



The American Society of Pharmacognosy

NEWSLETTER

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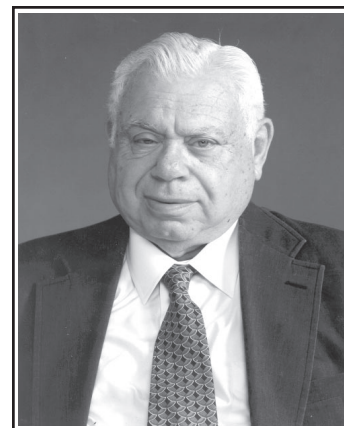
SUMMER
2003

Rutgers' Memorial To Monroe Wall

A Tribute To His Achievements...

At the 43rd Annual Meeting Banquet of the American Society of Pharmacognosy and 3rd Monroe Wall Symposium at New Brunswick, New Jersey, July 31st, 2002, Dr Soji Adelaja, Executive Dean, Rutgers University, Cook College, dedicated a room in the Biochemistry and Microbiology Library, in Lipman Hall in the memory of Dr Monroe E. Wall where all his memorabilia will be displayed.

Rutgers University, Cook College, has already initiated plans to renovate the Biochemistry and Microbiology Library in Lipman Hall. It is the hope of Cook College that this room will be a tribute to Dr. Wall's



Late Dr. Monroe Wall

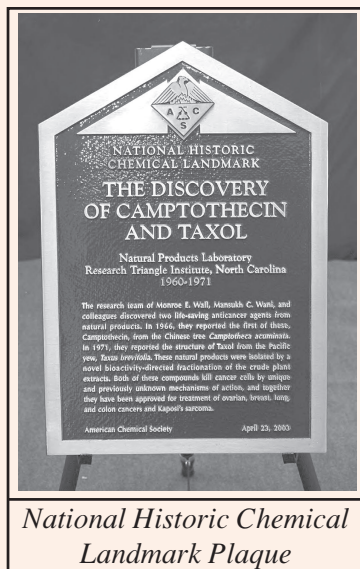
This issue is dedicated to the revival of Pharmacognosy as a major field of study and research....

Continued on page 6

ACS National Historic Chemical Landmark

Commemorating The Discovery Of Taxol & Camptothecin

With the sun shining brightly, the Research Triangle Institute's (RTI) international staff and distinguished guests gathered in front of the institute's Medicinal Chemistry Building in Research Triangle Park, N.C., on April 23 to witness a truly sunny occasion -- the dedication of the discovery of the anticancer compounds Taxol[®] and Camptothecin by Dr. Mansukh Wani and late Dr.



*“...most of all, I'd like to thank two molecules:
Taxol and Camptothecin...”*

-- Mansukh Wani

Monroe Wall at RTI as a National Historic Chemical Landmark by the American Chemical Society (ACS). National Historic Chemical Landmarks commemorate discoveries, products, achievements and places that have expanded the frontiers of knowledge and advanced medicine and industry.

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(Mailing details ...Page 16)

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Editor's Corner

Dear Friends,

Greetings from ASP!

July 2003 marks the first anniversary of the change at the helm of the editorial office of the ASP Newsletter. It is a time to reflect on the progress and accomplishments of the ASP Newsletter, as well as to look ahead and see the challenges facing the field of Pharmacognosy in the future.



We have received many positive comments from readers about the changes in the format, substance and appearance of the Newsletter. This would not have been possible without your valuable contributions.

In the last decade, much has happened in the world of pharmacognosy. Traditional herbal medicines have seen phenomenal growth in popularity and have become well integrated into modern healthcare systems. Unfortunately, pharmacognosy has not kept pace with this growth. On the contrary, as the knowledge and skills of pharmacognocists and tools of pharmacognosy are becoming all the more important, ...for authenticity, purity, quality and safety of herbal drugs, the field of pharmacognosy is losing ground in natural products research and the curriculum of various universities.

I recall the powerful emotional remarks of Dr John Cardellina II in April 2003 on the occasion of the the ACS Plaque dedication ceremony held at the RTI in Chapel Hill, NC, where he expressed grave concerns on the fading status of pharmacognosy from the curricula of most pharmacy schools, and the absence of natural products chemistry from the chemistry departments of various universities and pharmaceutical companies.

Several people shared similar sentiments and have contributed articles for this Summer 2003 ASP Newsletter. Also, in the joint meeting of ASP and European Society of Medicinal Plant Chemistry at Arizona in 2004, a forum is being planned to address these concerns.

Taking inspiration from the remarks of Dr Cardellina, we, as researchers in universities and pharmaceutical companies, can restore an appreciation for the enormous potential of natural products by holding more seminars and workshops, and publishing more articles on the subject. Additionally, by engaging the government and corporate funders, we can help reinvigorate funding for research programs in pharmacognosy. Providing more scholarships will also help stimulate research and exploration of the riches lying hidden in the field of natural products.

I urge readers to share their views and thoughts in this respect. Send your letter to the Editor: renuasp2002@yahoo.com.

Enjoy your summer. See you in North Carolina....

Renuka

Winners Of 2002 Schwarting & Beal Awards...

For Best Papers in the Journal of Natural Products

Beginning 2001, the Foundation Board of the American Society of Pharmacognosy has begun a new initiative through the award of the Arthur E. Schwarting and Jack L. Beal Awards for the best papers in the Journal of Natural Products. These awards honor two distinguished former editors of the Journal.

