Wilbur R. Leopold III

Career Synopsis

- Extensive formal training in engineering, organic and inorganic synthesis, biochemistry, toxicology, and pharmacology of anticancer drugs.

- Principal scientist and program leader for the discovery and/or development of more than 15 anticancer agents that advanced to clinical trial. Several of these are now marketed (Amsacrine, Trimetrexate, Nipent), and others remain in development [CI-994 (HDAC inhibitor); CI-1033 (erbB inactivator); CI-1040 (MEK inhibitor); anthrapyrazoles (topo II inhibitors). Compounds taken to clinical trial represent a diverse spectrum of mechanistic classes including: antifolates, tubulin binders, topoismerase I and II inhibitors, platinum coordination complexes, nucleoside analogs, histone deacetylase inhibitors, alkylating agents, DNA polymerase inhibitors, natural products, DNA repair inhibitors (PARP), electron affinic radiation sensitizers, polyamine disregulators, adenosine deaminase inhibitors, erbB kinase inhibitors, antiangiogenics (VEGF/bFGF receptor kinase inhibitors), a MEK inhibitor, and a tumor specific virus .

- In 1989, after assuming the leadership role for the Parke-Davis anticancer drug discovery program, initiated and led the retooling of the discovery effort to focus exclusively on novel molecular targets elucidated by recent advances in the molecular understanding of the genetics of oncogenes and tumor suppressor genes. The quality of this effort has been well recognized with publications in Science, PNAS, and Nature Medicine on several of our more recent clinical candidates.

- Led the growth of the cancer drug discovery effort at Parke-Davis/Pfizer to its current status as one of the largest therapeutic areas in the company. The discovery effort employed more than 120 FTEs at the Ann Arbor campus.

- In light of the switch to a discovery strategy based on specific molecular targets, spearheaded the application of pharmacodynamic assays to the drug discovery process. This led to dramatically increased throughput in the in vivo laboratories, and more precise estimation of dosing protocols for subsequent clinical trials. It is now rare for an exploratory project to receive synthetic chemistry support if in vitro and in vivo pharmacodynamic assays are not available.

- Completely automated data collection for the in vivo drug evaluation (Experimental Oncology) laboratories. Efficiency studies indicate a >50% saving in total FTEs. All data collection is computer based, with data automatically logged into an Inquire database. The system provides immediate access to all data by any scientist working on the project. Calculations for drug dilutions are automatically printed at the beginning of each day based on current animal census and body weights for each group in every experiment, and labels for dosing bottles are automatically printed. All calculations and tables for interim or final reports are automatically performed via interactive software. Animal census is also automatically tracked, as are drug inventories and tumor passage records.

- Spearheaded the use of high throughput gene expression profiling for quality control of the Parke-Davis tumor bank, and for the evaluation of new, hopefully more predictive tumor models.

- Chaired the clinical development teams (Phase I and II) for our first two mechanistically novel agents; CI-1006 (a polyamine analog designed to induce a homeostatic response to perceived polyamine excess), and CI-1033 (an extraordinarily potent and selective irreversible inactivator of the entire EGF receptor family of oncogenic tyrosine kinases).

- Initiated a gene therapy discovery program via research collaboration with Onyx Pharmaceuticals, based on an E1B deficient adenovirus vector. This vector allows replication only in functionally p53-deficient cells (tumor cells) and is expected to provide tumor specific gene expression, potent bystander effects, and extremely high transgene expression levels. Two discovery programs based on this vector are underway, one to deliver a prodrug converting enzyme and another to deliver a transgene that will stimulate an immune response to the tumor.

- Stepped down as Executive Director of Cancer Discovery at Pfizer in 2002 to refocus efforts more closely on issues of cancer drug discovery, and less on administrative issues associated with cross-therapeutic area functions. Initiated new methods for automation of preclinical pharmacodynamic assays to keep pace with recent advances in chemical synthesis throughput.

