

REFERENCES

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1. Jack, D., *The challenge of drug discovery*. Drug Design Delivery, **1989**. 4: p. 167-186.
2. Schwartz, H.B., *The Discovery of Modern Medicines*. 1 ed. **1989**: Janssen. Morris Plains, NJ Skyline Publishing. 5-15.
3. Dimasi, J.A., et al., *Journal of Health Economics*, **1991**. **10**: p. 107-142.
4. Black, J.W., *British Journal of Clinical Pharmacology* **1986**. 22: p. 52-58.
5. Klimstra, P.D. and A.T. Raphael, *Integrating R & D and business strategy*. Research Technology Management, **1992**. 35: p. 22-26.
6. Roussel, P.A., K.N. Saad, and T.J. Erickson, *Third Generation* **1991**: R & D. Cambridge, MA Harvard Business School Press.
7. Jacques, F.M., L. Linden, and N. Selby, *Pharm Executive*, **1992**. 12: p. 52-72.
8. Williams D.A.; Lemke ,T.L. Foye's Principle of Medicinal Chemistry **2002**:1-20
9. Seydel, J.K.; Cordes H.P.; Wiese, M.; et al *Quant .Struc. Act. Relat* **1989** .8, 266-278
10. Seydel, J.K. ;Albores Velasco.M. *Quant .Struc. Act. Relat.* **1992**,11 ,205-210
11. Wrighton S.A.; Ring B.J. *Drug Meta. Rev* **1999**, 31, 16-25
12. Zevin ,S. Benowitz, N.L *Clin. Pharmacokin.* **1999**, 36, 430-435
13. Watari, N.; Sugiyama, Y.; et al *J. Pharmacokine. and biopharmaceutics* **1988**, 16, 285 -296
14. Wrighton S.A.; Ring B.J. *Toxico. Pathol.* **1995**, 23, 200-205
15. Leo, A.; Hansch, C.; Clurch, C. *J Med Chem.* **1969**, 12, 766.
16. McGowan, J.C. *Nature* **1963**, 200, 1317.
17. Swain, C.G.; Lupton, E.C.; Jr. *J. Am. Chem. Soc.* **1968**, 90: 4328.

18. Hansch, C. *J. Med Chem.* **1968**, 11: 920.
19. Comelis, A.; Lambert, S.; Laszl, A.P. *J. Org. Chem.* **1977**, 42: 381.
20. Taft, R. W. Jr. *Steric Effects in Organic Chemistry*, Ed. Newmann, M.S., John Wiley & Sons, New York, **1956**, pp. 556.
21. Purcell, W.P., Bass, G.E., Clayton, J.M. *Strategy of Drug Design - A Molecular Guide to Biological Activity*. John Wiley & Sons, New York, **1973**.
22. Hansch, C.; Leo, A.; Unger, S.H.; Kim, K.G.; Nikaitani, D.; Lien, E.J. *J. Med Chem.* **1973**, 16, 1207.
23. Hansch, C.; Rockwell, S.D.; Jow, P. Y.C.; Leo, A.; Steller, E.E. *J Med Chem* **1977**, 20, 304.
24. Free, S.M., Jr.; Wilson, J.W. *J. Med Chem.* **1964**, 7, 395.
25. Craig, P.N.; Hansch, C. *J. Med Chem.* **1973**, 16, 661.
26. Chang, R.S.L., et al., *Science*, **1985**. 230: p. 177-179.
27. Schreiber, S.L., *Science*, **1991**. 251: p. 283-287.
28. Appelt, A., et al., *Journal of Medicinal Chemistry*, **1991**. 34: p. 1925-1934.
29. Burch, R.M., *J. Receptor Research*, **1991**. 11: p. 101-114.
30. Williams, M. and M.F. Jarvis, Clark, C.R. and Moos, W.H., *Biochemical approaches to drug discovery and characterization*. Drug Discovery Technologies Edn. 1990, Chichester, UK: Ellis Horwood. 129-166.
31. Williams, M., *Medicinal Research Review*, **1991**. 11: p. 147-184.
32. Cuatrecasas, P., *Annual Reviews Biochemistry* **1974**. **43**: p. 169-204.
33. Marshall, G.R. and C.B. Naylor, *Comprehensive Medicinal Chemistry*. Vol. 4. **1990**. 431-458.
34. Blaney, J.M. and C. Hansch, *Comprehensive Medicinal Chemistry*. Vol. 4. **1990**. 459-496.
35. Snyder, J.P., *Medicinal Research Review*, **1992**. 11: p. 641-662.
36. Hollenberg, M.D., *Receptor triggering and receptor regulation: structure-activity relationships from the receptor's point of view* *Journal of Medicinal Chemistry*, **1990**. 33: p. 1275-1281. .

