a]pyrene metabolite-DNA adduct occurring in the activating cell but not in exogenous DNA. *Mutat. Res.* 190: 31-34, 1987.
289. Utesch, D.; Glatt, H.R. and Oesch, F.: Rat hepatocyte-mediated bacterial mutagenicity in relation to the carcinogenic potency of benzo[a]anthracene, benzo[a]pyrene, and twenty-five methylated derivatives. *Cancer Res.* 47: 1509-1515, 1987.
290. Glatt, H.r.; Eich, E.; Pertz, H.; Becker, C. and Oesch, F.: Mutagenicity experiments on agroclavines, new natural antineoplastic compounds. *Cancer Res.* 47: 1811-1814, 1987.
291. Pyerin, W.; Taniguchi, H.; Horn, F.; Oesch, f.; Amelizad, Z.; Friedberg, T. and Wolf, C.r.: Isoenzyme-specific phosphorylation of cytochromes P-450 and other drug metabolizing enzymes. *Biochim. Biophys. Res. Commun.* 142: 885-892, 1987.
292. Milbert, U.; Wörner, W.; Thomas, H. and Oesch, F.: The role of the glutathione transferases in detoxifying carcinogens: Further characterization of rat hepatic and renal glutathione transferases. In: *Glutathione S-Transferases and Carcinogenesis* (eds. mantle, T.J.; Pickett, C.B. and Hayes, J.d.), Taylor & Francis, London, pp. 139-148, 1987.
293. Hodgson, R.M.; Seidel, A.; Bochnitschek, W.; Glatt, H.R.; oesch, F. and Grover, P.L.: formation of glutathione conjugates from chrysene diol- and triol-epoxides: evidence for the further metabolism of the 'Bay-region' diol-epoxide of chrysene to a triol-epoxide. In: *Glutathione S-Transferases and Carcinogenesis* (eds. mantle, T.J.; Pickett, C.B. and Hayes, J.D.), Taylor & Francis, London, pp. 239-243, 1987.
294. Turchi, G.; Carluccio, M.A.; Oesch, f.; Gemperlein, I. and Glatt, H.R.: Characterization of an epithelial, nearly diploid liver cell strain, from Chinese hamster, able to activate promutagens. *Mutagenesis* 2: 127-135, 1987.
295. Tsuda, H.; Moore, M.A.; Asamoto, M.; Inoue, T.; Fukushima, S.; Ito, N.; Satoh, K.; Amelizad, Z. and Oesch, F.: Immunohistochemically demonstrated altered expression of cytochrome P-450 molecular forms and epoxide hydrolase in N-ethyl-N-hydroxyethylnitrosamine-induced rat kidney and liver lesions. *Carcinogenesis* 8: 711-717, 1987.
296. Oesch, F.: Significance of various enzymes in the control of reactive metabolites. *Arch. Toxicol.* 60: 174-178, 1987.

297. Oesch, F. and Schladt, L.: Coordinate induction of peroxisomal β -oxidation activity and cytosolic epoxide hydrolase activity. *Pharmac. Ther.* 33: 29-35, 1987.
298. Oesch, F.; Janik-Schmitt, B.; Ludewig, G.; Glatt, H. and Wieser, R.J.: Glutaraldehyde-fixed transformed and non-transformed cells induce contact-dependent inhibition of growth in non-transformed C3H/10T1/2 mouse fibroblasts, but not in 3-methylcholanthrene-transformed cells. *Eur. J. Cell Biol.* 43: 403-407, 1987.
299. Arand, M.; Robertson, L.W. and Oesch, F.: A fluorometric assay for quantitating phenol sulfotransferase activities in homogenates of cell tissues. *Anal. Biochem.* 163: 546-551, 1987.
300. Oesch, F. and Steinberg, P.: A comparative study of drug metabolizing enzymes present in isolated rat liver parenchymal, Kupffer and endothelial cells. *Biochem. Soc. Transact.* 15: 372-373, 1987.
301. Setiabudi, F.; Oesch, F. and Platt, K.L.: Radioactively labelled epoxides. Part V. Tritium labelled K-region oxides and trans-dihydrodiols of pyrene, benzo[a]pyrene and dibenz[a,h]anthracene. *J. Lab. Comp. Radiopharm.* XXIV: 979-986, 1987.
302. Amelizad, Z.; narbonne, J.F.; Borin, C.; Robertson, L.W.; Periquet, A. and Oesch, F.: Effect of unbalanced diets on incorporation of α -aminolevulinic acid into cytochrome P-450. *FEBS Lett.* 220: 231-235, 1987.
303. Buchmann, A.; Schwarz, M.; Schmitt, R.; Wolf, C.R.; Oesch, F. and Kunz, W.: Development of cytochrome P-450-altered preneoplastic and neoplastic lesions during nitrosamine-induced hepatocarcinogenesis in the rat. *Cancer Res.* 47: 2911-2918, 1987.
304. Azais, V.; Arand, M.; Rauch, P.; Schramm, H.; Bellenand, P.; Narbonne, J.-F.; Oesch, F.; Pascal, G. and Robertson, L.W.: A time-course investigation of vitamin A levels and drug metabolizing enzyme activities in rats following a single treatment with prototypic polychlorinated biphenyls and DDT. *Toxicology* 44: 341-354, 1987.
305. Wieser, R.J. and Oesch, F.: Plasma membrane glycoproteins covalently bound to silica beads as a model for molecular studies of cell-cell interactions in culture. *J. Biochem. Biophys. Methods.* 15: 13-22, 1987.
306. Lilienblum, W.; Platt, K.L.; Schirmer, G.; Oesch, F. and Bock, K.W.: Regioselectivity of rat liver microsomal UDP-glucuronosyltransferase activities toward phenols of benzo[a]pyrene and dibenz[a,h]anthracene. *Mol. Pharmacol.* 32: 173-177, 1987.
307. Faigle, J.W.; Blattner, H.; Glatt, H.R.; Kriemler, H.-P.; Mory, H.; Storni, A.; Winkler, T. and Oesch, F.: Structures and mutagenic properties of products obtained by C-nitrosation of opipramol. *Helv. Chim. Acta* 70: 1296-1301, 1987.
308. Glatt, H.R.; Seidel, A.; Ribeiro, O.; Kirkby, C.; Hirom, P. and Oesch, f.: Metabolic activation to a mutagen of 3-hydroxy-trans-7,8-dihydroxy-7,8-dihydrobenzo[a]pyrene, a secondary metabolite of benzo[a]pyrene. *Carcinogenesis* 8: 1621-1627, 1987.
309. Rauch, P.; Puettmann, M.; Oesch, F.; Okamoto, Y. and Robertson, L.W.: Differential induction of cytochrome P-450 by the enantiomers of trans-stilbene oxide. *Biochem. Pharmacol.* 36: 4355-4359, 1987.

310. Steinberg, P.; Lafranconi, W.M.; Wolf, C.R.; Waxman, D.J.; Oesch, F. and Friedberg, T.: Xenobiotic metabolizing enzymes are not restricted to parenchymal cells in rat liver. *Mol. Pharmacol.* 32: 463-470, 1987.
311. Friedberg, T. and Oesch, F.: Kontrollfaktoren der Tumorentstehung *Forschungsmagazin der Johannes Gutenberg-Universität Mainz*, April 1987: 27-32, 1987.
312. Glatt, H.R.; Gemperlein, I.; Turchi, G.; Heinritz, H.; Doehmer, J. and Oesch, F.: Search for cell culture systems with diverse xenobiotic-metabolising activities and their use in toxicological studies. *Mol. Toxicol.* 1: 313-334, 1987.
313. Wolf, C.R.; Meehan, R.; Burke, M.D.; Adams, J.; Oesch, F.; Friedberg, T.; Adesnik, M. and Hastie, N.: Molecular aspects of cytochrome P-450 monooxygenases: characterization of some constitutively expressed forms. In: *Drug metabolism from Molecules to Man* (eds. Benford, D.J.; Bridges, J.W. and Gibson, G.G.), Taylor & Francis, London, pp. 14-29, 1987.
314. Timms, C.; Schladt, L.; Robertson, L.; Rauch, P.; Schramm, H. and Oesch, F.: The regulation of rat liver epoxide hydrolases in relation to that of other drug-metabolizing enzymes. In: *Drug Metabolism from Molecules to Man* (eds. Benford, D.J.; Bridges, J.W. and Gibson, G.G.), Taylor & Francis, London, pp. 55-69, 1987.
315. Steinberg, P.; Lafranconi, W.M.; Friedberg, T. and Oesch, F.: Xenobiotic biotransformation enzymes are present in rat liver Kupffer and endothelial cells. In: *Drug Metabolism from Molecules to Man* (eds. Benford, D.J.; Bridges, J.W. and Gibson, G.G.), Taylor & Francis, London, pp. 404-410, 1987.
316. Janik-Schmitt, B.; Oesch, F.; Ludewig, G. and Wieser, R.J.: Loss of contact-dependent inhibition of growth in chemically transformed fibroblasts. In: *Lectins and Glycoconjugates on Oncology* (eds. Gabius, H.J. and Nagel, G.A.), Springer-Verlag, Heidelberg, pp. 187-192, 1987.
317. Kunz, H.W.; Buchmann, A.; Schwarz, M.; Schmitt, R.; Kuhlmann, W.D.; Wolf, C.R. and Oesch, F.: Expression and inducibility of drug-metabolizing enzymes in preneoplastic lesions of rat liver during nitrosamine-induced hepatocarcinogenesis. *Arch. Toxicol.* 60: 198-203, 1987.
318. Oesch, f.; Glatt, H.R. and Utesch, D.: Metabolic perspectives on in vitro toxicity tests. *Xenobiotica* 18: 35-44, 1988.
319. Volk, B.; Amelizad, Z.; anagnostopoulos, J.; Knoth, R. and Oesch, F.: First evidence of cytochrome P-450 induction in the mouse brain by phenytoin. *Neurosci. Lett.* 84: 219-224, 1988.
320. Doerjer, G.; Buchholz, U.; Kreuzer, K. and Oesch, f.: Biomonitoring of DNA damage by alkaline filter elution. *Int. Arch. Occup. Environ. Health* 60: 169-174, 1988.
321. Platt, K.L. and Oesch, F.: Metabolic pathways of dibenz[a,h]anthracene and their enzymatic control in relation to bacterial mutagenicity. In: *Reviews in Biochemical Toxicology*, Vol. 9 (eds. Hodgson, E.; Bend, J.R. and Philpot, R.M.), Elsevier Science Publishing, pp. 185-224, 1988.
322. Wieser, R.J. and Oesch, f.: Contact-dependent regulation of growth of diploid human fibroblasts is dependent upon the presence of terminal galactose residues on plasma membrane glycoproteins. *Exp. Cell Res.* 176: 80-86, 1988.
323. Heidmann, M.; Fonrobert, P.; Przybylski, M.; Platt, K.L.; Seidel, A. and Oesch, F.: Conjugation reactions of polyaromatic quinones to mono- and bis-glutathionyl adducts: direct

analysis by fast atom bombardment mass spectrometry. *Biomed. Environm. Mass spectrometry* 15: 329-332, 1988.

324. Oesch, F.; Schaefer, A. and Wieser, R.: 12-O-Tetradecanoylphorbol-13-acetate releases human diploid fibroblasts from contact-dependent inhibition of growth. *Carcinogenesis* 9: 1319-1322, 1988.

325. Tsuda, H.; Moore, M.A.; Asamoto, M.; Inoue, T.; Ito, N.; Satoh, K.; Ichihara, A.; Nakamura, T.; Amelizad, Z. and Oesch, F.: Effect of modifying agents on the phenotypic expression of cytochrome P-450, glutathione S-transferase molecular forms, microsomal epoxide hydrolase, glucose-6-phosphate dehydrogenase and α -glutamyltranspeptidase in rat liver preneoplastic lesions. *Carcinogenesis* 9: 547-554, 1988.

326. Steinberg, P.; Seibert, B. and Oesch, F.: Separation and biochemical characterization of rat liver parenchymal cell subpopulations. In: *Experimental Hepatocarcinogenesis* (eds. Roberfroid, M.B. and Preat, V.), Plenum Publishing corporation, New York, pp. 257-265, 1988.

327. Platt, K.L.; Petrovic, P.; Seidel, A.; Beermann, D. and Oesch, F.: Microsomal metabolism of picene. *Chem.-Biol. Interact.* 66: 157-175, 1988.

328. Oesch, F.; Hartmann, R.; Timms, C.; Strolin-Benedetti, M.; Dostert, P.; Woerner, W. and Schladt, L.: Time-dependence and differential induction of rat and guinea pig peroxisomal β -oxidation, palmitoyl-CoA hydrolase, cytosolic and microsomal epoxide hydrolase after treatment with hypolipidemic drugs. *J. Cancer Res. Clin. Oncol.* 114: 341-346, 1988.

329. Doehmer, J.; Dogra, S.; Friedberg, T.; Monier, S.; Adesnik, M.; Glatt, H.R. and Oesch, F.: Stable expression of rat cytochrome P-450IIB1 cDNA in Chinese hamster cells (V79) and the metabolic activation of aflatoxin B1. *Proc. natl. Acad. Sci. USA* 85: 5769-5773, 1988.

330. Amelizad, Z.; Appel, K.E.; Oesch, f. and Hildebrandt, A.G.: Effect of antibodies of cytochrome P-450 on demethylation and denitrosation of N-nitrosodimethylamine and N-nitrosomethylaniline. *J. Cancer Res. Clin. Oncol.* 114: 380-384, 1988.

331. Steinberg, P.; Schladt, L.; Dienes, H.P.; Timms, C. and Oesch, F.: Microsomal and cytosolic epoxide hydrolases, the peroxisomal fatty acid β -oxidation system and catalase: Activities, distribution and induction in rat liver parenchymal and non-parenchymal cells. *Eur. J. Biochem.* 176: 39-45, 1988.

332. Amelizad, Z.; Narbonne, J.F.; Wolf, C.R.; Robertson, L.W. and Oesch, f.: Effect of nutritional imbalances on cytochrome P-450 isozymes in rat liver. *Biochem. Pharmacol.* 37: 3245-3249, 1988.

333. Schladt, L.; Hartmann, R.; Woerner, W.; Thomas, H. and Oesch, F.: Purification and characterization of rat-liver cytosolic epoxide hydrolase. *Eur. J. Biochem.* 176: 31-37, 1988.

334. Schladt, L.; Thomas, H.; Hartmann, R. and Oesch, F.: Human liver cytosolic epoxide hydrolases. *Eur. J. Biochem.* 176: 715-723, 1988.

335. Oesch, F.; Schladt, L.; Steinberg, P. and Thomas, H.: Concomitant induction of cytosolic epoxide hydrolase and peroxisomal β -oxidation by hypolipidemic compounds in rat and guinea pig liver. *Arch. Toxicol. Suppl.* 12: 248-255, 1988.

336. Romero, F.J.; Gath, I.; Thomas, H.; Milbert, U. and Oesch, F.: Purification and characterization of acidic glutathione S-transferases (EC 2.5.1.18) from rat kidney. *Arch. Toxicol.* Suppl. 12: 366-369, 1988.
337. Oesch, F.: Antimutagenesis by shift in monooxygenase isoenzymes and induction of microsomal epoxide hydrolase. *Mutat. Res.* 202: 335-342, 1988.
338. Setiabudi, F.; Oesch, F. and Platt, K.L.: Radioactively labelled epoxides. Part VI. Tritium-labelled mono- and dimethyl substituted phenyl oxiranes (styrene oxides). *J. Lab. Comp. Radiopharmac.* 25: 1209-1217, 1988.
339. Bartlomowicz, B.; Amelizad, Z.; Wolf, C.r.; Friedberg, T.; Utesch, d. and Oesch, F.: Studies on the phosphorylation of drug metabolizing enzymes. In: *Toxicological and Immunological Aspects of Drug Metabolism and Environmental Chemicals* (eds. Estabrook, R.; Lindenlaub, E.; Oesch, F. and de Weck, A.L.), Schattauer Verlag, Stuttgart-New York, pp. 155-163, 1988.
340. Amelizad, Z.; Manns, M.; Kyrietsoulis, A.; Gerken, G.; Lohse, A.; Reske, K.; Meyer zum Bueschenfelde, K.H. and Oesch, F.: Cytochrome P-450 as target antigens of LKM antibodies. In: *Toxicological and Immunological Aspects of Drug Metabolism and Environmental Chemicals* (eds. Estabrook, R.; Lindenlaub, E.; Oesch, F. and de Weck, A.L.), Schattauer Verlag, Stuttgart-New York, pp. 379-387, 1988.
341. Thomas, H. and Oesch, F.: Functions of epoxide hydrolases. *ISI Atlas of Science: Biochemistry* 1: 287-291, 1988.
342. Wieser, R.J.; Janik-Schmitt, B.; Renauer, D.; Schaefer, A.; Heck, R. and Oesch, F.: Contact dependent inhibition of growth of normal diploid human fibroblasts by plasma membrane glycoprotein. *Biochimie* 70: 1661-1671, 1988.
343. Jagadeesan, V. and Oesch, F.: Effect of dietary zinc deficiency on the activity of enzymes associated with phase I and II of drug metabolism in Fisher-344 rats: Activities of drug metabolising enzymes in zinc deficiency. *Drug Nutrient Interactions* 5: 403-413, 1988.
344. Pacifici, G.H.; Temellini, A.; Giuliani, L.; Rane, A.; Thomas, H. and Oesch, F.: Cytosolic epoxide hydrolase in humans: development and tissue distribution. *Arch. Toxicol.* 62: 254-257, 1988.
345. Glatt, H.R.; Hirom, P.C.; Kirkby, C.A.; Ribeiro, O.; Seidel, A. and Oesch, f.: Complex metabolic activation pathways of polycyclic aromatic hydrocarbons: 3-hydroxy-trans-7,8-dihydroxy-7,8-dihydrobenzo[a]pyrene as a proximate mutagen of 3-hydroxybenzo[a]pyrene. In: *Chemical Carcinogenesis* (eds. Feo, F.; Pani, P.; Columbano, A. and Garcea, R.), Plenum Publishing Corporation, pp. 37-44, 1988.
346. Dogra, S.; Filser, J.G.; Cojocel, C.; Greim, H.; Regel, U.; Oesch, F. and Robertson, L.W.: Long-term effects of commercial and congeneric polychlorinated biphenyls on ethane production and malondialdehyde levels, indicators of in vivo lipid peroxidation. *Arch. Toxicol.* 62: 369-374, 1988.
347. Manns, M.; Kyriatsoulis, A.; Amelizad, Z.; Gerken, G.; Lohse, A.; Reske, K.; Meyer zum Bueschenfelde, K.-H. and Oesch, F.: Relationship between the target antigen of liver-kidney microsomal (LKM) autoantibodies and rat isoenzymes of cytochrome P-450. *J. Clin. Lab. Anal.* 2: 245-248, 1988.