The Schwarting Award is open to all papers published, while the Beal Award is restricted to younger investigators [i.e., persons within 12 years of receiving their Ph.D. degree or within 10 years of gaining their first independent employment (e.g., Assistant Professor or an equivalent position in industry or government)]. A two-tier process is used to determine the winners, with each editor from the previous year nominating two papers each for the Schwarting Award and one paper each for the Beal Award. For 2002, ASP President Bill Gerwick arranged for an *ad hoc* committee consisting of Jack Rosazza (*Chair*), University of Iowa, Iowa City; Ben Shen, University of Wisconsin, Madison; and Yuzuru Shimizu of University of Rhode Island, to make the final selections. The winners of the Schwarting Awards and Beal Awards for best papers published in the journal in 2002 are as follows (**the asterisks * denote the corresponding authors**):

A 2002 Arthur E. Schwarting Award

The Committee reviewed eight nominations in this category and was unanimous in its selection.

WINNER: Roberge* & Andersen* et al.

James A. Nieman, John E. Coleman, Debra J. Wallace, Edward Piers, Linette Y. Lim, Michel Roberge,* and Raymond J. Andersen*. *Synthesis and antimutagenic/cytotoxic activity of hemisterlin derivatives*. *J. Nat. Prod.* **2003**, **66**, 183-199. (Published on the Web on 12/31/2002).

B 2002 Jack L. Beal Award

The Committee reviewed four papers in this category. This selection was unanimous.

WINNER: Boros* et al.

Christie Boros,* Barry Katz, Scott Mitchell, Cedric Pearce, Karra Swinbank, and Debra Taylor. *Emmyguyacins A and B: Unusual glycolipids from a sterile fungus that inhibit the low-pH conformational change of hemagglutinin-A during replication of influenza virus*. *J. Nat. Prod.*, **2002**, **65**, 108-114.

The corresponding authors of these papers will be invited to attend the Banquet at the 44th ASP Annual Meeting in North Carolina, to receive a check and a plaque in honor of their achievement.

The above-mentioned papers may be accessed from the home page of the *Journal of Natural Products* (<http://pubs.acs.org/JNP>).

Congratulations to the winners of these prestigious awards!



The Author, Roy Upton

Introduction

The tools of pharmacognosy can be applied to any area of research associated with the development of therapeutic agents from natural products. Prior to advancements in modern chemistry, pharmacognosists depended on a number of other scientific disciplines to assess the quality of crude plant material that would be turned into either traditional or modern drugs. These other disciplines included botanical, macroscopic and microscopic identification, chemical spot tests, and relatively less sophisticated methods of analyses such as thin layer chromatography (TLC).

As chemistry advanced, sophisticated methods of analyses began to dominate and these other methods were relegated to the dust bins of academia. Industry similarly relied predominantly on more specific chemical methodology as a reflection of what is needed for modern drug discovery of active principles.

With recent renewed interest in botanically based drugs among consumers, the need for these techniques in insuring the identity, purity, and quality of botanical raw materials has been underscored. It is time to once again open those old storage closets, blow the dust off of the classic texts of Youngken and Tscirch, clean the microscope lenses, and integrate the earlier classical techniques of pharmacognosy with molecular pharmacognosy.

“Pharmacognosy -- An Endangered Species!”

So was written on the t-shirts of many attendees of the first ASP meeting I attended about 12 years ago. This, more than anything else stuck in my mind (along with the complete lack of presentations about higher plants -- all hail to sea cucumbers- !). A few years ago, either Norman Farnsworth or Varro (Tip) Tyler related to me that a funeral was held for pharmacognosy. Sadly,

as we all know, the few classical pharmacognosists who remain are retiring or passing away along with botanical, macroscopic & microscopic identification, spot tests, and junkets to the Amazon.

As an herbalist, a member of another once dying profession, I find a strong kinship with pharmacognosists. Herbalists, noted by Tscirch as the

“The value of pharmacognosy is still of immense importance in modern drug development.”

first pharmacognosists, were a source of traditional knowledge which lead to the scientific investigation of medicinal plants for early pharmacognosists.

Pharmacognosists in turn brought the scientific process to traditional knowledge by establishing multiple modes of identification of raw plant materials, determining optimum harvesting times, collection practices, drying parameters, storage conditions, and processing procedures for the raw materials that would go into the study and development of modern drugs.

The value of pharmacognosy is still of immense importance in modern drug development. Similarly, as traditional herbal medicines grow in popularity and are integrated into modern health care systems, the knowledge of the herbalist and pharmacognosist becomes all the more important.

Last year while attending a botanical excursion in the Austrian Alps sponsored by the University of Vienna, Center for Pharmacognosy, the Center director,

Effective Modern and Traditional Herbal Drugs

Professor Wolfgang Kubelka and I were discussing the declining focus on classical botanical pharmacognosy which is being supplanted by highly specialized chemical and DNA technologies. While incredibly powerful tools for drug development and quality assessment, modern needs require that the botanically oriented roots of pharmacognosy be cultivated.

The pharmacognosist in the \$28 billion herbal products industry is too seldom seen. Authenticity, purity, quality, and safety of herbal drugs is dependent upon the tools of pharmacognosy and the skill of the pharmacognosist. Without these tools and skills arise birth defects due to plant adulterations, acute poisonings, ineffective medicines, and a loss of the benefits that properly manufactured traditional herbal drugs have to offer humankind.