- Selected current or recent administrative responsibilities:
  - President and CEO, Molecular Imaging Research, Inc.
  - Adjunct Professor of Medicinal Chemistry, University of Michigan
  - Member, RAID Special Emphasis Panel, Developmental Therapeutics Program, NCI
  - Senior Director of Cancer Pharmacology
  - Chair of the Oncology Biomarker Utilization Strategy Team
  - Ann Arbor Site Leader for Pfizer Oncology Drug Discovery
  - Chair of Cancer Discovery Team
  - Co-Chair of Pfizer Oncology Integration Team
  - Member of the Due Diligence Team for the Agouron Acquisition by Parke-Davis
  - Co-Chair of Parke-Davis/Agouron Integration Team
  - Charter Member of Expression Profiling Review Committee
  - Chair of CI-1006 Clinical Development Team
  - Chair of CI-1033 Clinical Development Team
  - Chair of Parke-Davis/Onyx Cell Cycle Collaboration Research Management Committee
  - Chair of Parke-Davis/Onyx Gene Therapy Collaboration Research Management Committee
  - Member of the Pfizer Ann Arbor Biology Leadership Team
  - Member of the Pfizer Ann Arbor Discovery Leadership Forum
  - Member of the Purdue Cancer Center External Advisory Committee
  - Member of the University of Michigan Cancer Center's Research Committee
  - Member of the Piedmont Research Center Scientific Advisory Board

WILBUR R. LEOPOLD III

EDUCATION:

University of Wisconsin Medical School, Ph.D., Oncology, 1981.

Major Professors: Drs. James and Elizabeth Miller
McArdle Laboratory for Cancer Research

Minor: Chemistry

Thesis: Carcinogenic, Mutagenic, and Biochemical Properties of Platinum Antitumor Coordination Complexes and of S-Vinyl- and S-Ethyl-Homocysteine.

University of Illinois, M.S., Biochemistry, 1973.
University of Illinois, B.S., Chemical Engineering, 1971.

PROFESSIONAL POSITIONS:

President and CEO, MIR Preclinical Services 2006 – present.

President, MIR Preclinical Services 2003 – 2006.

Senior Director, Cancer Pharmacology, Pfizer Ann Arbor Laboratories. 2002 – 2003.

Executive Director and Site Leader Cancer Discovery, Pfizer Ann Arbor Laboratories. 2000-2002.

Senior Director of Cancer Research, Experimental Therapy Department, Parke-Davis and Pfizer Research. 1994-2000.

Director of Cancer Research, Experimental Therapy Department, Parke-Davis Research. 1990-1994.

Section Director - Tumor Biology, Pharmacology Department, Parke-Davis Research. 1988-1990.

Senior Research Associate - Chemotherapy Department, Head - Tumor Biology, Parke-Davis Research. 1986-1988.

Research Associate - Chemotherapy Department, Head - Experimental Oncology Group, Parke-Davis Research. 1985-1986.

Senior Scientist - Chemotherapy Department, Head - Experimental Oncology Group, Parke-Davis Research. 1983-1985.

Scientist - Chemotherapy Department, Head - Experimental Oncology Group, Parke-Davis Research, 1982-1983.

Research Toxicologist - Proposal Preparation and Study Cost Analysis, Southern Research Institute, Toxicology Division. 1982.

Research Oncologist - Experimental Chemotherapy and Tumor Biology, Southern Research Institute, Chemotherapy Division. 1981-1982.

Exxon Company U.S.A., Energy Conservation and Pollution Control Section - Process Engineering Department, Process Design and Cost Analysis, 1974-1975.

Exxon Company U.S.A., Cracking Section - Process Engineering Department, Technical Services and Plant Optimization, 1973-1974.

Exxon Company U.S.A., Mathematics and Computing Department, Computer Applications for Process Control, 1971-1972.

A. E. Staley Manufacturing Co., Dextrose and Syrup Refinery, Plant Optimization Studies, June 1970 - September 1970.

CONSULTING: Adjunct Professor of Medicinal Chemistry, University of Michigan 2005-present

Member – RAID Special Emphasis Panel, Developmental Therapeutics Program, NCI 2006-present

Consultant for NCI/DTP – Principles of Efficient Drug Discovery, December 8, 2004.

Member – Scientific Advisory Board, Sagres Discovery, Inc. 2003 – 2004.

Member - University of Michigan Cancer Research Committee - 1995-present.