37. Fesik, S.W., NMR studies of molecular complexes as a tool in drug design *Journal of Medicinal Chemistry*, **1991**. 34: p. 2937-2945.
38. Wuthrich, K., et al., Receptor-induced conformation change of the immunosuppressant cyclosporin A. *Science*, **1991**. 254: p. 953-954.
39. Ooms, F., Molecular modeling and computer aided drug design. *Journal of Computer Aided Molecular Design*, **2000**. 7: p. 141-158.
40. Agrawal, A. and E.W. Taylor, 3-D QSAR for intrinsic activity of 5-HT_{1A} receptor ligands by the method of comparative molecular field analysis. *Journal of Computational Chemistry*, **1993**. 14: p. 237 -245.
41. Ferrin, T.E., et al., The MIDAS display system. *Journal of Molecular Graphics*, **1988**. 6: p. 13-27.
42. Vaz, R.J., M. L.R., and J.T. Pelton, *Journal of Computer Aided Molecular Design*, **1998**. 12: p. 99.
43. Tame, J.R.H., *Journal of Computer Aided Molecular Design*, **1999**. 13: p. 99.
44. Green, S.M. and G.R. Maeshall, A Current perspective (3D-QSAR), **1995**. 16: p. 285-291.
45. Martin, Y.C., *Quantitative Drug Design*. **1978**, New York: Marcel Dekker. 381.
46. Waterbeemed, H.V., *Advanced Computer Assisted Techniques in Drug Discovery*. 2 ed. **1995**, New York: VCH Publishers Inc. 296.
47. L. B. Kier and L. H. Hall, Quantitative Information Analysis: The New Center of Gravity in Medicinal Chemistry, *Med. Chem. Res.* **1997** ,7, 335-339
48. L. B. Kier, *Molecular Orbital Theory in Drug Research*, Academic Press, New York **1971**
49. L. B. Kier and L. H. Hall, *Molecular Connectivity in Chemistry and Drug Research*, Academic Press, New York **1976**
50. L. B.Kier and L. H. Hall, *Molecular Connectivity in Structure-Activity Analysis*, John Wiley, New York **1986**

51. L. B. Kier and L. H. Hall, *Molecular Structure Description: The Electrotopological State*, Academic Press **1999**
52. Kubinyi, H. 5 ed. *Burger's Medicinal Chemistry*. **1994**, New York: John Wiley and Sons. 505-530.
53. Stevens, D.G., *Journal of Medicinal Chemistry*, **1991**. **34**: p. 2665-2670.
54. Sneader, W., *Drug Discovery and the Evolution of Modern Medicines*. Vol. 52-62. **1985**, Chichester, U.K.: Wiley.
55. Parnham, M.J. and J. Bruinvels, *Discoveries in Pharmacology*, **1986**. **1**: p. 36.
56. Martin, Y.C., "Quantitative drug design-A critical introduction" (Marcel Dekker, New York) **1978**
57. Hansch, C and Fugita, T., *J. Am. Chem. Soc.* **1964**, **86**, 1616
58. Ashutosh Kar, *Book Of Medicinal Chemistry*, 1-10
59. Crum-Brown, A ; Frazer, T.; *Trans. R. Soc. Edinburg* **1868-9**, **25**, 151
60. D.V. Daniels, J.R. Gevel, J.R. Jasper, M.S. Kava, J.D. Lesnick, T.D Meloy, G. Stepan, T.J. Williams, D.E. Clarke, D.J. Chang and A.P.D.W. Ford *Eur. J. Pharmacol.* **370** **1999** , p. 337.
61. C.Hansch ref 70 pp 47-61 .
62. Nitya Anand, *Med Chem Rev* **1995** ,559-568
63. Hammett, L.P. *Physical Organic Chemistry*, Mc Graw-Hill, New York, **1940**, 131-150.
64. Taft, R.W.; Lewis, I.C. *J. Am. Chem. Soc.* **1959**, **81**, 5343
65. Pandya, S.N; *Medicinal chemistry* p-1040
66. Hansch, C., Yoshimoto, M., and Doll, M.H., *J. Med Chem.*, 1976, **19**, 1089
67. Hansch, C in "Biological Activity and Chemical Structure "Keverling –Buisman. J.A. Ed., (Elsevier, Amsterdam) **1977**, P.47
68. Jorgensen, E.C and Reid, J.A., *J. Med. Chem.*, **1965**, **8** ,533
69. Cousse, H., Mouzin, G. and Hinterland, L.D., *Eur. J. Med. Chem.*, **1973**, **4**, 466