348. Tsuda, H.; Uwagawa, S.; Aoki, T.; Fukushima, S.; Imaida, K.; Ito, N.; Sato, K.; Nakamura, T. and Oesch, F.: analysis of the effects of modifying agents on six different phenotypes in preneoplastic foci in the liver in medium-term bioassay model in rats. In: Chemical Carcinogenesis. Models and Mechanisms (eds. Feo, F.; Pani, P.; Columbano, A. and Garcea, R.), Plenum Press, New York, pp. 399-405, 1988.
349. Magdalou, J.; Totis, M.; Boiteux-Antoine, A.-F.; Fournel-Gigleux, S.; Siest, G.; Schladt, L. and Oesch, f.: Effect of 1-benzylimidazole on cytochromes P-450 induction and on the activities of epoxide hydrolases and UDP-glucuronosyltransferases in rat liver. *Biochem. Pharmacol.* 37: 3297-3304, 1988.
350. Oesch, F.; Lafranconi, W.M.; Arand, M. and Steinberg, P.: Rat liver cell type specific patterns of drug metabolizing enzymes and consequences for the control of genotoxic metabolites. In: Microsomes and Drug Oxidations (eds. Miners, J.O.; Birkett, D.J.; Drew, R.; May, B.K. and McManus, M.E.), Taylor & Francis London, pp. 346-353, 1988.
351. Renauer, D.; Oesch, F.; Heck, R. and Wieser, R.: Identification of plasma membrane glycoproteins involved in the contact-dependent inhibition of growth of diploid human fibroblasts. *Exp. Cell Res.* 180: 504-514, 1989.
352. Bartlomowicz, B.; Waxman, D.J.; Utesch, D.; Oesch, F. and Friedberg, T.: Phosphorylation of carcinogen metabolizing enzymes: regulation of the phosphorylation status of the major phenobarbital inducible cytochromes P-450 in hepatocytes. *Carcinogenesis* 10: 225-228, 1989.
353. Oesch, F. and Klein, J.: Multiple dihydrodiol dehydrogenases and their differential toxicological significance. In: Xenobiotic Metabolism and disposition (eds. kato, R.; Estabrook, R.W. and Cayen, M.N.), Taylor & Francis, London, pp. 97-105, 1989.
354. Oesch, F.; Schladt, L.; Glatt, H.R. and Thomas, H.: Metabolism of chemical carcinogens. In: Liver Cell Carcinoma (eds. Bannasch, P.; Keppler, D. and Weber, G.), Kluwer Academic Publishers, London, pp. 243-250 , 1989.
355. Oesch, F.; Waxman, D.J.; Morrissey, J.J.; Honscha, W.; Kissel, W. and Friedberg, T.: Antibodies targeted against hypervariable and constant regions of cytochrome P450IIB1 and P450IIB2. *Arch. biochem. Biophys.* 270: 23-32, 1989.
356. Bartlomowicz, B.; Friedberg, T.; Utesch, D.; Molitor, E.; Platt, K.L. and Oesch, F.: Region- and stereoselective regulation of monooxygenase activities by isoenzyme-selective phosphorylation of cytochrome P450. *Biochem. Biophys. Res. Commun.* 160: 46-52, 1989.
357. Seibert, B.; Oesch, F. and Steinberg, P.: Distribution and induction of cytochrome P-450 and two cytochrome P-450-dependent monooxygenase activities in rat liver parenchymal cell subpopulations separated by centrifugal elutriation. *Arch. toxicol.* 63: 18-22, 1989.
358. Grolier, P.; Cassand, P.; Antignac, E.; Narbonne, J.F.; Albrecht, R.; Azais, V.; Robertson, L.W. and Oesch, F.: Effects of prototypic PCBs on benzo[a]pyrene mutagenic activity related to vitamin A intake. *Mutat. Res.* 211: 139-145, 1989.
359. Doehmer, J.; Glatt, H.R.; Platt, K.L. and Oesch, F.: Gentechnologisch veränderte V79-Zellen für toxikologische Untersuchungen. *GUM* 1: 2-9, 1989.

360. Doehmer, J.; Dogra, S.; Friedberg, T.; Molitor, E.; Platt, K.L.; Glatt, H.R.; Monier, S.; Adesnik, M. and Oesch, F.: Stable expression of P450IIB1 cDNA in V79 cells In: Cytochrome P-450: biochemistry and biophysics (ed. Schuster, I.), Taylor & Francis, London, pp. 556-559, 1989.
361. Edigkauf, M.; Dogra, S.; Oesch, F. and Doehmer, J.: BPV-DNA as eucaryotic vector for cytochrome P450IIB1 cDNA. In: Cytochrome P-450: Biochemistry and Biophysics (ed. Schuster, I.), Taylor & Francis, London, pp. 560-563, 1989.
362. Amelizad, Z.; Appel, K.; Balabaud, C.; Schoepke, M. and Oesch, F.: Inducible form cytochrome P450 identified in human liver microsomes and metabolism of N-nitrosodimethylamine. In: Cytochrome P-450: biochemistry and Biophysics (ed. Schuster, I.), Taylor & Francis, London, pp. 612-615, 1989.
363. Waxman, J.D.; Lapenson, D.P.; Morrissey, J.J.; Park, S.S.; Gelboin, H.V.; Doehmer, J. and Oesch, F.: androgen hydroxylation catalyzed by a cell line (SD1) that stably expresses rat hepatic P-450 PB-4 (IIB1). *Biochem. J.* 260: 81-85, 1989.
364. Thomas, H.; Schladt, L.; Knehr, M.; Post, K.; Oesch, F.; Boiteux-Antoine, A.-F.; Fournel-Gigleux, S.; Magdalou, J. and Siest, G.: Effect of hypolipidemic compounds on lauric acid hydroxylation and phase II enzymes. *Biochem. Pharmacol.* 38: 1963-1969, 1989.
365. Jagadeesan, V. and Oesch, F.: Effect of nutrient stress on various phase I and phase II drug metabolizing enzymes of Sprague Dawley and fischer-344 rats. *Nutrition Reports International* 39: 177-183, 1989.
366. Pacifici, G.M.; Temellini, A.; Giuliani, L.; Rane, A.; Thomas, H. and Oesch, F.: Valpromide is a poor inhibitor of the cytosolic epoxide hydrolase. *Arch. Toxicol.* 63: 157-159, 1989.
367. Platt, K.L.; Molitor, E.; Doehmer, J.; Dogra, S. and Oesch, F.: Genetically engineered V79 Chinese hamster cell expression of purified cytochrome P-450IIB1 monooxygenase activity. *J. Biochem. Toxicol.* 4: 1-6, 1989.
368. Schramm, H.; Friedberg, T.; Robertson, L.W.; Oesch, F. and Kissel, W.: Perfluorodecanoic acid decreases the enzyme activity and the amount of glutathione S-transferases proteins and mRNAs in vivo. *Chem.-Biol. Interact.* 70: 127-143, 1989.
369. Amelizad, S.; Appel, K.E.; Schoepke, M.; Ruehl, C.S. and Oesch, F.: Enhanced demethylation and denitrosation of N-nitrosodimethylamine by human liver microsomes from alcoholics. *Cancer Lett.* 46: 43-49, 1989.
370. Kubiczak, G.A.; Oesch, F.; Borlakoglu, J.T.; Kunz, H. and Robertson, L.W.: A unique approach to the synthesis of 2,3,4,5-substituted polybrominated biphenyls: quantitation in fireMaster FF-1 and fireMaster BP-6. *J. Agr. Food Chem.* 37: 1160-1164, 1989.
371. Glatt, H.R.; Padykdula, R.; Berchthold, G.A.; Ludewig, G.; Platt, K.L.; Klein, J. and Oesch, F.: Multiple activation pathways of benzene leading to products with varying genotoxic characteristics. *Environm. Hlth. Perspect.* 82: 81-89, 1989.
372. Fuchs, J. and Oesch, F.: Fortschritte in der Erkennung einer potentiellen Krebsgefährdung von Arbeitnehmern durch ihre berufliche Umgebung. *Ergo-Med.* 13: 107-111, 1989.
373. Steinberg, P.; Schramm, H.; Schladt, L.; Robertson, L.W.; Thomas, H. and Oesch, F.: The distribution, induction and isoenzyme profile of glutathione S-transferase and glutathione

peroxidase in isolated rat liver parenchymal, Kupffer and endothelial cells. Biochem. J. 264: 737-744, 1989.

374. Platt, K.L.; Frank, H. and Oesch, f.: Synthesis of the non-K-region arene oxides and tetrahydro epoxides of dibenz[a,h]anthracene. J. Chem. Soc. Perkin Trans. I: 2229-2233, 1989.

375. Thomas, H.; Schladt, L.; Knehr, M. and Oesch, F.: Effect of diabetes and starvation on the activity of rat liver epoxide hydrolases, glutathione S-transferases and peroxisomal β -oxidation. Biochem. Pharmacol. 38: 4291-4297, 1989.

376. Oesch, F. and Wolf, R.: Properties of the microsomal and cytosolic glutathione transferases involved in hexachloro-1:3-butadiene conjugation. Biochem. Pharmacol. 38: 353-359, 1989.

377. Oesch, F. and Arand, M.: Molecular aspects of carcinogenesis. Part B. J. Cancer Res. Clin. Oncol. 115: 606-607, 1989.

378. Knepper, T.; Lenhardt, S.; Przybylski, M.; Bosk, C.; Platt, K.L.; Seidel, A. and Oesch, F.: Identification and structural characterization of mono- and bis-glutathionyl conjugates from polycyclic aromatic quinone metabolites. In: Advances in Mass spectrometry, Vol. 11B (ed. Longevialle, P.), Heyden & Son, pp. 1398-1399, 1989.

379. Schlemper, B.; Utesch, D.; Molitor, E.; Platt, K.L.; Oesch, F. and Steinberg, P.: Activation of several carcinogenic compounds to mutagenic metabolites by isolated rat liver Kupffer and endothelial cells. In: Cells of the Hepatic Sinusoid, Vol. 2 (eds. Wisse, E.; Knook, D.L. and Decker, K.), Kupffer Cell Foundation, Rijswijk, pp. 380-385, 1989.

380a. Friedberg, T.; Timms, C.; Kissel, W. and Oesch, F.: Evidence for several hepatic proteins related to microsomal epoxide hydrolase. In: Biological Monitoring of Exposure and the Response at the Subcellular Level to Toxic Substances (eds. Chambers, P.L.; Chambers, C.M. and Greim, H.), Springer Verlag, Heidelberg, pp. 145-152, 1989.

380b. Friedberg, T.; Timms, C.; Kissel, W. and Oesch, f.: Evidence for several hepatic proteins related to microsomal epoxide hydrolase. Arch. Toxicol. Suppl. 13: 145-152, 1989.

381a. Doehmer, J.; Dogra, S.; Edigkaufer, M.; Molitor, E.; Siegert, P.; Friedberg, T.; Glatt, H.R.; Platt, K.; Seidel, A.; Thomas, H. and Oesch, f.: Introduction of cytochrome P-450 genes into V79 Chinese hamster cells to generate new mutagenicity test system. In: Biological Monitoring of Exposure and the Response at the Subcellular Level to Toxic Substances (eds. Chambers, P.L.; Chambers, C.M. and Greim, H.), Springer Verlag, Heidelberg, pp. 164-168, 1989.

381b. Doehmer, J.; Dogra, S.; Edigkaufer, M.; Molitor, E.; Siegert, P.; Friedberg, T.; Glatt, H.R.; Platt, K.; Seidel, A.; Thomas, H. and Oesch, F.: Introduction of cytochrome P-450 genes into V79 Chinese hamster cells to generate new mutagenicity test system. Arch. Toxicol. Suppl. 13: 164-168, 1989.

382. Doehmer, J. and Oesch, F.: Anwendung gentechnologischer Verfahren zur Lösung medizinischer und toxikologischer Probleme. In: Forschungsmagazin der Johannes Gutenberg-Universität, Mainz, April 1989.

383. Puettmann, M.; Arand, M.; Oesch, F.; Mannschreck, A. and Robertson, L.W.: Chirality and the induction of xenobiotic-metabolizing enzymes: effects of the atropisomers of the polychlorinated biphenyl 2,2',3,4,4',6-hexachlorobiphenyl. In: Chirality and Biological Activity (eds. Holmstedt, B.; Frank, H. and Testa, B.), Alan R. Liss, New York, pp. 177-184, 1990.

384. Seidel, A.; Glatt, H.R.; Oesch, F. and Garrigues, P.: 2,9-Dimethylpicene: Synthesis, mutagenic activity, and identification in natural samples. *Polycyclic Aromatic Comp.* 1: 3-14, 1990.
385. Glatt, H.R.; Utesch, D.; Herbst, M. and Oesch, F.: Mutagenicity experiments on L-cysteine and D-penicillamine using V79 cells as indicators and for metabolic activation. *Mutat. Res.* 243: 187-193, 1990.
386. Platt, K.L.; Schollmeier, M.; Frank, H. and Oesch, F.: Stereoselective metabolism of dibenz[a,h]anthracene to trans-dihydrodiols and their activation to bacterial mutagens. *Envir. Health Perspect.* 88: 37-41, 1990.
387. Glatt, H.R.; Henschler, R.; Philipps, D.H.; Blake, J.W.; Steinberg, P.; Seidel, A. and Oesch, F.: Sulfotransferase-mediated chlorination of 1-hydroxymethylpyrene to a mutagen capable of penetrating indicator cells. *Envir. Health Perspect.* 88: 43-48, 1990.
388. Schaefer, A.; Wieser, R.J.; Romero, F. and Oesch, F.: Reduction of glutathione content by 12-O-tetradecanoylphorbol-13-acetate in confluent, but not in sparse cultures of human diploid fibroblasts. *Carcinogenesis* 11: 697-699, 1990.
389. Gabbert, H.E.; Gerharz, C.-D.; Ramp, U.; Hoffmann, J.; Oster, O.; Oesch, F. and Doehmer, J.: Enhanced expression of the proto-oncogenes fos and raf in the rhabdomyosarcoma cell line BA-HAN-1C after differentiation induction with retinoic acid and N-methylformamide. *Int. J. Cancer* 45: 724-730, 1990.
390. Chen, L.-C.; Borges, T.; Glauert, H.P.; Knight, S.A.B.; Sunde, R.A.; Schramm, H.; Oesch, F.; Chow, K.C. and Robertson, L.W.: Modulation of selenium-dependent glutathione peroxidase by perfluorodecanoic acid in rats: effect of dietary selenium. *J. Nutr.* 120: 298-304, 1990.
391. Dogra, S.; Doehmer, J.; Glatt, H.R.; Moelders, H.; Siegert, P.; Friedberg, T.; Seidel, A. and Oesch, F.: Stable expression of rat cytochrome P-450IA1 cDNA in V79 Chinese hamster cells and their use in mutagenicity testing. *Mol. Pharmacol.* 37: 608-613, 1990.
392. Friedberg, T.; Grassow, M.A. and Oesch, F.: Selective detection of mRNA forms encoding the major phenobarbital inducible cytochromes P450 and other members of the P450IIB family by the RNase A protection assay. *Arch. Biochem. Biophys.* 279: 167-173, 1990.
393. Narbonne, J.-F.; Grolier, P.; Albrecht, R.; Azais, V.; Oesch, F. and Robertson, L.W.: A time course investigation of vitamin A level and lipid composition of the liver endoplasmic reticulum in rats following treatment with congeneric polychlorobiphenyls. *Toxicology* 60: 253-261, 1990.
394. Oesch, F.; Doehmer, J.; Friedberg, T.; Glatt, H.R.; Oesch-Bartlomowicz, B.; Platt, K.L.; Steinberg, P.; Utesch, D. and Thomas, H.: Toxicological implications of enzymatic control of reactive metabolites. *Hum. Exp. Toxicol.* 9: 171-177, 1990.
395. Oesch, F. and Thomas, H.: Metabolism of chemical carcinogens. In: *Biochemistry of Chemical Carcinogenesis* (eds. Garner, R.C. and Hradec, J.), Plenum Press, New York, pp. 13-24, 1990.
396. Thomas, H.; Schladt, L.; Doehmer, J.; Knehr, M. and Oesch, F.: Rat and human liver cytosolic epoxide hydrolases: evidence for multiple forms on the level of protein and mRNA. *Envir. Health Perspect.* 88: 49-55, 1990.