Similarly, those who know plant-based medicines recognize that a meaningful clinical trial can not be conducted without first applying the knowledge of pharmacognosy to the drug being tested. The sourcing and optimization of modern plant-based drugs are similarly dependent upon pharmacognosy.

The classical pharmacognosist was a multi-disciplinary scholar with formal training in plant anatomy, physiology, and biochemistry, taxonomy, pharmacology, and analytical chemistry. The inherent broad education required in pharmacognosy contributed to its downfall in an academic world that rewards specialization through grants and industry funding for cutting-edge discoveries. This has left a void. A truly

Authenticity, purity, quality, and safety of herbal drugs is dependent upon the tools of pharmacognosy and the skill of the pharmacognosist.

successful research program in medicinal plants requires direction from those who possess a broad understanding of what it takes to develop either traditional or modern drugs from plants e.g the interconnectedness of botany, analytical chemistry, and pharmacology.

How do we increase awareness of the importance of classical pharmacognosy in the development of

traditional and modern drugs; how do we fund pharmacognosy departments alongside molecular biology and genomics; how do we preserve and cultivate the knowledge of nature in a high tech world; how do we reward those with broad-based education along with the specialist?

Next year (2004), the annual ASP meeting will be co-hosted by the Society for Medicinal Plant Research (GA), the European equivalent of the ASP. As part of

“...as traditional herbal medicines ... are integrated into modern health care systems, the knowledge of the herbalist and pharmacognosist becomes all the more important...”

this conference, the above described challenges and more will be the focus of a day-long satellite conference and will bring together the world's pre-eminent American and European pharmacognosists. It is time to pull the nails out of the coffin of

classical pharmacognosy.

The author, Roy Upton is a herbalist and executive director at American Herbal Pharmacopoeia, Scotts Valley, CA

Rutgers' Memorial To Monroe Wall ... *Cont' d from page 1*

achievements, and a place where these students can visit to learn more about his life as a research scientist. The room will be filled with awards and pictures of historic interest and importance.

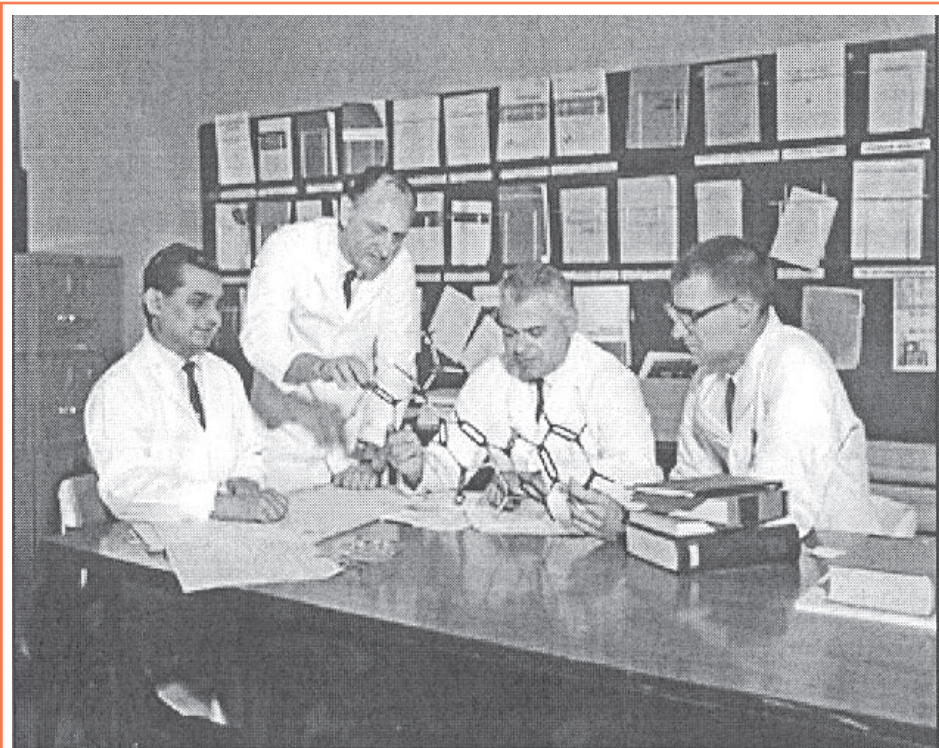
Soji Adelaja and Joan C. Barry, Director of Development, Rutgers University, Cook College, met with Mrs. Marian Wall in mid-December in Chapel Hill, NC. Mrs. Wall provided a number of plaques commemorating Dr Wall's achievements. These will be displayed in the Monroe Wall Room in Lipman Hall. She provided a number of other written materials that will become part of the University's Archives and will be managed through the University Library. Mrs. Wall agreed to donate her late husband's Kettering Medal to the University. This will be displayed in the Monroe Wall Room in a secured showcase.

Dr. Wall received his BS degree from Rutgers College of Agriculture now known as Cook College and MS and Ph.D. in Agricultural Biochemistry from Rutgers Graduate School of Education. With Dr. Wall's death, the world has lost one of its leading medical chemists and an outstanding benefactor. His work has extended the lives of hundreds of thousands as a result of his collaborative achievements in developing the

cancer-fighting drugs TAXOL[®] and Camptothecin.