70. Goodford,P.J., Hudson,A.T., Sheppey,G., Wooton,R., Black,M., Sutherland,G.J. and Wickham,J.C., *J.Med.Chem.*, **1976**,19,1239
71. Cammarata, A. *J. Med Chem.* **1972**, 15: 573.
72. Cammarata, A.;Bustard, T.M. *J, Med Chem.* **1974**, 17, 981.
73. Craig, P.N., *J Med Chem.* **1971**, 14,680.
74. Topliss, J.G., Edwards, R.P. *J.Med Chem.* **1979**,22: 1238.
75. Hansch, C.;Leo, A. Substituent constants for correlation analysis in Chemistry and Biology, **1983**.
76. Lein, E.J.; Guo, Z.R.;Li, R.L.; Su, C. T. *J.Pharmaceutical Sci.* **1982**, 71
77. Karelson, M.; Lobanov, V.S. *Chem Rev.* **1996**, 96, 1027-1043.
78. Charton, M. *J. Am. Chem. Soc.* **1975**, 97, 1552.
79. Hansch, C.; Maloney, P.P.; Fujita, T.; Muir, R.M. *Nature.* **1962**,194,178.
80. Fujita, T.; Iwasa, J.; Hansch, C. *J. Am. Chem. Soc.* **1964**, 86, 5175.
81. Hansch, C. *J. Med. Chem.* **1968**, 11, 920.
82. Leo, A.; Hansch, C.; Clurch, C. *J. Med. Chem.* **1969**, 12, 766.
83. Hansch, C.; Leo, A.; Unger, S.H.; Kim, K.G.; Nikaitani, D.; Lein, E.J. *J. Med. Chem.* **1973**, 16, 1207.
84. Nelson-Smith, R.; Hansch, C.; Ames, M.M. *J. Pharm. Sci.* **1975**, 64, 599.
85. Hansch, C.; Rockwell, S.D.; Jow, P.Y.C.; Leo, A.; Steller, E.E. *J. Med. Chem.* **1977**, 20, 304.
86. Free, S.M.; Wilson, J.W. *J. Med. Chem.* **1964**, 7, 395.
87. Cammarata, A.; Bustard, T.M. *J. Med. Chem.* **1974**, 17, 981.
88. Hansch, C., et al., Substituent constants for correlation analysis *Journal of Medicinal Chemistry*, **1977**. 20: p. 304-306.
89. Kubinyi, H., QSAR : Hansch Analysis and Related Approaches. **1993**, New York: VCH Publishers. 57-79.
90. Wolfgang, R.J., Development of biologically active compounds by combining 3D QSAR and structure-based design methods. *Journal of Computer Aided Molecular Design*, **2002**. **16**: p. 825-830.

91. Hansch, C. and J.M. Blaney, eds. *Drug Design (Fact or Fantasy)*. ed. G. Jolls and K.R.H. Woolridge. **1984**, Academic Press: New York. 84.
92. Selassie, C.D., *Burger's Medicinal Chemistry and Drug Discovery*,. 6 ed. Vol. 1. **2003**, New York: John Wiley & Sons, Inc. 2-50.
93. R.A., L., et al., *Reviews in Computational Chemistry*. Vol. 17. **2000**, New York: Wiley-VCH. 1.
94. Young, S. and T. Terasaki, *Journal of Pharmacobiological Dynamics* **1990**. 13: p. 353.
95. Saxena, P.N., *Archives of International Pharmacodynamics*, **1956**. 126: p. 268
96. Wold, S.; Dunn III, W.J. *J. Chem. Inf. Comput. Sci.* **1983**, 23, 6-13.
97. Hardman,J.G.;Limberd,L.E.The Pharmacological basis of therapeutics,10th Ed,The Mcgraw-HillsCompanies,Inc.**2001**,pp 1381-1384
98. Pandeya,S.N.; Antineoplastic agents in A text book of Organic Medicinal Chemistry ,pp 477- 480
99. Gilman, A., and Philips,F.S.: *Science* 103:409, **1946**.
100. www.cancer.gov
101. Pearson, O.H.: *Cancer* 2:945, **1945**.
102. Karnofsky,D.A .;Cancer,18.1517(1965)
103. Robinowitz,L.J.;Myerson,R.M. Topics in Medicinal Chemistry ,Vol.1 Newyork 1967 pp 80-84
104. Williams,D.A.;Lemke,T.L. Foye's Principles of Medicinal Chemistry 5th ed Lippincott Williams and Wilkins **2002** pp 924- 928-724
105. Larionov, L.F *Cancer Chemotherapy*, Newyork ,Pergamon ,1965
106. Plattner, P.A Ed.,Chemotherapy of Cancer ,Elsevier, Amsterdam,1964
107. www.cancer.org.uk/
108. Dolmans DEJGJ, Fukumura D, Jain RK. Photodynamic therapy for cancer. *Nature Reviews Cancer* **2003**;3(5):380–387.
109. Wilson BC. Photodynamic therapy for cancer: Principles. *Canadian Journal of Gastroenterology* **2002**;16(6):393–396.

