Exhibit 1

Walter Galloway Chambliss, Ph.D.
43 W. Carlos Road
Memphis, Tennessee 38117
Home Office: 901-763-2703, Fax: 901 763-2703
University Office: 662-915-7134, Fax: 662-915-1006

EDUCATION

Ph. D. Pharmaceutics, University of Mississippi. December 1982
M.S. Pharmaceutics, University of Mississippi, December 1980
B.S. Pharmacy, University of Mississippi. May 1977

WORK EXPERIENCE

UNIVERSITY OF MISSISSIPPI — **1999 to Present**

Director of Technology Management; Research Professor, — **2004 to Present**
National Center for Natural Products Research;
Professor, Pharmaceutics

Responsible for business development, intellectual property management and licensing for the Oxford campus. Responsible for managing late stage pharmaceutical development projects and for teaching graduate level courses in Pharmaceutics and Pharmacy Administration

Associate Director, National Center for Natural Products Research, — **1999 to 2004**
Research Professor, Pharmaceutics; School of Pharmacy

Responsible for business development. intellectual property management and licensing for the School of Pharmacy. Responsible for pharmaceutical product development projects for the National Center for Natural Products Research and for teaching graduate courses in Pharmaceutics and Pharmacy Administration

CHAMBLISS TECHNOLOGY DEVELOPMENT AND TRANSFER, LLC — **1998 to Present**
Managing Director; Memphis, TN

Founder of a consulting company to assist with R&D management, project management. preparation or review of technical documents. intellectual property management, and business development

SCHERING-PLOUGH HEALTHCARE PRODUCTS — **1987 to 1998**
Vice President, Research and Development (1993-1998)
Memphis, TN

Led all technical groups in support of new and existing products under the Dr Scholl's, Coppertone and the Schering-Plough over-the-counter brands such as Afrin. Correctol. A&D. Drixoral. Chlor-Trimeton, Lotrimin Tinactin. and Gyne-Lotrimin Supervised Process Development/Validation. Analytical Methods Development/Validation. Stability, Project





Exhibit 1

Management, Product Safety/Toxicology, Package Development, International Technical Services, and Consumer Relations. Reviewed and approved consumer labeling Responsible for a $10 million budget and over 100 professionals. Directly responsible for technical evaluation of business development and Rx-to-OTC switch opportunities

Key Accomplishments:

- Launched an average of 30 new or improved products per year in the United States, Canada, Japan, Latin America, and Europe. New products represented 25% of annual sales.
- Transferred 100 products with sales of over $200 million to 12 contract manufacturing sites over an 18-month period.
- Developed a strategic plan for the division with an executive team
- Initiated and managed collaborative research alliances with European partners.
- Developed and implemented a project team approach to product development

Senior Director, Scientific Affairs; Liberty Corner, New Jersey (1991-1993)

A staff position reporting to the Senior Vice President of Scientific and Regulatory Affairs Led the Rx-to-OTC switch program, coordinated internal and external research programs, served on the Label and Advertising Review Committee and represented the corporation on trade association task groups.

Key Accomplishments:

- Chaired the Non-Prescription Drug Manufacturers Association task group on antihistamines in the common cold This led to an FDA agreement that antihistamines were safe and effective for this indication
- Accelerated the completion of several NDA clinical programs while serving as interim Medical Director
- Created four multidisciplinary therapy teams to drive the new products program.

Director, Pharmaceutical R&D; Memphis, TN (1990-1991)

Led group of 30 professionals responsible for formulation development for the OTC product line, and clinical supplies and analytical methods for the Coppertone, Dr Scholl's, and the OTC product line

Key Accomplishments:

- Assembled and led a task group to upgrade R&D to develop products for NDA submissions The result was the addition of 50 new R&D scientists across all disciplines, a total rewrite of the SOP's, and initiation of 12 NDA projects.

Associate Director, Pharmaceutical R&D Memphis, TN (1987-1989)

Managed a group of ten professionals responsible for formulation development and clinical supplies of OTC products and Dr Scholl s drug and cosmetic products

BRISTOL-MYERS PHARMACEUTICAL COMPANY, **1984 to 1987**
Manager, Pharmaceutical Development; Evansville, IN (1987)

Developed new pharmaceutical products under NDA's for the Animal Health Division
Supervised a group of three professionals responsible for all aspects of product development

Senior Research Scientist, Pharmaceutical R&D; Syracuse, New York (1986-1987)

Conducted formulation development of new antibiotic compounds and independent research on novel controlled-release delivery systems.

Department Head Process Development; Syracuse, New York (1984-1986)

Managed a group of three professionals responsible for process development and technology transfer of new products for the Bristol Laboratories Division. The group, which reported to Operations, was responsible for solids. liquids, and sterile products

G. D. SEARLE PHARMACEUTICAL COMPANY **1982 to 1984**
Research Investigator, Pharmaceutical R&D; Skokie, IL.

Responsible for formulation development, process development and transfer to production of new pharmaceutical products

RELIEF PHARMACIST **1978 to 1982**
Senatobia Hospital; Senatobia, Ms.
Batesville Hospital; Batesville, Ms.
Chaney's Pharmacy; Oxford, Ms.

Responsible for managing the pharmacies on weekends, holidays and vacations.

UNIVERSITY OF MISSISSIPPI, SCHOOL OF PHARMACY **1978 TO 1982**
Graduate teaching instructor

Responsible for teaching pharmacy students how to prepare, label and dispense prescriptions.