Throughout his life, Dr. Wall had a strong relationship with Cook College and the New Jersey Agricultural Experiment Station, particularly in recent years as he provided his expertise and wealth of knowledge to assist Cook Collge in strengthening its capacities in natural products chemistry and botanical/medicinal research.

The administrative staff at Cook College and Rutgers University believe that this Library will be an inspiration to future generations of scientists. Dr. Wall brought much honor to Rutgers. He richly merited his honorary degree in 1999 and his induction into Rutgers Hall of Distinguished Alumni in 1994.



Many years ago... (l to r) Wani, Keith Palmer, Wall and Cook looking at the structure of camptothecin

For more information on the Biochemistry and Microbiology Library in Memory of Dr. Monroe Wall or to make a donation, Contact: Joan C. Barry, Cook College.

Phone: 732-932-9000, ext. 503; Email: barry@aesop.rutgers.edu

A New Course in Natural Products at LECOM School of Pharmacy

Melany P. Puglisi and Diane Swaffar

Lake Erie College of Osteopathic Medicine (LECOM) School of Pharmacy opened its doors to the first class of pharmacy students in September 2002. In this accelerated three-year professional program, the 78 students of the inaugural class of 2005 attend classes year round. A 10-week course in natural products is a required part of this curriculum. The required textbooks are *Medicinal Natural Products: A Biosynthetic Approach* by Paul M. Dewick, and *Pharmacognosy and Pharmaco-biotechnology* by James E. Robbers, Marilyn K. Speedie, and Varro E. Tyler.

The natural products course at LECOM was included in this new

curriculum to provide students with a greater appreciation of the fact that nearly 50% of all drugs on the market are natural products or natural product derived. The course covers all aspects of natural products used as pharmaceuticals, including both plant-derived and microbial-derived (antibiotics) drug and herbal products.

Many marine natural products in clinical trials are also covered in this lecture series. A good portion of this course deals with dietary supplements, particularly herbal and prescription

drug interactions.

Pharmacognosy has been removed from the curriculum of many Pharm. D. programs. This is a major concern when considering the increase in sales of the over-the-counter dietary supplements and patient self-diagnosis.

Today's pharmacists are faced with the difficult challenge of counseling patients on the proper use of dietary supplements as well as the ability to recommend reputable products. A major goal of this course is to prepare the pharmacy students with the appropriate background to address these questions in

“Pharmacognosy has been removed from the curriculum of many Pharm. D. programs. This is a major concern when considering the increase in sales of the over-the-counter dietary supplements and patient self-diagnosis.”

an effective manner.

This year our course benefited greatly from guest lecturers on various aspects of dietary/herbal supplements by Dr. John Cardellina, II of the National Cancer Institute, Dr. Daniel Wagner, a pharmacist promoting herbal products and integrative medicine, and Ms. Sara Crockett, a senior graduate student of the University of Mississippi. LECOM School of Pharmacy will continue to incorporate guest lecturers with expertise in the area of dietary supplements in this course.

Ephedra and Health Risk

On February 28, 2003, the U.S. Department of Health and Human Services (HHS) announced a series of actions designed to protect Americans from potentially serious risks of dietary supplement products containing ephedra.

These products have been in the news recently because of the deaths of well-known athletes. HHS, NCCAM, and other agencies caution the public that the use of ephedra poses health risks. It is especially risky when used for strenuous exercise and/or with other stimulants such as caffeine.

A RAND scientific report, partially funded by NCCAM, has also been released on ephedra. For more information, visit nccam.nih.gov/health/alerts/ephedra.

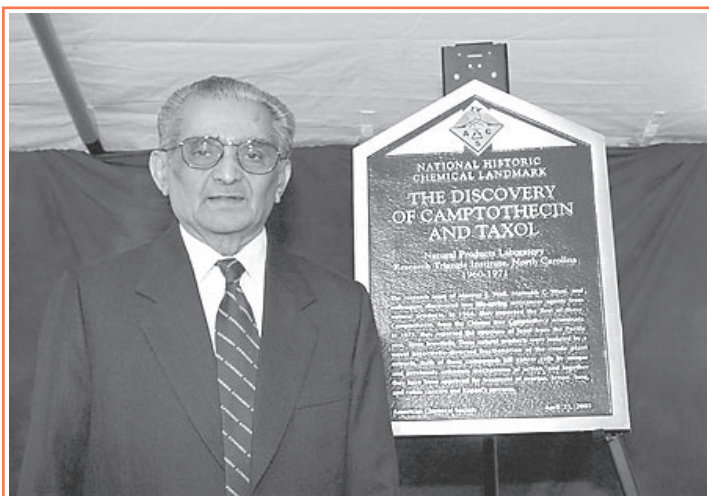
ACS National Historic Chemical Landmark ...

...continued from page 1

The event was also a celebration of RTI's Natural Products Laboratory, the facility where the compounds were discovered and where RTI researchers continue to search for bioactive compounds in unexplored natural resources.

At the event, past ACS president Dr. Ernest Eliel, ACS-North Carolina chairman Dr. John Myers and immediate past ACS president Dr. Eli Pierce praised the pioneering work Drs. Wani and Wall conducted in the discovery, isolation and structural determination of Taxol and camptothecin. They also noted the dedication and perseverance Drs. Wani and Wall exhibited during the 30 years it took to bring the compounds to the public.

