15/5/33 Liberal Arts and Sciences School of Chemical Sciences Kenneth L. Rinehart Papers, 1959-1999

Creator

Kenneth L. Rinehart (1929-2005) was Chemistry professor at the University of Illinois at Urbana-Champaign (UIUC) from 1954 to 2000. Professor Rinehart was internationally recognized as a pioneer in chemical biology through his investigations of organic compounds with biological activity. His research led to the development of a procedure involving mutasynthesis to prepare new antibiotics. He also led the Illinois chemistry department's marine natural products program.

This series contains patent documentation and filings concerning the work of Professor Reinhart on organic chemistry, particularly organic compounds presenting antibacterial, antiviral and antitumor activity.

Description

Rinehart papers consist of documents concerning several patents over his academic research and inventions. It includes patents (officials forms for applications, claims, appeals, examinations, corrections, amendments, and licensing); Institutional correspondence with other faculty and staff, and with law offices, consultants, research institutes, health institutes and laboratories; Laboratory testing reports and diagrams; Academic articles; Handwritten research notes and acetate sheets; Official forms of U.S, Japanese and European patent licensing procedures. The papers also include administrative documents and Chemistry Symposiums programs, as well as documentation concerning UIUC Policies on intellectual property, invention disclosure procedures at UIUC, and release of rights in inventions from UIUC to other institutions.

<u>Box 1</u>

Patent # 4,762,949: Acyl and Carbamimidoyl Alkanediamines, 1976 - 1988
Patent # 4,762,949
UIF/ 1602
Correspondence about rejection and appeals, 1977, 1981 (3 folders)
Licensing, 1980
Testing Correspondence - Li, Vavra and Hughes
Arcanus Testings, etc
Arcanide Testing- Yorke Samples
G.T. Carter
R.E. Schwartz
M.L. Lieb - B.Sc Thesis
Topics:

Arcadines form the marine sponge Synthesis of Hexahydropolyandrocarpidine Polyandrocarpidines Alkanediamine antibacterials Continuous production of enzyme Hydrolyzed proteins University of Illinois Policies on intellectual property

Patent # 4,623,644: Acylation of Tirandamycic Streptolic and Sorbic Acids to Cephalosporin and Penicillin Nuclei, 1983 - 1986 Topics: Hybridization of streptolydigin, tirandamycin and sorbic acids to cephalosporin and penicillin nuclei
Microbial growth inhibitors

Patent # 4,084,010: Glycosides Having Sweetness, 1978

Patent # 4,065,384: Graft Thin Layer Chromatography, 1970, 1975 - 1980 Topics: Graft thin layer chromatography - Technique and apparatus Chromatography

UIF Serial # 027,285: Organic Halogen Content as a Prediction of Antimicrobial Activity in Marine Organisms (Abandoned 6/81), 1974 - 1980 Topics: Prediction of antimicrobial activity

Japanese Patent # 859,025: Novel Antibiotics and Preparation Teoref, 1977 Topics: Novel Antibiotics and Preparation Teoref Method of making antibiotics containing the Aminocyclitol Subunit

Patent # 4,076,725: Derivatives of Streptovaricin Ansamycins -Application # 646, 966 -Continued of Serial # 328,727, 1965, 1968, 1972 - 1981 Topics:
New biologically active compounds derived by acylation and/or oxidative degradation of Streptovaricin Ansamycin material, pharmaceutical compositions and therapeutic methods involving the same Antitumor antibiotic Japanese application process for patent licensing in the U.S

Patent # 4,075,339: Biologically Active Compounds, 1972 - 1978 Topics: Biologically active compounds

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Compounds possessing anti-bacterial and anti-viral activity of the Formula II Biologically active Geldanamycin derivatives of Formula III Distribution of Inventors' or Discoverers' share of patents

Serial # 712,499: Methyl Esters of Polyene Antibiotics -(Abandoned), 1966, 1972 - 1978 Topics:
Methyl Esters of Polyene Antibiotics
Methylpartricin - Antibiotic with antimicotic activity
Polyne antibiotics and uses

Derivatives of Polyene Macrolide antibiotics

Esters of Partricin Derivatives

Patent # 3,954,737: Atropisomeric Ansa Ring Compounds, 1973 - 1976 Topics:
Biologically Active Compounds
Biologically Active Stereoisomeric forms of Ansa Ring compounds
Quinones and other compounds derived from Streptovaricints as anti-tumor, anti-viral and anti-bacterial agents
Stanford University Licensing Program