WALGREENS PHARMACY **1978 TO 1978**
Pharmacist

Responsible for filling prescriptions and managing the pharmacy operations Filled approximately 300 prescriptions per day

TREASURY PHARMACY **1977 TO 1978**
Pharmacist

Responsible for filling prescriptions and managing the pharmacy operations Filled approximately 300 prescriptions per day

WALTER GALLOWAY CHAMBLISS, Ph.D.

DOCTORS HOSPITAL 1977 TO 1977
Pharmacist

Responsible for filling prescriptions for a 100 bed hospital

PUBLICATIONS, PATENTS AND PRESENTATIONS

Chambliss, W G.. Course Director & Instructor, "Pharmaceutical Technology Transfer", Center for Professional Advancement. New Brunswick, N.J . and Amsterdam, Netherlands; 2004, 2005 and 2006.

Garrison, R , Chambliss. W . Effect of a Proprietary Magnolia and Phellodendron Extract on Weight Management A Pilot. Double-Blind, Placebo-Controlled Clinical Trial, Alternative Therapies in Health and Medicine, Vol. 12, No. 1, 2006.

Chambliss, W.G . Instructor, "Scale up and Post-Approval Changes Guidelines (SUPAC and BACPAC)", New Brunswick, N.J . Boca Raton, Florida and Amsterdam, Netherlands; Center for Professional Advancement. 2004, 2005 and 2006

Cheboyina, S., Chambliss. W., and Wyandt, C.. "A Novel Freeze Pelletization Technique for Preparing Matrix Pellets". October, 100-110. 2004

Chambliss, W G , "*JPharmSci*: An International Source for Answers to Critical Research Questions". *JAPhA 44* 122-125, 2004.

Stogniew, M, Chambliss, W , and Garrison, R . U S. Patent #6,814,987, "Compositions and methods of use for extracts of magnoliaceae plants", November, 2004.

Glisson J K.. Rogers H E . and Chambliss W G , "Dietary Supplements: Important Concerns for the Clinician", *Miss State Med Assoc* 44(2).35-38, 2003

Chambliss W.G . Instructor. "Semi-solids Process Development", Center for Professional Advancement. 2003.

Chambliss. W G.. Acetic Acid. Glacial, Handbook of Pharmaceutical Excipients. 4th Edition, Rowe, Sheskey and Weller. Editors, Pharmaceutical Press and APhA, 2003

Chambliss. W G.. Phosphoric Acid, Handbook of Pharmaceutical Excipients. 4th Edition, Rowe, Sheskey and Weller. Editors., Pharmaceutical Press and APhA, 2003

Chambliss. W G . Hufford. C.D . Flagg. M.L.. and Glisson. J K . "Assessment of the Quality of Reference Books on Botanical Dietary Supplements", *JAPhA*, 42:723-734, 2002.

Chambliss, W., "Tolerability and Pharmacokinetics of Ascending Doses of Delta-9 THC-Hemisuccinate in Suppositories and Comparative Bioavailability with Oral Marinol", Invited Speaker. International Cannabinoid Society Annual Meeting. July 2002

Chambliss. W . "Phase I Clinical Studies on THC-Hemisuccinate Suppositories", Invited Speaker. Center for Medicinal Cannabis Research Workshop. July 2002

Bentley, P J., Best, A.M.. Reisetter, B C and Chambliss. W G , "Experiences and Activities of Primary Care Physicians Regarding Patient Use of Herbal Products", Academy of Health Services Research and Health Policy Annual Meeting, Washington, D C., June 2002

Bentley, P.J., Best, A.M , Reisetter, B.C. and Chambliss. W G , "The Regulation of Herbal Products in the U S · What are the Views of Community Pharmacists and Primacy Care Physicians?" American Pharmaceutical Association Convention, March 2002

Avdeef. A., Strafford, M . Block. E . Balogh. M.P., Chambliss. W., and Khan, I., "Drug Absorption in vitro Model Filter-Immobilized Artificial Membranes. 2. Studies of the Permeability Properties of Lactones in Piper methysticum Forst Eur. *J. Pharm Sci.*, 14(4) 271-280, 2001.

Chambliss, W.G., "Dietary Supplements and Controlled Release", Invited Speaker, 28th International Symposium on Controlled Release of Bioactive Materials, June 2001.

Chambliss, W G.. "Nutraceutical Formulations Impact on Bioavailability", in Examining the Science Behind Nutraceuticals, Proceedings of the AAPS Dietary Supplement Forum, AAPS Press, pps. 367-380, 2001

Sufka, K J, Roach, J.T, Chambliss, W G , Broom. S , Feltenstein, M W., Wyandt, C. and Zeng. L., "Anxiolytic Properties of Botanical Extracts in the Chick Social Separation-Stress Procedure". *Psychopharmacology*, Vol 153, Issue 2, 2001

Chambliss, W G , "New Product Opportunities Through Formulation and Claim Support". Invited Speaker, Global Advisory Board, American Home Products, October 2000

Chambliss, W G.. "Nutraceutical Formulations Impact on Bioavailability", Invited Speaker, American Association of Pharmaceutical Scientists Dietary Supplement Forum, June 2000

Instructor, "The Postgraduate Course in Tablet Technology". University of Tennessee. 10/98. 3/99 and 6/99

Chambliss, W G , "The Demands of Leadership", Invited Speaker: Honors Day, University of Mississippi, 4/98

Chambliss, W.G . "Management versus Leadership", Rho Chi Banquet, University of Mississippi, 4/99

Editorial Advisory Board, the Handbook of Pharmaceutical Excipients, 2nd. 3rd and 4th Editions