110. Vrouenraets MB, Visser GWM, Snow GB, van Dongen GAMS. Basic principles, applications in oncology and improved selectivity of photodynamic therapy. *Anticancer Research* **2003**;23:505–522.
111. Dougherty TJ, Gomer CJ, Henderson BW, et al. Photodynamic therapy. *Journal of the National Cancer Institute* **1998**;90(12):889–905.
112. Dickson EFG, Goyan RL, Pottier RH. New directions in photodynamic therapy. *Cellular and Molecular Biology* **2003**;48(8):939–954.
113. Capella MAM, Capella LS. A light in multidrug resistance: Photodynamic treatment of multidrug-resistant tumors. *Journal of Biomedical Science* **2003**;10:361–366.
114. J.Soloman, M.J.Alexander and J.I.Steinfeld, *J.Am.Med.Assoc.*, 183,165(1963)
115. S.Farber et al .,Advan.Cancer Res.,4(1956)
116. S.Kofman,T.j.Medrek and R.W.Alexander,Cancer,17,938(1964)
117. M.B. Shimkin and J.BField in Cancer, and Treatment, J.B. Field, Ed., Brown, Boston, 1959 pp-724
118. Duan, D.: *Pharmacology* 601:49-66
119. Blot WJ, Li JY, Taylor PR, et al. Nutrition intervention trials in Linxian, China: supplementation with specific vitamin/mineral combinations, cancer incidence, and disease-specific mortality in the general population. *J Natl Cancer Inst* **1993**;85:1483-91.
120. The Alpha-Tocopherol, Beta Carotene Cancer Prevention Study Group. The effects of vitamin E and beta carotene on the incidence of lung cancer and other cancers in male smokers. *N Engl J Med* **1994**;330:1029-35.
121. Omenn GS, Goodman G, Thomquist M, et al. The beta-carotene and retinol efficacy trial (CARET) for chemoprevention of lung cancer in high risk populations: smokers and asbestos-exposed workers. *Cancer Res* **1994**;54(7 Suppl):2038s-43s.

122. Hennekens CH, Buring JE, Manson JE, Stampfer M, Rosner B, Cook NR, et al. Lack of effect of long-term supplementation with beta carotene on the incidence of malignant neoplasms and cardiovascular disease. *N Engl J Med* **1996**;334:1145-9.
123. Lee IM, Cook NR, Manson JE. Beta-carotene supplementation and incidence of cancer and cardiovascular disease: Women's Health Study. *J Natl Cancer Inst* **1999**;91:2102-6.
124. G. Chiosis, A. Rodina and K. Moulick .Emerging Hsp90 Inhibitors: From Discovery to Clinic. *Anti-Cancer Agents in Medicinal Chemistry* **2006** vol.6 no. 1 Pp. 1-8
125. E.S. Agoston, M.A. Hatcher, T.W. Kensler and G.H. Posner. Vitamin D Analogs as Anti-Carcinogenic Agents. *Anti-Cancer Agents in Medicinal Chemistry* **2006** vol.6 no. 1 Pp. 53-71
126. I. Kostova. Gold Coordination Complexes as Anticancer Agents. *Anti-Cancer Agents in Medicinal Chemistry* **2006** vol.6 no. 1 Pp. 19-32
127. S.M. Kerwin. Soy Saponins and the Anticancer Effects of Soybeans and Soy-Based Foods *Current Medicinal Chemistry - Anti-Cancer Agents*, Vol. 4, No. 3, **2004** Pp. 263-272
128. Lisa Ann Beltz, Diana Kay Bayer, Amber Lynn Moss, Ira Mitchell Simet.Mechanisms of Cancer Prevention by Green and Black Tea Polyphenols *Anti-Cancer Agents in Medicinal Chemistry* 2006 vol.6,no.5 pp. 389-406
129. Wang, D.; Wiest,O.; Helquist ,P.; Hargest,L.; and Wiech, N.:QSAR Studies of PC-3 cell line inhibition activity of TSA and SAHA-like hydroxamic acids. *Bioorg. & Med.Chem. Lett.*. Volume 14, Issue 3. **2004**, Pages 707-711
130. Xie,A .; Liao,C.; Li,Z.; Ning,Z.; Hu,W.; Lu,X .;Shi ,L .;Zhou,J. Quantitative Structure-Activity Relationship Study of Histone Deacetylase Inhibitors. *Curr.Med.Chem. - Anti-Cancer Agents*, Vol. 4, No. 3, **2004** Pp. 273-299