397. Gauss, C.; Klein, J.; Post, K.; Suckau, D.; Schneider, K.; Thomas, H.; Oesch, F. and Przybylski, M.: Mass spectrometric peptide mapping analysis and structural characterization of dihydrodiol dehydrogenase isoenzymes. *Envir. Health Perspect.* 88: 57-62, 1990.
398. Doehmer, J.; Seidel, A.; Oesch, F. and Glatt, H.R.: Genetically engineered V79 Chinese hamster cells metabolically activate the cytostatic drugs cyclophosphamide and ifosfamide. *Envir. Health Perspect.* 88: 63-65, 1990.
399. Oesch-Bartlomowicz, B. and Oesch, F.: Phosphorylation of cytochrome P450 isoenzymes in intact hepatocytes and its importance for their function in metabolic processes. *Arch. Toxicol.* 64: 257-261, 1990.
400. Glatt, H.R.; Gemperlein, I.; Setiabudi, F.; Platt, K.L. and Oesch, F.: Expression of xenobiotic-metabolizing enzymes in propagatable cell cultures and induction of micronuclei by 13 compounds. *Mutagenesis* 5: 241-249, 1990.
401. Masento, M.S.; Taylor, G.W.; Watson, D.; Seidel, A.; Bochnitschek, W.; Oesch, F. and Grover, P.L.: Metabolism of 3-hydroxychrysene by rat liver microsomal preparations. *Chem.-Biol. Interactions* 74: 163-178, 1990.
402. Oesch-Bartlomowicz, B.; Vogel, S.; Arens, H.-J. and Oesch, F.: Modulation of the control of mutagenic metabolites derived from cyclophosphamide and ifosfamide by stimulation of protein kinase A. *Mutat. Res.* 232: 305-312, 1990.
403. Platt, K.L.; Pfeiffer, E.; Petrovic, P.; Friesel, H.; Beermann, D.; Hecker, E. and Oesch, F.: Comparative tumorigenicity of picene and dibenz[a,h]anthracene in the mouse. *Carcinogenesis* 10: 1721-1726, 1990.
404. Klein, S. and Oesch, F.: A new assay for O6-alkylguanine-DNA-alkyltransferase to determine DNA repair capacities using Lambda-phage-DNA as substrate. *Carcinogenesis* 10: 1771-1774, 1990.
405. Klein, J.; Post, K.; Thomas, H.; Woerner, W.; Setiabudi, F.; Frank, H.; Oesch, f. and Platt, K.L.: The oxidation of the highly tumorigenic benz[a]anthracene 3,4-dihydrodiol by rat liver dihydrodiol dehydrogenase. *Chem.-Biol. Interactions* 76: 211-226, 1990.
406. Friedberg, T.; Siegert, P.; Grassow, M.A.; Bartlomowicz, B. and Oesch, F.: Studies of the expression of the cytochrome P450IA, P450IIB, and P450IIC gene family in extrahepatic and hepatic tissues. *Environ. Health Perspect.* 88: 67-70, 1990.
407. Steinberg, P.; Schlemper, B.; Molitor, E.; Platt, K.L.; Seidel, A. and Oesch, F.: Rat liver endothelial and Kupffer cell-mediated mutagenicity of polycyclic aromatic hydrocarbons and Aflatoxin B1. *Environ. Health Perspect.* 88: 71-76, 1990.
408. Wieser, R.J.; Renauer, D.; Schaefer, A.; Heck, R.; Engel, R.; Schuetz, S. and Oesch, f.: Growth control in mammalian cells by cell-cell contacts. *Environ. Health Perspect.* 88: 251-253, 1990.
409. Wieser, R.J.; Schuetz, S.; Tschanck, G.; Thomas, H.; Dienes, H.-P. and Oesch, F.: Isolation and characterization of a 60-70-kD plasma membrane glycoprotein involved in the contact-dependent inhibition of growth. *J. Cell Biol.* 111: 2681-2692, 1990.

410. Hradec, J.; Seidel, A.; Platt, K.L.; Glatt, H.R.; Oesch, F. and Koblyakov, V.: The initiator tRNA acceptance assay as a short-term test for carcinogens. 6. Results with 78 polycyclic aromatic compounds. *Carcinogenesis* 11: 1921-1926, 1990.
411. Oesch, F.; Doehmer, J.; Friedberg, T.; Glatt, H.R.; Oesch-Bartlomowicz, B.; Platt, K.-L.; Steinberg, P.; Utesch, D. and Thomas, H.: Control of ultimate mutagenic species by diverse enzymes. In: *Mutation and the Environment, Part B: Metabolism, Testing Methods and Chromosomes* (eds. Mendelsohn, M.L. and Albertini, R.J.), Wiley-Liss, New York, pp. 49-65, 1990.
412. Oesch, F.; Gath, I.; Igarashi, T.; Glatt, H.R.; Oesch-Bartlomowicz, B. and Thomas, H.: Role of the well-known basic and recently discovered acidic glutathione S-transferases in the control of genotoxic metabolites. In: *Molecular and Cellular Effects and Their Impact on Human Health* (eds. Sipes, G.; Snyder, R. and Witmer, C.), Plenum Publishing Company, New York, pp. 25-39, 1990.
413. Thomas, H.; Timms, C.W. and Oesch, F.: Epoxide hydrolases: molecular properties, induction, polymorphisms and function. In: *Frontiers of Biotransformation, Vol.2* (eds. Ruckpaul, K. and Rein, H.), Akademie-Verlag, Berlin, pp. 278-337, 1990.
414. Gerharz, C.D.; Doehmer, J.; Mayer, H.; Oesch, F. and Gabbert, H.: Morphological, biochemical, and molecular biological characterization of a rat rhabdomyosarcoma cell line during differentiation induction in vitro. *Environm. Hlth. Perspect.* 88: 187-191, 1990.
415. Müller, G.; Oesch, F. and Wieser, R.J.: Identification of the receptor for contactinhibin. In: *Protein glycosylation: Cellular, Biotechnological and Analytical Aspects* (ed. Conradt, H.s.), GBF Monographs, Vol. 15, VCH, pp. 69-72, 1990.
416. Schütz, S.; Oesch, f. and Wieser, R.J.: Biosynthesis of contactinhibin a plasmamembrane glycoprotein involved in contact-dependent inhibition of growth. In: *Protein Glycosylation: Cellular, Biotechnological and analytical Aspects* (ed. Conradt, H.S.), Vol. 15, VCH, pp. 73-76, 1990.
417. Bolt, H.M.; Greim, H.; Marquardt, H.; Neumann, H.G.; Oesch, F. and Ohnesorge, F.K.: Zur Toxizität von Zahnfüllungen aus Amalgam. *Medizinische Klinik* 85: 350-352, 1990.
418. Ludewig, G.; Dogra, S.; Seidel, A.; Setiabudi, F.; Oesch, F. and Glatt, H.R.: Quinones derived from polycyclic aromatic hydrocarbons: induction of diverse mutagenic and genotoxic effects in mammalian cells. In: *Polynuclear Aromatic Hydrocarbons* (eds. Cooke, M.; Loening, K. and Merritt, J.), Battelle Press, Columbus (Ohio), pp. 545-556, 1991.
419. Arand, M.; Coughtrie, M.W.H.; Burchell, B.; Oesch, F. and Robertson, L.W.: Selective induction of bilirubin UDP-glucuronosyltransferase by perfluorodecanoic acid. *Chem.-Biol. Interact.* 77: 97-105, 1991.
420. Glatt, H.R.; Seidel, A.; Schrode, R.; Ribeiro, O.; Kirkby, C.A.; Hirom, P.C. and Oesch, F.: 3-Hydroxybenzo[a]pyrene-7,8-dihydrodiol compared with benzo[a]pyrene-7,8-dihydrodiol and 3-hydroxybenzo[a]pyrene with regard to mutagenicity. In: *Polynuclear Aromatic Hydrocarbons* (eds. Cooke, M.; Loening, K. and Merritt, J.), Battelle Press, Columbus (Ohio), pp. 357-368, 1991.
421. Seidel, A.; Bochnitschek, W.; Glatt, H.R.; Hodgson, R.M.; Grover, P.L. and Oesch, F.: Activated metabolites of chrysene: Synthesis of 9-hydroxychrysene-1,2-diol and the corresponding bay-region syn- and anti-triol-epoxides. In: *Polynuclear Aromatic Hydrocarbons* (eds. Cooke, M.; Loening, K. and Merritt, J.), Battelle Press, Columbus (Ohio), pp. 801-818, 1991.

422. Glatt, H.R.; Pi  e, A.; Pauly, K.; Steinbrecher, T.; Schrode, R.; Oesch, F. and Seidel, A.: Fjord- and bay-region diol-epoxides investigated for stability, SOS induction in *Escherichia coli*, and mutagenicity in *Salmonella typhimurium* and mammalian cells. *Cancer Res.* 51: 1659-1667, 1991.
423. Steinberg, P.; Hacker, H.J.; Dienes, H.P.; Oesch, F. and Bannasch, P.: Enzyme histochemical and immunohistochemical characterization of oval and parenchymal cells proliferating in livers of rats fed a choline-deficient/DL-ethionine-supplemented diet. *Carcinogenesis* 12: 225-231, 1991.
424. Honscha, W.; Oesch, F. and Friedberg, T.: Tissue-specific expression and differential inducibility of several microsomal epoxide hydrolase mRNAs which are formed by alternative splicing. *Arch. Biochem. Biophys.* 287: 380-385, 1991.
425. Oesch, F.; Schladt, L.; Knehr, M.; Doehmer, J. and Thomas, H.: Epoxide hydrolase isoenzymes and their individual contribution to the control of toxic metabolites. In: NATO ASI Live Sciences Series: Molecular Aspects of Monooxygenases and Bioactivation of Toxic Compounds (eds. Arinc, E.; Schenkman, J.B. and Hodgson, E.), Plenum Press, New York, pp. 435-445, 1991.
426. Oesch, F.; Gath, I.; Igarashi, T.; Glatt, H.R. and Thomas, H.: Role of the well-known basic and recently discovered acidic glutathione S-transferases in the control of genotoxic metabolites. In: NATO ASI Life Sciences Series: Molecular Aspects of Monooxygenases and Bioactivation of Toxic Compounds (eds. Arinc, E.; Schenkman, J.B. and Hodgson, E.), Plenum Press, New York, pp. 447-461, 1991.
427. Klein, J.; Seidel, A.; Frank, H.; Oesch, F. and Platt, K.L.: Regiospecific oxidation of polycyclic aromatic dihydrodiols by rat liver dihydrodiol dehydrogenase. *Chem.-Biol. Interactions* 79: 287-303, 1991.
428. Kr  mer, A.; Frank, H.; Setiabudi, F.; Oesch, F. and Glatt, H.R.: Influence of the level of cytosolic epoxide hydrolase on the induction of sister chromatid exchanges by trans- β -ethylstyrene 7,8-oxide in human lymphocytes. *Biochem. Pharmacol.* 42: 2147-2152, 1991.
429. Schlepper, B.; Harrison, J.; Garner, R.C.; Oesch, F. and Steinberg, P.: DNA binding, adduct characterisation and metabolic activation of aflatoxin B1 catalysed by isolated rat liver parenchymal, Kupffer and endothelial cells. *Arch Toxicol.* 65: 633-639, 1991.
430. Arand, M.; Knehr, M.; Thomas, H.; Zeller, H.D. and Oesch, F.: An impaired peroxisomal targeting sequence leading to an unusual bicompartimental distribution of cytosolic epoxide hydrolase. *FEBS Lett.* 294: 19-22, 1991.
431. Utesch, D.; Molitor, E.; Platt, K.L. and Oesch, F.: differential stabilization of cytochrome P-450 isoenzymes in primary cultures of adult rat liver parenchymal cells. In *Vitro Cell. Dev. Biol.* 27A: 858-863, 1991.
432. Doehmer, J. and Oesch, F.: V79 Chinese hamster cells genetically engineered for stable expression of cytochromes P450. In: Methods in Enzymology (eds. Waterman, M.R. and Johnson, E.F.), Academic Press, New York, Vol. 206, pp. 117-123, 1991.

433. Friedberg, T.; Kissel, W.; Arand, M. and Oesch, F.: Production of site-specific P450 antibodies using recombinant fusion proteins as antigens. In: *Methods in Enzymology* (eds. Waterman, M.R. and Johnson, E.F.), Academic Press, New York, Vol. 206, pp. 193-201, 1991.
434. Doehmer, J.; Barrenscheen, S.; Dogra, S.; Edigkaufer, M.; Glatt, H.R.; Oesch, F.; Platt, K.L.; Seidel, A. and Wölfel, C.: Die gentechnologische Konstruktion von V79 Chinesische Hamsterzellen zur stabilen Expression von Fremdstoff-metabolisierenden Enzymen. Alternativen zu Tierexperimenten 15: 52-65, 1991.
435. Lecoq, S.; Ni Shé, M.; Grover, P.L.; Platt, K.L.; Oesch, F. and Phillips, D.H.: The in vitro metabolic activation of dibenz[a,h]anthracene, catalyzed by rat liver microsomes and examined by 32P-postlabelling. *Cancer Lett.* 57: 261-269, 1991.
436. Volk, B.; Hettmannsperger, U.; Papp, T.; Amelizad, Z.; Oesch, F. and Knoth, R.: Mapping of phenytoin-inducible cytochrome P450 immunoreactivity in the mouse central nervous system. *Neuroscience* 42: 215-235, 1991.
437. Lecoq, S.; Ni She, M.; Hewer, A.; Grover, P.L.; Platt, K.L.; Oesch, F. and Phillips, D.H.: The metabolic activation of dibenz[a,h]anthracene in mouse skin examined by 32P-postlabelling: minor contribution of the 3,4-diol 1,2-oxides to DNA binding. *Carcinogenesis* 12: 1079-1083, 1991.
438. Oesch, F.; Arand, M.; Coughtrie, M.W.; Burchell, B. and Steinberg, P.: The distribution of UDP-glucuronosyltransferases in rat liver parenchymal and nonparenchymal cells. *Biochem. Pharmacol.* 43: 731-737, 1992.
439. Wieser, R.J. and Oesch, F.: Contact-inhibition of growth by complex carbohydrates. *Trends Glycosci. Glycotechn.* 4: 160-167, 1992.
440. Robbins, D.K.; Wedlund, P.J.; Elsberg, S.; Oesch, F. and Thomas, H.: Interaction of valproic acid and some analogues with microsomal epoxide hydrolase. *Biochem. Pharmacol.* 43: 775-783, 1992.
441. Oesch, F. and Klein, S.: Relevance of environmental alkylating agents to the repair protein O6-alkylguanine-DNA alkyltransferase: determination of individual and collective repair capacities of O6-methylguanine. *Cancer Res.* 52: 1801-1803, 1992.
442. Utensch, D. and Oesch, F.: Dependency of the in vitro stabilization of differentiated functions in liver parenchymal cells on the type of cell line used for co-culture. *In Vitro Cell. Dev. Biol.* 28A: 193-198, 1992.
443. Klein, J.; Thomas, H.; Post, K.; Wörner, W. and Oesch, F.: Dihydrodiol dehydrogenase activities of rabbit liver are associated with hydroxysteroid dehydrogenases and aldo-keto reductases. *Eur. J. Biochem.* 205: 1155-1162, 1992.
444. Wieser, R.J.; Engel, R.; Müller, G.; Schütz, S. and Oesch, F.: Wachstumsregulation durch Zell-Zellkontakte. *Forschungsmagazin der Johannes Gutenberg-Universität Mainz* 8: 63-74, 1992.
445. Jung, D.; Klein, S.; fuchs, J.; Engel-Jung, J.; Krämer, I.; Beyermann, P.; Oesch, F. and Konietzko, J.: Genmonitoring bei Zytostatika zubereitendem pharmazeutischem Personal. *Krankenhauspharmazie* 13: 101-104, 1992.

446. Steinberg, P. and Oesch, F.: Liver cell specific toxicity of xenobiotics. In: *Tissue specific toxicity: Biochemical Mechanisms* (eds. Dekant, W. and Neumann, H.G.), Academic Press, London, pp. 117-137, 1992.
447. Utesch, D.; Diener, B.; Molitor, E.; Oesch, F. and Platt, K.L.: Characterization of cryopreserved rat liver parenchymal cells by metabolism of diagnostic substrates and activities of related enzymes. *Biochem. Pharmacol.* 44: 309-315, 1992.
448. Jennings, G.S.; Oesch, F. and Steinberg, P.: In vivo formation of aflatoxin B1-DNA adducts in parenchymal and non-parenchymal cells of rat liver. *Carcinogenesis* 13: 831-835, 1992.
449. Klein, J.; Post, K.; Seidel, A.; Frank, H.; Oesch, F. and Platt, K.L.: Quinone reduction and redox cycling catalyzed by purified rat liver dihydrodiol/3 α -hydroxysteroid dehydrogenase. *Biochem. Pharmacol.* 44: 341-349, 1992.
450. Wieser, R.; Engel, R. and Oesch, F.: Chemotactic migration of human diploid fibroblasts is inhibited by contactinhibin. *In Vitro Cell. Dev. Biol.* 28: 233-234, 1992.
451. Klein, S. and Oesch, F.: Assay for O6-alkylguanine-DNA-alkyltransferase using oligonucleotides containing O6-methylguanine in a Bam HI recognition site as substrate. *Analyt. Biochem.* 205: 294-299, 1992.
452. Utesch, D. and Oesch, F.: Phenol sulfotransferase activity in rat liver parenchymal cells cultured on collagen gels. *Drug Metab. Dispos.* 20: 614-615, 1992.
453. Gebel, T.; Arand, M. and Oesch, F.: Induction of the peroxisome proliferator activated receptor by fenofibrate in rat liver. *FEBS Lett.* 309: 37-40, 1992.
454. Tanner, B.; Friedberg, T.; Beck, T.; Mitze, M.; Weikel, W.; Oesch, F. and Knapstein, P.G.: Molekulargenetischer und immunhistologischer Nachweis der Onkogenprodukte des c-erbB-2 in Mammakarzinomen. *Tumordiagn. Ther.* 13: 24-29, 1992.
455. Jernström, B.; Seidel, A.; Funk, M.; Oesch, F. and Mannervik, B.: Glutathione conjugation of trans-3,4-dihydroxy 1,2-epoxy 1,2,3,4-tetrahydrobenzo[c]phenanthrene isomers by human glutathione transferases. *Carcinogenesis* 13: 1549-1555, 1992.
456. Doehmer, J.; Wölfel, C.; Dogra, S.; Doehmer, C.; Seidel, A.; Platt, K.L.; Oesch, f. and Glatt, H.R.: Applications of stable V79-derived cell lines expressing rat cytochromes P4501A1, 1A2 and 2B1. *Xenobiotica* 22: 1093-1099, 1992.
457. Friedberg, T.; Grassow, M.a.; Bartlomowicz-Oesch, B.; siegert, P.; Arand, M.; Adesnik, M. and Oesch, f.: Sequence of a novel cytochrome Cyp2B cDNA coding for a protein which is expressed in a sebaceous gland but not in the liver. *Biochem. J.* 287: 775-783, 1992.
458. Oesch, F.; Wagner, H.; Platt, K.L. and Arand, M.: Improved sample preparation for the testosterone hydroxylation assay using disposable extraction columns. *J. Chromatogr.* 582: 232-235, 1992.
459. Glatt, H.R.; Becker, R.; Piée, A.; Oesch, F. and Friedberg, T.: Stable expression of heterologous microsomal epoxide hydrolase in BHK21 cells: influence on the mutagenicity of benzo[a]pyrene 4,5-oxide. In: *Environmental Hygiene III* (eds. Seemayer, N.H. and Hadnagy, W.), Springer Publishing Company, Heidelberg, pp. 67-70, 1992.