J. Haslwanter and W Chambliss, "Non-cariogenic Confections", U S Patent #4,963,359. October 16, 1990

J Rider. E. Brunson, W Chambliss, R Cleary. G Hemati. A Hakal. J. Johnson C Rainey. L Walker, and A Jones, "Evaluation of an In Vitro Dissolution Apparatus for Medicated Chewing Gums". Poster Session. AAPS National Meeting, Atlanta. GA. November 1989

Chambliss. W G . "Conventional and Specialize Coating Pans". in Pharmaceutical Pelletization Technology. Marcel Dekker. Inc , NY 1989

Chambliss. W.G , "Enteric Coatings", The Encyclopedia of Pharmaceutical Technology, Marcel Dekker. Inc NY, 1990

Patel, T. and Chambliss. W G . "Formulation and Manufacture of Antibiotics", Antibiotics and Microbial Transformation, CRC Press, 1987

Chambliss, W. G and Hendrick. M G., "One Approach to Reprocessing", Pharmaceutical Technology. December 1986

Chambliss. W. G., "Shellac". Lawrence Review of Natural Products, Vol 6, No. 7, July, 1985.

Chambliss, W. G., "Raw Material Characterization". Pharmaceutical Technology, June, 1984.

Chambliss, W. G., Chambliss. D. A.. Cleary, R W., Jones. A B., Harland, E and Kibbe, A H., "The Development and Evaluation of Enteric Coated Penicillamine Tablets", Journal of Pharmaceutical Sciences, 73, 1215, 1984.

Chambliss, W. G., "The Forgotten Dosage Form Enteric Coated Tablets", Pharmaceutical Technology, September 1983

Chambliss, W.G., and Kibbe, A.H., "Zomepirac Pharmacokinetics in Renal Failure Patients", American Pharmaceutical Association Conference, Las Vegas, Nevada, April 1982

Chambliss, W.G . Cleary, R W , Fischer, R Jones, A B , Skierkowski, P , Nicholes, W., and Kibbe, A H , "Effect of Docusate Sodium on Drug Release from a Controlled-Release Dosage Form", Journal of Pharmaceutical Sciences, 70 1248. 1981

Reviewer:

Journal of the American Pharmacists Association. 2004 to present

National Science Foundation, Review Panel, Partnerships for Innovation Program, 2005

International Journal of Pharmaceutical Compounding. 2003 to present

Journal of Pharmaceutical Marketing and Management. 2000 to present

Journal of Biomolecular Screening, 2003 to present

Journal of Natural Products, 2000 to present

Journal of the American Pharmaceutical Association. 2000 to 2004

Natural Sciences and Engineering Research Council (NSERC). Ottawa, Canada, 2001 and 2002

National Center for Complementary and Alternative Medicine, Special Emphasis Panel, National Institutes of Health. March 2000. July 2000, October 2000. March 2001

WALTER GALLOWAY CHAMBLISS, Ph.D.

HONORS AND PROFESSIONAL ORGANIZATIONS

Fellow, Academy of Pharmaceutical Research and Sciences, American Pharmaceutical Association, 2003

Fellow, American Association of Indian Pharmaceutical Sciences, 2006

Executive Committee, Academy of Pharmaceutical Research and Sciences. American Pharmacists Association, 2003-2004

Chair-Elect, Strategic Alliances Committee, Licensing Executives Society. 2006/2007

Board of Directors, University of Mississippi Research Foundation, 2004 to present

Board of Directors, Children's GMP LLC, 2005 to present

Board of Directors, Secretary and Treasurer, Technology Resources Foundation, 2003 to 2004

Board of Directors, Phytochemical Services Inc.. 2006 to present

External Research Advisory Committee, Mississippi State University. 1994 to 2002

Scientific Advisory Board, Southern Regional Poison Control Center, 1996 to 2002 (Chairman-7/98 to 6/2000)

Scientific Advisory Board. Next Pharmaceuticals. Chairman, 1999 to present

Chair. Research Committee, Technology Resources Foundation, 2003 to 2004

Technology Council Executive Committee, Memphis Area Regional Chamber of Commerce. 2002 to 2004

Technology Council Steering Committee, Oxford Lafayette County Economic Development Foundation, 2004 to present

Distinguished Alumni Award, University of Mississippi School of Pharmacy, 1998

Registered Pharmacist. State of Tennessee, 1977 to present

Chair. Pharmaceuticals Committee. Crescent Initiative. 2002 to 2004

Chair, Basic Sciences Section, Academy of Pharmaceutical Research and Sciences. American Pharmaceutical Association. 2002-2003

Chair-elect, Basic Sciences Section, Academy of Pharmaceutical Research and Sciences. American Pharmaceutical Association 2001-2002

Member at Large. Basic Sciences Section. Academy of Pharmaceutical Research and Sciences American Pharmaceutical Association. 1999 - 2001

Academy of Pharmaceutical Research and Sciences, American Pharmaceutical Association, Liaison to the *Journal of Pharmaceutical Sciences*, Editorial Advisory Board

Dietary Supplement Advisory Board, American Association of Pharmaceutical Sciences (AAPS), 2001 to 2002.

Tennessee State Governor's Biotechnology Task Force - Commercialization Committee member, 2001 to 2003.