131. Jha,T.; Debnath,B.; Samanta,S. ;Uday A.QSAR Study on Some Substituted Glutamine Analogs as Anticancer Agents *Internet Elec. J. of Molecular Design*.Vol.2,issue no.8, **2003**. p 539-545
132. Verma,R Anti-Cancer Activities of 1,4-Naphthoquinones: A QSAR Study *.Anti-Cancer Agents in Medicinal Chemistry* vol.6, no.5 p . 489-499
133. Fan Y.; Shi LM.; Kohn KW.; Pommier Y.; Weinstein JN. Quantitative Structure-Antitumor Activity Relationships of Camptothecin Analogues: Cluster Analysis and Genetic Algorithm-Based Studies. *J Med Chem* **2001** Vol.;44(20):3254-63
134. French, K. J.; Zhuang, Y.; Schrecengost ,R.S.; Copper, J.E.,; Xia ,Z .; Smith C.D. Cyclohexyl-octahydro-pyrrolo[1,2-a]pyrazine-based inhibitors of human N-myristoyltransferase-1. *J. of Pharm. And Exp. Therapeutics* **2004**
135. Dua,M.; S Revathi,S.; Love Kumar Soni,L.K.; Arun Kumar Gupta A.K.; KaskhedikarS.G QSAR modeling of thalidomide analogs as antiangiogenic and prostate cancer inhibitor using AM1 calculations *Ind.J. of chem* Vol. 46A, **2007**, p . 247-251
136. Debnath,B.;Samanta,S.;Gayen,S.et al QSAR Study on 5-N-Substituted-2-(SubstitutedBenzenesulphonyl) Glutamines as Antitumor Agents throughSynthesis and Biological Evaluation: Part III *Internet Electronic Journal of Molecular Design* **2003** Vol.2
137. Tripathi,G.; Mishra,J.P QSAR studies on pyrrolo(2,1-d)(1,2,3,4) tetrazinones,a new classof azolotertazines.*Ind. Jour. of Chem.***2005** Vol44 pp 1398-1400
138. Slavov,S.; Atanassova,M.; Galabov,B. QSAR Analysis of the Anticancer Activity of 2,5-Disubstituted 9-Aza-Anthrapyrazoles *QSAR & Combinatorial Science* **2006**Volume 26, Issue 2 , Pages 173 – 181

- 139.** Antanasova,M.;Ilieva,S.;Galabov,B. QSAR analysis of 1,4 dihydro-4-oxo-1-(2-thiazolyl)-1,8-naphthyridines with anticancer activit.*Euro.Jour.of Med.Chem* **2007** ,vol 42 pp 1184-1192
- 140.** Prasanna ,S.; Manivannan,E.; Chaturvedi,S.C. Quantitative structure-activity relationship studies of cyclooxygenase inhibitors: a comprehensive analysis*Drug Development Research* **2005** Vol.64, Issue 4 , Pages 220 – 231
- 141.** Matysiak,J. Evaluation of electronic, lipophilic and membrane affinity effects on antiproliferative activity of 5-substituted-2-(2,4-dihydroxyphenyl)-1,3,4-thiadiazoles against various human cancer cells *Europ. J. of Med. Chem* **2007** Vol.42, Issue 7,Pages 940-947
- 142.** Rahnasto,M.;Raunio,H.;Poso,A.; Wittekindt,C.; Juvonen ,O.R.; . Quantitative Structure-Activity Relationship Analysis of Inhibitors of the Nicotine Metabolizing CYP2A6 Enzyme.*J. Med. Chem.*, **2005** 48 (2), pp-440 -449,
- 143.** Narsinghani, T.; Chaturvedi, S.C QSAR analysis of meclofenamic acid analogues as selective COX-2 inhibitors *Bio. & Med. Chem. Lett.* **2006** Vol. 16, Issue 2, Pages 461-468
- 144.** Chen,J.C.; Qian,Li.; Shen, Y.; Chen, L.M.; Zheng K.C.QSAR Studies on a Series of 7,8-Dialkyl-1,3-diaminopyrrolo-[3,2-f]quinazolines with Anticancer Activity *Chinese Journal of Chemistry* **2006** Vol. 24, Issue 11 ,Pages 1531 – 1537
- 145.** Ren,S.; Wang,R.; Komatsu,K.; et al.Synthesis, Biological Evaluation, and Quantitative Structure-Activity Relationship Analysis of New Schiff Bases of Hydroxysemicarbazide as Potential Antitumor Agents *J. Med. Chem.*, **2002** 45 (2), 410 -419,

146. Medina, P.; Casper, R.; Savouret, J. F.; Puirot, M.; *J. Med.Chem.* **2005**, *48*, 287-291.
147. Nebert, D.W.; Roe,A.L.; Dieter,M.Z.; Solis,W.A.; Yang,Y.; *Biochem. Pharmacol.***2000**, *59*, 65-85.
148. Denison, M.S.; Nagy, S.R.; *Annu. Rev. Pharmacol. Toxicol.* **2003**, *43*,309-334.
149. Shimizu, Y.; Nakatsuru, Y.; Ichinose, M.; Takahashi.Y.; Kume, H.; *Proc. Natl. Acad. Sci. U.S.A.*, **2000**, *97*, 779-782.
150. Anderson, P.; McGuire, J.; Rubico, C.; Gardin, K.; Whitelaw, M. L.; *Proc. Natl. Acad. Sci. U.S.A.*, **2002**,*99*, 9990-9995.
151. Moennikes, O.; Loeppen, S.; Buchmann, A.; Anderson,P.; Ittrich, C.; *Cancer Res.* **2004**, *64*, 4707-4710.
152. Casper, R. F.; Quesne, M.; Rogers, I. M.; Shirota, T.; Jolivet, A.; *Mol.Pharmacol.* **1999**, *356*, 784-790.
153. Quadri, S.A.; Qadri,A.N.; Hanh,M.E.; Mann,K.K.; Sherr, D.H. ;*Mol. Pharmacol.*, **2000**, *58*, 515-525.
154. Savouret, J. F.; Antenos, M.; Quesne,M.; Xu, J.; Milgrom, E.;et al ;*J. Biol. Chem.* **2001**, *276*, 3054-3059.
155. Martin, Y.C.; *Drug Design methods: A Critical introduction*, Marcel Dekker, Inc. NewYork, 1987, 315.
156. Hansch, C.; Leo,A .Substituent constant for correlation Analysis in Chemistry and Biology.Wiley- Interscience :Newyork,1979,P 48.
157. Kiselyov A.S. Semenova.M.; Semenov.V.V.;**2006**, *Bioorg. Med. Chem. Lett.* *16*,1440 (b) Resau, W. 1997, *Nature*, 386, 671.
158. Klagsburun, M.; Moses, M.A. **1999** *Chem.Biol*, *6*, R217