460. Jung, D.; Konietzko, J.; Klein, S.; Fuchs, J.; Engel-Jung, J.; Krämer, J.; Beyermann, P. and Oesch, F.: Genotoxisches Monitoring bei Zytostatika-zubereitendem Personal. In: Verhandlungen der Deutschen Gesellschaft für Arbeitsmedizin, 32. Jahrestagung (eds. Kreutz, R. and Piekarski, C.), Gentner Verlag Stuttgart, pp. 486-488, 1992.
461. Fuchs, J.; Wullenweber, U.; Oesch, F.; Bienfait, H.G. and Hiltl, G.: DNA-Schäden bei gegenüber Ethylenoxid exponierten Arbeitnehmern. In: Verhandlungen der Deutschen Gesellschaft für Arbeitsmedizin, 32. Jahrestagung (eds. Kreutz, R. and Piekarski, C.), Gentner Verlag Stuttgart, pp. 495-498, 1992.
462. Oesch, F.: Xenobiotic metabolizing enzymes as regulators of toxicity. In: The Toxicology Forum, 1992 Annual European Meeting (ed. shubik, P.), Caset Publishing Company, Fairfax, Virginia, pp. 354-360, 1992.
463. Hengstler, J.G.; Fuchs, J. and Oesch, F.: DNA strand breaks and DNA crosslinks in peripheral mononuclear blood cells of ovarian cancer patients during chemotherapy with cyclophosphamide/carboplatin. *Cancer Res.* 52: 5622-5626, 1992.
- 464a. Oesch, F.; Oesch-Bartlomowicz, B.; Arens, H.J.; Friedberg, T.; Utesch, D.; Glatt, H.R. and Platt, K.L.: Molecular and cellular basis for adequate metabolic design of genotoxicity studies. In: *Toxicology from Discovery and Experimentation to the Human Perspective* (eds. P.L. Chambers, C.M. Chambers, H.M. Bolt and P. Preziosi), Elsevier, Amsterdam-London-New York-Tokyo, pp. 643-649, 1992.
- 464b. Oesch, F.; Oesch-Bartlomowicz, B.; Arens, H.J.; Friedberg, T.; Utesch, D.; Glatt, H.R. and Platt, K.L.: Molecular and cellular basis for adequate metabolic design of genotoxicity studies. *Toxicol. Lett.* 64/65: 643-649, 1992.
465. Knehr, M.; Arand, M.; Hagen, M.; Zeller, H.-D.; Thomas, H. and Oesch, F.: The use of the PCR technique in cloning low abundant genes: isolation of a cytosolic epoxide hydrolase cDNA. In: *Europ. Biotechnol. Today: The Impact of Basic Sciences on Diagnosis and Therapy* (eds. Malavasi, F.; Cortese, R. and Albertini, A.), Intercept Publishers, Andover, UK, pp. 217-222, 1992.
466. Arand, M.; Friedberg, T. and Oesch, F.: Colorimetric quantitation of trace amounts of sodium lauryl sulfate in the presence of nucleic acids and proteins. *Analyt. Biochem.* 207: 73-75, 1992.
467. Utesch, D.; Arand, M.; Thomas, H.; Petzinger, E. and Oesch, F.: Xenobiotic-metabolizing enzyme activities in hybrid cell lines established by fusion of primary rat liver parenchymal cells with hepatoma cells. *Xenobiotica* 22: 1451-1457, 1992.
468. Hengstler, J.; Löffler, S.; Schaefer, M.; Glatt, H.R.; Fuchs, J.; Flesch, P. and Oesch, F.: DNA strand break induction, mutagenicity, and cytotoxicity of the mycotoxins 11-β-hydroxy-7-deoxy-rosenonolactone, rosenonolactone and trichothecin. *Mycotoxin Res.* 8: 77-83, 1992.
469. Oesch, F.; Friedberg, T.; Glatt, H.-R.; Oesch-Bartlomowicz, B.; Platt, K.L. and Thomas, H.: The role of individual carcinogen metabolizing enzymes in chemical carcinogenesis. In: *Chemical Carcinogenesis* (eds. Somogyi, A.; Appel, K.E. and Katenkamp, A.), bga Schriften 3/92, MMV-Medizinverlag München, pp. 157-164, 1992.
470. Hacker, H.J.; Steinberg, P.; Toshkov, I.; Oesch, F. and Bannasch, P.: Persistence of the cholangiocellular and hepatocellular lesions observed in rats fed a choline-deficient/DL-ethionine-supplemented diet. *Carcinogenesis* 13: 271-276, 1992.

471. Steinberg, P.; Störkel, S.; Oesch, F. and Thoenes, W.: Carbohydrate metabolism in human renal clear cell carcinomas. *Lab. Invest.* 67: 506-511, 1992.
472. Tanner, B.; Friedberg, T.; Mitze, M.; Beck, T.; Oesch, F. and Knapstein, P.-G.: C-erbB-2-oncogene expression in breast carcinoma: analysis by S1 nuclease protection assay and immunohistochemistry in relation to clinical parameters. *Gynecol. Oncol.* 47: 228-233, 1992.
473. Heberer, H.; Angerer, J.; Oesch, F. and Klein, S.: Lösung arbeitsmedizinischer Probleme durch Betriebe und Universitäten - Beispiel Vinylchlorid. In: Krebsrisiken am Arbeitsplatz (eds. A. Horst; K. Norpeth and C. Verkoyen), Springer-Verlag, Berlin, pp. 19-31, 1992.
474. Fuchs, J. and Oesch, F.: Die Verwendung der alkalischen Filterelution zur Detektion genschädigender Belastungen am Arbeitsplatz [Usage of the alkaline filter elution for monitoring the genotoxic working place-related risk]. In: Krebsrisiken am Arbeitsplatz (eds. A. Horst; K. Norpeth and C. Verkoyen), Springer-Verlag, Berlin, pp. 127-139, 1992.
475. Glatt, H.R.; Wameling, C.; Elsberg, S.; Thomas, H.; Marquardt, H.; Hewer, A.; Phillips, D.H.; Oesch, F. and Seidel, A.: Genotoxicity characteristics of reverse diol-epoxides of chrysene. *Carcinogenesis* 14: 11-19, 1993.
476. Utesch, D.; Traiser, M.; Gath, I.; Dorresteijn, A.W.C.; Maier, P. and Oesch, F.: Effects of sodium butyrate on DNA content, glutathione S-transferase activities, cell morphology and growth characteristics of rat liver nonparenchymal epithelial cells in vitro. *Carcinogenesis* 14: 457-462, 1993.
477. McIcoach, J.; Fuchs, J.; Oesch, F. and Platt, K.L.: Characterization of DNA adducts at the bay region of dibenz[a,h]anthracene formed in vitro. *Carcinogenesis* 14: 469-473, 1993.
- 478a. Steinbrecher, T.; Wameling, C.; Oesch, F. and Seidel, A.: Die Aktivierung der C-2-Position von Purin durch die Trifluormethansulfonatgruppe: Synthese von N2-alkylierten Desoxyguanosinen. *Angewandte Chemie* 105: 408-410, 1993.
- 478b. Steinbrecher, T.; Wameling, C.; Oesch, F. and Seidel, A.: Activation of the C2 position of purine by the trifluoromethanesulfonate group: synthesis of N2-alkylated deoxyguanosines. *Angew. Chem. Int. Ed. Engl.* 32: 404-406, 1993.
479. Pack, R.; Heck, R.; Dienes, H.P.; Oesch, F. and Steinberg, P.: Isolation, biochemical characterization, long-term culture, and phenotype modulation of oval cells from carcinogen-fed rats. *Exp. Cell Res.* 204: 198-209, 1993.
480. Steinbrecher, T.; Becker, A.; Stezowski, J.J.; Oesch, F. and Seidel, A.: Synthesis of oligodeoxynucleotides containing diastereomeric dihydrodiol epoxide-N6-deoxyadenosine adducts of polycyclic aromatic hydrocarbons. *Tetrahedron Lett.* 34: 1773-1774, 1993.
481. Diener, B.; Utesch, D.; Beer, N.; Dürk, H. and Oesch, F.: A method for the cryopreservation of liver parenchymal cells for studies of xenobiotics. *Cryobiology* 30: 116-127, 1993.
482. Fuchs, J.; McIcoach, J.; Platt, K.-L. and Oesch, F.: Characterization of highly polar bis-dihydrodiol epoxide-DNA adducts formed after metabolic activation of dibenz[a,h]anthracene. *Carcinogenesis* 14: 863-867, 1993.

483. Fuchs, J.; McIcoach, J.; Oesch, F. and Platt, K.-L.: Characterization of highly polar DNA adducts derived from dibenz[a,h]anthracene (DBA), 3,4-dihydroxy-3,4-dihydro-DBA, and 3,4,10,11-tetrahydroxy-3,4,10,11-tetrahydro-DBA. *Toxicol. Industrial Health* 9: 503-509, 1993.
484. Knehr, M.; Thomas, H.; Arand, M.; Gebel, T.; Zeller, H.-D. and Oesch, F.: Isolation and characterization of a cDNA encoding rat liver cytosolic epoxide hydrolase and its functional expression in Escherichia coli. *J. Biol. Chem.* 268: 17623-17627, 1993.
485. Schaumann, Ch.; Oesch, F.; Unger, K.K. and Wieser, R.J.: Analytical technique for studying the structure of glycoprotein N-glycans. *J. Chromatogr.* 646: 227-234, 1993.
486. Wameling, C.; Glatt, H.R.; Oesch, F. and Seidel, A.: Stereospecific synthesis of the diastereomeric "reverse" dihydrodiol epoxides of chrysene and picene. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 191-198, 1993.
487. Platt, K.L.; Setiabudi, F. and Oesch, F.: Regiospecific carrier-free radiosynthesis of [5,12-14C]dibenz[a,h]anthracene. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 199-205, 1993.
488. Funk, M.; Frank, H.; Platt, K.L.; Oesch, F. and Seidel, A.: Synthesis and characterization of glutathione conjugates of diastereomeric bay- and fjord-region dihydrodiol epoxide. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 207-214, 1993.
489. Steinbrecher, T.; Wameling, C.; Oesch, F. and Seidel, A.: Synthesis of polycyclic aromatic hydrocarbon adducts attached to the exocyclic amino group of 2'-deoxyguanosine via nucleophilic substitution. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 223-230, 1993.
490. Glatt, H.R.; Wameling, C.; Elsberg, S.; Thomas, H.; Marquardt, H.; Hewer, A.; Phillips, D.H.; Oesch, F. and Seidel, A.: "Reverse" diol-epoxides of chrysene: Genotoxicity characteristics. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 879-886, 1993.
491. Reichert, S.; Doehmer, J.; Frank, H.; Oesch, F. and Platt, K.L.: Stereoselective formation of picene trans-3,4-dihydrodiol by rat liver microsomes and by a cell line which stably expresses cytochrome P540c (P4501A1). In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 895-903, 1993.
492. Lecoq, S.; Pfau, W.; Ni She, M.; Platt, K.L.; Seidel, A.; Oesch, F.; Phillips, D.H. and Grover, P.L.: Comparison of the metabolic activation of dibenz[a,h]anthracene and picene using 32P-postlabelling. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 921-928, 1993.
493. Platt, K.L.; Schollmeier, M.; Frank, H. and Oesch, F.: Bisdihydrodiol epoxides play a dominant role in the stereoselective biotransformation of dibenz[a,h]anthracene to genotoxic metabolites. In: *Polycyclic Aromatic Compounds* (eds. P. Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 1141-1150, 1993.
494. Glatt, H.R.; Pauly, K.; Wölfel, C.; Dogra, S.; Seidel, A.; Lee, H.; Harvey, R.G.; Oesch, F. and Doehmer, J.: Stable expression of heterologous cytochromes P450 in V79 cells: Mutagenicity studies with polycyclic aromatic hydrocarbons. In: *Polycyclic Aromatic Compounds* (eds. P.

Garrigues and M. Lamotte). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 1167-1174, 1993.

495. Monnerjahn, S.; Seidel, A.; Steinberg, P.; Oesch, F.; Hinz, M.; Stezowsky, J.J.; Hewer, A.; Phillips, D.H. and Glatt, H.R.: Formation of DNA adducts from 1-hydroxymethylpyrene in liver cells in vivo and in vitro. In: Postlabelling Methods for Detection of DNA Adducts (eds. D.H. Phillips, M. Castegnaro and H. Bartsch), International Agency for Research on Cancer, Lyon, pp. 189-193, 1993.

496. Fuchs, J. and Oesch, F.: Die Berücksichtigung von unterschiedlich empfindlichen Subpopulationen bei der Beurteilung einer potentiell kanzerogenen Arbeitsplatzexposition am Beispiel einer Ethylenoxid-Exposition. In: Arbeitsmedizin und Umweltmedizin: Erkrankungen durch Lösungsmittelgemische (eds. G. Triebig and O. Stelzer), Deutsche Gesellschaft für Arbeitsmedizin und Umweltmedizin e.V., Gentner Verlag, Stuttgart, pp. 221-224, 1993.

497. Glatt, H.R.; Doehmer, J.; Dogra, S.; Friedberg, T. and Oesch, F.: Gene technological construction of cells expressing single cytochromes P450: use in mutagenicity investigation on aflatoxin B1 and benzo[a]pyrene-7,8-dihydrodiol. International Programme on Chemical Safety, World Health Organization, WHO/PCS 41: 165-175, 1993.

498. Krämer, A.; Pudil, J.; Frank, H.; Oesch, F. and Glatt, H.R.: Some substrates and inhibitors of cytosolic epoxide hydrolase induce sister-chromatid exchanges in mammalian cells, but do not induce gene mutations in *Salmonella typhimurium* and V79 cells. Mutat. Res. 290: 165-174, 1993.

499. Carmichael, P.L.; Platt, K.L.; Ní Shé, M.; Lecoq, S.; Oesch, F.; Phillips, D.H. and Grover, P.L.: Evidence for the involvement of a bis-diol-epoxide in the metabolic activation of dibenz[a,h]anthracene to DNA-binding species in mouse skin. Cancer Res. 53: 944-948, 1993.

500. Snyder, R.; Chepiga, T.; Yang, C.S.; Thomas, H.; Platt, K. and Oesch, F.: Benzene metabolism by reconstituted cytochromes P450 2B1 and 2E1 and its modulation by cytochrome b5, microsomal epoxide hydrolase, and glutathione transferases: evidence for an important role of microsomal epoxide hydrolase in the formation of hydroquinone. Toxicol. Appl. Pharmacol. 122: 172-181, 1993.

501. Lorenz, J.; Friedberg, T.; Paulus, R.; Oesch, F. and Ferlinz, R.: Oncogene overexpression in non-small-cell lung cancer tissue: prevalence and clinicopathological significance. Clin. Investig. 72: 156-163, 1994.

502. Oesch, F. and Diener, B.: Rational species extrapolation of toxic effects. In: Use of Mechanistic Information in Risk Assessment (eds. H.M. Bolt, B. Hellman and L. Dencker). Springer-Verlag, Berlin, Heidelberg, pp. 161-168, 1994.

503. Arand, M; Grant, D.F.; Beetham, J.K.; Friedberg, T.; Oesch, F. and Hammock, B.D.: Sequence similarity of mammalian epoxide hydrolases to the bacterial haloalkane dehalogenase and other related proteins; Implication for the potential catalytic mechanism of enzymatic epoxide hydrolysis. FEBS Lett. 338: 251-256, 1994.

504. Steinberg, P.; Weiße, G.; Eigenbrodt E. and Oesch, F.: Expression of L- and M2-pyruvate kinases in proliferating oval cells and cholangiocellular lesions developing in the livers of rats fed a methyl-deficient diet. Carcinogenesis, 15: 125-127, 1994.

505. Hammock, B.D.; Pinot, F.; Beetham, J.K.; Grant, D.F.; Arand, M.E. and Oesch, F.: Isolation of a putative hydroxyacyl enzyme intermediate of an epoxide hydrolase. *Biochem. Biophys. Res. Commun.* 198: 850-856, 1994.
506. Diener, B.; Beer, N; Dürk, H.; Traiser, M.; Utesch, D.; Wieser, R.J. and Oesch, F.: Gap junctional intercellular communication of cultured rat liver parenchymal cells is stabilized by epithelial cells and their isolated plasma membranes. *Experientia* 50: 124-126, 1994.
507. Funk, M.; Frank, H.; Oesch, F. and Platt, K.L.: Development of chiral stationary phases for the enantiomeric resolution of dihydrodiols of polycyclic aromatic hydrocarbons by \square -donor-acceptor interactions. *J. Chromatogr. A* 659: 57-68, 1994.
508. Hengstler, J.G.; Fuchs, J.; Gebhard, S. and Oesch, F.: Glycolaldehyde causes DNA-protein crosslinks: a new aspect of ethylene oxide genotoxicity. *Mutat. Res.* 304: 229-234, 1994.
509. Post, K.; Seidel, A.; Platt, K.L.; Oesch, F. and Klein, J.: Regiospecific reduction of polycyclic aromatic quinones by rabbit liver dihydrodiol dehydrogenases. *Chem.-Biol. Interactions* 90: 157-168, 1994.
510. Oesch, F.; Hengstler, J.G. and Fuchs, J.: Cigarette smoking protects mononuclear blood cells of carcinogen exposed workers from additional work exposure-induced DNA single strand breaks. *Mutat. Res.* 321: 175-185, 1994.
511. Steinberg, P.; Steinbrecher, R.; Schrenk, D.; Münzel, P.; Bruck, M.; Gschaidmaier, H.; Oesch, F. and Bock, K.W.: Drug-metabolizing enzyme activities in freshly isolated oval cells and in an established oval cell line from carcinogen-fed rats. *Cell Biol. Toxicol.* 10: 59-65, 1994.
512. Fuchs, J.; Wullenweber, U.; Hengstler, J.G.; Bienfait, H.G.; Hiltl, G. and Oesch, F.: Genotoxic risk for humans due to work place exposure to ethylene oxide: remarkable individual differences in susceptibility. *Arch. Toxicol.* 68: 343-348, 1994.
513. Oesch, F.; Weiß, C.-M. and Klein, S.: Use of oligonucleotides containing ethenoadenine to study the repair of this DNA lesion. Determination of individual and collective repair activities. *Arch. Toxicol.* 68: 358-363, 1994.
514. Funk, M.; Gath, I.; Seidel, A.; Platt, K.-L.; Oesch, F. and Zeller, H.-D.: Different enzyme kinetics during the glutathione conjugation of the four stereoisomers of the fjord-region diolepoxydes of benzo[c]phenanthrene by the \square -class rat liver glutathione S-transferase HTP II. *Biochem. Pharmacol.* 47: 505-514, 1994.
515. Traiser, M.; Diener, B.; Fändrich, F.; Vogel, I.; Leissner, J.; Hohenfellner, R.; Utesch, D. and Oesch, F.: Isolation and cryopreservation of human hepatocytes. *Transplantationsmedizin* 6: 84-90, 1994.
516. Glatt, H.R.; Seidel, A.; Oesch, F. and Gumbsch, A.: Fjord-region diol-epoxides of benzo[c]chrysene are potent inducers of micronuclei in murine bone marrow. *Mutat. Res.* 309, 37-43, 1994.
517. Friedberg, T.; Becker, R.; Oesch, F. and Glatt, H.R.: Studies on the importance of microsomal epoxide hydrolase in the detoxication of arene oxides using the heterologous expression of the enzyme in mammalian cells. *Carcinogenesis* 15: 171-175, 1994.