Adjunct Professor of Medicinal Chemistry, University of Michigan. 2003-present.

Member External Advisory Board – Purdue University Cancer Center - 1997-present.

Member of the Piedmont Research Center Scientific Advisory Board – 1999-2003.

Consultant/Reviewer - NCDDG Review, NCI, Jan. 24-26, 1995.

Consultant for NCI, "Ad Hoc In Vivo Workshop" and status of the NCI Tumor Panel on the development of in vivo testing strategies. May 7-8, 1992.

Consultant for NCI, Developmental Therapeutics Program Workshop on "Molecular Targets for the Discovery of New Anticancer Therapies." Nov. 12-13, 1991.

Reviewer for:
- <u>Cell Growth and Differentiation</u>, – 1997-present
- <u>Clinical Cancer Research</u>, 1994 - present
- <u>J. Cell. Biochem</u>., 1990 - present.
- <u>Cancer Chemotherapy and Pharmacology</u>, 1986 - present.

Cancer Research, 1984 - present.
Clinical Cancer Research 2001-present.

Consultant/Reviewer - Experimental Therapeutics Study Section Two - Small Business Innovative Research Program, NIH, March 30, 1988.

Experimental Therapeutics Study Section One, NIH, Oct. 21-24, 1986.

PROFESSIONAL SOCIETIES:

American Association for Cancer Research
American Society for Clinical Oncology
American Association for the Advancement of Science
American Chemical Society

HONORS:

Warner-Lambert Chairman's Distinguished Scientific Achievement Award
Sigma Xi
Alpha Chi Sigma
Tau Beta PI
Bronze Tablet - University of Illinois
Edmund James Scholar

PATENTS:

Method for Treating Neoplasms. E.F. Elslager and W.R. Leopold.
US Patent 4853221, August 1, 1989.

Treatment of Prostate Cancer. W.R. Grove and W.R. Leopold.
US Patent 5569667, October 29, 1996.

Treatment of Renal Cell Carcinoma. W.R. Grove, W.R. Leopold, P. Lorusso, M. Meyer. US Patent Pending.

PUBLICATIONS:

1. S-vinylhomocysteine, an Analog of Ethionine that is Highly Mutagenic for *S. typhimurium* TAIOO. W.R. Leopold, J.A. Miller, and E.C. Miller. Biochem. Biophys. Res. Commun. 88:395-401, 1979.

2. Carcinogenicity of Antitumor cis-Platinum(II) Coordination Complexes in the Mouse and Rat. W.R. Leopold, E.C. Miller, and J.A. Miller. Cancer Res. 39:913-918, 1979.

3. Mutagenicity, Tumorigenicity, and Electrophilic Reactivity of the Stereoisomeric Platinum(II) Complexes of 1,2-Diaminocyclohexane. W.R. Leopold, R.P. Batzinger, J.A. Miller, E.C. Miller, and R.H. Earhart. Cancer Res. 41:4368-4377, 1981.

4. Toxicity and Anticancer Activity of a New Triazine Antifolate (NSC 127755). T.H. Corbett, W.R. Leopold, D.J. Dykes, B.J. Roberts, D.P. Griswold, Jr., and F.M. Schabel, Jr. Cancer Research 42:1707-1715, 1982.

5. Comparison of some Carcinogenic, Mutagenic, and Biochemical Properties of S-vinylhomocysteine and Ethionine. W.R. Leopold, J.A. Miller, and E.C.

Miller. Cancer Res. 42:4364-4374, 1982.

6. Induction and Chemotherapeutic Response of Two Transplantable Ductal Adenocarcinomas of the Pancreas in C57BL/6 Mice. T.H. Corbett, B.J. Roberts, W.R. Leopold, J.C. Peckham, L.J. Wilkoff, D.P. Griswold, Jr., and F.M. Schabel, Jr. Cancer Res. 44:717-726, 1984.

7. Biochemical Pharmacology of the Lipophilic Antifolate, Trimetrexate, R.C. Jackson, D.W. Fry, T.J. Boritzki, J.A. Besserer, W.R. Leopold, B.J. Sloan, and E.F. Elslager. Adv. Enzyme. Reg. 22:187-206, 1984.