Who's Who Among Students in American Universities and Colleges. 1982

National Register of Outstanding College Graduates, 1982

Rho Chi Honor Society

American Association of Pharmaceutical Scientists

Association of University Technology Managers

American Pharmacists Association

Licensing Executives Society

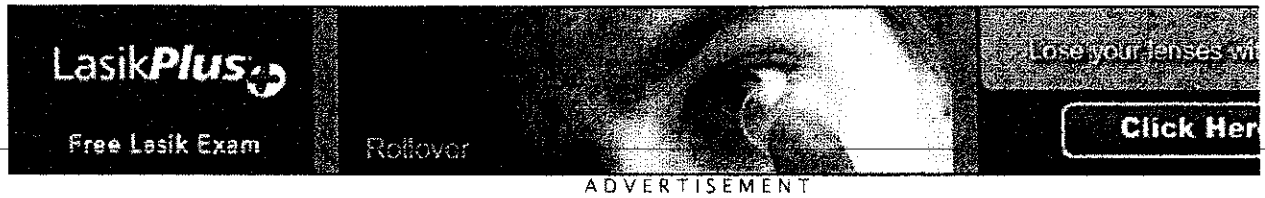
Exhibit 2

Premium Conten

Dictionary.com

homogeneous mixture

Dictionary Thesaurus Encyclopedia



ADVERTISEMENT

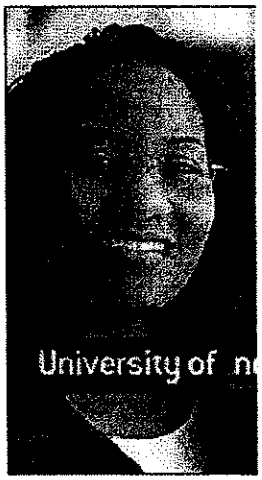
1 result for: *homogeneous mixture*

Browse Nearby Entries)

Sponsored Links

10 Tips To Lose Belly Fat
Lose 9 lbs every 11 Days with these 10 Easy Rules of Diet & Fat Loss.
www.FatLoss4Idiots.com

What's Your Tribe?
Czech? Chinese? Chippewa? Find out with a personal DNA test.
www.dnatribes.com



ADVE

Webster's New Millennium™ Dictionary of English - *Cite This Source* - *Share This*

Main Entry: homogeneous mixture
Part of Speech: *n*
Definition: any combination of substances that has uniform composition and properties; a mixture that is uniform throughout

Webster's New Millennium™ Dictionary of English, Preview Edition (v 0.9.7)
Copyright © 2003-2007 Lexico Publishing Group, LLC

Related Ads:
Mixture
Chemical
Mixture Lyrics
Idle Mixture
Screw

View results from: Dictionary | Thesaurus | Encyclopedia | All Reference | the Web

ADVE

Share This:

Exhibit 2

Exhibit 3



WEBSTER'S

Exhibit 3

New Collegiate Dictionary

A Merriam-Webster®

G. & C. MERRIAM COMPANY
Springfield, Massachusetts, U.S.A.

Copyright © 1977 by G. & C. Merriam Co.

Philippines Copyright 1977 by G. & C. Merriam Co.

Library of Congress Cataloging in Publication Data
Main entry under title:

Webster's new collegiate dictionary.

Editions for 1898–1948 have title: Webster's collegiate dictionary.
1. English language—Dictionaries.
PE1628.W4M4 1977 423 76-46539
ISBN 0-87779-348-4
ISBN 0-87779-349-2 (indexed)
ISBN 0-87779-350-6 (deluxe)

Previous editions copyright © 1973, 1974, 1975, 1976 by G. & C. Merriam Co.

Previous editions Philippines Copyright 1973, 1974, 1975, 1976 by G. & C. Merriam Co.

COLLEGIATE is a registered trademark.

All rights reserved. No part of this work covered by the copyrights hereon may be reproduced or copied in any form or by any means—graphic, electronic, or mechanical, including photocopying, recording, taping, or information and retrieval systems—without written permission of the publisher.

Made in the United States of America

mea·sure·less \-ər-ləs\ *adj* **1** : having no observable limit : IMMEASURABLE <the ~ universe> **2** : very great <treated them with ~ contempt>

mea·sure·ment \'mezh-ər-mənt, 'māzh-\ *n* **1** : the act or process of measuring **2** : a figure, extent, or amount obtained by measuring : DIMENSION **3** : MEASURE 2b

measurement ton *n* : TON 2c

measure up *vi* **1** : to have necessary or fitting qualifications **2** : to be the equal (as in ability) — used with *to*

measuring worm *n* : LOOPER 1

meat \'mēt\ *n* [ME *mete*, fr. OE; akin to OHG *maz* food, L *madēre* to be wet, Gk *madaros* wet, *mastos* breast] **1 a** : FOOD; *esp* : solid food as distinguished from drink **b** : the edible part of something as distinguished from its covering (as a husk or shell) **2** : animal tissue used as food; **a** : FLESH 2b **b** : FLESH 1a; *specif* : flesh of domesticated animals **3** *archaic* : MEAL 2; *esp* : DINNER **4** : the core of something : SUBSTANCE **5** : favorite pursuit or interest

meat ball \-,bȯl\ *n* : a small ball of chopped or ground meat often mixed with bread crumbs and spices

meat by-product *n* : a usable product other than flesh obtained from slaughter animals

meat loaf *n* : a dish of seasoned meat and a binder (as egg or bread crumbs) baked in the form of a loaf

meat·man \'mēt-,man\ *n* : a vendor of meat : BUTCHER

meat type *n* : a type of hog esp. suitable for the production of pork without excessive early fattening — compare LARD TYPE

me·a·tus \mē-'āt-əs\ *n, pl* **me·a·tus·es** \-ə-səz\ *or* **me·a·tus** \-'āt-əs, -'ā-tüs\ [LL, fr. L, going, passage, fr. *meatus*, pp. of *meare* to go — more at PERMEATE] : a natural body passage

meaty \'mēt-ē\ *adj* **meat·i·er; -est** **1** : full of meat **2** : rich in matter for thought — **meat·i·ness** *n*

mec·a·myl·a·mine \,mek-ə-'mil-ə-,mēn\ *n* [fr. *Mecamylamine*, a trademark] : a drug that in the hydrochloride $C_{11}H_{21}N.HCl$ is used orally as a ganglionic blocking agent to effect a rapid lowering of severely elevated blood pressure