518. Oesch, F.; Oesch-Bartlomowicz, B.; Glatt, H.R.; Platt, K.-L. and Arand, M.: Importance of individual enzymes in the control of ultimate carcinogens. In: Cytochrome P450. 8th International Conference. (ed. Lechner, M.C.), John Libbey Eurotext, Paris, pp. 147-153, 1994.
519. Oesch, F. and Arand, M.: Induction of drug-metabolizing enzymes by short/intermediate-term exposure to peroxisome proliferators: a synopsis. In: Peroxisome Proliferators: Unique Inducers of Drug-Metabolizing Enzymes (ed. Moody, D.E.), CRC Press, Boca Raton, pp. 161-174, 1994.
520. Seidel, A.; Luch, A.; Platt, K.L.; Oesch, F. and Glatt, H.R.: Activated fjord-region metabolites of dibenzo[a,l]pyrene: synthesis and mutagenic activities of the diastereomeric syn- and anti-11,12-dihydrodiol 13,14-epoxides. In: Polycyclic Aromatic Compounds (eds. M. Zander, G. Grimmer, W.C. Herndon, E.J. La Voie, V. Sniekus, T. Vo-Dinh and C.M. White). Gordon and Breach Science Publishers, Amsterdam, Netherlands, pp. 191-198, 1994.
521. Strolin-Benedetti, M.; Marrari, P.; Colombo, M.; Castelli, M.G.; Arand, M.; Oesch, F. and Dostert, P.: The anticonvulsant FCE 26743 is a selective and short-acting MAO-B inhibitor devoid of inducing properties towards cytochrome P450-dependent testosterone hydroxylation in mice and rats. *J. Pharm. Pharmacol.* 46: 814-819, 1994.
522. Diener, B.; Traiser, M.; Arand, M.; Leissner, J.; Witsch, U.; Hohenfellner, R.; Fändrich, F.; Vogel, I.; Utesch, D. and Oesch, F.: Xenobiotic metabolizing enzyme activities in isolated and cryopreserved human liver parenchymal cells. *Toxicol. in Vitro* 8: 1161-1166, 1994.
523. Oesch, F.; Oesch-Bartlomowicz, B.; Arens, J.; Fändrich, F.; Vogel, E.; Friedberg, T. and Glatt, H.R.: Mechanism-based predictions of interactions. *Environm. Health Perspect.* 102: 5-9, 1994.
524. Thomas, H.; Strolin-Benedetti, M.; Dostert, P. and Oesch, F.: The effect of indobufen on the activities of selected rat liver phase I and phase II drug metabolizing enzymes, peroxisomal β -oxidation and hepatic glutathione status. *J. Pharm. Pharmacol.* 46: 833-837, 1994.
525. Oesch, F.: Fremdstoffmetabolismus. In: Lehrbuch der Toxikologie (eds. H. Marquardt and S.G. Schäfer). B.I.-Wissenschaftsverlag, Mannheim, pp. 68-93, 1994.
526. Glatt, H.R.; Pauly, K.; Frank, H.; Seidel, A.; Oesch, F.; Harvey, R.G. and Werle-Schneider, G.: Substance-dependent sex differences in the activation of benzylic alcohols to mutagens by hepatic sulfotransferases of the rat. *Carcinogenesis* 15: 2605-2611, 1994.
527. Friedberg, T.; Löllmann, B.; Becker, R.; Holler, R. and Oesch, F.: The microsomal epoxide hydrolase has a single membrane signal anchor sequence which is dispensable for the catalytic activity of this protein. *Biochem. J.* 303: 967-972, 1994.
528. Arand, M., Friedberg, T. and Oesch, F.: Monitoring sodium lauryl sulfate (SDS) contamination. In: Cell Biology: A Laboratory Handbook, Vol. 2 (ed. Celis, J.E.), Academic Press, San Diego, pp. 276-278, 1994.
529. Luch, A.; Glatt, H.R.; Platt, K.L.; Oesch, F. and Seidel, A.: Synthesis and mutagenicity of the diastereomeric fjord-region 11,12-dihydrodiol 13,14-epoxides of dibenzo[a,l]pyrene. *Carcinogenesis* 15: 2507-2516, 1994.

530. Steinberg, P.; Steinbrecher, R.; Radaeva, S.; Schirmacher, P.; Dienes, H.P.; Oesch, F. and Bannasch, P.: Oval cell lines OC/CDE 6 and OC/CDE 22 give rise to cholangio-cellular and undifferentiated carcinomas after transformation. *Lab. Invest.* 71: 700-709, 1994.
531. Schuler, M.; Hengstler, J.G., Oesch, F. and Huber, Ch.: Sekundäre Neoplasien nach Immunsuppression. *Dtsch. med. Wschr.* 119: 1747-1754, 1994.
532. Dunkelberg, H.; Fuchs, J.; Hengstler, J.G.; Klein, E.; Oesch, F. and Strüder, K.: Genotoxic effects of the herbicides alachlor, atrazine, pendimethaline, and simazine in mammalian cells. *Bull. Environ. Contam. Toxicol.* 52: 498-504, 1994.
533. Jennings, G.S.; Heck, R.; Oesch, F. and Steinberg, P.: Metabolism and cytotoxicity of aflatoxin B1 in cultured rat hepatocytes and nonparenchymal cells: implications for tumorigenesis. *Toxicol. Appl. Pharmacol.* 129: 86-94, 1994.
534. Arand, M., Gath, I., Thomas, H. and Oesch, F.: Die Komplexität fremdstoff-metabolisierender Systeme am Beispiel der Glutathion S-Transferasen. In: *Fremdstoffmetabolismus und Klinische Pharmakologie* (eds. Dengler, H.J. and Mutschler, E.), Gustav Fischer Verlag, Stuttgart, pp. 123-140, 1994.
535. Blumrich, M.; Pack, R.; Oesch, F.; Petzinger, E. and Steinberg, P.: Deficiency of bile acid transport and synthesis in oval cells from carcinogen-fed rats. *Hepatology* 19: 722-727, 1994.
536. Beetham, J.K.; Grant, D.; Arand, M.; Garbarino, J.; Kiyosue, T.; Pinot, F.; Oesch, F.; Belknap, W.R.; Shinozaki, K. and Hammock, B.: Gene evolution of epoxide hydrolases and recommended nomenclature. *DNA Cell Biol.* 14: 61-71, 1995.
537. Diener, B.; Abdel-Latif, H.; Arand, M. and Oesch, F.: Xenobiotic metabolizing enzyme activities and viability are well preserved in EDTA-isolated rat liver parenchymal cells after cryopreservation. *Toxicol. Appl. Pharmacol.* 130: 149-153, 1995.
538. Härtter, S.; Arand, M; Oesch, F. and Hiemke, C.: Non competitive inhibition of clomipramine N-demethylation by fluvoxamine. *Psychopharmacology* 117: 149-153, 1995.
539. Oesch, F.; Arens, H.J.; Fändrich, F.; Friedberg, T.; Richter, B.; Yamazaki, H. and Oesch-Bartlomowicz, B.: Significance of posttranslational modification of drug metabolizing enzymes by phosphorylation for the control of carcinogenic metabolites. *NATO ASI Series H90:* 411-427, 1995.
540. Fuchs, J.; Hengstler, J.G.; Jung, D.; Hiltl, G.; Konietzko, J. and Oesch, F.: DNA damage in nurses handling antineoplastic agents. *Mutat. Res.* 342: 17-23, 1995.
541. Fuchs, J.; Burg, J.; Hengstler, J.G.; Bolm-Audorff, U. and Oesch, F.: DNA damage in mononuclear blood cells of metal workers exposed to N-nitrosodiethanolamine in synthetic cutting fluids. *Mutat. Res.* 342: 95-102, 1995.
542. Diener, B.; Becker, R.; Martus, H.-J.; Traiser, M.; Steinberg, P. and Oesch, F.: Malignantly transformed non-parenchymal liver epithelial cells and transformed oval cells suppress the homotypical gap junctional intercellular communication of co-cultured rat liver parenchymal cells. *Carcinogenesis* 16: 633-636, 1995.
543. Brenner, W.; Langer, P.; Oesch, F.; Edgell, C.-J.S. and Wieser R.J.: Tumor cell - endothelium adhesion in an artificial venule. *Anal. Biochem.* 225: 213-219, 1995.

544. Oesch, F.; Fuchs, J.; Vaupel, J. and Hengstler, J.G.: DNA single strand break analysis in mononuclear blood cells of petrol pump attendants. *Int. Arch. Occup. Environ. Health* 67: 35-39, 1995.
545. Oesch, F. and Diener, B.: Cell systems for use in studies on the relationship between foreign compound metabolism and toxicity. *Pharmac. Toxicol.* 76: 325-327, 1995.
546. Gradl, G.; Faust, D.; Oesch, F. and Wieser, R.J.: Density-dependent regulation of cell growth by contactinhibin and the contactinhibin receptor. *Current Biology* 5: 526-535, 1995.
547. Hengstler, J.G.; Fuchs, J.; Bolm-Audorff, U.; Meyer, S. and Oesch, F.: Single-strand breaks in deoxyribonucleic acid in fire fighters accidentally exposed to o-nitroanisole and other chemicals. *Scand. J. Work Environ. Health* 21: 36-42, 1995.
548. Oesch, F.; Hengstler, J.G.; Arand, M. and Fuchs, J.: Detection of primary DNA damage: applicability to biomonitoring of genotoxic occupational exposure and in clinical therapy. *Pharmacogenetics* 5: S118-S122, 1995.
549. Funk, M.; Gath, I.; Seidel, A.; Oesch, F. and Platt, K.L.: Conjugation of anti-dihydrodiol epoxides of benzo[a]pyrene, chrysene, benzo[c]phenanthrene and dibenz[a,h]anthracene with glutathione catalyzed by cytosol and by the Mu-class glutathione transferase HTP II from rat liver. *Chem.-Biol. Interact.* 95: 189-201, 1995.
550. Fändrich, F.; Degiuli, B.; Vogel-Bindel, U.; Arand, M. and Oesch, F.: Induction of rat liver microsomal epoxide hydrolase by its endogenous substrate 16 α ,17 β -epoxyestra-1,3,5-trien-3-ol. *Xenobiotica* 25: 239-244, 1995.
551. Traiser, M.; Diener, B.; Utesch, D. and Oesch, F.: The gap junctional intercellular communication is no prerequisite for the stabilization of xenobiotic metabolizing enzyme activities in primary rat liver parenchymal cells in vitro. *In Vitro Cell. Dev. Biol.* 31: 266-273, 1995.
552. Oesch, F.; Fändrich, F.; Glatt, H.R.; Oesch-Bartlomowicz, B.; Platt, K.-L. and Utesch, D.: Use of mechanistic information for adequate metabolic design of genotoxicity studies and toxicological interactions of drugs and environmental chemicals. In: *Molecular Aspects of Oxidative Drug Metabolizing Enzymes* (eds. Annç, E., Schenkman, J.B. and Hodgson, E.), NATO ASI Series, Vol. H90, Springer-Verlag Berlin Heidelberg, pp. 397-409, 1995.
553. Wieser, R.J. and Oesch, F.: Molekulare Grundlagen der Wachstumsregulation durch Zellkontakte. *Med. Welt* 46: 272-279, 1995.
554. Wieser, R.J.; Baumann, C.E. and Oesch, F.: Cell-contact mediated modulation of contactinhibin-sialylation. *Glycoconjugate J.* 12: 672-679, 1995.
555. Honscha, W.; Platte, H.-D.; Oesch, F. and Friedberg, T.: Relationship between the microsomal epoxide hydrolase and the hepatocellular transport of bile acids and xenobiotics. *Biochem. J.* 311: 975-979, 1995.
556. Oesch, F.; Abdel-Latif, H. and Diener, B.: Viability, attachment efficiency, and xenobiotic metabolizing enzyme activities are well maintained in EDTA isolated rat liver parenchymal cells after hypothermic preservation for up to 3 days in University of Wisconsin solution. *In Vitro Cell. Dev. Biol.* 31: 590-594, 1995.

557. Oesch, F.; Oesch-Bartlomowicz, B. and Glatt, H.R.: Importance of individual enzymes in the control of ultimate carcinogens. In: Pharmacological Sciences: Perspectives for Research and Therapy in the Late 1990's (eds. Cuello, C. and Collier, B.). Birkhäuser Publishing Company, pp. 435-439, 1995.
558. Oesch, F.; Essigmann, J.M.; Kemp, C.J.; Kuroki, T. and Goodman, J.I.: Molecular and cellular aspects of chemical carcinogenesis. In: Pharmacological Sciences: Perspectives for Research and Therapy in the Late 1990's (eds. Cuello, C. and Collier, B.). Birkhäuser Publishing Company, pp. 441-446, 1995.
559. Diener, B. and Oesch, F.: Cryopreserved and hypothermically stored rat liver parenchymal cells as metabolizing system in the *Salmonella* mutagenicity assay. *Mutat. Res.* 335: 309-316, 1995.
560. Becker, R. and Oesch, F.: In vitro test systems for identifying potential chemical carcinogens. *Chimia* 49: 361-364, 1995.
561. Seidel, A.; Oesch, F. and Steinberg, P.: Malignant transformation of the liver tumour precursor cell line OC/CDE 22 by the four stereoisomeric fjord region 3,4-dihydrodiol 1,2-epoxides of benzo[c]phenanthrene. *Carcinogenesis* 16: 2111-2115, 1995.
562. Steinberg, P.; Steinbrecher, R.; Blumrich, M.; Oesch, F. and Petzinger, E.: Potential liver stem cells ("oval cells") and their capacity to transport bile acids. In: Cell Biology and Molecular Basis of Liver Transport (eds. Wehner, F. and Petzinger, E.), Projekt Verlag, Dortmund, pp. 55-59, 1995.
563. Arand, M.; Wagner, H. and Oesch, F.: Asp333, Asp495, and His523 form the catalytic triad of rat soluble epoxide hydrolase. *J. Biol. Chem.* 271: 4223-4229, 1996.
564. Fuchs, J.; Hengstler, J.G.; Boettler, G. and Oesch, F.: Primary DNA damage in peripheral mononuclear blood cells of workers exposed to bitumen-based products. *Int. Arch. Occup. Environ. Health* 8: 141-146, 1996.
565. Arand, M.; Mühlbauer, R.; Hengstler, J.; Jäger, E.; Fuchs, J.; Winkler, L. and Oesch, F.: A multiplex polymerase chain reaction protocol for the simultaneous analysis of the glutathione S-transferase GSTM1 and GSTT1 polymorphisms. *Anal. Biochem.* 236: 184-186, 1996.
566. Jäger, E.; Ringhoffer, M.; Karbach, J.; Arand, M.; Oesch, F. and Knuth, A.: Inverse relationship of melanocyte differentiation antigen expression in melanoma tissues and CD8+ cytotoxic T-cell responses: Evidence for immunoselection of antigen-loss variants in vivo. *Int. J. Cancer* 66: 470-476, 1996.
567. Jung, D.; Clark, G.; Hengstler, J.; Uhrig, P.; Edler, L.; Needham, L.; Lucier, G.; Patterson, D.; Oesch, F. and Konietzko, J.: Ah-Rezeptor, Enzymaktivität und Dioxinspiegel. *Forum DKG* 11: 108-110, 1996.
568. Oesch, F.; Arand, M.; Stroblin-Benedetti, M.; Castelli, M.G. and Dostert, P.: Inducing properties of rifampicin and rifabutin for selected enzyme activities of the cytochrome P-450 and UDP-glucuronosyltransferase superfamilies in female rat liver. *J. Antimicrobial Chemotherapy* 37: 1111-1119, 1996.
569. Friedberg, T.; Löllmann, B.; Becker, R.; Holler, R.; Arand, M. and Oesch, F.: Investigating the role of the microsomal epoxide hydrolase membrane topology and its implication for drug

metabolism pathways. In: Biological Reactive Intermediates V (eds. R. Snyder et al.), Plenum Press, New York, pp. 17-24, 1996.

570. Arand, M.; Hinz, W.; Müller, F.; Hänel, K.; Winkler, L.; Mecky, A.; Knehr, M.; Dürk, H.; Wagner, H.; Ringhoffer, M. and Oesch, F.: Structure and mechanism of soluble epoxide hydrolase and its relation to microsomal epoxide hydrolase. In: Control Mechanisms of Carcinogenesis (eds. Hengstler, J.G. and Oesch, F.), Publishing House of the Editors, pp. 116-134, 1996.