- 159.** The anti –angiogenic antibody Avastin™(Bevacizumab) has recently been approved to treat colorectal cancer, see Culy, C. **2005** *Drugs Today*, 41,23
- 160.** S.L.; Martin, D.F.; Kirkpatrick, P. **2005**, The anti –angiogenic aptamer Macugen™ (Pegaptanib Sodium) has recently been approved to treat neovascular age-related muscular degeneration; see Fine, *Nat. Rev. Drug Disc* 4,187
- 161.** Jordan, M. A.; Wilson, L. Microtubules as a target for anticancerdrugs. *Nat. ReV. Cancer* **2004**, 4, 253-265.
- 162.** Jiang, J. D.; Wang, Y.; Roboz, J.; Strauchen, J.; Holland, J. F.; Bekesi, J. G. Inhibition of microtubule assembly in tumor cells by 3-bromo-acetylamino benzoylurea, a new cancericidal compound. *Cancer Res.* **1998**, 58, 2126-2133.
- 163.** Dumontet, C.; Sikic, B. I. Mechanisms of action of and resistance to anti-tubulin agents: microtubule dynamics, drug transport and celldeath. *J. Clin. Oncol.* **1999**, 17, 1061-1070
- 164.** Young, S. L.; Chaplin, D. J. Combretastatin A4 phosphate: background and current clinical status. *Expert Opin. In Vest. Drugs* **2004**,13, 1171-1182.
- 165.** Cushman, M.; Nagarathnam, D.; Gopal, D.; Chakraborti, A. K.; Lin, C. M.; Hamel, E. Synthesis and evaluation of stilbene and dihydrostilbenederivatives as potential anticancer agents that inhibit tubulinpolymerization. *J. Med. Chem.* **1991**, 34, 2579-2588.
- 166.** Cushman, M.; Nagarathnam, D.; Gopal, D.; He, H.-M.; Lin, C. M.;Hamel, E. Synthesis and evaluation of analogues of (Z)-1-(4-methoxyphenyl)-2-(3,4,5-trimethoxyphenyl) ethene as potential cytotoxicand antimitotic agents. *J. Med. Chem.* **1992**, 35, 2293-2306.
- 167.** (a) Nam, N. H. Combretastatin A-4 analogues as antimitotic antitumor agents. *Curr. Med. Chem.* **2003**, 10, 1697-1722. (b) Hsieh, H. P.;Liou, J. P.; Mahindroo, N. Pharmaceutical design of antimitotic