Mec·ca \'mek-ə\ *n, often cap* [*Mecca*, Saudi Arabia, birthplace of Muhammad and holy city of Islam] : a place sought as a goal by numerous people

mech *abbr* mechanical; mechanics

mechan- *or* **mechano-** *comb form* [ME *mechan-*, fr. MF or L, fr. Gk *mēchan-*, fr. *mēchanē* machine — more at MACHINE] : machine <*mechanomorphic*> : mechanical <*mechanize*>

¹me·chan·ic \mi-'kan-ik\ *adj* [prob. fr. MF *mechanique*, adj. & n., fr. L *mechanicus*, fr. Gk *mēchanikos*, fr. *mēchanē* machine — more at MACHINE] **1** : of or relating to manual work or skill **2** : suggestive of a machine esp. in routine or automatic performance

²mechanic *n* **1** : a manual worker : ARTISAN **2** : MACHINIST; *esp* : one who repairs machines

¹me·chan·i·cal \mi-'kan-i-kəl\ *adj* **1 a** (1) : of or relating to machinery or tools <~ applications of science> <a ~ genius> <~ aptitude> (2) : produced or operated by a machine or tool <~ power> <a ~ refrigerator> <a ~ saw> **b** : of or relating to manual operations **2** : of or relating to artisans or machinists <the ~ trades> **3 a** : done as if by machine : seemingly uninfluenced by the mind or emotions : AUTOMATIC <her singing was cold and ~> **b** : of or relating to technicalities or petty matters **4 a** : relating to, governed by, or in accordance with the principles of mechanics <~ work> <~ energy> **b** : relating to the quantitative relations of force and matter <~ pressure of wind on a tower> **5** : caused by, resulting from, or relating to a process that involves a purely physical as opposed to a chemical change <~ erosion of rock> *syn* see SPONTANEOUS — **me·chan·i·cal·ly** \-i-k(ə-)lē\ *adv*

²mechanical *n* : a piece of finished copy consisting typically of type proofs and artwork positioned and mounted for photomechanical reproduction

mechanical advantage *n* : the advantage gained by the use of a mechanism in transmitting force; *specif* : the ratio of the force that performs the useful work of a machine to the force that is applied to the machine

mechanical drawing *n* **1** : drawing done with the aid of instruments **2** : a drawing made with instruments

mech·a·ni·cian \,mek-ə-'nish-ən\ *n* : MECHANIC; MACHINIST

me·chan·ics \mi-'kan-iks\ *n pl but sing or pl in constr* **1** : a branch of physical science that deals with energy and forces and their effect on bodies **2** : the practical application of mechanics to the design, construction, or operation of machines or tools **3** : mechanical or functional details

mech·a·nism \'mek-ə-,niz-əm\ *n* **1 a** : a piece of machinery **b** : a process or technique for achieving a result **2** : mechanical operation or action **3** : a doctrine that holds natural processes (as of life) to be mechanically determined and capable of complete explanation by the laws of physics and chemistry **4** : the fundamental physical or chemical processes involved in or responsible for an action, reaction, or other natural phenomenon (as organic evolution)

mech·a·nist \-nəst\ *n* **1** *archaic* : MECHANIC **2** : an adherent of the doctrine of mechanism

mech·a·nis·tic \,mek-ə-'nis-tik\ *adj* **1** : mechanically determined <~ universe> **2** : of or relating to the doctrine of mechanism **3** : MECHANICAL — **mech·a·nis·ti·cal·ly** \-ti-k(ə-)lē\ *adv*

mech·a·nize \'mek-ə-,nīz\ *vt* **-nized; -niz·ing** **1** : to make mechanical; *esp* : to make automatic or routine **2 a** : to equip with machinery esp. to replace human or animal labor **b** : to equip with armed and armored motor vehicles **c** : to provide with mechanical power **3** : to produce by or as if by machine — **mech·a·niz·able** \-,nī-zə-bəl\ *adj* — **mech·a·ni·za·tion** \,mek-ə-nə-'zā-shən\ *n* — **mech·a·niz·er** \'mek-ə-,nī-zər\ *n*

mech·a·no·chem·is·try \,mek-ə-nō-'kem-ə-strē\ *n* : chemistry that deals with the conversion of chemical energy into mechanical work (as in the contraction of a muscle) — **mech·a·no·chem·i·cal** \-'kem-i-kəl\ *adj*

mech·a·no·re·cep·tor \-ri-'sep-tər\ *n* : a neural end organ (as a tactile receptor) that responds to a mechanical stimulus (as a change in pressure or tension) — **mech·a·no·re·cep·tion** \-'sep-shən\ *n* — **mech·a·no·re·cep·tive** \-'sep-tiv\ *adj*