8. 5-[(Aminoalkyl)amino]-Substituted Anthra[1,9-cd]pyrazol-6(2H)- ones as Novel Anticancer Agents. Synthesis and Biological Evaluation. H.D.H. Showalter, J.L. Johnson, L.M. Werbel, W.R. Leopold, R.C. Jackson, and E.F. Elslager. J. Med. Chem. 27:253-255, 1984.

9. Anticancer Activity of the Structurally Novel Antibiotic, CI-920, and its Analogs. W.R. Leopold, J. L. Shillis, A.E. Mertus, J.M. Nelson, B.J. Roberts, and R.C. Jackson. Cancer Res. 44:1928-1932, 1984.

10. The Biochemical Pharmacology of CI-920, a Structurally Novel Antibiotic with Antileukemic Activity. R.C. Jackson, D.W. Fry, T.J. Boritzki, B.J. Roberts, K.E. Hook, and W.R. Leopold. Adv. Enzyme Regulation. 23:193-215, 1985.

11. Biochemical and Antitumor Activity of Tiazofurin and its Selenium Analog (2-β-D-ribofuranosyl-4-selenazolecarboxamide). T.J. Boritzki, D.A. Berry, J.A. Besserer, P.D. Cook, D.W. Fry, W.R. Leopold, and R.C. Jackson. Biochem. Pharmacol. 34:1109-1114, 1985.

12. Collagen Production Inhibitors Evaluated as Antitumor Agents. W.D. Klohs, R.D. Steinkampf, M.S. Wicha, A.E. Mertus, J.B. Tunac, and W.R. Leopold. JNCI, 75:353-359, 1985.

13. Dezaguanine Mesylate: A New Antipurine Antimetabolite. W.R. Leopold, D.W. Fry, T.J. Boritzki, J.A. Besserer, I.C. Pattison, and R.C. Jackson. Invest. New Drugs, 3:223-231, 1985.

14. The Anthrapyrazoles, A New Class of Intercalating Agents with High Level, Broad Spectrum Activity Against Murine Tumors. W.R. Leopold, J.M. Nelson, J. Plowman, and R.C. Jackson. Cancer Res. 45:5532-5539, 1985.

15. Biochemical Pharmacology and Experimental Chemotherapy Studies With The Anthrapyrazole CI-937, a Synthetic Intercalating Agent With Broad-Spectrum Murine Anticancer Activity. R.C. Jackson, D.W. Fry, W.R. Leopold, J.S. Sebolt, W.D. Klohs, H.D.H. Showalter, L.M. Werbel, and E.F. Elslager. Recent Adv. Chemother. J. Ishigamic (ed). U. Tokyo Press, Tokyo, pp. 568-569, 1985.

16. Cell Cycle Effects of Trimetrexate (CI-898). K.E. Hook, J.M. Nelson, B.J. Roberts, D.P. Griswold, Jr., and W.R. Leopold. Cancer Chemother. & Pharmacol. 16:116-120, 1986.

17. Biological and Biochemical Activities of the Novel Antitumor Antibiotic PD 114,759 and Related Derivatives. D.W. Fry, J.L. Shillis, and W.R. Leopold. Inv. New Drugs, 4:3-10, 1986.

18. In Vivo and In Vitro Anticancer Activity of the Structurally Novel and Highly Potent Antibiotics CI-940 and its Hydroxy Analog PD 114721. B.J. Roberts, K.L. Hamelehle, J.S. Sebolt, and W.R. Leopold. Cancer Chemother. & Pharmacol. 16:95-101, 1986.

19. The Biochemical Pharmacology of (2'-R)-Chloropentostatin, A Novel Inhibitor of Adenosine Deaminase. R.C. Jackson, W.R. Leopold, and D.A. Ross. Adv. Enzyme Regulation. 25:125-139, 1986.

20. Pyrazole Derivatives. V. Synthesis and Antineoplastic Activity of 3-(2-Chloroethyl)-3,4-dihydro-4-oxopyrazolo[5,1-d]-1,2,3,5-tetrazine-8-carboxamide and Related Compounds. C.C. Cheng, E.F. Elslager, L.M. Werbel, S. Priebe, and W.R. Leopold. J. Med. Chem. 29:1544-1547, 1986.