Dr. Pierce, who was hired by Dr. Wall in 1973 to



Dr Mansukh Wani with the historic plaque

serve as director of RTI's Dreyfus Laboratory, presented the National Historic Chemical Landmark plaque to RTI President Victoria Haynes. The plaque will be affixed to a rock in front of the Medicinal Chemistry Building, where the Natural Products Laboratory is housed.

"I've never seen a team as effective and that worked together as well as Dr. Wall and Dr. Wani. The strengths of Dr. Wall complemented the strengths of Dr. Wani, and vice versa," Dr. Haynes said.

Continuing, she said, "We won't rest on the laurels of these discoveries -- we will use them as inspiration.... Improving the human condition is the cornerstone of our past as indicated by this plaque -- and it is the heart of our future." She pointed to the Wall

"I've never seen a team as effective and that worked together as well as Dr. Wall and Dr. Wani. The strengths of Dr. Wall complemented the strengths of Dr. Wani, and vice versa," Dr. Haynes said.

and Wani Fellowships in Natural Products Research as one example of this continued pursuit.

Dr. Wani then took the stand, noting the significance of Taxol and camptothecin. "Our discoveries are benefiting millions of people all over the world. Dr. Wall and I received many compliments from people who survived cancer because of Taxol and camptothecin." Commenting on his relationship with Dr. Wall, he said, "I am fortunate to have been associated with Dr. Wall. I miss him the most."

Dr. Wani also thanked many collaborators and supporters, including a couple of unusual but appropriate honorees: "Most of all, I'd like to thank two molecules: Taxol and camptothecin." Dr. Wall's family members attended the ceremony, including his wife, Marian, and his sisters.

Drs. Wani and Wall reported the structure of camptothecin, found in the Chinese tree *Camptotheca acuminata*, in 1966, and the structure of Taxol, found in the Pacific yew tree, in 1971. First-generation analogs of camptothecin are approved for the treatment of ovarian and colon cancers, and Taxol is approved for the treatment of ovarian, breast and lung cancers and Kaposi's sarcoma. The compounds make up one-third of the global \$10-billion-per-year market for chemotherapeutic agents.

RTI's is the 46th National Historic Chemical Landmark in the world and is the second in North Carolina.

-- By Jennifer A. Greer

Wall to Wani ...

Dr. Mansukh Wani and his wife woke up the morning of April 23 and tuned in to the local news to find out what the day's weather would be. "Today is going to be wall to wall sunshine," the forecaster said. Aptly, his wife replied, "It should have been Wall to Wani sunshine!"

...Commemorating The Discovery Of Taxol & Camptothecin

Remarks of John H. Cardellina II on behalf of ASP at the ACS plaque dedication ceremony -- April 23, 2003

I consider it a privilege to be on hand for this momentous occasion and to represent the American Society of Pharmacognosy at the designation of the discovery of Taxol® and Camptothecin at RTI as a National Historic Chemical Landmark by the American Chemical Society. In reflecting on this landmark designation, I was struck by three different emotions:

First, I take great delight in this action by the ACS, personal delight, for the recognition of the extraordinary scientific skills, perseverance and accomplishments of my colleagues Mansukh Wani and Monroe Wall. Professional delight, for the recognition of the continuing importance of natural products, in this case taxol and camptothecin, to drug discovery and development.

Second, I cannot help but note a certain sense of irony. This carefully considered, richly deserved landmark designation comes at a time when pharmacognosy has disappeared from most pharmacy school curricula, natural products chemistry is largely absent from most chemistry departments, and natural products based lead discovery programs have been dropped or sharply curtailed at many pharmaceutical

This carefully considered, richly deserved landmark designation comes at a time when pharmacognosy has disappeared from most pharmacy school curricula...

companies. It seems that we all too easily forget the stimulus that basic research in natural products has always provided to organic synthesis, medicinal chemistry, mechanistic biochemistry and pharmacology.

Third, and most important, I stand before you filled with hope that the impact of the life sustaining power of these two discoveries (and the clinical agents derived from them) will restore an appreciation for the enormous potential of natural products in all life science endeavors and reinvigorate American research programs in the discovery of new benefits from nature's chemical and biological diversity.

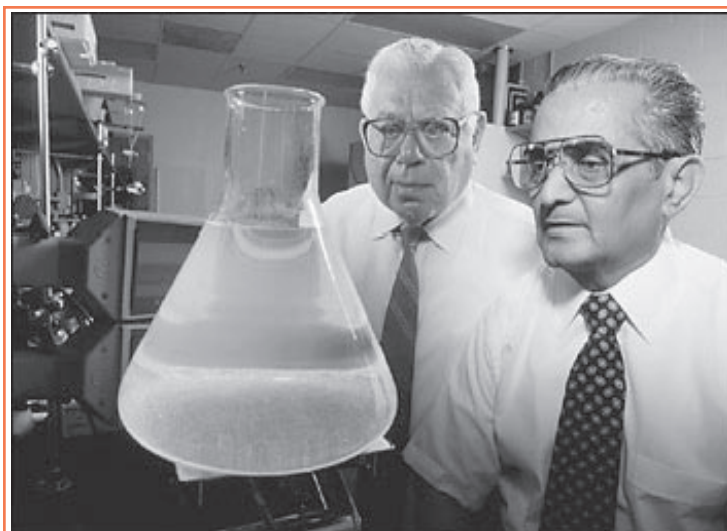
As both a member of the American Chemical Society and a past president of the American Society of Pharmacognosy, I commend the ACS for designating the discovery of taxol and camptothecin at the Research Triangle Institute a National Historic



John H. Cardellina II

Chemical Landmark. I applaud the Research Triangle Institute for its sustained support of, and continuing commitment to, research in natural products; may the new generations of scientists here discover, develop and enjoy their own taxol or camptothecin.