Patent # 3,833,556: Hybrimcyn Antibiotics and Derivatives, 1959, 1963, 1966, 1970 - 1975 Topics:
Hybrimycin antibiotics and derivatives Process for preparing Zygomycins

Zygomycin a1 and zygomycin a2 and their isolation

Patent # 3,699,383: Methods of Making Antibiotics Containing the Aminocyclitol Subunit, 1949, 1959, 1963 - 1987
Topics:
Methods of making Antibiotics containing the Aminocyclitol Subunit
Aminocyclitol Subunit
Antiviral compounds from a Marine Tunicate
Derivatives of streptomycin and method of producing streptomycin derivatives by mutational biosynthesis
2-Deoxystreptomycin
Antibiotics and methods for obtaining Same
Derivatives of Neomycin, Kanamycin or Paromomycin
Aureomycin and Preparation of same

<u>Box 2</u>

UIU # 2095: Invention Disclosure- Streptomyces Spectabilis, 1994 Topics: Streptomyces Spectabilis Correspondence regarding application process

Didemnin Extractiory - UpJohn, 1987, 1995 Topics: Didemnin material analysis

Dehydrodidemnin B, 1989 - 1999

Dehydrodidemnin B - 39,263 Epo
Dehydrodidemnin B - PCT Int. Appl. 9104, 985
Dehydrodidemnin B - 41,753. USSN 07/ 884 567
DDB 41,753 - C. USSN 08/ 280 110
DDB 41,753 - C2. USSN 09/182,688
DDB 722,729. AD Little Testing ? Mr. J.K. Swiniarski, Kennett S. Loveday Topics:
Dehydrodidemnin - Cyclic Depsipeptide from a tunicate of Ascidiacea Class Compounds with antiviral, antitumoral, and cytotoxic activities
Novel antiviral and cytotoxic agent
Screening activity on tumor reduction testing several compounds

USSN # 079,089: Fasting Bear Isolate and Method - UI 89034 - Nelson, Miers, Rinehart, 1994, 1997

Topics:

Fasting Bear Isolate and Method

Discovery and isolation of a substance called Bear derived Isolate beneficial for use in humans in bone growth, conserving nitrogen, inhibiting protein breakdown and others.

Didemnin Patent Chronology - UI 1709/ UI 92010. Rinehart Didemnin /Nordidemnin; Family of Applications/ Patents, 1980 -1994, 1999 Topics: Didemnin

US Patent# 5,294,603: Didemnin Derivatives UI 92010, 1993 -1994 Topics: Pharmaceutical compositions containing Didemnins Acyl Didemnins Immunosuppressive Agents

UI 1709 - 3 Patents: Didemnins A-C , A-E, 1980 - 1993 Isolation of Didemnins Patent# 4,493,796; Didemnins A, B + C ; 42,205 - UI 1709

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Patent # 4,548,814; Didemnins; 42, 206 - UI 1709
Patent # 4,782,135; Composition of Matter and Process; 41,780 - UI 1709
Patent # 4,950,649; Didemnins and Nordidemnins Antiviral Activity; 42,207 - UI 1709
Patent # 5,137,870; Didemnins and Nordidemnins antileukemia
Japanese Patent # 01684261 - UI 1709
European Patent # 48149 - UI 1709
Composition of Matter and Process - In application for licensing, Serial # 461,346
Didemnin Patents: UpJohn - Pharmamar. Transfer Claim
Topics:
Isolation of Purified Didemnin A
Didemnin, Composition of matter and process
Use of Didemnins and Nordidemnins to eradicate viruses
Antiviral Peptides from a marine tunicate

Us Patent# 4,948,791: Didemnins X,Y; UIUC 89014; UI 2098, 1989 -1997

40,344 CA, Didemnins X+Y 40,344 JP, Didemnins X+Y 40,344 EPO, Didemnins 40,344, Didemnins X+Y - Foreign Applications AU Patent # 640130 ; US Patent 4,948,791 / 40,344 Patent # 4,948,791 - Correspondence about patent application and amendments (1989 -1990; Divided in 2 folders)

Topics:

Novel Cytotoxic cyclic depsipeptides form the tunicate Trididemnum solidum Acyl Didemnins Immunosuppressive Agents