Mech·lin \'mek-lən\ *n* [*Mechlin*, Belgium] : a delicate bobbin lace used for dresses and millinery

me·co·ni·um \mi-'kō-nē-əm\ *n* [L, lit., poppy juice, fr. Gk *mēkōnion*, fr. *mēkōn* poppy; akin to OHG *mago* poppy] : a dark greenish mass that accumulates in the bowel during fetal life and is discharged shortly after birth

me·cop·ter·ous \mi-'käp-tə-rəs\ *adj* [NL *Mecoptera* group name, fr. *meco-* long (fr. Gk *mēkos* length) + Gk *pteron* wing; akin to Gk *makros* long — more at MEAGER, FEATHER] : of, relating to, or being any of an order (Mecoptera) of primitive carnivorous insects (as scorpion flies) usu. with membranous wings and a long beak with biting mouthparts at the tip

med *abbr* **1** medical; medicine **2** medieval **3** medium

MEd *abbr* master of education

med·al \'med-ᵊl\ *n* [MF *medaille*, fr. Olt *medaglia* coin worth half a denarius, medal, fr. (assumed) VL *medalis* half, fr. LL *medialis* middle, fr. L *medius* — more at MID] **1** : a metal disk bearing a religious emblem or picture **2** : a piece of metal often resembling a coin and having a stamped design that is issued to commemorate a person or event or awarded for excellence or achievement

Medal for Merit : a U.S. decoration awarded to civilians for exceptionally meritorious conduct in the performance of outstanding services

med·al·ist *or* **med·al·list** \'med-ᵊl-əst\ *n* **1** : a designer, engraver, or maker of medals **2** : a recipient of a medal as an award

me·dal·lic \mə-'dal-ik\ *adj* : of, relating to, or shown on a medal

me·dal·lion \mə-'dal-yən\ *n* [F *médaillon*, fr. It *medaglione*, aug. of *medaglia*] **1** : a large medal **2** : something resembling a large medal; *esp* : a tablet or panel in a wall or window bearing a figure in relief, a portrait, or an ornament

Medal of Freedom : a U.S. decoration awarded to civilians for meritorious achievement in any of various fields

Medal of Honor : a U.S. military decoration awarded in the name of the Congress for conspicuous gallantry and intrepidity at the risk of life above and beyond the call of duty in action with an enemy

medal play *n* : STROKE PLAY

med·dle \'med-ᵊl\ *vi* **med·dled; med·dling** \'med-liŋ, -ᵊl-iŋ\ [ME *medlen*, fr. OF *mesler, medler*, fr. (assumed) VL *misculare*, fr. L *miscēre* to mix — more at MIX] : to interest oneself in what is not one's concern : interfere without right or propriety — **med·dler** \'med-lər, -ᵊl-ər\ *n*

syn MEDDLE, INTERFERE, INTERMEDDLE, TAMPER *shared meaning element* : to concern oneself with officiously, impertinently, or indiscreetly

med·dle·some \'med-ᵊl-səm\ *adj* : given to meddling *syn* see IMPERTINENT — **med·dle·some·ness** *n*

Mede \'mēd\ *n* [ME, fr. L *Medus*, fr. Gk *Mēdos*] : a native or inhabitant of ancient Media in Persia

Me·dea \mə-'dē-ə\ *n* [L, fr. Gk *Mēdeia*] : an enchantress noted in Greek myth for helping Jason gain the Golden Fleece and for repeatedly resorting to murder to gain her ends

medi- *or* **medio-** *comb form* [L, fr. *medius*] : middle <*medieval*>

¹me·dia \'mēd-ē-ə\ *n, pl* **me·di·ae** \-ē-,ē\ [LL, fr. L, fem. of *medius*; fr. the voiced stops' being regarded as intermediate between the tenues and the aspirates] : a voiced stop **2** [NL, fr. L, fem. of *medius*] : the middle coat of the wall of a blood or lymph vessel consisting chiefly of circular muscle fibers

²media *n, pl* **me·di·as** [pl. of *medium*] : MEDIUM 2b

me·di·ad \'mēd-ē-,ad\ *adv* : toward the median line or plane of a body or part

me·di·al \'mēd-ē-əl\ *adj* **1 a** : being or occurring in the middle : MEDIAN **b** : extending toward the middle **2** : situated between the extremes of initial and final in a word or morpheme **3** : MEAN, AVERAGE — **medial** *n* — **me·di·al·ly** \-ə-lē\ *adv*

¹me·di·an \'mēd-ē-ən\ *n* **1** : a medial part (as a vein or nerve) **2 a** : a value in an ordered set of values below and above which there is an equal number of values or which is the arithmetic mean of the two middle values if there is no one middle number **b** : a vertical line that divides the histogram of a frequency distribution into two parts of equal area **c** : a value of a random variable for which all greater values make the distribution function greater than one half and all lesser values make it less than one half **3 a** : a line from a vertex of a triangle to the midpoint of the opposite side **b** : a line joining the midpoints of the nonparallel sides of a trapezoid *syn* see AVERAGE

²median *adj* [MF or L; MF, fr. L *medianus*, fr. *medius* middle — more at MID] **1** : being in the middle or in an intermediate position : MEDIAL **2** : relating to or constituting a statistical median **3** : lying in the plane dividing a bilateral animal into right and left halves **4** : produced without occlusion along the lengthwise middle line of the tongue — **me·di·an·ly** *adv*

median strip *n* : a paved or planted strip dividing a highway into lanes according to direction of travel

me·di·ant \'mēd-ē-ənt\ *n* [It *mediante*, fr. LL *mediant-, medians*, prp. of *mediare* to be in the middle] : the third tone of a diatonic scale midway between the tonic and the dominant

me·di·as·ti·num \,mēd-ē-ə-'sti-nəm\ *n, pl* **-na** \-nə\ [NL, fr. L, neut. of *mediastinus* medial, fr. *medius*] : an irregular median septum of the thoracic cavity that is formed of the opposing medial walls of the parietal pleura and encloses the thoracic viscera except the lungs — **me·di·as·ti·nal** \-'stīn-ᵊl\ *adj*