- agents based on combretastatins. *Curr. Pharm. Des.* **2005**, *11*, 1655-1677.
- 168.** (a) Ohsumi, K.; Nakagawa, R.; Fukuda, Y.; Hatanaka, T.; Morinaga, Y.; Nihei, Y.; Ohishi, K.; Suga, Y.; Akiyama, Y.; Tsuji, T. Novel combretastatin analogues effective against murine solid tumors: design and structure-activity relationships. *J. Med. Chem.* **1998**, *41*, 3022-3032. (b) Tron, G. C.; Pagliai, F.; Grosso, E. D.; Genazzani, A. A.; Sorba, G. Synthesis and cytotoxic evaluation of combretastatin analogues. *J. Med. Chem.* **2005**, *48*, 3260-3268. (c) LeBlanc, R.; Dickson, J.; Brown, T.; Stewart, M.; Pati, H. N.; VanDerveer, D.; Arman, H.; Harris, J.; Pennington, W.; Holt, H. L.; Lee, M. Synthesis and cytotoxicity of epoxide and pyrazole analogues of the combretastatins. *Bioorg. Med. Chem.* **2005**, *13*, 6025-6034. (d) Perez-Melero, C.; Maya, A. B. S.; Rey, B. D.; Pelaez, R.; Caballero, E.; Medarde M. A new family of quinolone and quinoxaline analogues of combretastatins. *Bioorg. Med. Chem. Lett.* **2004**, *14*, 3771-3774. (e) Simoni, D.; Romagnoli, R.; Baruchello, R.; Rondanin, R.; Rizzi, M.; Pavani, M. G.; Alloatti, D.; Giannini, G.; Marcellini, M.; Riccioni, T.; Castorina, M.; Guglielmi, M. B.; Bucci, F.; Carminati, P.; Pisano, C. Novel combretastatin analogues endowed with antitumor activity. *J. Med. Chem.* **2006**, *49*, 3143-3152.
- 169.** Hu, L.; Li, Zhuo-rang.; Li, Y.; Qu, J. et al. Synthesis and structure – Activity Relationship of Carbazole sulphonamide as a Novel Class of Antimitotic Agents Against solid Tumors *J. Med. Chem.* **2006**, *49*, 6273-6282
- 170.** Pagano, M.A.; Andrzejewska, M.; Ruzzene, M. et al. Optimization of Protein Kinase CK2 inhibitors derived from 4,5,6,7-Tetrabromobenzimidazole. *J. Med. Chem.* **2004**, *47*, 6239-6247
- 171.** Blume-Jensen, P.; Hunter, T. Oncogenic kinase signaling. *Nature* **2001**, *411*, 355-65
- 172.** Meggio, F.; Pinna, L.A. One- thousand- and -one substrate of protein kinase CK2. *FASEB J.* **2003**, *17*, 348-368

173. Litchfield, D. W. Protein Kinase CK2: Structure, regulation and role in cellular decisions of life and death *Biochem.J.* **2003**, 369,1-15
174. Seldin, D.C.; Leder, P. Casein Kinase II α transgene-induced murine lymphoma: Relation to Theilliosis in cattle. *Science* ,**1995**, 267, 894-897
175. Kelliher, M.A.; Seldin, D.C.; Leder, P. Tal-1 induced cell acute lymphoblastic leukemia accelerated by casein kinase II α . *V[^]S[^] ?J* .**1996**, 15, 5160-5166
176. Landesman-Bollag, E.; Channavajhala, P. L.; Cardiff, R. D.; Seldin, D. C. p53 deficiency and misexpression of protein kinaseCK2 alpha collaborate in the development of thymic lymphomas in mice. *Oncogene* **1998**, 16, 2965-2974
177. Orlandini, M.; Semplici, F.; Ferruzzi, R.; Meggio, F.; Pinna, L.A.; Oliviero, S. Protein kinase CK2 α ' is induced by serum as a delayed early gene and cooperates with Ha-ras in fibroblast transformation. *J. Biol. Chem.* **1998**, 273, 21291-21297.
178. Guo, C.; Yu, S.; Wang, H.; Davis, A. T.; Green, J. E.; Ahmed, K. A potential role of nuclear matrix-associated protein kinase CK2in protection against drug-induced apoptosis in cancer cells. *J.Biol. Chem.* **2001**, 276, 5992-5999
179. Folkman, J.*Ann.Surg.* 175, (1972), 409-416
180. Kim, K.J.; Li, B.; Winner, J.; Armanini, M.; Gillett, N.; Phillips, H.S.; Ferrara, N. *Nature*, 362, (1993) 841-844
181. Leenders, W.P.J. *Int.J.Exp.Pathol.* 79, (1998), 339-346
182. Kim, K.J.; Li, B.; Winer, J.; et al *Nature*, 362,(1993) ,841-844
183. Kubo, K; Shimizu, T;Ohyama,S *J.Med.chem.*48, (2005)1359-1366
184. Hubbard, R.D.; Bamaung N.Y.; Palazzo,F.; Qian Zhang, et al Pyrazolo [3,4-d] pyrimidines as potent inhibitors of the insulin-like growth factor receptor (IGF-IR) *Bioorg.Med.Chem.Lett* ,**2007**, Vol.17, p:5406-5409