Didemnin Quantification - May 20, 1995, 1995 Topics: Didemnin Quantification

Spectpmycins - Staley K.L.R, 1989- 1990 Topics: A series of antimicrobial metabolites from Streptomyces Spectabilis

UI 1835 Disclosure; Antifungal Acids from Two Marine Sponges; KLR - Phillipson, Shaw, 1983 - 1984
 Topics:
 Antifungal acids from two marine sponges
 Release of rights in inventions from UI to other institutions

UI F 1708: Antimicrobial Agent from Marine Sponges; KLR; P.D.Shaw; G.C. Harbour; A.a. Tymiak; J.B Gloer, 1980 - 1984 Topics: Antimicrobial agent from marine sponges

<u>Box 3</u>

Pharmamar Patent Lists , 1997 Topics: Patent application

Invention Disclosure Forms, Dates not specified Topics: Invention disclosure procedures at UI

Blank Forms - Power Attorney, Dates not specified

Eudistomins - UI 1815, 1982 - 1990 Patent # 4,631,149: Eudistomins - UI 1815 EP. Patent 0133 000 - Eudistomins - UI 1815 Topics: Antiviral eudistomins from a marine tunicate Leukemia screen testing

Patent # 4,908, 445 - March 90, 1990, 1995

 U.S. Patent # 4,866,084: Topsentins (Divided in 2 folders), 1986 - 1995 Topics: Phospholipase A2 Inhibitors Biologically Active Bisindole alkaloid compounds

U.S. Patent # 4,737,510: Agelas; UI 1928 ; Patent Appl. Series # 93,819 - R. Saliwanchik, 1971-1976; 1978 - 1990; 1992; 1999
UPI 1928 - Patent # 4,737,510 ; Correspondence 1992, 1999
References for Agelas Patent - Originals
Agelas Samples
Bristol - Myers RCT (Robert W. Piwonka)
Patent Corrections
U.S. Patent # 4,737,510: Agelas; Correspondence about licensing, Testing reports, invention descriptions (Divided in 3 folders)
Topics:
Bioactive metabolites from the Caribbean sponge Agelas Coniferin
Natural products from Porifera
Metabolism in Porifera

Acarnidines- 1982 Request from B.T. Goldins, by D.W. Phillipson (Divided 2 folders), 1981 - 1983

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Topics: Compounds with active antibacterial agents Acarnidines analogues

Polyandrocarpa Testing, Etc - Polyandrocarpidines. M. T. Cheng, 1976- 1989 Topics: Polyandrocarpidines - antibacterial activity

Names

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Organizations School of Chemical Sciences, UIUC Department of Health and Human Services National Cancer Institute - Division of Cancer Treatment National Institute of Allergy and Infectious Diseases 15/5/53

Department of Health, education and Welfare - Public Health Service - National Institutes of Health National Institutes of Health National Science Foundation American Chemical Society- Division of Organic Chemistry The U.S Department of Commerce - Patent and Trademark Office **European Patent Office Canadian Patent Office** Roswell Park Memorial Institute - Department of Health, State of New York. Pharmamar S.A Dike, Bronstein, Roberts & Cushman - Attorneys at Law **Corporate Patents and Trademarks** Law Offices - Merriam, Marhall, Shapiro and Klose (Formerly Merriam, Marshall and Bicknell) Saliwanchik & Saliwanchick, Patent & Trademark Law The UpJhon Company M.L. Kalinowski and Associates- Consultants Department of Enterprise, Patent Office, State House, London Marks & Clerk, Chartered Patent Agents, European Patent Attorneys University Science, Engineering and Technology INC (Formerly University Patents Inc) **Research Corporation Technologies** ICI Americas Inc- U.S. Abott Laboratories - U.S. Sterling Drug Inc - U.S. **Beecham Pharmaceuticals- London** Bristol Laboratories- U.S. The Wellcome Research Laboratories -Burroughs Wellcome Co. Glaxo Holdings Limited -London Diagnostic Isotopes Inc -U.S. Schering Plough Corporation- U.S. Hoffman- La Roche Inc - U.S. The Salk Institue for Biological Studies Pharmazeutische Fabrik, Esslingen /Neckar Harbor Branch- Oceanographic Institution Inc. Mitsubishi - Kasei Institute of Life Sciences Tokyo Tanabe Co. Universität Bern (Switzerland) -Institut für Organische Chemie University of Warwik (U.K) Department of Chemistry, University of Canterbury- New Zeland