¹me·di·ate \'mēd-ē-ət\ *adj* [ME, fr. LL *mediatus* intermediate, fr. pp. of *mediare*] **1** : occupying a middle position **2 a** : acting

Exhibit 4

Redacted in its entirety

Exhibit 5

December 21, 2005

For reference : press release by TAP

TAP LICENSES PREVACID® INTELLECTUAL PROPERTY RIGHTS TO NOVARTIS FOR OTC DEVELOPMENT AND FUTURE COMMERCIALIZATION

– Agreement Part of TAP's Strategy to Maintain Its Leadershipin Area of Gastroenterological Products –

LAKE FOREST, Ill., Dec. 20, 2005 – TAP Pharmaceutical Products Inc. announced today that it has agreed to license its Prevacid® (lansoprazole) trademark and certain other intellectual property to Novartis for development and future commercialization in the over-the-counter (OTC) market. The agreement covers the United States and its territories. Financial terms were not disclosed.

TAP will continue to market and sell prescription Prevacid until at least 2009 when the compound patent expires, while Novartis takes on full responsibility for what is expected to be a multi-year OTC development initiative, including the design and conduct of all clinical studies, product development activities, regulatory submissions to the U.S. Food and Drug Administration, commercialization, manufacturing, product launch and distribution.

"Prevacid is one of the most recognized and respected names for treating a number of acid-related disorders," said Alan MacKenzie, TAP's president. "TAP is proud that Prevacid has become one of the nation's leading prescription drugs, and this agreement allows TAP to maximize the value of its Prevacid franchise while also focusing on future novel compounds to treat acid related disorders."

"Our goal is to switch Prevacid upon its patent expiration and make it one of the top five OTC products in the United States," said Larry Allgaier, CEO of Novartis Consumer Health, OTC. "We have the experience and a proven track record in switching drugs from Rx to OTC. We're excited about making Prevacid – a brand that people know and trust - even more accessible to patients in the future."

"We chose to grant rights for this important product to a company that excels in developing and marketing OTC products, and we are convinced that Novartis is well positioned to make an OTC version of Prevacid a success in the future," said MacKenzie.

Continued Commitment to Leadership in Gastroenterology

TAP has been a vital part of the gastroenterological community for more than 10 years, supporting important research and education for patients and physicians about acid-related disorders. The company remains committed to the area as it builds upon its gastroenterology franchise with two important development programs announced earlier this year: TAK-390MR and ilaprazole.

TAP has initiated Phase III studies for the investigational drug TAK-390MR for the treatment of acid-related disorders. Licensed from Takeda Pharmaceutical Company Limited, TAK-390MR employs a new modified release (MR) technology on an enantiomer of lansoprazole.

Ilaprazole is a new investigational proton pump inhibitor (PPI), which will enter Phase II studies next year and was licensed from ILYANG Pharmaceutical Company.

Exhibit 5

About Prevacid

Prevacid is currently approved for prescription-only use by the U.S. Food and Drug Administration. Prevacid's indications include the short-term (up to eight weeks) treatment of heartburn and other symptoms of gastroesophageal reflux disease (GERD).

Symptomatic response to therapy does not preclude the presence of gastric malignancy.

Prevacid is contraindicated in patients with known hypersensitivity to any component of the formulation. The most frequently reported adverse events include diarrhea, abdominal pain and nausea. For further information about Prevacid, please see the complete prescribing information and visit www.prevacid.com.

About TAP Pharmaceutical Products Inc.

TAP Pharmaceutical Products Inc., located in Lake Forest, Ill., is a joint venture between Abbott, headquartered in Abbott Park, Ill., and Takeda Pharmaceutical Company Limited, of Osaka, Japan. TAP markets Prevacid® (lansoprazole) and Lupron Depot® (leuprolide acetate for depot suspension). For more information about TAP Pharmaceutical Products Inc., and its products, visit the company's Web site at www.tap.com.

###

Exhibit 6

CLASSIFICATION CODE AND DESCRIPTION:
Modlecular Sequence Databank Number: 99 - General

2/5/25 (Item 1 from file: 107)
DIALOG(R)File 107: Adis R&D Insight
(c) 2008 Adis Data Information BV. All rights reserved.

00036646 023115
Drug Name: Dexlansoprazole
Record Revision Date: 20071001
Synonyms: T-168390; TAK 390MR; TAK 390; TAK-390; TAK-390 modified release; TAK-390MR; TAK390
Molecular Formula: C16H14F3N3O2S
CAS Registry Number: 138530-94-6
WHO ATC Code: A02B-C - Proton pump inhibitors
EPHMRA ATC Code: A2B2 - Acid pump inhibitors
Mechanism of Action: Proton pump inhibitors; ATPase inhibitors; General pump inhibitors; Acid anhydride hydrolase inhibitors; Hydrolase inhibitors; Enzyme inhibitors; Hydrolase modulators; Enzyme modulators

Originator Company: Takeda (Japan)
Parent Company: Takeda
Licensee: TAP Pharmaceutical Products