185. (a) Yee, D. Br. *J. Cancer* **2006**, 94, 465; (b) Miller, B. S.; Yee, D. *Cancer Res.* **2005**, 65, 10123.
186. Bohula, E. A.; Playford, M. P.; Macaulay, V. M. *Anti-Cancer Drugs* **2003**, 9, 669.
187. Blum, G.; Gazit, A.; Levitzki, A. *J. Biol. Chem.* **2003**, 278, 40442.
188. For a recent review of ATP-competitive IGF-IR inhibitors, see: Hubbard, R. D.; Wilsbacher, J. L. *Chem Med Chem.* **2007**, 2, 41.
189. Mitsiades, C. S.; Mitsiades, N. S.; McMullan, C. J.; Poulaki, V.; Shringarpure, R.; Akiyama, M.; Hideshima, T.; Chauhan, D.; Joseph, M.; Libermann, T. A.; Garcia Echeverria, C.; Pearson, M. A.; Hofmann, F.; Anderson, K. C.; Kung, A. L. *Cancer Cell* **2004**, 5, 221.
190. For a discussion of related pyrazolo [3,4-d] pyrimidines as Ick inhibitors, see: Burchat, A.; Borhani, D. W.; Calderwood, D. J.; Hirst, G. C.; Li, B.; Stachlewitz, R. F. *Bioorg. Med. Chem. Lett.* **2006**, 16, 118, and references cited here in.
191. Cone, R. D. *Nat. Neurosci.* **2005**, 8, 571
192. Jiang, W.; Tucci, F. C.; Tran, J. A.; Fleck, B. A.; Pyrrolidinones as potent functional antagonists of the human melanocortin-4 receptor. *Bioorg. Med. Chem. Lett.* Vol. 17, **2007**, p5610-5613
193. Scarlett, J. M.; Marks, D. L. *Expert Opin. Investig. Drugs* **2005**, 14, 1233.
194. Foster, A. C.; Chen, C.; Markison, S.; Marks, D. L. *J. Drugs* **2005**, 8, 314
195. Amorati, R.; Lucarini, M.; Mugnaini, V.; Pedulli, G. F.; Roberti, M.; Pizzirani, D. *J. Org. Chem* **2004**, 69, 7101.
196. El-Mowafy, A. M. *Biochem. Biophys. Res. Commun.* **2002**, 291, 1218
197. Estrada-Soto, S.; Lopez-Guerrero, J. J.; Villalobos-Molina, R.; Mata, R. *Fitotrapia* **2006**, 77, 236
198. Orallo, F.; AlvarCamina, M.; Leiro, J. M.; Gomez, e.; Fernandez, P. *Mol. Pharmacol.* **2002**, 61, 294
199. Vazquez, G. N.; Diaz, H. M et al Design, microwave-assisted synthesis, and spasmolytic activity of 2-(alkyloxyaryl)-1H-benzimidazole

derivatives as constrained stilbene bioisosteres *Bio.and Med.Chem.Lett* **2006** vol.16,pp 4169-4173

- 200.** Purohit, A.; Woo, L. W. L.; Barrow, D.; Hejaz, H. A. M.; Nicholson, R. I.; Potter, B.V.L.; Reed, M. J. Non-steroidal and steroidal sulfamates: New drugs for cancer therapy. *Mol. Cell. Endocrinol.* **2001**, *171*, 129-135.
- 201.** Reed, M. J.; Purohit, A.; Woo, L. W. L.; Newman, S. P.; Potter, B.V. L. Steroid sulfatase: Molecular biology, regulation, and inhibition. *Endocr. Rev.* **2005**, *26*, 171-202.
- 202.** Day, J. M.; Newman, S. P.; Comminos, A.; Solomon, C.; Purohit, A.; Leese, M. P.; Potter, B. V. L.; Reed, M. J. The effects of 2-substituted oestrogen sulphamates on the growth of prostate and ovarian cancer cells. *J. Steroid Biochem. Mol. Biol.* **2003**, *84*, 317-325.
- 203.** Raobaikady, B.; Purohit, A.; Chander, S. K.; Woo, L. W. L.; Leese, M. P.; Potter, B. V. L.; Reed, M. J. Inhibition of MCF-7 breast cancer cell proliferation and in vivo steroid sulphatase activity by 2-methoxyoestradiol-bis-sulphamate. *J. Steroid Biochem. Mol. Biol.* **2003**, *84*, 351-358.
- 204.** Raobaikady, B.; Reed, M. J.; Leese, M. P.; Potter, B. V. L.; Purohit, A. Inhibition of MDA-MB-231 cell cycle progression and cell proliferation by C-2-substituted oestradiol mono- and bis-3-O-sulphamates. *Int. J. Cancer* **2005**, *117*, 150-159.
- 205.** Suzuki, R. N.; Newman, S. P.; Purohit, A.; Leese, M. P.; Potter, B.V. L.; Reed, M. J. Growth inhibition of multi-drug-resistant breast cancer cells by 2-methoxyoestradiol-bis-sulphamate and 2-ethyloestradiol-bis-sulphamate. *J. Steroid Biochem. Mol. Biol.* **2003**, *84*, 269-278.
- 206.** Leese, M. P.; Leblond, B.; Smith, A.; Newman, S. P.; Di Fiore, A.; Di Santo, R.; De Simone, G.; Supuran, C. T.; Purohit, A.; Reed, M.J.; Potter, B. V. L. 2-Substituted estradiol bis-sulfamates, multitargeted antitumor agents: Synthesis, in vitro SAR, protein crystallography, and in vivo activity. *J. Med. Chem.* **2006**, *49*, 7683-7696.

- 207.** Bubert, C.; Leese, M.P.; Mahon, M.F. et al, 3,17-Disubstituted 2-Alkylestra-1,3,5(10)-trien-3-ol Derivatives: Synthesis, In Vitro and In Vivo Anticancer Activity *J. Med. Chem* **2007**, *50*, 4431-4443