I congratulate Dr. Wani and Dr. Wall (I am sure he is with us, in spirit, today and relishing this event) for their hard work, ingenuity, insight, and steadfast persistence in seeing their basic chemistry research findings converted to clinically beneficial chemotherapeutic agents. Their achievements will always be an inspiration to me. Thank you.



Dr. Wall's favorite photo... Dr Wani shares in his moment of joy as they discover fluorescent camptothecin

ASP Welcomes New Members

FULL MEMBERS

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ASP extends a warm welcome to new members and invites them to participate in the various activities of the Society ...

IN QUEST OF TOMORROW'S MEDICINES FROM BIODIVERSITY

Professor Barbara Timmermann, Regents Professor, Department of Pharmacology and Toxicology, College of Pharmacy, University of Arizona, presented the 7th Lecture in Natural Products Drug Discovery on April 3, 2003, at San José State University. The title of her lecture was : “In Quest of Tomorrow’s Medicine from Bio-diversity”. the Northern California Section of the American Society of Pharmacognosy and Shaklee Corporation co-sponsored Dr. Timmermann’s talk.



Bio-diversity prospecting provides a potentially strong set of tools for the development of local economies and conservation of biodiversity. The development of pharmaceutical, agricultural or industrial products from natural sources can be used to promote incentives for conservation by providing an economic return to sustainable use of these resources. The Latin America International Cooperative Biodiversity Group (ICBG) at the University of Arizona is an endeavor that integrates the process of drug discovery from natural products, biodiversity conservation and sustainable economic growth in a unique model that incorporates academic science, traditional knowledge, commercial research and novel intellectual property mechanisms. The goals, accomplishments, challenges, problems, and solutions encountered in the first ten years of this ICBG were presented.

**To be added to the email list for the Northern California Section
of ASP contact Roy Okuda at okuda@sjsu.edu**

The link to the *ASP Newsletter*
is now on the ASP web page:
<http://www.phcog.org/newsletter.html>

You can access the
Journal of Natural Products at
<http://pubs.acs.org/journals/jnprdf>

MEETINGS

Future ASP Meetings

2004 -

International Research Cong. on Natural Products
(Hosted by ASP)
July 31-August 4, **Phoenix, AZ**

2005 -

46th Annual ASP Meeting
July 23-27, **Corvallis, Oregon**

2006 -

47th Annual ASP Meeting, **Baltimore, MD**

AAPS Meetings

October 26-30, 2003,

2003 AAPS Annual Meeting and Exposition
Salt Palace Convention Center
Salt Lake City, UT

Other Meetings

Sept. 16-18, 2003 – **La Paz, Bolivia**

2nd International Symposium On Ethnobotany
Contact: Ronald Chaves, Head Secretariat,
Email:simposio@racsa.co.cr

Sept. 26-Oct. 1, 2003 – **Mauritius**

Global Summit on Medicinal Plants: 'Recent
Trends in Phytomedicine and Other Alternative
Therapies for Human Welfare'

For more details, contact: Dr V Sivaram,
Dept. of Botany, Post-Graduate Center,
Bangalore Univ., Kolar - 563101, India.
Ph: (91) (80) 3650312; Fax: (91) (80) 5244592;
Email: siva_v@vsnl.net

October 2-4, 2003 -- **Naples (Italy)**

3rd International Symposium on Natural Drugs
Organized by : F. Capasso, A.A.Izzo, N. Mascolo
Ph: 0039-081-5512133; Email: franborr@unina.it

October 8-11, 2003 -- **Al-Farabi Kazakh Nat. Univ.,
Almaty, Kazakhstan**

International Conference "Natural Products:
Chemistry, Technology & Medicinal Perspective"

Deadline for Registration: September 8, 2003

Contact: Prof. Raisa A. Muzychkina, Chem Dept.
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NEW BOOKS RELEASED

THE ALKALOIDS: CHEMISTRY AND BIOLOGY (Volume 58)

Editor: Geoffrey A. Cordell, Ph.D;

Contents: "Biotransformation of Alkaloids"

by D.A. Rathbone, D.L. Lister and N.C. Bruce;
Putrescine, and "Spermidine, Spermine, and Related
Polyamine Alkaloids" by S. Bienz, R. Detterbeck,
C.Ensch, A.Guggisberg, U. Hausermann, C.
Meisterhans, B. Wendt, C. Werner, and M. Hesse.

Publisher: Academic Press, an imprint of Elsevier
Science. 357 pp + ix, 2003; Price: £95.95;

THE ALKALOIDS: CHEMISTRY AND BIOLOGY (Volume 59)

Editor: Geoffrey A. Cordell, Ph.D;

Contents: "C₂₀-Diterpenoid Alkaloids"

by F.-P. Wang and X.-T. Liang
and "The *Iboga* Alkaloids and their Role as Precursors
of Antineoplastic Bisindole *Catharanthus* Alkaloids"
by R. J. Sundberg and S. Q. Smith.

Publisher: Academic Press, an imprint of Elsevier
Science. 404 pp + ix, 2003; Price: £99.95.