Highest Phase: Phase III

Development Status: Phase III, USA, Erosive oesophagitis
Phase III, USA, Gastro-oesophageal reflux
Phase III, USA, Gastrointestinal disorders
Phase I, Japan, Erosive oesophagitis
Phase I, Japan, Gastro-oesophageal reflux
Phase I, Japan, Gastrointestinal disorders

Text:
Introduction:
Dexlansoprazole is an enantiomer of lansoprazole being developed by Takeda Pharmaceutical Company utilising a new modified-release technology. The compound is in phase III trials for the treatment of acid-related disorders, such as duodenal ulcers, gastric ulcers, gastro-oesophageal reflux disease (GERD or GORD) and Zollinger-Ellison syndrome. Lansoprazole is a proton pump inhibitor originally developed by Takeda and is marketed as Prevacid sup((R)) by Takeda and its licensees in approximately 100 countries worldwide. The US patent covering Prevacid sup((R)) is due to expire in November 2009; the successful launch of the Prevacid sup((R)) successor dexlansoprazole could cushion the expected damage to profits following patent expiry. Dexlansoprazole is expected to compete with AstraZeneca's esomeprazole product, Nexium sup((R)), a successor to AstraZeneca's Prilosec sup((R)) (omeprazole) that is now off-patent.
Company agreements
Takeda licensed dexlansoprazole to TAP Pharmaceutical Products, a 50:50 joint venture between Takeda and Abbott, for development in the US and Canada/1/.
Key development milestones
Phase III trials of dexlansoprazole for erosive oesophagitis and non- erosive gastro-oesophageal reflux disease (GERD) were initiated in the US in August 2005; the phase III clinical programme is expected to involve more than 5000 patients. Data from phase I trials demonstrated that dexlansoprazole has the potential to offer additional benefits to patients with gastrointestinal disorders. In addition to the development of dexlansoprazole, TAP Pharmaceutical will be focussing development efforts on other investigational products for gastrointestinal disorders/2/. The US FDA has allowed dexlansoprazole to skip phase II trials as the molecular structure is a mirror image of lansoprozole, which has been proven to be safe. Takeda has indicated that dexlansoprazole might be launched as early as the beginning of 2009, ahead

of the patent expiry of Prevacid sup((R)).

Commercial Summary: Acid disorders / Proton pump inhibitor

Company	Region	Launch Date	Peak Sales	Patent Expiry
Abbott Labs	US	Jan-2009	$1500m	
Takeda	US	Jan-2009	$1500m	

Copyright (C) Lehman Brothers International. All rights reserved.

Pharmacology Overview:
Antimicrobial activity:
Pharmacodynamics:
Immunogenicity:
Mechanism of action:
Proton pump inhibitors
ATPase inhibitors
General pump inhibitors
Acid anhydride hydrolase inhibitors
Hydrolase inhibitors
Enzyme inhibitors
Hydrolase modulators
Enzyme modulators
tmax (h) (oral) 4 - 5.5 (Adult)
Activity versus parent drug: unspecified parent

Clinical Overview:
Route(s) of Administration: PO
Administration Freq.(per day):
Drug Interactions:
Unknown.

Adverse Events:
In an open-label, four period crossover phase I study, dexlansoprazole and lansoprazole displayed comparable safety profiles. This trial enrolled 40 subjects who then received 3 oral dosing regimens of dexlansoprazole (60mg, 90mg or 120mg) or lansoprazole, each administered daily for 5 consecutive days in a randomly assigned sequence/3/.
Drug Interactions:

Pharmacokinetics:
In an open-label, four period crossover phase I study, dexlansoprazole resulted in extended drug exposure compared to lansoprazole, with significantly higher 3-8hr post-dose plasma concentrations and delayed t sub(max). The mean T sub (max) for dexlansoprazole regimens ranged from 5.0-5.5 hours on Day 1 and 4.2-4.9 hours on Day 5, compared with 1.7 hours and 1.5 hours for lansoprazole on Day 1 and Day 5, respectively. This trial enrolled 40 subjects who then received 3 oral dosing regimens of dexlansoprazole (60mg, 90mg or 120mg) or lansoprazole, each administered daily for 5 consecutive days in a randomly assigned sequence/3/.
Pharmacodynamics (Peptic Ulcer Disease):
Clinical studies: in an open-label, four period crossover phase I study, dexlansoprazole provided an extended drug exposure and a prolonged pH profile across all dose levels compared to lansoprazole. This trial enrolled 40 subjects who then received 3 oral dosing regimens of dexlansoprazole (60mg, 90mg or 120mg) or lansoprazole, each administered daily for 5 consecutive days in a randomly assigned sequence/3/.

Drug Update Information:

10-Aug-2006: Phase-I clinical trials in Erosive oesophagitis in Japan (PO)

References:

1. Takeda Pharmaceutical Company Limited. TAP Advances Takeda's Investigational Gastroenterology Compound TAK-390MR into Phase III Clinical Studies. Media Release. : 30 Aug 2005. Available from: URL: http://www.takeda.co.jp. (English).
2. TAP Pharmaceutical Products Inc. TAP Initiates Phase III Studies for Investigational New Gastroenterology Product. Media Release. : 30 Aug 2005. Available from: URL: http://www.tap.com. (English). 809053628
3. Zhang W, Wu J, et al. Pharmacokinetic, pharmacodynamic, and safety evaluation of single and multiple 60 mg, 90 mg, and 120 mg oral doses of modified release TAK-390 and 30 mg oral doses of lansoprazole in healthy subjects. Digestive Disease Week 2007. : abstr. T1194, 19 May 2007. Available from: URL: http://www.ddw.org. (English).

References No.: 809053628

?