21. Design, Biochemical Pharmacology, Electrochemistry, and Tumor Biology of Antitumor Anthrapyrazoles. H.D.H. Showalter, D.W. Fry, W.R. Leopold, J.W. Lown, J.A. Plambeck, and K. Reszka. Anticancer Drug Design 1:73-85, 1986.

22. In Vivo and In Vitro Evaluation of 5-[4-substituted aryl)-1-piperazinyl]-6-alkyl-2,4-pyrmidinediamines as Antitumor Agents. L.M. Werbel, J. Hung, J.A. Besserer, T.J. Boritzki, W.R. Leopold, and D.W. Fry. IN: Chemistry and Biology of Pteridines 1986, B.A. Cooper, and V.M. Whitehead (eds), Walter de Gruyter & Co., Berlin, pp. 69-71, 1986.

23. Curative Chemotherapy of Advanced and Disseminated Solid Tumors of Mice. T.H. Corbett, B.J. Roberts, A.J. Lawson, and W.R. Leopold. IN: Head and Neck Cancer: Scientific Perspectives in Management and Strategies for Cure. Jacobs, J.R., Al-Serraf, M., Crissman, J., and Valeriote, F. (eds.), Elsevier Scientific Publishing Co., Inc., New York, pp. 175-192, 1987.

24. Therapeutic Synergy of Trimetrexate (CI-898) in Combination with Doxorubicin, Vincristine, Cytoxan, 6-Thioguanine, Cisplatin, or 5-Fluorouracil Against Intraperitoneally Implanted P388 Leukemia. W.R. Leopold, D.J. Dykes, and D.P. Griswold, Jr. NCI Mono. (5):99-104, 1987.

25. 5-Aminoanthrapyrazoles (CI-937, CI-941, CI-942): A Novel Class of DNA Binders with Broad Spectrum Anticancer Activity. In New Avenues in Developmental Cancer Chemotherapy (Vol. 8 of Bristol-Myers Cancer Symposium Series). L.M. Werbel, E.F. Elslager, D.W. Fry, R.C. Jackson, W.R. Leopold, and H.D.H. Showalter. Harrap, K.R. and Connors, T.A. (eds.), Academic Press, Orlando, FL, pp. 355-365, 1987.

26. Biological Effects of Acetomycin. I. Activity Against Tumor Cells In Vitro and In Vivo. S.W. Mamber, J.D. Mitulski, K.A. Hamelehle, J.C. French, G.C. Hokanson, J.L. Shillis, W.R. Leopold, D.D. Von Hoff, and J.B. Tunac.

J. Antibiotics. 40(1):73-76, 1987.

27. Biochemical Pharmacology and Experimental Chemotherapy Studies with Guanine-7-oxide, a Novel Purine Antibiotic. R.C. Jackson, T.J. Boritzski, J.A. Besserer, W.R. Leopold, and D.W. Fry. Adv. Eng. Reg. 26:301-316, 1987.

28. Anthrapyrazole Anticancer Agents. Synthesis and Structure- Activity Relationships Against Murine Leukemias. H.D.H. Showalter, J.L. Johnson, J.M. Hoftiezer, W.R. Turner, L.M. Werbel, W.R. Leopold, J.L. Shillis, R.C. Jackson and E.F. Elslager. J. Med. Chem. 30(1):121-131, 1987.

29. Experimental Antitumor Activity of the Amacrine Analogue CI-921. W.R. Leopold, T.H. Corbett, D.P. Griswold, Jr., J. Plowman, B.C. Baguley. JNCI 79:343-349, 1987.

30. Benzothiopyranoindazoles, A New Class of Chromophore Modified Anthracenedione Anticancer Agents. Synthesis and Activity Against Murine Leukemias. H.D.H. Showalter, M.M. Angelo, E.M. Berman, G.D. Kanter, D.F. Ortwine, S.G. Ross-Kesten, A.D. Sercel, W.R. Turner, L.M. Werbel, D.F. Worth, E.F. Elslager, W.R. Leopold, and J.L. Shillis. J. Med. Chem. 31:1527-1539, 1988.