PROFESSIONALISM AND ETHICS IN COMPLEMENTARY AND ALTERNATIVE MEDICINE

By Dr. John K. Crellin and Fernando Ania, ND

*The first book of its kind in the rapidly growing field
of complementary and alternative medicine. It
addresses the quality-of-care concerns and also
focuses on the goals of many practitioners to secure
a firm place in health care systems and to establish
levels of integration.*

Publisher: The Haworth Herbal Press® 2002, 260
pp, with Index.

Hard Cover: \$49.95 ISBN 0-78 90-1225-1

Soft Cover: \$24.95, ISBN 0-7890-1225-1

St. John's Wort

Hypericum perforatum L.

(Family: Clusiaceae)



St. John's Wort consists of the fresh or dried plant or its components, containing not less than 0.04% naphthodianthrones of the hypericin group calculated as hypericin.

Hypericum perforatum has been widely researched for its antidepressant effects. Recent interest has focused on its potential as an antiviral agent. There is some data confirming its traditional wound-healing effects. *Hypericum* contains several compounds of biological interest, including the naphthodianthrones hypericin, pseudohypericin and a broad spectrum of flavonoids. Although investigations continue, these are considered to be primarily responsible for *Hypericum's* activity.

DID YOU KNOW



- ❑ **That ... the National Institutes of Health (NIH), Bethesda, MD, launched a four-year study to determine the safety and effectiveness of St. John's Wort in treatment of minor depression?**

....The over \$ 4 million collaborative study is funded by the National Institute of Mental Health (NIMH), the National Center for Complementary and Alternative Medicine (NCCAM) and the Office of Dietary Supplements (ODS). The trial is being conducted at three sites and a total of 300 participants with minor depression will be randomly assigned a standardized extract of St. John's Wort (*Hypericum perforatum*), *citalopram* or *placebo* in a 12-week double-blind trial.

Men and women ages 18-85 who meet diagnostic criteria for minor depression are eligible to participate.

- ❑ **That ... it is important to avoid long exposure to the sun whenever you are angry, hungry or upset?**

....According to Ayurveda, these factors increase Pitta, the fire element in the body and make the skin even more sensitive to sun damage. In many cases, chemical sunscreens give rise to irritative reactions, while natural products not only eliminate this problem but also promote healing. A sunscreen containing sandalwood is an ideal protection against the sun. Combined with a honey-based moisturizer it forms an invisible film on the face. Several plants from Ayurveda protect healthy skin and help skin rejuvenation, for example: Aloe Vera, almonds, and *Haemidesmus indicus* (Anantmul).

- ❑ **That Curcumin, a yellow pigment derived from turmeric (*curcuma longa*, L., *zingiberaceae*) has been reported to inhibit gastrointestinal tumor growth?**

....The possible mechanisms include the inhibition of nitric oxide synthase and cyclooxygenase-2 (Cox-2) along with decreasing the formation of pro-inflammatory *prostaglandins*. Cox-2 inhibitors are currently "in the news" as the new pharmaceutical wonder drugs for inflammation. However, several plant species used for centuries in traditional medicines have Cox-2 inhibiting capabilities.

ASP Research Achievement Award - 2005

The American Society of Pharmacognosy selects annually a recipient for the ASP Research Achievement Award. Candidates must be members of the Society who have made outstanding contributions to research on natural products. The award consists of an honorarium of \$2,500 and travel expenses to present the award lecture at an annual meeting of the Society.

Previous winners are:

1985 - Koji Nakanishi
1988 - Heinz G. Floss
1989 - Kenneth L. Rinehart
1990 - Monroe E. Wall
1991 - S. William Pelletier
1992 - Henry Rapoport
1993 - A. Ian Scott
1994 - Paul J. Scheuer
1995 - George Robert Pettit
1996 - Meinhard H. Zenk
1997 - John W. Daly
1998 - Sidney Hecht
1999 - David G. I. Kingston
2000 - C. Richard Hutchinson
2001 - Tom Mabry
2002 - Richard Moore
2003 - (Late) D. John Faulkner

Call for Nominations for 2005

Nominations cut off date will be sometime in the Spring of 2004. The exact date will be announced in the Fall 2003 issue of the ASP Newsletter. Nominations may be sent to the Chairman of the Research Achievement Award Committee and should consist of a nominating letter, a curriculum vitae of the candidate, and letters from three individuals who are familiar with the candidate's scientific

Nomination documents should be submitted in triplicate to:

Dr. Francis J. Schmitz

Department of Chemistry,

University of Oklahoma

620 Parrington Oval

Norman OK 73019

Phone: 405-325-5561

Fax: 405-325-6111

fjschmitz@chemdept.chem.uoknor.edu



ASP -- Employment Service

The Society offers a placement service to aid our members in seeking positions or employees. **This service is available to ASP members and is free** to both the applicant and the prospective employer. The following services are available :

(1) Prospective employers can have positions posted for free at the ASP Employment site <http://www.phcog.org/positions.html>. The ad is typically 300 words or less, and should include appropriate contact information. Ads should be sent to Ed Kennelly as attached files (**Microsoft Word is the preferred format**). You may also send a logo to be included in the ad. Ads can often be posted within 2-3 business days.

(2) When the ASP Employment website is updated, members can be notified by e-mail if they so desire.