571. Steinberg, P.; Jennings, G.S.; Schlemper, B. and Oesch, F.: Molecular mechanisms underlying the liver cell type-specific toxicity of aflatoxin B1. In: Control Mechanisms of Carcinogenesis (eds. Hengstler, J.G. and Oesch, F.), Publishing House of the Editors, pp. 135-147, 1996.

572. Becker, R.; Oesch, F. and Steinberg, P.: The role of oval cells in rat liver carcinogenesis. In: Control Mechanisms of Carcinogenesis (eds. Hengstler, J.G. and Oesch, F.), Publishing House of the Editors, pp. 148-158, 1996.

573. Wieser, R.J.; Faust, D.; Gradl, G.; Dietrich, D. and Oesch F.: Cell growth: A matter of contact. In: Control Mechanisms of Carcinogenesis (eds. Hengstler, J.G. and Oesch, F.), Publishing House of the Editors, pp. 282-295, 1996.

574. Tanner, B.; Kreutz, E.; Weikel, W.; Meinert, R.; Oesch, F.; Knapstein, P.G. and Becker, R.: Prognostic significance of c-erbB-2 mRNA in ovarian carcinoma. *Gynecol. Oncol.* 62: 268-277, 1996.

575. Gemechu-Hatewu, M.; Platt, K.-L.; Oesch, F. and Steinberg, P.: Distribution and induction of aflatoxin B1-9a-hydroxylase activity in rat liver parenchymal and non-parenchymal cells. *Arch. Toxicol.* 70: 553-558, 1996.

576. Dietrich, C.; Plaumann, T.; Oesch, F. and Wieser, R.: Subcellular distribution of ras in human and murine fibroblasts. *Biochem. Biophys. Res. Commun.* 226: 172-175, 1996.

577. Dietrich, C.; Bartsch, T.; Schanz, F.; Oesch, F. and Wieser, R.: p53-Dependent cell cycle arrest induced by N-acetyl-L-leucinyl-L-leucinyl-L-norleucinal in platelet-derived growth factor-stimulated human fibroblasts. *Proc. Natl. Acad. Sci. USA* 93: 10815-10819, 1996.

578. Wieser, J.R.; Heisner, A.; Stehling, P.; Oesch, F. and Reutter, W.: In vivo modulated N-acyl side chain of N-acetylneurameric acid modulates the cell contact-dependent inhibition of growth. *FEBS Lett.* 395: 170-173, 1996.

579. Friedberg, T.; Holler, R.; Löllmann, B.; Arand, M. and Oesch, F.: The catalytic activity of the endoplasmic reticulum-resident protein microsomal epoxide hydrolase towards carcinogens is retained on inversion of its membrane topology. *Biochem. J.* 319: 131-136, 1996.

580. Jäger, E.; Ringhoffer, M.; Dienes, H.P.; Arand, M.; Karbach, J.; Jäger, D.; Ilsemann, C.; Hagedorn, M.; Oesch, F. and Knuth, A.: Granulocyte-macrophage-colony-stimulating factor enhances immune responses to melanoma-associated peptides in vivo. *Int. J. Cancer* 67: 54-62, 1996.

581. Frank, H.; Luch, A.; Oesch, F. and Seidel, A.: Assignment of absolute configuration to metabolically formed trans-dihydrodiols of dibenzo[a,l]pyrene by the exciton chirality method using a new red-shifted chromophore. *Polycyclic Aromatic Comp.* 10: 109-116, 1996.

582. Seidel, A.; Sun, Z.; Kroth, H.; Steinbrecher, T.; Oesch, F. and Friedberg, T.: DNA polymerase action on oligonucleotide templates from human protooncogene containing N6-deoxyadenosine adducts derived from trans addition of (+)- and (-)-anti-benzo[c]phenanthrene-3,4-dihydrodiol 1,2-epoxides at Codon 61. *Polycyclic Aromatic Comp.* 10: 161-170, 1996.
583. Buchwald-Goebel, S.; Oesch, F. and Seidel, A.: A tandem photochemical approach for the synthesis of biologically important metabolites of benzo[b]fluoranthene. *Polycyclic Aromatic Comp.* 10: 325-332, 1996.
584. Kroth, H.; Hertkorn, N.; Oesch, F. and Seidel, A.: Synthesis of stereoisomeric N6-deoxyadenosine adducts of syn- and anti-dihydrodiol epoxides of benzo[a]pyrene and their incorporation into 18-mer DNA sequences from human Ha-ras protooncogene. *Polycyclic Aromatic Comp.* 10: 349-356, 1996.
585. Becker, R.; Lüthgens, B.; Oesch, F.; Dienes, H.-P. and Steinberg, P.: Ha-rasVal12 but not p53Ser247 leads to a significant neoplastic transformation rate of the putative rat liver stem cells (oval cells). *Carcinogenesis* 17: 2635-2640, 1996.
586. Fuchs, J.; Hengstler, J.G.; Hummrich, F. and Oesch, F.: Transient increase in DNA strand breaks in car refinishing spray painters. *Scand. J. Work Environ. Health* 22: 438-443, 1996.
587. Luch, A.; Seidel, A.; Glatt, H.R.; Oesch, F. and Platt, K.L.: Correlation of the extent of fjord-region oxidation with DNA binding and mutagenicity of the enantiomeric 11,12-dihydrodiols of dibenzo[a,l]pyrene. *Polycycl. Arom. Compds.* 10: 101-108, 1996.
588. Platt, K.L.; Charissé, H.; Tommasone, M.; Diener, B. and Oesch, F.: Direct analysis of phase I metabolites, phenol sulfates, glucuronides and glutathione conjugates of benzo[a]pyrene in freshly isolated, hypothermically stored and cryopreserved hepatocytes. *Polycycl. Arom. Compds.* 10: 67-75, 1996.
589. Steinberg, P.; Frank, H.; Oesch, F. and Seidel, A.: The stereoisomeric fjord-region benzo[c]phenanthrene-3,4-dihydrodiol 1,2-oxides malignant transform rat liver epithelial cells. *Polycycl. Arom. Compds.* 10: 275-282, 1996.
590. Jäger, E.; Ringhoffer, M.; Arand, M.; Karbach, J.; Jäger, D.; Ilsemann, C.; Hagedorn, M.; Oesch, F. and Knuth, A.: Cytolytic T cell reactivity against melanoma associated differentiation antigens in peripheral blood of melanoma patients and healthy individuals. *Melanoma Res.* 6: 419-425, 1996.
591. Hengstler, J.G.; Fuchs, J.; Tanner, B.; Oesch-Bartlomowicz, B.; Hölz, C. and Oesch, F.: Analysis of DNA single-strand breaks in human venous blood: A technique which does not require isolation of white blood cells. *Environm. Molec. Mutagen.* 29: 58-62, 1997.
592. Jäger, E.; Ringhoffer, M.; Altmannsberger, M.; Arand, M.; Karbach, J.; Jäger, D.; Oesch, F. and Knuth, A.: Immunoselection in vivo: independent loss of MHC classI and melanocyte differentiation antigen expression in metastatic melanoma. *Int. J. Cancer* 71: 142-147, 1997.
593. Hengstler, J.G.; Hengst, A.; Fuchs, J.; Tanner, B.; Pohl, J. and Oesch, F.: Induction of DNA crosslinks and DNA strand lesions by cyclophosphamide after activation by cytochrome P450 2B1. *Mutat. Res.* 373: 215-223, 1997.

594. Zhang, N.; Siegel, K.; Odenthal, M.; Becker, R.; Oesch, F.; Dienes, H.P.; Schirmacher, P. and Steinberg, P.: The role of insulin-like factor II in the malignant transformation of rat liver oval cells. *Hepatology* 25: 900-905, 1997.
595. Dietrich, C.; Wallenfang, K.; Oesch, F. and Wieser, R.: Translocation of cdk2 to the nucleus during G1-phase in PDGF-stimulated human fibroblasts. *Exp. Cell Res.* 232: 72-78, 1997.
596. Müller, F.; Arand, M.; Frank, H.; Seidel, A.; Hinz, W.; Winkler, L.; Hänel, K.; Blée, E.; Beetham, J.K.; Hammock, B.D. and Oesch, F.: Visualization of a covalent intermediate between microsomal epoxide hydrolase, but not cholesterol epoxide hydrolase, and their substrates. *Eur. J. Biochem.* 245: 490-496, 1997.
597. Holler, R.; Arand, M.; Mecky, A.; Oesch, F. and Friedberg, T.: The membrane anchor of microsomal epoxide hydrolase from human, rat, and rabbit displays an unexpected membrane topology. *Biochem. Biophys. Res. Commun.* 236: 754-759, 1997.
598. Tanner, B.; Hengstler, J.G.; Laubscher, S.; Meinert, R.; Oesch, F.; Weikel, W.; Knapstein, P.G. and Becker, R.: mdm 2 mRNA expression is associated with survival in ovarian cancer. *Int. J. Cancer* 74: 438-442, 1997.
599. Gemechu-Hatewu, M.; Platt, K.-L.; Oesch, F.; Hacker, H.-J.; Bannasch, P. and Steinberg, P.: Metabolic activation of aflatoxin B1 to aflatoxin B1-8,9-epoxide in woodchucks undergoing chronic active hepatitis. *Int. J. Cancer* 73: 587-591, 1997.
600. Dietrich, C.; Wallenfang, K.; Oesch, F. and Wieser, R.: Differences in the mechanisms of growth control in contact-inhibited and serum-deprived human fibroblasts. *Oncogene* 15: 2743-2747, 1997.
601. Oesch-Bartlomowicz, B.; Arens, H.J.; Richter, B.; Hengstler, J.G. and Oesch, F.: Control of the mutagenicity of aromatic amines by protein kinases and phosphatases. I. The protein phosphatase inhibitors okadaic acid and ortho-vanadate drastically reduce the mutagenicity of aromatic amines. *Arch. Toxicol.* 71: 601-611, 1997.
602. Padma, P.R.; Oesch-Bartlomowicz, B.; Hengstler, J.G. and Oesch, F.: Control of the mutagenicity of arylamines by protein kinases and phosphatases: II. Lack of response of rat liver N-acetyl transferases to phosphorylation modulators. *Arch. Toxicol.* 71: 655-659, 1997.
603. Herrero, M.E.; Arand, M.; Hengstler, J.G. and Oesch, F.: Recombinant expression of human microsomal epoxide hydrolase protects V79 Chinese hamster cells from styrene oxide- but not from ethylene oxide-induced DNA strand breaks. *Environm. Molec. Mutagen.* 30: 429-439, 1997.
604. Hengstler, J.G.; Bockisch, A.; Fuchs, J.; Grimms, W.; Zapf, A.-O.; Lade, K.; Meinert, R.; Oesch-Bartlomowicz, B.; Tanner, B. and Oesch, F.: Increase in DNA single-strand break rejoining by continuous exposure of human mononuclear blood cells to radioiodine (131I) in vitro. *Int. J. Radiat. Biol.* 72: 607-613, 1997.
605. Oesch, F.; Fuchs, J.; Arand, M.; Gebhard, S.; Hallier, A.; Oesch-Bartlomowicz, B.; Jung, D.; Tanner, B.; Bolm-Audorff, U.; Hiltl, G.; Bienfait, H.G.; Konietzko, J. and Hengstler, J.G.: Möglichkeiten und Grenzen der alkalischen Filterelution zum Biomonitoring gentoxischer Belastungen. In: *Molekulare Marker bei beruflich verursachten Tumoren*. Schriftenreihe der Bundesanstalt für Arbeitsschutz und Arbeitsmedizin, Dortmund/Berlin, pp. 71-101, 1997.

606. Tanner, B.; Hengstler, J.G.; Dietrich, B.; Henrich, B.; Steinberg, P.; Weikel, W.; Meinert, R.; Kaina, R., Oesch, F. and Knapstein, P.G.: Glutathione, glutathione S-transferase α and β , and aldehyde dehydrogenase content in relationship to drug resistance in ovarian cancer. *Gynecol. Oncol.* 65: 54-62, 1997.
607. Hayes, R.B.; Klein, S.; Suruda, A.; Schulte, P.; Boeninger, M.; Stewart, P.; Livingston, G.K. and Oesch, F.: O6-Alkylguanine DNA alkyltransferase activity in student embalmers. *Am. J. Ind. Med.* 31: 361-365, 1997.
- Schleger, C.; Heck, R.; Niketeghad, F.; Schirmacher, P.; Radaeva, S.; Oesch, F.; Dienes, H.P.; Bannasch, P. and Steinberg, P.: Establishment and characterization of a nontumorigenic cell line derived from a human hepatocellular adenoma expressing hepatocyte-specific markers. *Exp. Cell Res.* 236: 418-426, 1997.
609. Tanner, B.; Hengstler, J.G.; Laubscher, S.; Meinert, R.; Oesch, F.; Knapstein, P.G. and Becker, R.: MDM2 and mRNA expression is associated with survival in ovarian cancer. *Int. J. Cancer* 74: 1-5, 1997.
610. Tanner, B.; Hengstler, J.G.; Luch, A.; Meinert, R.; Kreutz, E.; Arand, M.; Wilkens, C.; Hofmann, M.; Oesch, F.; Knapstein, P.G. and Becker, R.: C-myc mRNA expression in epithelial ovarian carcinomas in relation to estrogen receptor status, metastatic spread, survival time, FIGO stage, and histologic grade and type. *Int. J. Gynecol. Pathol.* 17: 66-74, 1998.
611. Hengstler, J.G.; Arand, M.; Herrero, M.E. and Oesch, F.: Polymorphisms of N-acetyltransferases, glutathione S-transferases, microsomal epoxide hydrolase and sulfotransferases: influence on cancer susceptibility. *Recent Results Cancer Res.* 154: 47-85, 1998.
612. Jankowiak, R.; Ariese, F.; Hewer, A.; Luch, A.; Zamzow, D.; Hughes, C.; Phillips, D.; Seidel, A.; Platt, K.L.; Oesch, F. and Small, G.J.: Structure, conformations, and repair of DNA adducts from dibenzo[al]pyrene: 32P-postlabeling and fluorescence studies. *Chem. Res. Toxicol.* 11: 674-685, 1998.
613. Hengstler, J.G.; Kett, A.; Arand, M.; Oesch-Bartlomowicz, B.; Oesch, F.; Knapstein, P.G. and Tanner, B.: Glutathione S-transferase T1 and M1 gene defects in ovarian carcinoma. *Cancer Lett.* 130: 43-48, 1998.
614. Hengstler, J.G.; Böttger, T.; Tanner, B.; Dietrich, B.; Henrich, M., Knapstein, P.G., Junginger, Th. and Oesch, F.: Resistance factors in colon cancer tissue and the adjacent normal colon tissue: glutathione S-transferases α and β , glutathione and aldehyde dehydrogenase. *Cancer Lett.* 128: 105-112, 1998.
615. Oesch-Bartlomowicz, B.; Padma, P.R.; Becker, R.; Richter, B.; Hengstler, J.G.; Freeman, J.E.; Wolf, C.R. and Oesch, F.: Differential modulation of CYP2E1 activity by cAMP dependent protein kinase upon Ser129 replacement. *Exp. Cell Res.* 242: 294-302, 1998.
616. Hu, X.; Seidel, A.; Frank, H.; Srivastava, S.K.; Xia, H.; Pal, A.; Zheng, S.; Oesch, F. and Singh, S.V.: Differential enantioselectivity of murine glutathione S-transferase isoenzymes in the glutathione conjugation of trans-3,4-dihydroxy-1,2-oxy-1,2,3,4-tetrahydrobenzo[c]phenanthrene stereoisomers. *Arch. Biochem. Biophys.* 358: 40-48, 1998.
617. Seidel, A.; Friedberg, T.; Löllmann, B.; Schwierzok, A.; Funk, M.; Frank, H.; Holler, R.; Oesch, F. and Glatt, H.R.: Detoxification of optically active bay- and fjord-region polycyclic

aromatic hydrocarbon dihydrodiol epoxides by human glutathione transferase P1-1 expressed in Chinese hamster V79 cells. *Carcinogenesis* 19: 1975-1981, 1998.

618. Bock, K.W.; Degen, G.H.; Foth, H.; Kahl, R.; Kappus, H.; Neumann, H.G.; Oesch, F. and Schulte-Hermann, R.: [Ozone-position of the Advisory Commission of the Toxicology Section of the German Society for Experimental and Clinical Pharmacology and Toxicology (DGPT)]. *Pneumology* 52: 358-365, 1998.
619. Arand, M.; Müller, F.; Mecky, A.; Hinz, W.; Urban, P.; Pompon, D.; Kellner, R. and Oesch, F.: Catalytic triad of microsomal epoxide hydrolase: replacement of Glu404 with Asp leads to a strongly increased turnover rate. *Biochem. J.* 337: 37-43, 1999.
620. Wieser, R.J.; Faust, D.; Dietrich, C. and Oesch, F.: p16ink4 mediates contact-inhibition of growth. *Oncogene* 18: 277-281, 1999.
621. Bock, K.W.; Raschko, F.T.; Gschaidmeier, H.; Seidel, A.; Oesch, F.; Grove, A.D. and Ritter, J.K.: Mono- and diglucuronide formation from benzo[\square]pyrene and chrysene diphenols by AHH-1 cell-expressed UDP-glucuronosyltransferase UGT1A7. *Biochem. Pharmacol.* 57: 653-656, 1999.
622. Erb, Ch.; Seidel, A.; Frank, H.; Platt, K.L.; Oesch, F. and Klein, J.: Formation of N-methylnicotinamide in the brain from a dihydropyridine-type prodrug. *Biochem. Pharmacol.* 57: 681-684, 1999.
623. Mullen, R.T.; Trelease, R.N.; Duerk, H.; Arand, M.; Hammock, B.D.; Oesch, F. and Grant, D.F.: Differential subcellular localization of endogenous and transfected soluble epoxide hydrolase in mammalian cells: evidence for isozyme variants. *FEBS Lett.* 445: 301-305, 1999.
624. Oesch, F. and Arand, M.: Role of individual enzymes in the control of genotoxic metabolites. In: *Molecular and Applied Aspects of Oxidative Drug Metabolizing Enzymes* (ed. E. Arinc), Plenum Publishing Company, London, pp. 211-220, 1999.
625. Schlink, K.; Janßen, K.; Nitzsche, S.; Gebhard, S.; Hengstler, J.G.; Klein, S. and Oesch, F.: Activity of O6-methylguanine DNA methyltransferase in mononuclear blood cells of formaldehyde-exposed medical students. *Arch. Toxicol.* 73: 15-21, 1999.
626. Schleger, C.; Becker, R.; Oesch, F. and Steinberg, P.: The human p53 gene mutated at position 249 per se is not sufficient to immortalize human liver cells. *Hepatology* 29: 834-838, 1999.
627. Hengstler, J.G.; Tanner, B.; Möller, L.; Vydra, M.; Oesch, F.; Meinert, R. and Kaina, B.: Activity of O6-methylguanine-DNA methyltransferase in relation to p53 status and therapeutic response in ovarian cancer. *Int. J. Cancer* 84: 388-395, 1999.
628. Hengstler, J.G.; Lange, J.; Kett, A.; Dornhöfer, N.; Meinert, R.; Arand, M.; Knapstein, P.G.; Becker, R.; Oesch, F. and Tanner, B.: Contribution of c-erbB-2 and topoisomerase II \square to chemoresistance in ovarian cancer. *Cancer Res.* 59: 3206-3214, 1999.
629. Steinberg, P.; Klingelhoffer, A.; Schafer, A.; Wust, G.; Weisse, G.; Oesch, F. and Eigenbrodt, E.: Expression of pyruvate kinase M2 in preneoplastic hepatic foci of N-nitrosomorpholine-treated rats. *Virchows Arch.* 434: 213-220, 1999.