31. Preclinical Studies With Trimetrexate: A Review of Conclusions and Unanswered Questions. R.C. Jackson, W.R. Leopold, K.L. Hamelehle, and D.W. Fry. Sem. Oncology, 15:1-7, 1988.

32. Design, Tumor Biology, and Biochemical Pharmacology of Anthrapyrazoles. H.D.H. Showalter, L.M. Werbel, W.R. Leopold, D.W. Fry, W.D. Klohs, and R.C. Jackson. In: Anthracycline and Anthracenedione-based Anticancer Agents, J.W. Lown (ed), Elsevier, Amsterdam, pp. 201-243, 1988.

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34. Sequence and Schedule Dependent Synergy of Trimetrexate in Combination with 5-Fluorouracil in vitro and in mice. W.L. Elliott, C.T. Howard, D.J. Dykes, and W.R. Leopold. Cancer Res. 49(20):49:5586-5590, 1989.

35. Biochemical Pharmacology and Antitumor Properties of 4-amino-8-[□-D-ribofuranosylamino]pyrimido-[5,4,-d] pyrimidine. R.C. Jackson, T.J. Boritzki, P.D. Cook, K.E. Hook, W.R. Leopold, and D.W. Fry. Adv. Enz. Reg. 28:185-199, 1989.

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37. Antitumor Activity of Ethyl 5-Amino-1,2-dihydro-2-methyl-3-phenyl-

pyrido[3,4,-b]pyrazin-7-ylcarbamate, 2-Hydroxyethanesulfonate, Hydrate (NSC 370147) Against Selected Tumor Systems in Culture and in Mice. W.R. Waud, W.R. Leopold, W.L. Elliott, D.J. Dykes, W.R. Laster, C.G. Temple, S.D. Harrison, Jr., and D.P. Griswold, Jr. Cancer Res. 50:3239-3244, 1990.

38. Antitumor Efficacy of PD 115934 (NSC 366140) Against Solid Tumors of Mice. P. LoRusso, A.J. Wozniak, L. Polin, D. Capps, W.R. Leopold, L.M. Werbel, L. Biernat, M.E. Dan, and T.H. Corbett. Cancer Res. 50:4900-4905, 1990.

39. Preclinical Antitumor Activity of CI-973, [SP-4-3-(R)]-[1,1-cyclobutanedicarboxylato(2-)](2-methyl-1,4-butanediamine-N,N') platinum. A.J. Kraker, C.W. Moore, B.J. Roberts, W.R. Leopold, W.L. Elliott. Investigational New Drugs, 9(1):1-7, 1991.

40. In Vivo and In Vitro Evaluation of the Alkylating Agent Carmethazole. W.L. Elliott, D.W. Fry, W.K. Anderson, J.M. Nelson, K.E. Hook, P.A. Hawkins, and W.R. Leopold. Cancer Res. 51:4581-4587, 1991.

41. A New Class of Analogs of the Bifunctional Radiosensitizer □-(1-Aziridinylmethyl)-2-nitro-1H-imidazole-1-ethanol (RSU 1069): The Cycolalkylazindines. M.J. Suto, M.A. Stier, L.M. Werbel, C.M. Arundel-Suto, W.R. Leopold, and J.S. Sebolt-Leopold. J. Med. Chem. 2 34:2484-2488, 1991.

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43. Dual Function Nitroimidazoles Less Toxic than RSU1069: Selection of Candidate Drugs for Clinical Trial (RB6145 and/or PD 130908). S. Cole, I.J. Stratford, E.M. Fielden, G.E. Adams, W. Leopold, W. Elliott, M. Suto, and J. Sebolt-Leopold. Int. J. Rad. Oncol. Biol. and Phys. 22(3):545-548, 1992.

44. Chemical Approaches To Improved Radiotherapy. W.R. Leopold and J.S. Sebolt-Leopold. Proceedings of the 22nd Annual Cancer Symposium on Anticancer Drug Discovery and Development. F.A. Valeriote, T.H. Corbett, L.H. Baker (eds). Kluwer Academic Press, pp. 179-196, 1992.