(3) ASP members can send resumes to Ed Kennelly. Resumes should be 1-4 pages, and may be

submitted electronically as attached files either as Microsoft Word document or as a PDF file. Resumes will remain on file for one (1) year, at which time it will be deleted. **All information submitted will be held in strict confidence.**

(4) ASP Employment Service will share resumes with prospective employers.

For further information, contact:

Edward J. Kennelly, Ph.D.

Department of Biological Sciences

Lehman College, City University of New York

250 Bedford Park Blvd. W., Bronx, NY 10468

Phone: 718-960-1105; Fax: 718-960-8236

E-mail: kennelly@lehman.cuny.edu

*Visit the ASP Job Service Website at:
www.phcog.org/employment.html*

FDA Proposes New Rule for Dietary Supplements

Current Good Manufacturing Practices (cGMPs)

On March 13, 2003 Federal Drug Authority published a proposed rule for dietary supplement current good manufacturing practices (cGMPs) in the Federal Register. The purpose of the proposed rule, according to FDA, is to establish standards necessary to ensure that dietary supplements and dietary ingredients are not adulterated with contaminants or impurities (microbial, heavy-metals or other impurities) and are labeled accurately to reflect the active ingredients in the product.

In addition, it is intended to ensure that the identity, purity, quality, strength, doses and composition of dietary supplements are accurately listed on the product label, which would be a significant step in assuring consumers.

Under the cGMP proposed rule, manufacturers would be required to observe the following criteria.....

- ◆ Employ qualified employees and supervisors;
- ◆ Design and construct their physical plant in a manner to protect dietary ingredients and dietary supplements from becoming adulterated during manufacturing, packaging and holding;
- ◆ Use equipment and utensils that are of appropriate design, construction and workmanship for the intended use;
- ◆ Establish and use a quality control unit and master manufacturing and batch production records;
- ◆ Hold and distribute materials used to manufacture, package and label dietary ingredients, dietary supplements and finishing products under appropriate conditions of temperature, humidity, light and sanitation so that their quality is not affected.
- ◆ Keep a written record of each consumer product quality complaint related to cGMPs and
- ◆ Retain records for three years beyond the date of manufacture of the last batch of dietary ingredients or dietary supplements.

FDA is soliciting comments from the public and industry on how this proposed regulation can best achieve the goals of promoting accurate labeling information and preventing adulteration without imposing unnecessary regulatory burdens.

Written or electronic comments should be submitted by August 11, 2003 to the *Dockets Management Branch (HFA - 305)*. *Food & Drug Administration, 5630 Fishers Lane, Room #1061, Rockville, MD 20852*. **Emails can be sent, www.fda.gov/dockets/ecomments.**

Herbal ingredient suppliers, manufacturers and other industry companies that aren't prepared for the new rules may be in for some rough seas ahead.

Visit the American Society of Pharmacognosy's website at:

www.phcog.org

TO

David J. Slatkin, Ph.D., Treasurer
The American Society of Pharmacognosy
P.O. Box 12548
Glendale, Arizona 85318-2548

MEMBERSHIP

Membership in the American Society of Pharmacognosy is recognized in several categories

Full Membership

Full membership is open to any scientist interested in the study of natural products. Dues are \$35.00 per year. In order to receive the Journal of Natural Products the subscription rates are as follows: United States, Canada, and Mexico: \$86 (Print Edition), \$60 (Web Edition), \$146 (Both Print and Web); All other countries: \$129 (Print edition), \$60 (Web edition), \$189 (Both Print and Web).

Associate Membership

Associate membership is open to students of pharmacognosy and allied fields only. These members are not accorded voting privileges. Dues are \$20.00 per year. In order to receive the Journal of Natural Products the subscription rates are as follows: United States, Canada, and Mexico: \$65 (Print Edition), \$60 (Web Edition), \$125 (Both Print and Web); All other countries: \$108 (Print Edition), \$60 (Web Edition), \$168 (Both Print and Web).

Emeritus Membership

Emeritus membership is open to retired members of the Society who maintained membership in the Society for at least five years. Dues are \$5.00 per year. These members receive the ASP Newsletter. Emeritus members may subscribe to the Journal of Natural Products at the Full Member rates.

Honorary Membership

Honorary members are selected by the Executive Committee of the American Society of Pharmacognosy on the basis of meritorious service to pharmacognosy.

Present Honorary Members are:

- Dr. Arnold Brossi, *National Institutes of Health, Maryland* • Dr. David P. Carew, *University of Iowa*
- Dr. Norman R. Farnsworth, *University of Illinois* • Dr. R. Hegnauer, *Leiden, Netherlands*
- Dr. Albert Hofmann, *Switzerland* • Dr. S. William Pelletier, *University of Georgia*
- Dr. James E. Robbers, *Purdue University* • Dr. Paul J. Scheuer, *University of Hawaii*
- Dr. E. John Staba, *University of Minnesota* • Dr. Hildebert Wagner, *University of Munich*
- Dr. Mansukh Wani, *Research Triangle Institute, NC*

Additional information about membership may be obtained by writing to the Treasurer of the Society:

David J. Slatkin, Ph.D., Treasurer, The American Society of Pharmacognosy,
PO Box 12548, Glendale, AZ 85318-2548

ASP Newsletter

Renuka Misra, Ph.D., Editor

Deadlines for submission of information are as follows:

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Summer Issue — *June 1st*
Fall Issue — *September 1st*
Winter Issue — *December 1st*

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