630. Pal, A.; Seidel, A.; Xia, H.; Hu, X.; Srivastava, S.K.; Oesch, F. and V.Singh, S.: Specificity of murine glutathione S-transferase isozymes in the glutathione conjugation of (-)-anti- and (+)-syn-stereoisomers of benzo[g]chrysene 11,12-diol 13,14-epoxide. *Carcinogenesis* 20: 1997-2001, 1999.
631. Strolin-Benedetti M.; Brogin G.; Bani, M.; Oesch, F. and Hengstler, J.G.: Association of cytochrome P450 induction with oxidative stress in vivo as evidenced by 3-hydroxylation of salicylate. *Xenobiotica* 29: 1171-1180, 1999.
632. Hengstler, J.G.; van der Burg, B.; Steinberg, P. and Oesch, F.: Interspecies differences in cancer susceptibility and toxicology. *Drug. Metab. Rev.* 31: 917-970, 1999.
633. Arand, M.; Hemmer, H.; Dürk, H.; Baratti J.; Archelas, A.; Furstoss, R. and Oesch, F.: Cloning and molecular characterization of a soluble epoxide hydrolase from *Aspergillus niger* that is related to mammalian microsomal epoxide hydrolase. *Biochem. J.* 344: 273-280, 1999.
634. Hengstler, J.G. and Oesch, F.: Interspecies differences in xenobiotic metabolizing enzymes and their importance for interspecies extrapolation of toxicity. In: *General and Applied Toxicology* (eds. Ballantyne, B., Marrs, T.C. and Syversen, T.), Macmillan, London, 271-290, 1999.
635. Steinberg, P; Fischer T.; Kiulies, S.; Biefang,K.; Platt, K.-L.; Oesch, F.; Böttger, T.; Bulitta, C.; Kempf, P. and Hengstler, J.: Drug metabolizing capacity of cryopreserved human, rat, and mouse liver parenchymal cells in suspension. *Drug Metab. Dispos.* 27: 1415-1422, 1999.
636. Tanner, B.; Pilch, H., Schmidt, M.; Steuer, M.; Schäffer, U.; Knapstein, P.G.; Oesch, F. and Hengstler, J.G.: Correlation of c-erbB-2 and topoisomerase II mRNA expression in ovarian cancer. In: *International Gynecologic Cancer Society* (eds. S. Pecorelli, G. Atlante, P., Benedetti, S. Manucuso) Monduzzi Editore, Bologna, pp. 303-310, 1999.
637. Oesch, F.; Reifenrath, M.; Janßen,K.; Götte, W.; Jung, D.; Fuchs, J.; Gebhard, S.; Bienfait, H.G.; Schlink, K.; Dietrich, C.; Faust, D.; Epe, B., Bolm-Audorff, U. and Hengstler, J.G.: DNA-Schädigung und Hemmung der DNA-Reparatur. *Onkologie* 9: 30-31, 1999.
638. Hengstler, J.G.; Walz, J.; Kübel, R.; Truong, T.; Fuchs, J.; Seidel, A.; Arand, M and Oesch, F.: Enhancement of the mutagenicity of ethylene oxide and several directly acting mutagens by human erythrocytes and its reduction by xenobiotic interaction. In: *Molecular and Applied Aspects of Oxidative Drug Metabolizing Enzymes* (ed. E. Arinc), Kluwer Academic Plenum Publishers, pp. 221-246, 1999.
639. Oesch, F., and Arand, M.: Xenobiotic Metabolism. In: *Toxicology* (eds. H. Marquardt, S. Schäfer, D. McLellan and C. Welsch), pp. 83-110. Academic Press, San Diego, 1999.
640. Hengstler, J.G.; Utensch, D.; Steinberg, P.; Platt, K.L.; Diener, M.; Ringel, M.; Swales, N.; Fischer, T.; Biefang, K.; Gerl, M.; Böttger, T. and Oesch, F.: Cryopreserved primary hepatocytes as a constantly available in vitro model for the evaluation of human and animal drug metabolism and enzyme induction. *Drug Metab. Rev.* 32: 81-118, 2000.
641. Hengstler, J.G.; Ringel,M.; Biefang, K.; Hammel, S.; Milbert, U.; Gerl, M.; Klebach, M.; Diener, B.; Platt, K.L.; Böttger, T.; Steinberg, P. and Oesch, F.: Cultures with cryopreserved hepatocytes: applicability for studies of enzyme induction. *Chem. Biol. Interact.* 125: 51-73, 2000.
642. Zou, J.; Hallberg, B.M.; Bergfors, T., Oesch, F.; Arand, M.; Mowbray, S.L. and Jones, T.A.: Structure of *Aspergillus niger* epoxide hydrolase at 1.8 Å resolution: implications for the structure

and function of the mammalian microsomal class of epoxide hydrolases. *Structure* 8: 111-122, 2000.

643. Hengstler, J.G.; Bockisch, A.; Fuchs, J.; Grimm, W.; Görge, R.; Oesch-Bartlomowicz, B.; Zapf, A.O.; Lade, K.; Tanner, B.; Teichmann, E.; Thelen, M.; Gebhard, S. and Oesch, F.: Induction of DNA single-stand breaks by ^{131}I and $^{99\text{m}}\text{Tc}$ in human mononuclear blood cells in vitro and extrapolation to the in vivo situation. *Radiat. Res.* 153: 512-520, 2000.
644. Oesch, F.; Herrero, M.E.; Hengstler, J.G.; Lohmann, M. and Arand, M.: Metabolic detoxification: Implications for thresholds. *Toxicol. Pathol.* 28: 382-387, 2000.
645. Hewitt, N.J.; Fischer, T.; Zuehlke, U.; Oesch, F. and Utetsch, D.: Metabolic activity of fresh and cryopreserved cynomolgus monkey (*Macaca fascicularis*) hepatocytes. *Xenobiotica* 30: 665-681, 2000.
646. Hengstler, J.G.; Bauer, A.; Wolf, H.K.; Bulitta, C.J.; Tanner, B.; Oesch, F. and Boettger, T.: Mutation analysis of the cationic trypsinogen gene in patients with pancreatic cancer. *Anticancer Res.* 20: 2967-2974, 2000.
647. Oesch, F.; Arand, M. and Hengstler, J.G.: Enzympolymorphismen als Ursachen erhöhter Suszeptibilität in der chemischen Karzinogenese. In: „Strahlenbiologie und Strahlenschutz“ (eds. W.-U. Müller, G. Heinemann and F. Fehringer), Publication Series, Progress in Radiation Protection. pp. 374-393, 2000.
648. Teichmann, E.M.; Hengstler, J.G.; Schreiber, W.G.; Akbari, W.; Georgi, H.; Hehn, M.; Schiffer, I.; Oesch, F.; Spiess, H.W. und Thelen, M.: Possible mutagenic effects of magnetic fields. *Röfo Fortschr. Geb. Rontgenstr. Neuen Bildgeb. Verfahr.* 172: 934-9, 2000.
649. Härtter, S.; Wang, X.; Weigmann, H.; Friedberg, T.; Arand, M.; Oesch, F. and Hiemke, C.: Differential effects of fluvoxamine and other antidepressants on the biotransformation of melatonin. *J. Clin. Psychopharmacol.* 21: 167-174, 2001.
650. Ringhoffer, M.; Schmitt, M.; Jäger, E.; Karbach, J.; Oesch, F. and Arand, M.: Quantitative assessment of the expression of melanoma-associated antigens by noncompetitive reverse transcription polymerase chain reaction (RT-PCR). *Int. J. Oncol.* 19: 983-989, 2001.
651. Dietrich, C.; Gumpert, N.; Heit, I.; Bochert-Stuhlträger, M.; Oesch, F. and Wieser, R.: Rottlerin induces a transformed phenotype in human keratinocytes. *Biochem. Biophys. Res. Com.* 282: 575-579, 2001.
652. Hengstler, J.G. and Oesch, F.: The Ames Test. *Encyclopedia of Genetics* (eds. Brenner, S. and Miller, J.), Academic Press, New York, pp. 51-54, 2001.
653. Heit, I.; Wieser, R.J.; Herget, T.; Faust, D.; Borchert-Stuhlträger, M.; Oesch, F. and Dietrich, C.: Involvement of protein kinase C δ in contact-dependent inhibition of growth in human and murine fibroblasts. *Oncogene* 20: 5143-5154, 2001.
654. Janssen, K.; Eichhorn-Grombacher, U.; Schlink, K.; Nitzsche, S.; Oesch, F. and Kaina, B.: Long-time expression of DNA repair enzymes MGMT and APE in human peripheral blood mononuclear cells. *Arch. Toxicol.* 75: 306-312, 2001.

655. Janssen, K.; Schlink, K.; Götte, W.; Hippler, B.; Kaina, B. and Oesch, F.: DNA repair activity of 8-oxoguanine DNA glycosylase 1 (OGG1) in human lymphocytes is not dependent on genetic polymorphism Ser³²⁶/Cys³²⁶. *Mutat. Res.* 486: 207-216, 2001.
656. Oesch-Bartlomowicz, B.; Richter, B.; Becker, R.; Vogel, R.; Padma, P.R.; Hengstler, J.G. and Oesch, F.: cAMP-dependent phosphorylation of CYP2B1 as a functional switch for cyclophosphamide activation and its hormonal control in vitro and in vivo. *Int. J. Cancer* 94: 733-742, 2001.
657. Hengstler, J.G.; Pilch, H.; Schmidt, M.; Dahlenburg, H.; Sagemüller, J.; Schiffer, I.; Oesch, F.; Knapstein, P.G.; Kaina, B. and Tanner, B.: Metallothionein expression in ovarian cancer in relation to histopathologic parameters and molecular markers of prognosis. *Int. J. Cancer* 95: 121-127, 2001.
- 658a. Oesch, F.; Herrero, M.E.; Lohmann, M.; Hengstler, J.G. and Arand, M.: Sequestration of biological reactive intermediates by trapping as covalent enzyme-intermediate complex. In: "Biological Reactive Intermediates VI" (ed. R. Snyder), Kluwer Academic/Plenum Publishers, New York, pp. 577-586, 2001.
- 658b. Oesch, F.; Herrero, M.E.; Lohmann, M.; Hengstler, J.G. and Arand, M.: Sequestration of biological reactive intermediates by trapping as covalent enzyme-intermediate complex. *Adv. Exp. Med. Biol.* 500: 577-86, 2001.
659. Micke, P.; Hengstler, J.G.; Ros, R.; Bittinger, F.; Metz, T.; Gebhard, S.; Beeh, K.M.; Oesch, F. and Buhl, R.: c-erbB-2 expression in small-cell lung cancer is associated with poor prognosis. *Int. J. Cancer* 92: 474-479, 2001.
660. Schreiber, W.G.; Teichmann, E.M.; Schiffer, I.; Hast, J.; Akbari, W.; Georgi, H.; Graf, R.; Hehn, M.; Spiebeta, H.W.; Thelen, M.; Oesch, F. and Hengstler, J.G.: Lack of mutagenic and comutagenic effects of magnetic fields during magnetic resonance imaging. *J. Magn. Reson. Imaging* 14: 779-788, 2001.
661. Dietrich, C.; Scherwat, J.; Faust, D. and Oesch, F.: Subcellular localization of β -catenin is regulated by cell density. *Biochem. Biophys. Res. Commun.* 292: 195-199, 2002.
662. Arand, M. and Oesch, F.: Mammalian xenobiotic epoxide hydrolases. *Handbook of Enzyme Systems that Metabolise Drugs and Other Xenobiotics* (ed. C. Ioannides), John Wiley & Sons, Chichester, pp. 459-483, 2002.
663. Vodicka, P.; Koskinen, M.; Arand, M.; Oesch, F. and Hemminki, K.: Spectrum of styrene-induced DNA adducts: the relationship to other biomarkers and prospects in human biomonitoring. *Mutat. Res.* 511: 239-254, 2002.
664. Beerheide, W.; von Mach, M.A.; Ringel, M.; Fleckenstein, C.; Schumann, S.; Renzing, N.; Hildebrandt, A.; Brenner, W.; Jensen, O.; Gebhard, S.; Reifenberg, K.; Bender, J.; Oesch, F. and Hengstler, J.G.: Downregulation of β 2-microglobulin in human cord blood somatic stem cells after transplantation into livers of SCID-mice: an escape mechanism of stem cells? *Biochem. Biophys. Res. Commun.* 294: 1052-1063, 2002.
665. Hast, J.; Schiffer, I.B.; Neugebauer, B.; Teichmann, E.; Schreiber, W.; Brieger, J.; Kim, D.W.; Gebhard, S.; Born, C.J.; Strugala, M.; Sagemüller, J.; Brenner, W.; Mann, W.J.; Oesch, F.;

- Thelen, M. and Hengstler, J.G.: Angiogenesis and fibroblast proliferation precede formation of recurrent tumors after radiation therapy in nude mice. *Anticancer Res.* 22: 677-688, 2002.
666. Komlósh, A.; Volohonsky, G.; Porat, N.; Tuby, C.; Bluvshtein, E.; Steinberg, P.; Oesch, F. and Stark, A.A.: Gamma-Glutamyl transpeptidase and glutathione biosynthesis in non-tumorigenic and tumorigenic rat liver oval cell lines. *Carcinogenesis* 23: 671-8, 2002.
667. Ringel, M.; Oesch, F.; Gerl, M.; Klebach, M.; Quint, M.; Bader, A.; Bottger, T. and Hengstler, J.G.: Permissive and suppressive effects of dexamethasone on enzyme induction in hepatocyte co-cultures. *Xenobiotica* 32: 653-666, 2002.
668. Dietrich, C.; Faust, D.; Budt, S.; Moskwa, M.; Kunz, A.; Bock, K.W. and Oesch, F.: 2,3,7,8-Tetrachlorodibenzo-p-dioxin-dependent release from contact inhibition in WB-F344 cells: Involvement of cyclin A. *Toxicol. Appl. Pharmacol.* 183: 117-126, 2002.
669. Bockamp, E.; Maringer, M.; Spangenberg, C.; Fees, S.; Fraser, S.T.; Eshkind, L.; Oesch, F. and Zabel, B.: Of mice and models: improved animal models for biomedical research. *Physiol. Genom.* 11: 115-132, 2002.
670. Oesch-Bartłomowicz, B. and Oesch, F.: Fast regulation of cytochrome P450 activities by phosphorylation and consequences for drug metabolism and toxicity. *Biol. Chem.* 383: 1587-1592, 2002.
671. Hengstler, J.G.; Heimerdinger, C.K.; Schiffer, I.B.; Gebhard, S.; Sagemüller, J.; Tanner, B.; Bolt, H.M. and Oesch, F.: Dietary topoisomerase II-poisons: contribution of soy products to infant leukemia ? *EXCLI J.* 1: 8-14, 2002.
672. Haufroid, V.; Jakubowski, M.; Janasik, B.; Ligocka, D.; Buchet, J.-P.; Bergamaschi, E.; Manini, P.; Mutti, A.; Ghittori, S.; Arand, M.; Hangen, N.; Oesch, F.; Hirvonen, A. and Lison, D.: Interest of genotyping of drug-metabolizing enzymes for the interpretation of biological monitoring of exposure to styrene. *Pharmacogenetics*, 12:691-702, 2002.
673. Oesch-Bartłomowicz, B. and Oesch, F.: Cytochrome-P450 phosphorylation as a functional switch. *Arch. Biochem. Biophys.* 409: 228-234, 2003.
674. Dietrich, C.; Faust, D.; Moskwa, M.; Kunz, A.; Bock, K.-W. and Oesch, F.: TCDD-dependent downregulation of γ -catenin in rat liver epithelial cells (WB-F344). *Int. J. Cancer*: 103: 435-439, 2003.
675. Hengstler, J.G.; Bogdanffy, M.S.; Bolt, H.M. and Oesch, F.: Challenging dogma: Thresholds for genotoxic carcinogens? The case of vinyl acetate. *Annu. Rev. Pharmacol. Toxicol.* 43: 485-520, 2003.
676. Cronin, A.; Mowbray, S.; Dürk, H.; Homburg, S.; Fleming, I.; Fisslthaler, B.; Oesch, F. and Arand, M.: The N-terminal domain of mammalian soluble epoxide hydrolase is a phosphatase. *Proc. Natl. Acad. Sci. USA*, 100: 1552-1557, 2003.
677. Schiffer, I.B.; Schreiber, W.G.; Graf, R.; Schreiber, E.M.; Jung, D.; Rose, D.M.; Hehn, M.; Gebhard, S.; Sagemüller, J.; Spieß, H.W.; Oesch, F.; Thelen, M. and Hengstler, J.G.: No influence of magnetic fields on cell cycle progression using conditions relevant for patients during MRI. *Bioelectromagnetics*. 24: 241-250, 2003.