45. Comparative Molecular Field Analysis of In Vitro Growth Inhibition of L1210 and HCT-8 Cells by Some Pyrazoloacridines. J.P. Horwitz, I. Massova, T.E. Wiese, T.H. Corbett, J.S. Sebolt-Leopold, D.B. Capps, and W.R. Leopold. J. Med. Chem. 36:3511-3516, 1993.

46. Inhibition of 5-phosphoribosyl-1-pyrophosphate (PRPP) Synthase by the Monophosphate Metabolite of 4-amino-8-(□-D-ribrofuranosylamino) pyrimido-[5,4-d]Pyrimidine: A Novel Mechanism for Antitumor Activity. D.W. Fry, T.J. Boritzki, R.C. Jackson, D.P. Cook, and W.R. Leopold. Molecular Pharm. 44(2):479-485, 1993.

47. Chemotherapy with [SP-4-3-(R)]-[1,1-Cyclobutanedicarboxylato(2-)](2-methyl-1,4-butanediamine-*N,N'*)platinum(CI-973, NK121) in Combination with Standard Agents against Murine Tumors *in Vivo*. W.L. Elliott, B.J. Roberts, C.T. Howard, W.R.Leopold III. Cancer Research, 54:4412-4418, 1994.

48. A Specific Inhibitor of the Epidermal Growth Factor Receptor Tyrosine Kinase, D.W. Fry, A.J. Kraker, A. McMichael, L.A. Ambroso, J.M. Nelson, W.R. Leopold, R.W. Connors, A.J. Bridges. Science 265:1093-1095, 1994.

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50. Strategies for the Discovery of Novel Tyrosine Kinase Inhibitors with Anticancer Activity. D.W. Fry, A.J. Kraker, R.C. Connors, W.L. Elliott, J.M. Nelson, H.D. Showalter and W.R. Leopold. Anti-Cancer Drug Design, 9:331-351, 1994.

51. Tumor Models and the Discovery and Secondary Evaluation of Solid Tumor Active Agents. T. Corbett, F. Valeriote, P. LoRusso, L. Polin, C. Panchapor, S. Pugh, K. White, J. Knight, L. Demchik, J. Jones, L. Jones, N. Lowichik, L. Biernat, B. Foster, A. Wozniak, L. Lisow, M. Valdivieso, L. Baker, W. Leopold, J. Sebolt, M. Bissery, M. Mattes, J. Dzubow, J. Rake, R. Perni, M. Wentland, S. Coughlin, J.M. Shaw, G. Liversidge, E. Liversidge, J. Bruno, R. Moore and G. Patterson. International Journal of Pharmacognosy, 33 (Supplement): 102-122, 1995.

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53. Cellular Transport of CI-980. Hook, K.E., Przybranowski, S.A. and Leopold, W.R. Investigational New Drugs 14:341-347, 1996.

54. Treatment of Human Prostate Tumor LNCaP with Standard and Investigational Agents in SCID Mice. L. Polin, J. Jones, L. Demchik, P. LoRusso, C. Panchapor, S. Pugh, K. White, J. Knight, L. Jones, L. Biernat, D. Visscher, L. Lisow, K.C. Mattes, P. Sarpotdar, E. Liversidge, G. Liversidge, J. Bruno, M. Shaw, J. Rake, W. Leopold, III, R.E. Moore, G. Patterson, F. Valeriote, L. Baker and T.H. Corbett. The Prostate.

55. Amino-terminal Sequence Determinants for Substrate Recognition by Platelet-Derived Growth Factor Receptor Tyrosine Kinase. P.M. Chan, P.R. Keller, R.W. Connors, W.R. Leopold, W.T. Miller. FEBS-Lett.121-125,

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INVITED PRESENTATIONS:

1. Therapeutic Synergy of Trimetrexate (CI-898) in Combination with Doxorubicin, Vincristine, Cytoxan, 6-Thioguanine, Cisplatin, or 5-Fluorouracil Against Intraperitoneally Implanted P388 Leukemia. At the Symposium on "Development of Folates and Folic Acid Antagonists in Cancer Chemotherapy." Tarpon Springs, Florida. January 23-26, 1986.

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