678. Arand, M.; Herrero-Plana, M.E.; Hengstler, J.G.; Lohmann, M.; Cronin, A. and Oesch, F.: Detoxification strategy of epoxide hydrolase. The basis for a threshold in chemical carcinogenesis. EXCLI J. 2: 22-30, 2003.
679. Gebhardt, R.; Hengstler, J.G.; Müller, D.; Glöckner, R.; Buening, P.; Laube, B.; Schmelzer, E.; Ullrich, M.; Utesch, D.; Hewitt, N.; Ringel, M.; Hilz, B.R.; Bader, A.; Langsch, A.; Koose, T.; Burger, H.J.; Maas, J. and Oesch, F.: New hepatocyte in vitro systems for drug metabolism: metabolic capacity and recommendations for application in basic research and drug development, standard operation procedures. Drug Metab.Rev. 35: 145-213, 2003.
680. Hengstler, J.G.; Bolm-Audorff, U.; Faldum, A.; Janssen, K.; Reifernrath, M.; Götte, W.; Jung, D.; Mayer-Popken, O.; Fuchs, J.; Gebhard, S.; Bienfait, H.-G.; Schlink, K.; Dietrich, C.; Faust, D.; Epe, B. and Oesch, F.: Occupational exposure to heavy metals: DNA damage induction and DNA repair inhibition prove co-exposures to cadmium, cobalt and lead as more dangerous than hitherto expected. Carcinogenesis, 24: 63-73, 2003.
681. Arand, M.; Hallberg, B.M.; Zou, J.; Bergfors, T.; Oesch, F.; van der Werf, M.J.; de Bont, J.A.M.; Jones, T.A. and Mowbray, S.L.: Structure of Rhodococcus erythropolis limonene-1,2-epoxide hydrolase reveals a novel active site.EMBO J. 22: 2583-2592, 2003.
682. Schiffer, I.B.; Gebhard, S. Heimerdinger, C.K.; Heling, A.; Hast, J.; Wollscheid, U.; Seliger, B.; Tanner, B.; Gilbert, S.; Beckers, T.; Baasner, S.; Brenner, W.; Spangenberg, C.; Prawitt, D.; Trost, T.; Schreiber, W.G.; Zabel, B.; Thelen, M.; Lehr, H.A.; Oesch, F. and Hengstler, J.G.: Switching off HER-2/neu in a tetracycline-controlled mouse tumor model leads to apoptosis and tumor-size-dependent remission. Cancer Res. 63: 7221-7233, 2003.
683. Arand, M.; Cronin, A.; Oesch, F.; Mowbray, S.L. and Jones, T. A.: The tell tale structures of epoxide hydrolases. Drug Metab.Rev., 35, 365-383, 2003.
684. Micke, P.; Basrai, M.; Faldum, A.; Bittinger, F.; Ronnstrand, L.; Blaukat, A.; Beeh, K.M.; Oesch, F.; Fischer, B.; Buhl, R. and Hengstler, J.G.: Characterization of c-kit expression in small cell lung cancer: Prognostic and therapeutic implications. Clin. Cancer Res. 9: 188-194, 2003.
685. Tanner, B.; Grimme, S.; Schiffer, I.; Heimerdinger, C.; Schmidt, M.; Dutkowski, P.; Neubert, S.; Oesch, F.; Franzen, A.; Kölbl, H.; Fritz, G.; Kaina, B. and Hengstler, J.G.: Nuclear expression of apurinic/apyrimidinic endonuclease increases with progression of ovarian carcinomas. Gynecol. Oncol. 92: 568-577, 2004.
686. Reder-Hilz, B.; Ullrich, M.; Ringel, M.; Hewitt, N.; Utesch, D.; Oesch, F. and Hengstler, J.G.: Metabolism of propafenone and verapamil by cryopreserved human, rat, mouse and dog hepatocytes: comparison with metabolism in vivo. Naunyn-Schmiedeberg's Arch. Pharmacol. 369: 408-417, 2004.
687. Oesch-Bartlomowicz, B.; Janssen, K.; Wiss, O. and Oesch, F.: Guanine 6-O-methylation pattern within the dioxin responsive element of the CYP1A1 enhancer shows two critical guanines for AhR/ARNT binding. Chemistry & Biodiversity, 1: 473-480, 2004.
688. Oesch-Bartlomowicz, B. and Oesch, F.: Modulation of mutagenicity by phosphorylation of mutagen-metabolizing enzymes. Arch. Biochem. Biophys., 423: 31-36, 2004.
689. Oesch, F.; Hengstler, J.G. and Arand, M.: Detoxification strategy of epoxide hydrolase – the basis for a novel threshold for definable genotoxic carcinogens. Nonlinearity in Biology, Toxicology, and Medicine, 2: 21-26, 2004.

690. Oesch, F. and Hengstler, J.G.: Bedeutung des Metabolismus für die Risikocharakterisierung. In: *Regulatorische Toxikologie* (eds. F.-X. Reichl and M. Schwenk), Springer-Verlag, Heidelberg, pp. 361-374, 2004.
691. Prawitt, D.; Brixel, L.; Spangenberg, C.; Eshkind, L.; Heck, R.; Oesch, F.; Zabel, B. and Bockamp, E.: RNAi knock-down mice: an emerging technology for post-genomic functional genetics. *Cytogenet. Genome Res.* 105: 412-421, 2004.
692. Efferth, T.; Benakis, A.; Romero-Rodriguez, M.; Tomicic, M.; Rauh, R.; Steinbach, D.; Häfer, R.; Stamminger, T.; Kaina, B.; Oesch, F. and Marschall, M.: Enhancement of cytotoxicity of artemisinins toward cancer cells by ferrous iron. *Free Radic. Biol. Med.* 37: 998 – 1009, 2004.
693. Efferth, T. and Oesch, F.: Oxidative stress response of tumor cells: Microarray-based comparison between artemisinins and anthracyclines. *Biochem. Pharmacol.* 68: 3-10, 2004.
694. Arand, M. and Oesch, F.: Fremdstoffmetabolismus. *Lehrbuch der Toxikologie* (eds. S. Schäfer and H. Marquardt), Wissenschaftliche Verlagsanstalt Stuttgart, pp. 89-116, 2004.
695. Hoelper, P.; Faust, D.; Oesch, F. and Dietrich, C.: Transforming growth factor beta-1 is not involved in 2,3,7,8-tetrachlorodibenzo-p-dioxin-dependent release from contact-inhibition in WB-F344 cells. *Arch. Toxicol.* 78: 643-648, 2004.
696. Carmo, H.; Hengstler, J.G.; de Boer, D.; Ringel, M.; Carvalho, F.; Fernandes, E.; Remiao, F.; Dos Reys, L.A.; Oesch, F. and de Lourdes Bastos M.: Comparative metabolism of the designer drug 4-methylthioamphetamine by hepatocytes from man, monkey, dog, rabbit, rat and mouse. *Naunyn Schmiedeberg's Arch.Pharmacol.* 369: 198-205, 2004.
697. Oesch-Bartlomowicz, B. and Oesch, F.: Phosphorylation of cytochrome P450: First discovery of a posttranslational modification of a drug metabolizing enzyme. *Biochem. Biophys. Res. Commun.* 338: 446-449, 2005.
698. Muttray, A.; Spelmeyer, U.; Hommel, G.; Oesch, F.; Jung, D.; Rose, D.; Mayer-Popken, O.; Rossbach, B. and Letzel, S.: Acute exposure to 50 ppm toluene does not increase sleepiness. *Environ. Toxicol. Pharmacol.* 19: 665-669, 2005.
699. Ringel, M.; von Mach, M.A.; Santos, R.; Feilen, P.J.; Brulpport, M.; Hermes, M.; Bauer, A.; Schormann, W.; Schiffer, I.B.; Tanner, B.; Schon, M.R.; Oesch, F. and Hengstler, J.G.: Hepatocytes cultured in alginate microspheres: an optimized technique to study enzyme induction. *Toxicology*, 206: 153-167, 2005.
700. Carmo, H.; Hengstler, J.G.; de Boer, D.; Ringel, M.; Remiao, F.; Carvalho, F.; Fernandes, E.; dos Reys, L.A.; Oesch, F. and de Lourdes Bastos M.: Metabolic pathways of 4-bromo-2,5-dimethoxy-phenethylamine (2C-B): analysis of phase I metabolism with hepatocytes of six species including human. *Toxicology* 206: 75-89, 2005.
701. Hölder, P.; Faust, D.; Oesch, F. and Dietrich, C.: Evaluation of the role of c-src and ERK in TCDD-dependent release from contact-inhibition in WB-F344 cell. *Arch. Toxicol.* 79: 201-207, 2005.
702. Arand, M.; Cronin, A.; Adamska, M. and Oesch F.: Epoxide hydrolases: structure, function, mechanism, and assay. *Methods Enzymol.* 400: 569-588, 2005.

703. Faust, D.; Dolado, I.; Cuadrado, A.; Oesch, F. Weiss, C.; Nebreda, A.R. and Dietrich, C.: p38 MAPK is required for contact inhibition. *Oncogene* 24: 7941-7945, 2005.
704. Weiss, C.; Faust, D.; Dürk, H.; Kolluri, S.K.; Pelzer, A.; Schneider, S.; Dietrich, C.; Oesch, F. and Göttlicher, M.: TCDD induces c-jun expression via a novel Ah (dioxin) receptor-mediated p38 MAPK-dependent pathway. *Oncogene* 24: 4975-4983, 2005.
705. Oesch-Bartlomowicz, B.; Huelster, A.; Wiss, O.; Antoniou-Lipfert, P.; Dietrich, C.; Arand, M.; Weiss, C.; Bockamp, E. and Oesch, F.: Aryl hydrocarbon receptor activation by cAMP vs. dioxin: divergent signaling pathways. *Proc. Natl. Acad. Sci. U S A.* 102: 9218-23, 2005.
706. Hengstler, J.G.; Brulport, M.; Schormann, W.; Bauer, A.; Hermes, M.; Nussler, A.K.; Fandrich, F.; Ruhnke, M.; Ungefroren, H.; Griffin, L.; Bockamp, E.; Oesch, F. and von Mach, M.A.: Generation of human hepatocytes by stem cell technology: definition of the hepatocyte. *Expert Opin. Drug Metab. Toxicol.* 1: 61-74, 2005.
707. Oesch-Bartlomowicz, B.; Arand, M.; Hengstler, J.G.; Schiffer, I.B. and Oesch, F.: Carcinogenesis control: From chemically reactive species to interference with proliferation. In: *Controversies in Gynecological Oncology/Kontrowersje w ginekologii onkologicznej* (ed. J. Kotarski), IZT, Lublin, Poland, pp. 13-18, 2005.
708. Schulte-Hermann, R.; Wogan, G.N.; Berry, C.; Brown, N.A.; Czeizel, A.; Giavini, E.; Holmes, L.B.; Kroes, R.; Nau, H.; Neubert, D.; Oesch, F.; Ott, T.; Pelkonen, O.; Robert-Gnasia, E.; Sullivan, F.M.: Analysis of reproductive toxicity and classification of glufosinate ammonium. *Regulatory Toxicol. Pharmacol.* 44: 1-76, 2006.
709. Carmo, H.; Brulport, M.; Hermes, M.; Oesch, F.; Silva, R.; Ferreira, L.M.; Branco, P.S.; Boer, D.D.; Remiao, F.; Carvalho, F.; Schon, M.R.; Krebsfaenger, N.; Doehmer, J.; Bastos, M.D. and Hengstler, J.G.: Influence of CYP2D6 polymorphism on 3,4-methylenedioxymethamphetamine ('Ecstasy') cytotoxicity. *Pharmacogenet. Genomics* 16: 789-799, 2006.
710. Hausherr, K.; Schiffer, I.B.; Gebhard, S.; Banic, A.; Tanner, B.; Kölbl, H.; Thoenes, E.; Beckers, T.; Spangenberg, C.; Prawitt, D.; Trost, T.; Zabel, B.; Oesch, F.; Hermes, M. and Hengstler, J.G.: Dephosphorylation of p-ERK-1/2 in relation to tumor remission after HER-2 and Raf1 blocking therapy in a conditional mouse model. *Mol. Carcinogenesis* 45: 302-308, 2006.
711. Vodicka, P.; Koskinen, M.; Naccarati, A.; Oesch-Bartlomowicz, B.; Vodickova, L.; Hemminki, K. and Oesch, F.: Styrene metabolism, genotoxicity, and potential carcinogenicity. *Drug Metab. Rev.* 38: 805-53, 2006.
712. Oesch-Bartlomowicz, B. and Oesch, F.: Mechanisms of toxication and detoxication which challenge drug candidates and drugs. In: *Comprehensive Medicinal Medicine* (eds. D. Triggle and J. Taylor), Elsevier, Philadelphia, PA, USA, pp 193-214, 2007.
713. Oesch, F.; Fabian, E.; Oesch-Bartlomowicz, B.; Werner, C. and Landsiedel, R.: Drug metabolizing enzymes in the skin of man, rat, and pig. *Drug Metab. Rev.* 39: 659-698, 2007.
714. Carmo, H.; Brulport, M.; Hermes, M.; Oesch, F.; de Boer, D.; Remião, F.; Carvalho, F.; Schön, M.R.; Krebsfaenger, N.; Doehmer, J.; Bastos Mde, L. and Hengstler, J.G.: CYP2D6 increases toxicity of the designer drug 4-methylthioamphetamine (4-MTA). *Toxicology* 229: 236-44, 2007.

715. Weiss, C.; Faust, D.; Schreck, I.; Ruff, A.; Farwerck, T.; Melenberg, A.; Schneider, S.; Oesch-Bartlomowicz, B.; Zatloukalova, J., Vondracek, J. Oesch, F. and Dietrich, C.: TCDD derregulates contact inhibition in rat liver oval cells via Ah receptor, JunD and cyclin A. *Oncogene* 27: 2198-2207, 2008.
716. Oesch, F.; Weiss, C., Dietrich, C. and Oesch-Bartlomowicz, B.: Dose-response and potential thresholds in tumour development. In: *Mechanisms of Chemical Carcinogenesis and Their Impact on Dose-Response Relationships – the Example of Dioxin and Benzo[a]pyrene* (eds. C. Dietrich, F. Oesch, B. Oesch-Bartlomowicz and C. Weiss), Nofer Institute of Occupational Medicine, Lódz, Poland, pp 77-83, 2008.
717. Oesch, F.; Dietrich, C.; Naegeli, H.P.; Schwarz, M.; van der Horst, G.; Zanger, U.; Oesch, B. and Weiss, C.: New aspects on mechanisms of chemical carcinogenesis: emphasis on species and gender/sex differences and developmental/aging determinants. *Arch. Toxicol.* 82: 875-880, 2008.
718. Oesch-Bartlomowicz, B. and Oesch, F.: Phosphorylation of xenobiotic-metabolizing cytochromes P450. *Anal. Bioanal. Chem.* 392:1085-1092, 2008.
719. Baan, R.; Straif, K.; Grosse, Y.; Secretan, B.; El Ghissassi, F.; Bouvard, V.; Benbrahim-Tallaa, L.; Cogliano, V.; WHO International Agency for Research on Cancer Monograph Working Group: Turesky, R.; Neumann, H.-G.; Oesch, F.; Platzek, T.; Martelli, A.; Negri, E.; Fukushima, S.; 't Mannetje, A.; de Sanjosé, S.; Takkouche, B.; Sorahan, T.; Carreón-Valencia, T.; Chung, K.T.; Freeman, H.S.; Jameson, C.W.; Wu, X.; Zenser, T.; Zhang, Y.; Nohynek, G.J.; Huici-Montagud, A. and Skare, J.A.: Carcinogenicity of some aromatic amines, organic dyes, and related exposures. *Lancet Oncol.* 9:322-323, 2008.
720. Oesch-Bartlomowicz, B. and Oesch, F.: Role of cAMP in mediating AHR signaling. *Biochem. Pharmacol.* 77: 627-641, 2009.
721. Landsiedel, R.; Kapp, M.D.; Schulz, M.; Wiench, K. and Oesch F.: Genotoxicity investigations on nanomaterials: Methods, preparation and characterization of test material, potential artifacts and limitations - Many questions, some answers. *Mutat. Res. Rev.* 681: 241-258, 2009.
722. Finkenwirth, P.; Spelmeyer, U.; Hommel, G.; Rose, D.-M.; Jung, D.; Rossbach, B.; Mayer-Popken, O.; Platt, K.-L.; Oesch, F. and Muttray, A.: Effects of an acute exposure to toluene on the DNA repair activity of the human 8-oxoguanine DNA glycosylase 1 (hOGG1) in healthy subjects. *Arch. Toxicol.* 83: 777-784, 2009.
723. Schreck, I.; Chudziak, D.; Schneider, S.; Seidel, A.; Platt, K.-L.; Oesch, F. and Weiss, C.: Influence of aryl hydrocarbon- (Ah) receptor and genotoxins on DNA repair gene expression and cell survival of mouse hepatoma cells. *Toxicology* 259: 91-96, 2009.
724. Oesch, F.: Importance of knowledge on drug metabolism for the safe use of drugs in humans. *Drug Metab. Rev.* 41: 298-300, 2009.
725. Watelet, J.-B.; Strolin Benedetti, M.; Church, M.K. and Oesch, F.: Drug Metabolism and Disposition: Concepts and Applications in Allergic Diseases: General Conclusions. *Drug Metab. Rev.* 41: 528-529, 2009.
726. Oesch-Bartlomowicz, B.; Weiss, C.; Dietrich, C. and Oesch, F.: Circadian rhythms and chemical carcinogenesis: Potential link. An overview. *Mutat. Res.* 680: 83-86, 2009.

727. Dietrich, C.; Weiss, C.; Bockamp, E.; Brisken, C.; Roskams, T.; Morris, R.; Oesch-Bartlomowicz, B. and Oesch, F.: Stem cells in chemical carcinogenesis. *Arch. Toxicol.*, in press.

728. Oesch, F.; Fabian, E.; Kamp, H.; Bernshausen, T.; Damm, G.; Triebel, S.; Döhmer, J.; Landsiedel, R.; van Ravenzwaay, B. and Metzler, M.: In vitro mammalian metabolism of the mitosis inhibitor zoxamide and the relationship to its in vitro toxicity. *Xenobiotica*, in press.